FLOOD MITIGATION DESIGN AT THE 91ST AVENUE WASTEWATER TREATMENT PLANT

SALT RIVER HYDRAULIC AND SEDIMENT TRANSPORT ANALYSIS

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FLOOD MITIGATION DESIGN AT THE 91ST AVENUE WASTEWATER TREATMENT PLANT

SALT RIVER HYDRAULIC AND SEDIMENT TRANSPORT ANALYSIS

City of Phoenix Index No. S-931105

Prepared for:

CITY OF PHOENIX
Water Services Department
200 W. Washington, 8th Floor
Phoenix, Arizona 85003

Prepared by:

SIMONS, LI & ASSOCIATES, INC.
4600 South Mill Avenue, Suite 200
Tempe, Arizona 85282

Registered Professional Engineer (Civil)
CERTIFICATE No. 24007
TIMOTHY D. MORRISON
Date Signed 12-5-95
ARIZONA, U.S.A.

December 1995

Registered Professional Engineer (Civil)
CERTIFICATE No. 21560
DENNIS L. RICHARDS
Date Signed 12-5-95
ARIZONA, U.S.A.

sla Simons, Li & Associates, Inc.
Water Resources & Civil Engineering Consultants

December 7, 1995

Richard G. Perreault
Flood Control District of Maricopa County
2801 West Durango St.
Phoenix, AZ 85009

RE: FLOOD MITIGATION DESIGN AT THE 91ST AVENUE WASTEWATER TREATMENT PLANT

Dear Mr. Perreault:

Please find attached a copy of the report entitled "Flood Mitigation Design at the 91st Avenue Wastewater Treatment Plant, Salt River Hydraulic and Sediment Transport Analysis." This report is being furnished to you per a request from our client, the City of Phoenix.

Sincerely,

SIMONS, LI & ASSOCIATES, INC.

Dennis L. Richards

Dennis L. Richards, P.E.
Vice President

TDM/hlk

cc: Behrouz Fathali, City of Phoenix

Ed, 12/11/95
- They requested our help to build the levee, but we did not include it in the CIP. You may want to review & file this info, as it relates to the Baker delineation
Dick

FLOOD CONTROL DISTRICT RECEIVED
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I. INTRODUCTION

This report summarizes the results of a study performed for the design of bank protection along the north side of the Salt River from 91st Avenue upstream to 83rd Avenue, adjacent to the 91st Avenue Wastewater Treatment Plant. The major tasks performed for this study are listed below:

1. Inclusion of 1995 aerial topograpic mapping within the portion of the Salt River adjacent to the proposed project.

2. Development of hydraulic models for the study channel considering: (i) channel topography representative of existing (1995) conditions; (ii) channel topography representative of the proposed bank protection; (iii) channel topography representative of existing conditions and including a future fully developed sand & gravel pit upstream of the WWTP; and, (iv) channel topography representative of the proposed bank protection and including a future fully developed sand & gravel pit upstream of the WWTP.

3. Evaluation of the stability of the river channel in the project vicinity under conditions identified above.

4. Quantification of the potential channel adjustment components for determination of recommended toe-down and top of bank elevations for the proposed project.

The procedures used, assumptions applied, and results obtained in the performance of the above tasks are summarized in the sections which follow.

II. DATA BASE

2.1 Study Reach

The reach of the Salt River included in the hydraulic and sediment transport analyses performed for this study extends from 115th Avenue at the confluence of the Gila River, upstream to 67th Avenue. Figure 1 is a topographic depiction of the study reach with its associated sub-reaches and cross sections. Figure 2 presents the Flood Boundary and Floodway Map of the project area.

2.2 Hydrology

The design flood for the proposed project has a return period of 100 years. Peak discharges for the 100-year flood through the study reach vary from 185,000 cubic feet per second (cfs) at the upstream end to 250,000 cfs at the confluence with the Gila River (2). The peak discharges used for the steady state hydraulic and sediment transport analyses of the study reach are presented in Table 1. The 10-day 100-year flood hydrograph used in the movable boundary modeling of the study channel (3) is presented in Appendix C.

Table 1. Salt River Discharges

Return Period (years)	At 91st Avenue (cfs)	At Confluence with the Gila River (cfs)
5	36,000	40,000
10	85,000	95,000
20	125,000	135,000
50	145,000	200,000
100	185,000	250,000

2.3 Sediment Size Distribution

As part of the "Concept Report - Flood Mitigation Study At The 91st Avenue Wastewater Treatment Plant" (1), a characteristic sediment size distribution for the study reach was developed from samples collected within the Salt River. The available data indicate that median grain size (D_{50}) of the local bed material is about 12.5 mm (medium gravel), and approximately 17% of the material is of cobble classification (D > 64 mm). The D_{90} of the characteristic size distribution is approximately 105 mm. This sediment size distribution is representative of the Salt River from 115th Avenue to 67th Avenue and is somewhat finer than samples taken directly adjacent to the WWTP (4). To model channel bed response over the entire study reach and provide a more conservative scour estimate, the previously developed sediment size distribution was utilized.

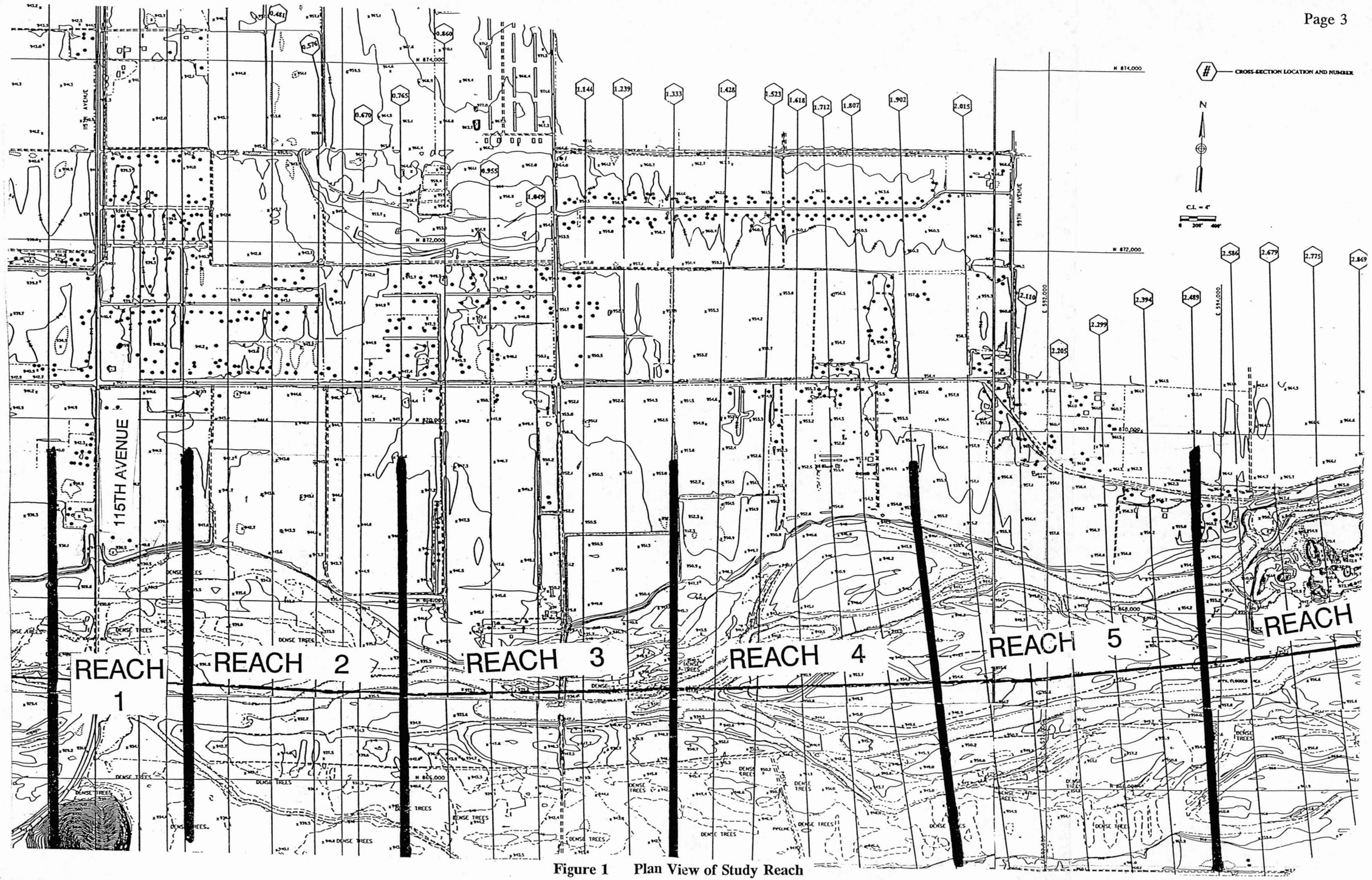


Figure 1 Plan View of Study Reach

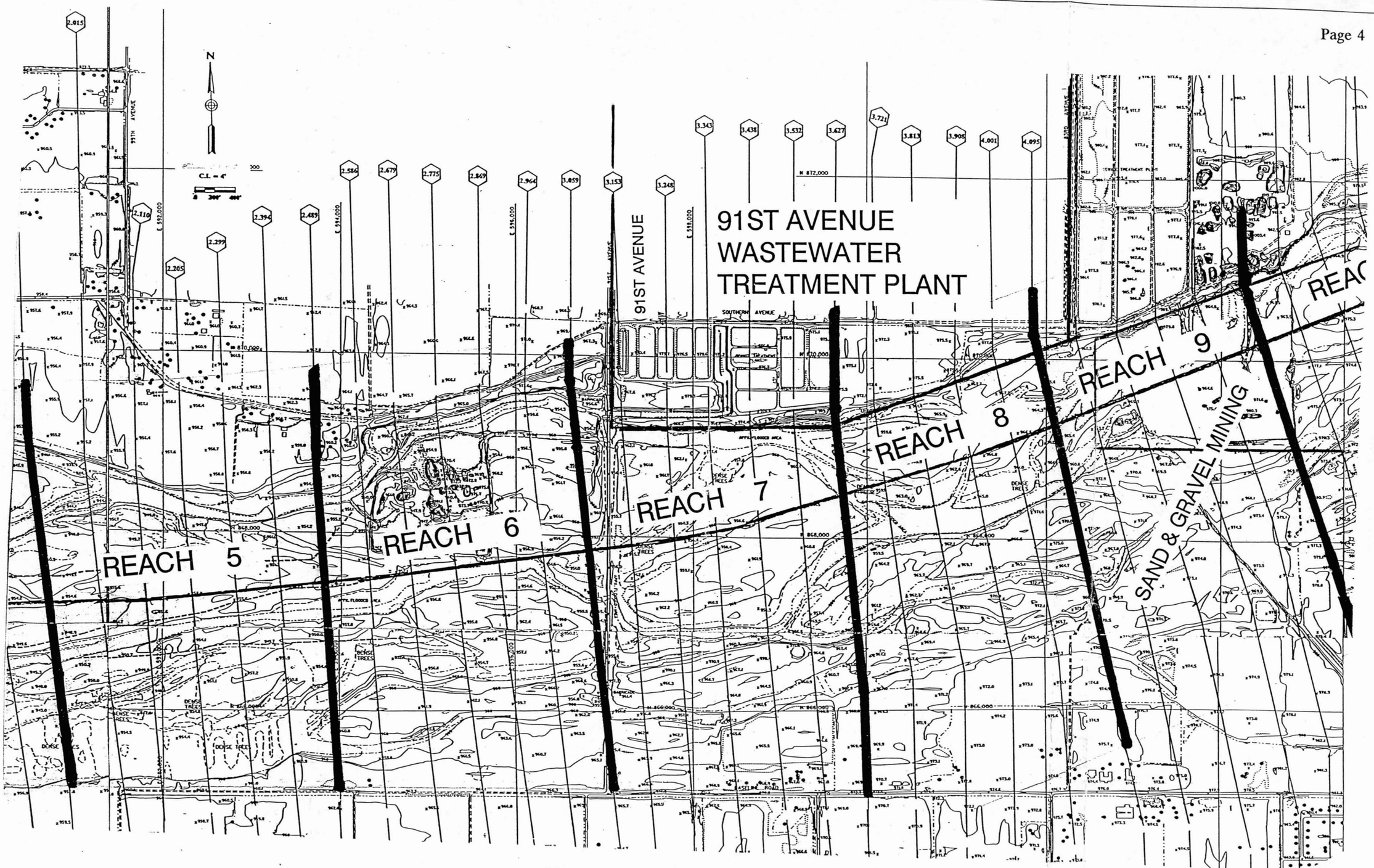


Figure 1 Plan View of Study Reach

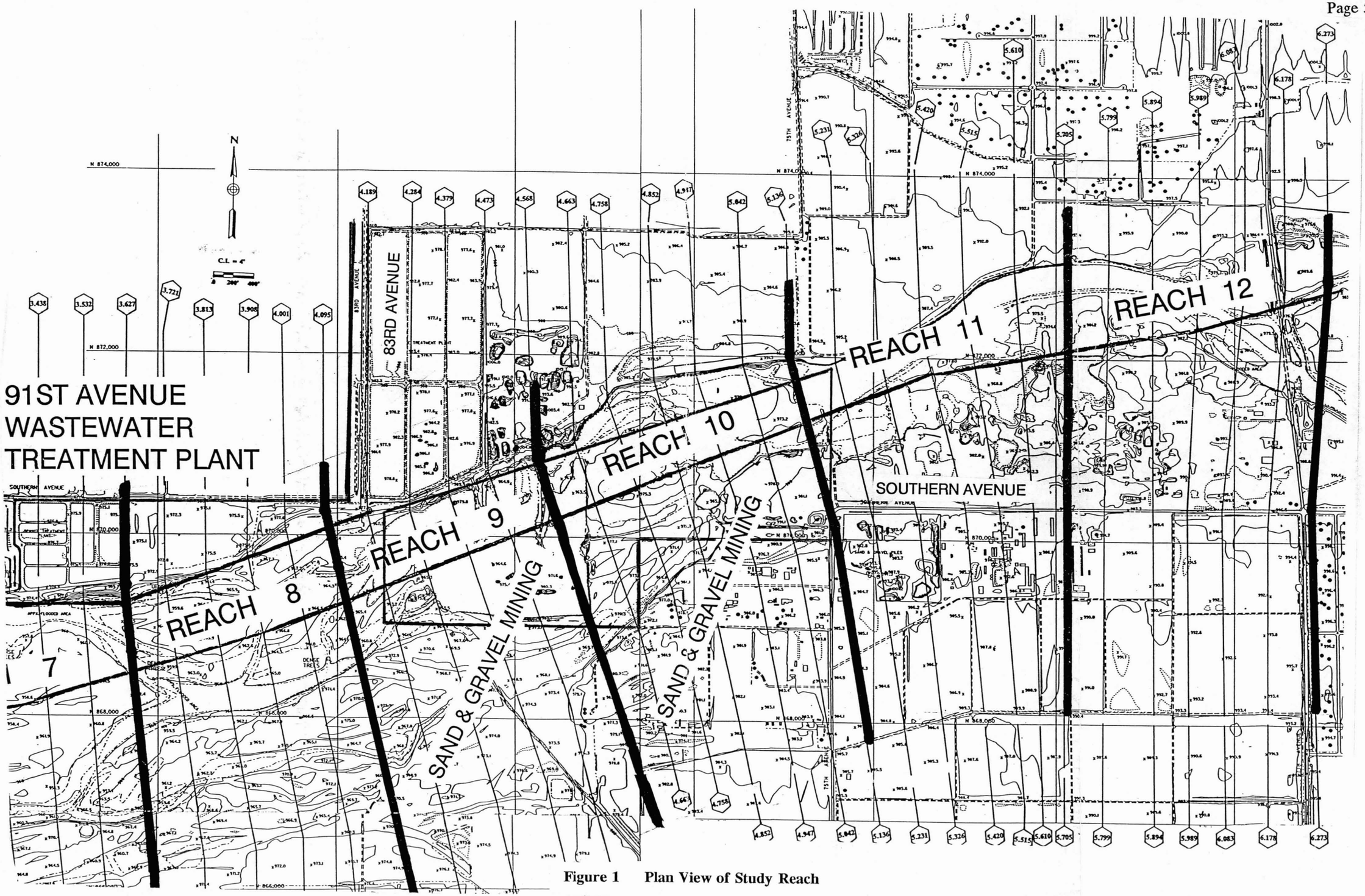


Figure 1 Plan View of Study Reach

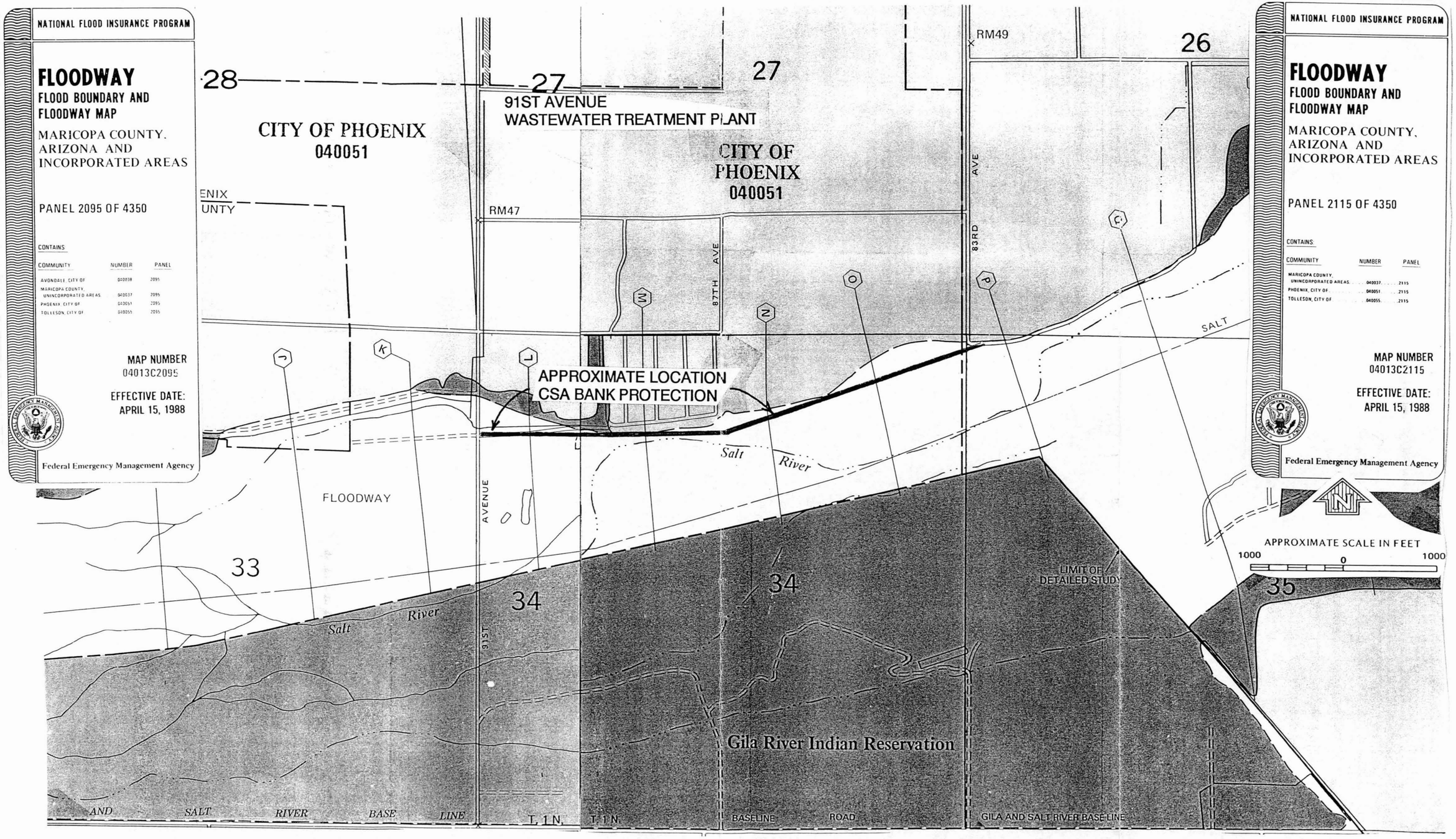


Figure 2 Flood Boundary and Floodway Map of the Project Area

2.4 Historical Channel Information

As part of the "Concept Report - Flood Mitigation Study At The 91st Avenue Wastewater Treatment Plant," (1) an exhaustive study of past river response to flows was undertaken. From the above-referenced report the following conclusions were extracted:

- The Salt River has a low sinuosity ratio (1.2) and is braided within the channel banks.
- Lateral migration of the main channel adjacent to the WWTP is not evident within the historical record.
- The Salt River has been relatively stable near the WWTP and has experienced slight degradation since 1984 due to small scale sand and gravel mining within the main channel.
- Armoring will limit long-term degradation of the Salt River within the project reach.

2.5 Channel Configuration Assumed for the Current Study

Four conditions were assumed for development of the hydraulic models for the study reach. These were:

1. The existing (1995) Salt River channel configuration. This configuration provides a baseline for all other hydraulic analysis.
2. The Salt River with the proposed bank protection in place from 91st Avenue to 83rd Avenue. This configuration provides an existing conditions with bank protection scenario. This scenario provided the most severe hydraulics of the channel configurations and is utilized in determining water surface elevations, armoring (long-term scour) computations, and bedform scour computations.
3. The existing Salt River channel configuration with the inclusion of a fully developed sand & gravel pit upstream of the WWTP. This configuration provides an existing conditions with sand & gravel pit scenario. This scenario was developed to determine the channel bed response to permitted upstream channel mining.
4. The Salt River with the proposed bank protection in place from 91st Avenue to 83rd Avenue and includes a future fully developed sand & gravel pit upstream of the WWTP. This configuration provides a future conditions with bank protection and fully developed sand & gravel pit scenario. This scenario provides the worst case for sediment transport analysis and is utilized in the QUASED model presented in this report.

III. ANALYSES

3.1 HEC-2 Analysis

The U.S. Army Corps of Engineers computer program "HEC-2 Water Surface Profiles," (September, 1990) was used to calculate the current hydraulic conditions for the Salt River along the study reach. Since no structures are located within the study reach, no bridge routines have been included in the hydraulic analyses. Water-surface profiles for the four scenarios were developed for the 2, 5, 10, 25, 50, and 100-year frequency flood events from 115th Avenue to 67th Avenue. The study reach was chosen to encompass the confluence of the Gila River near 115th Avenue downstream of the WWTP and sand & gravel mining operations upstream of the WWPT.

SLA developed the HEC-2 cross-section data from prints of the 1992 topographic maps. Additionally, the 1995 topography obtained for the drainage redesign of the WWTP was utilized to cut new sections and placed into the existing model developed in 1993 by SLA(1).

Every attempt was made to orient the HEC-2 cross-sections perpendicular to the direction of flow. Aerial photos of the January 1993 flood were used to assist in aligning the cross-sections. The cross-sections were approximately spaced at 500 foot intervals with the horizontal station 10,000 representing the hydraulic baseline. The hydraulic baseline for the study was defined in the hydraulic baseline defined in the Corps' 1983-84 FIS (5). Consequently, it is possible to compare the cross-section geometry and water-surface elevation at common cross-section locations between the current FIS and the new HEC-2 analyses.

The roughness coefficients used in the HEC-2 analysis coincide with the 1983-84 FIS values of 0.035 and 0.040 for the main channel and overbanks, respectively. In the lower portion of the study reach, NH records were used to horizontally define the channel roughness coefficients. Aerial photos of the January 1993 flood event combined with topographic vegetation limits were used to assist in defining the horizontal variation in channel roughness. Upstream of 107th Avenue, NC records were used to define channel roughness coefficients. NC records were used since the horizontal variation in the roughness coefficients closely correspond with the main channel bank locations.

Expansion and contraction coefficients were set at 0.3 and 0.1, respectively. Since no structures or abrupt flow transitions occurred within the study reach, the expansion and contraction coefficients were not modified throughout the HEC-2 analysis.

Encroachment stations were inserted into the HEC-2 data through the Salt and Gila River confluence to conform with the program's one-dimensional flow limitations. These stations were defined using the 4 to 1 expansion and 1 to 1 contraction rates recommended in the HEC-2 Users Manual (6).

All cross-sections were reviewed and encroachment stations inserted to comply with HEC-2's limitations and maintain reasonable section-to-section conveyance continuity. The ineffective flow encroachments were determined for the 100-year flood event and were not modified for greater frequency flood events.

The HEC-2 analyses performed for the WWTP study assumed concurrent flood flows in the Salt River and Gila River, as quantified by the Corps' hydrologic analyses. Previous hydraulic analyses indicated that the Gila River flooding condition does not impact the water-surface elevations adjacent to the WWTP. The project site is far enough upstream of the confluence that the water-surface elevations are not influenced by the Gila River flood flows.

Table 2 presents a comparison of existing water surface elevations with the proposed conditions water surface elevations. When project water surface elevations were compared with the effective FIS it was determined that present conditions represent significantly lower water surface elevation due to sand and gravel extraction within the main channel of the Salt River since 1984, and the utilization of more accurate topographic information for this study.

3.2 Qualitative Channel Stability Analysis

An indication of the potential aggradation/degradation trends through the study reach is provided through evaluation of the transport potential indicator (the product of the velocity raised to the third power and the flow width, V^3W). This indicator gives a first order estimate of the relative capacity of the flow to transport sediment, and a profile of its variation throughout the study reach identifies probable areas of local scour or deposition.

The variation of this indicator though the project reach under 100-year flood conditions is presented in Figure 3 which compares present existing conditions and future conditions (with bank protection and sand & gravel pit). Maximum transport potential is indicated upstream of the project reach under each channel condition. Lower transport potential is indicated throughout the project reach, with increased transport potential apparent downstream of the proposed project.

The qualitative analysis indicates that aggradation is the likely trend within the project reach under either scenario. The maximum scour potential is at a location near the upstream end of the proposed bank protection, downstream from the sand & gravel pit.

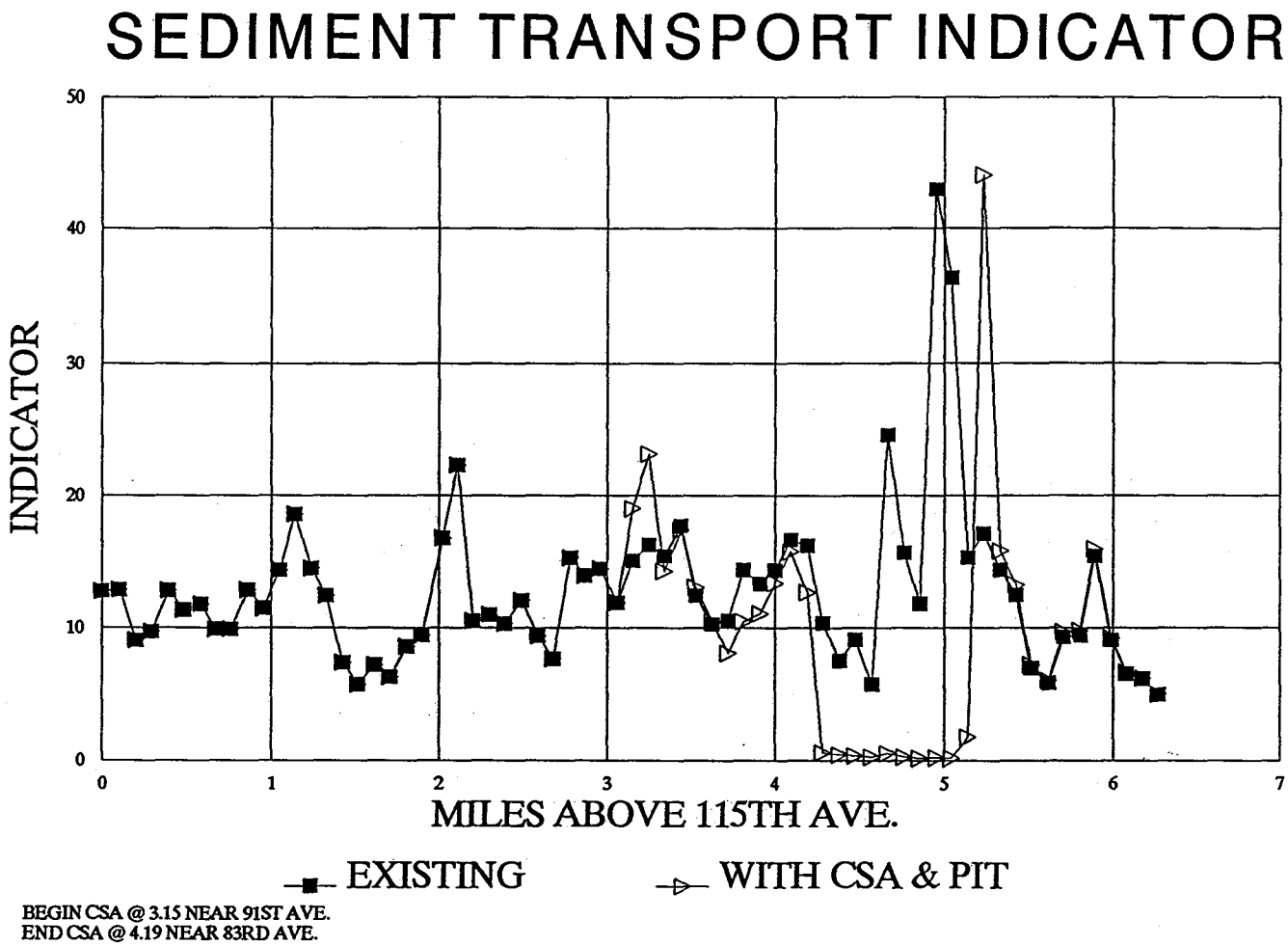
3.3 Sediment Transport Capacity Analysis

A quantitative analysis of the sediment transport capacity of the study reach under each channel condition was performed through use of the Meyer-Peter, Muller bedload equation, and Einstein's procedure for integration of the suspended bed material load. The analysis used the representative bed material gradation for the study reach, and the 100-year flow hydraulics averaged over 12 sub-reaches along the study reach.

The results of this analysis are presented in Appendix B, where the bed material transport capacities for the 12 sub-reaches along the study reach are compared. Results from the sediment continuity analyses indicates that considerable scour potential exists in the vicinity of 75th Avenue. Immediately downstream of 75th Avenue, the analyses indicates high depositional tendencies. In addition, the reach downstream of 75th Avenue has been actively mined which intuitively verifies the trends predicated from the sediment continuity analysis. The sediment continuity analysis indicates a relatively stable channel adjacent to the WWTP and depositional tendencies at the Gila/Salt confluence if the Gila River is not flowing during a flood event on the Salt River.

Table 2. Comparison of Water Surface Elevations

Section Number	Existing WSE	Existing WSE with Bank Protection	1984 Effective FIS WSE	Notes
2.87	963.65	963.65	965.31	
2.96	964.55	964.55	966.08	
3.06	965.54	965.54	966.93	
3.15	966.29	966.22	967.67	91st Avenue
3.25	967.29	967.47	968.75	
3.34	968.31	969.08	969.73	
3.44	969.29	970.06	970.88	
3.53	970.55	971.29	971.83	
3.63	971.41	972.19	972.89	
3.72	972.02	972.88	973.36	
3.81	972.67	973.37	974.35	
3.91	973.61	974.03	975.45	
4.00	974.49	974.74	976.50	
4.09	975.39	975.56	977.21	
4.19	976.52	976.65	977.99	83rd Avenue
4.28	977.37	977.46	978.70	
4.38	978.05	978.12	979.99	
4.47	978.47	978.53	981.21	
4.57	979.13	979.18	982.56	
4.66	979.07	979.12	983.78	
4.76	980.75	980.77	984.90	
7.85	981.82	981.84	986.00	
4.95	981.89	981.90	987.23	
5.04	984.29	984.28	987.93	
5.14	987.20	987.2	988.41	



BEGIN CSA @ 3.15 NEAR 91ST AVE.
END CSA @ 4.19 NEAR 83RD AVE.

Figure 3. Sediment Transport Capacity Indicator

3.4 Movable Bed Modeling

SLA's QUAsi-dynamic SEDiment routing model (QUASED) was used to model the channel changes expected to occur along the study reach throughout passage of the 100-year flow event. QUASED performs hydraulic and sediment transport calculations for incremental time steps throughout a given flow hydrograph, updating the channel geometry and bed material composition at each step.

Comparison of the starting, intermediate, and final invert elevations presented in Appendix C confirm the trends anticipated in the qualitative and steady state analysis. The maximum general scour computed by QUASED adjacent to the WWTP is 1.7 feet.

3.5 Scour Components

The toe-down depth for bank lining should extend below the level of potential bed elevation adjustment. The cumulative potential bed elevation adjustment at any given location in a movable-bed channel is the summation of sixcomponents: (1) general scour; (2) local scour; (3) long term degradation; (4) low flow incisement; (5) bedform scour; and (6) bend scour.

The first component, general scour -- the general reaction of the channel to the passage of a design flood event -- was computed through use of the QUASED model, as described above.

Local scour, is scour that occurs due to obstructions within the flow path, and is not relevant within the project reach. Bend scour was not considered because the WWTP is on the inside of a bend, adjacent to the Salt River.

Each of the other potential components are addressed below, with calculations presented in Appendix D, and results presented in Table 3.

Table 3. Recommended Toe-Down Depths

Scour Component	Depth (Ft)
General Scour	1.7
Long-Term Scour	7.0
Low-flow Incisement	3.0
Bedform Scour	1.3
Factor of Safety	1.0
Total Scour	14.0

3.5.a Long-Term Degradation

The procedures described in the Bureau of Reclamation's report Computing Degradation and Local Scour (7), were used to quantify the long-term component of total potential scour. Long-term degradation was computed using the concepts of equilibrium slope and stream bed armoring.

Mining of a river channel can have a dramatic lowering effect on the channel bed, and can lead to instability or failure of grade and bank protection measures. Due to the proximity of the permitted sand & gravel pit upstream of the WWTP, long term-term degradation was computed based on the 100-year armor depth rather than the normal dominate discharge (10-year discharge). The 100-year armor depth was estimated based on average armor depths for the entire study reach. The average 100-year armor depth was computed to be 7.0 feet.

The design profiles account for existing sand and gravel mining operations that are permitted in the study area. Long-term or extensive sand and gravel mining of the Salt River, should it be permitted in the future, would require deeper toe-downs. Since of the City of Phoenix administers their own floodplain ordinances, the City will need to assess the impact of future mining operatons near the WWTP.

3.5.b Low Flow Incisement

The large width-depth ratios for the project reach require that consideration be given to the development of low-flow channels. There are no exact methodologies for the prediction of low flow channel incisement. A review of existing field conditions and experience from previous projects along the Salt River indicate a low-flow incisement depth of 3 feet is reasonable for the project reach.

3.5.c Bedform Scour

Bedforms commonly develop in natural or man-made channels with unlined bottoms. Bedforms of various types form and move through the channel, creating local mounds and depressions in the channel bed. The type and size of bedform which develops is a function of, among other things, the hydraulic characteristics and flow regime of the flood condition considered. The potential scour associated with bedforms is equal to one-half of the potential bedform height.

The potential bedform scour component was estimated using dune height and antidune height relations presented in Simons and Senturk's Sediment Transport Technology (8). The maximum scour depth was determined using the antidune height relation for all locations through the project reach. The maximum bedform scour adjacent to the WWTP is 1.3 feet.

3.5.d Factor of Safety

A factor of safety was included to account for the non-uniform flow distribution typical of alluvial channels. The factor of safety was calculated as 30 percent of the sum of general scour and bedform scour.

IV. RECOMMENDATIONS

4.1 Design Toe-Down

The design toe-down elevation was determined by: (1) summing the scour components and factor of safety as presented in Table 3; and (2) subtracting the estimated scour depths from minimum invert elevation as presented in Table 4. Design elevations are graphically depicted in Figure 4.

Table 4. Recommended Toe-Down and Bank Height

Section Number	Minimum Invert Elevation	Design Toe Elevation	Maximum Water Surface Elevation	Design Top of Bank Elevation	Section Height
3.15*	952.0	937.9	967.9	970.2	32.3
3.25	952.0	937.9	968.9	971.3	33.4
3.34	955.0	938.7	969.8	972.3	33.6
3.44	956.0	939.5	970.8	973.4	33.9
3.53	956.0	940.3	971.6	974.4	34.1
3.63	956.0	941.1	972.6	975. 5	34.4
3.72	959.0	941.8	973.5	976.1	34.3
3.81	958.0	942.6	974.4	976.9	34.3
3.91	960.0	943.4	975.4	977.6	34.2
4.00	960.0	944.2	976.3	978.4	34.2
4.09	962.0	945.0	977.1	979.1	34.1
4.19**	960.0	945.8	978.1	979.8	34.1

* Begin CSA @ 91st Avenue
** End CSA @ 83rd Avenue

4.2 Design Top Of Bank

The 91st Avenue WWTP is situated above the 100-year water surface elevation of the Salt River and therefore the proposed bank protection will provide erosion protection to the facility without forming a levee situation. The freeboard applied to this project is 3 feet above the maximum 100-year water surface elevation as determined by HEC-2 models developed for this project, or one foot above the effective FIS water surface elevation, whichever is higher. To provide a smooth transition and uniform construction grade some cross sectional locations will have greater than three feet of freeboard.

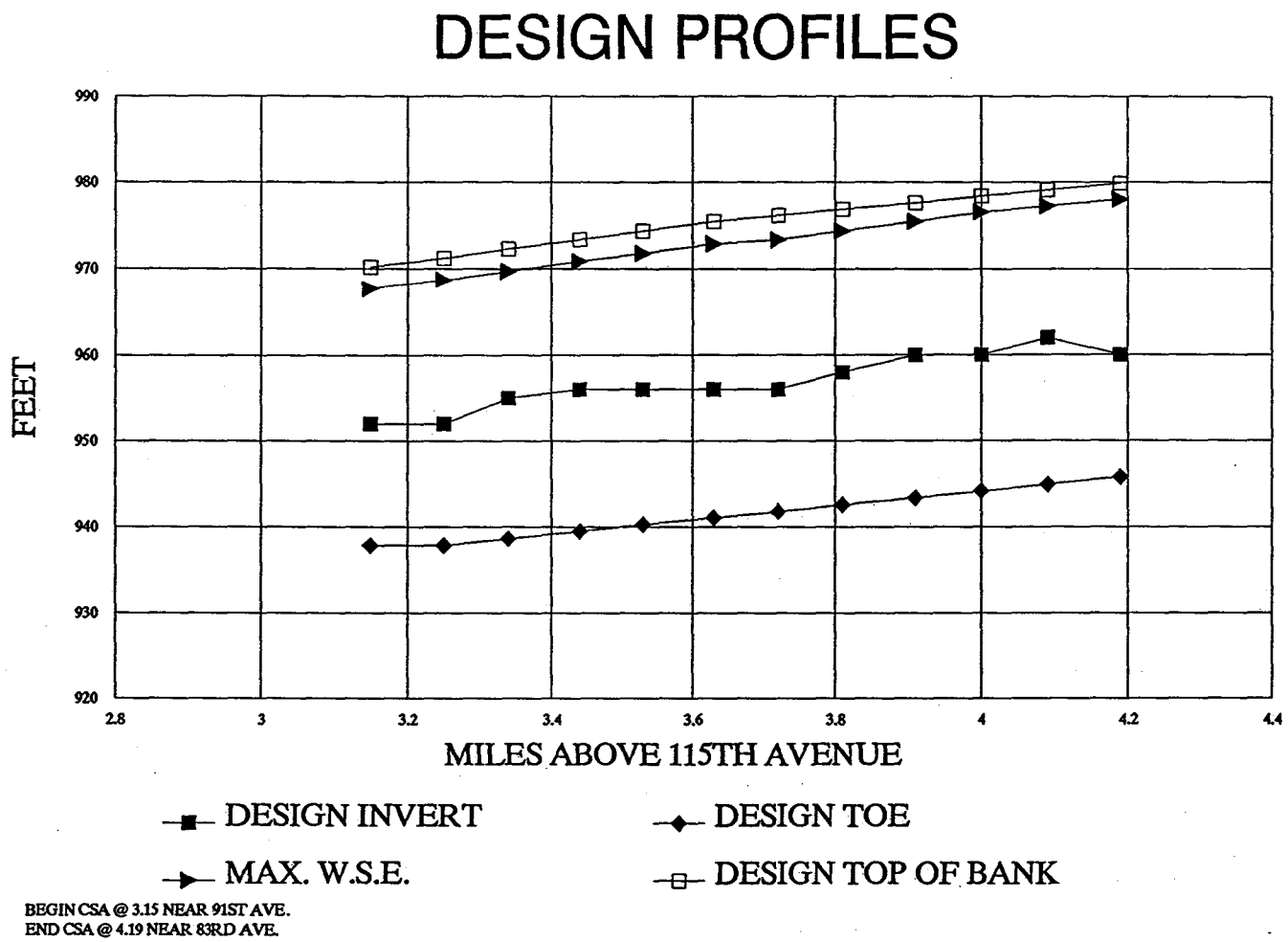


Figure 4. Design Profiles

V. REFERENCES

1. Simons, Li & Associates, Inc., "Concept Report - Flood Mitigation Study at the 91st Avenue Wastewater Treatment Plant," May, 1994.

2. U.S. Army Corps of Engineers, Los Angeles District, "Gila River and Tributaries, Central Arizona Water Control Study, Hydrology Report," May, 1982.

3. U.S. Army Corps Of Engineers, "Study For Flood Control Alternatives To Cliff Dam," Los Angeles District, October, 1988.

4. AGRA Earth & Environmental, Inc., "Geotechnical Investigation Report Flood Mitigation Design 91st Avenue Wastewater Treatment Plant, Area 6," August 1995.

5. U.S. Army Corps of Engineers, Los Angeles District, "Salt River Flood Insurance Study, Agua Fria River to Country Club Drive," Performed for the Federal Emergency Management Agency, 1983-1984.

6. U.S. Army Corps of Engineers, Hydrologic Engineering Center, "HEC-2 Water Surface Profiles," Users Manual, September, 1990.

7. U.S. Department of the Interior, Bureau of Reclamation, Computing Degradation and Local Scour, Technical Guideline, Denver, Colorado, January, 1984.

8. Simons, Daryl B. and Fuat Senturk, Sediment Transport Technology, Water Resources Publications, Ft. Collins, Colorado, 1992.

APPENDIX A

HEC-2 OUTPUT FILES

APPENDIX B

STEADY STATE ANALYSIS

APPENDIX C

QUASED

APPENDIX D

SCOUR COMPUTATIONS

APPENDIX A

HEC-2 OUTPUT FILES

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 Version   4.6.2;  May 1991
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AC
AC      WWTP EXISTING CONDITIONS FOR STEADY STATE
AC
T1      CPH05
T2      91ST AVE. WWTP, SALT RIVER
T3      EXISTING CONDITIONS MODEL

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

              2                             0.0012                        250000    944

J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE

    -1                  -1                                      -1        -6

J6  IHLEQ     ICOPY     SUBDIV    STRTDS    RMILE

     1                  0
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NC    0.045     0.045     0.033     0.1       0.3
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NH    18490
X1    0         37        8625      11140
GR    960       8490      956       8520      952       8530      948       8537      944       8544
GR    940       8550      936       8625      932       8660      936       8880      936       9100
GR    932       9305      932       9385      932       9435      936       9470      936       9585
GR    932       9620      928       9820      932       9900      936       9940      936       10050
GR    932       10065     928       10120     928       10600     928       10700     928       11005
GR    928       11070     932       11110     936       11125     940       11140     936       11155
GR    936       11170     940       11180     940       11935     940       13940     940       14910
GR    944       17160     944       18490

NC    0.045     0.045     0.033
X1    0.102     24        9150      11310     525       540       540
GR    960       8650      956       8665      952       8680      948       8690      944       8700
GR    940       8720      936       8750      932       8815      932       9150      932       9270
GR    930.8     10030     930.6     10830     932       11135     936       11310     940       11480
GR    940.6     11630     942.6     12425     943.6     13230     940.4     14010     940.3     14800
GR    941.8     15600     943.3     16400     944.5     17200     945.6     18000
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NH    3         0.045     9600      0.033     11410     0.045     19480
X1    0.197     18        9600      11410     500       500       500
X3    0                             8480      945
GR    960       5815      956       5930      952       5990      948       6025      944       6130
GR    940       6300      936       7360      932       9600      932       11380     936       11390
GR    940       11400     944       11410     944       11445     940.8     11510     940       14180
GR    940       15290     944       17680     948       19480

NH    5         0.045     9220      0.033     11180     0.045     11470     0.033     11530     0.045
NH    19135
QT    7         243500    243500    194500    148100    94000     39600     3330
X1    0.292     31        9585      11530     515       485       500
X3    0                             7970      945
GR    960       5560      956       5580      952       5600      948       5625      944       5740
GR    940       5850      939       7010      938.5     8135      932       9220      932       9280
GR    936       9380      936       9585      932       9610      936       10330     936       10920
GR    932       11180     932       11470     936       11495     940       11510     944       11520
GR    948       11530     948       11550     944       11560     940.8     12170     944       12600
GR    944       13360     940       13720     940       15120     944       16900     944       17285
GR    948       19135

NH    5         0.045     9230      0.033     10520     0.045     10770     0.033     11350     0.045
NH    17230
QT    7         237000    237000    189000    146200    93000     39200     3260
X1    0.386     31        9460      11590     505       505       500
X3    0                             7470      950
GR    952       5320      948       5380      944       5390      940       5460      940       5780
GR    939.3     6400      940       6960      940       7470      936       8750      932       8850
GR    932       8940      936       8990      940       9230      940       9460      936       9520
GR    932       9580      932       9870      936       10000     936       10520     940       10580
GR    940       10770     936       10830     932       11175     932       11350     936       11515
GR    940       11535     944       11590     944       12620     944       13460     944       15850
GR    948       17230

NH    5         0.045     9385      0.033     10440     0.045     11030     0.033     11410     0.045
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NH	16265									
QT	7	230500	230500	183500	144300	92000	38800	3190		
X1	0.481	27	9385	11440	500	505	500			
X3	0			6990	950					
GR	956	4990	952	5010	948	5200	944	5450	940	6150
GR	940	7510	936	8635	932	8640	932	8680	936	8720
GR	940	9025	940	9385	932	9680	932	9850	936	10070
GR	940	10440	940	10720	936	11030	936	11410	940	11430
GR	944	11440	944	13420	944	13700	944	14840	948	14940
GR	952	14945	956	16265						
NH	5	0.045	9400	0.033	10150	0.045	10680	0.033	11205	0.045
NH	15590									
QT	7	224000	224000	178000	142400	91000	38400	3120		

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X1	0.576	27	9400	11230	490	525	500			
X3	0			6560	950	13360	950			
GR	956	3650	952	3690	948	3715	944	3775	944	4290
GR	940	6315	940	9400	936	9570	932	9810	932	10050
GR	936	10150	940	10210	944	10350	944	10530	940	10630
GR	936	10680	936	11205	940	11215	944	11230	944	12470
GR	948	13360	944	13950	944	14460	944	14730	948	15405
GR	952	15500	956	15590						
NH	5	0.045	9515	0.033	10160	0.045	10415	0.033	10820	0.045
NH	15420									
QT	7	217500	217500	172500	140500	90000	38000	3050		
X1	0.67	34	9515	10980	490	505	500			
X3	0			6610	950	13370	950			
GR	956	4135	952	4205	948	4250	944	4480	941.2	6750
GR	941.7	7860	940	8560	936	8590	932	8605	932	8635
GR	936	8655	940	8680	940	8890	936	9515	932	10035
GR	932	10160	936	10190	940	10240	940	10335	936	10415
GR	936	10820	940	10950	944	10980	944.8	11830	946.4	12380
GR	947.3	13000	948	13370	948	13440	944	14080	944	14670
GR	948	14885	952	15030	952	15205	956	15420		
NH	3	0.045	9210	0.033	10585	0.045	15370			
QT	7	211000	211000	167000	138600	89000	37600	2980		
X1	0.765	22	9210	10630	510	460	500			
X3	0			6760	950					
GR	952	3850	948	3870	944	4120	944	5620	940	8520
GR	936	8530	936	8560	940	8585	940	9210	936	9490
GR	936	9825	932	10080	932	10230	936	10585	940	10630
GR	944	10955	948	11060	948	13515	948	14830	952	14925
GR	952	15170	956	15370						
NH	3	0.045	9390	0.033	10440	0.045	15230			
QT	7	204500	204500	161500	136700	88000	37200	2910		
X1	0.86	24	9390	10440	525	500	500			
X3	0			6910	950	10800	950			
GR	952	3315	948	3335	944	5010	944.1	6070	942.9	6770
GR	944	7530	944	7970	940	8190	936	8205	936	8250
GR	940	8260	940	9390	936	9440	936	9670	932	10025
GR	932	10290	936	10370	940	10410	944	10440	948	10800
GR	948	14855	952	14885	952	15035	956	15230		

NH	3	0.045	9235	0.033	10405	0.045	15230			
QT	7	198000	198000	156000	127000	87000	36800	2840		
X1	0.955	23	9605	10500	490	505	500			
X3	0			7040	950					
GR	944.6	2925	944	3095	942.2	6610	944.4	7175	940	7540
GR	940	9235	944	9270	944	9605	940	9670	936	9710
GR	932	9740	932	10145	936	10215	940	10390	944	10405
GR	948	10480	952	10500	952	10760	948	10810	948	14470
GR	952	14910	952	15000	956	15230				

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NH	3	0.045	9610	0.033	10630	0.045	15270			
QT	7	191500	191500	150500	126000	86000	36400	2770		
X1	1.049	40	9610	10630	490	505	500			
X3	0			7160	950	10630	950			
GR	945.8	3560	945.1	4180	944	4540	944	6160	940	7485
GR	940	7580	944	7680	944	7820	940	8030	940	8415
GR	944	9060	948	9610	944	9640	940	9660	936	9690
GR	932	9710	932	9900	936	9940	936	10020	932	10040
GR	932	10100	936	10150	940	10175	944	10200	944	10280
GR	940	10315	940	10470	944	10510	948	10550	952	10630
GR	952	10755	948	11010	948	12850	952	13150	952	13460
GR	948	14060	948	14410	952	14910	952	15080	956	15270
NH	5	0.045	9405	0.033	10110	0.04	10280	0.033	10800	0.045
NH	14655									
QT	7	185000	185000	145000	131000	85000	36000	2700		
X1	1.144	35	9550	10760	515	505	500			
X3	0			7290	960					
GR	946.9	4230	945	5200	944	5570	940	6280	940	7225
GR	944	7360	944	7510	948	7580	948	7630	944	7750
GR	944	8970	948	9405	948	9550	944	9620	940	9650
GR	936	9680	936	9880	940	10110	944	10145	944	10280
GR	940	10385	940	10710	944	10730	948	10740	952	10750
GR	956	10760	956	10770	952	10800	952	11745	950.5	11830
GR	952	12730	952	13455	950.5	13690	952	14600	956	14655
NH	5	0.045	9650	0.033	10130	0.04	10230	0.033	10870	0.045
NH	14640									
X1	1.239	32	9650	10870	485	485	500			
X3	0			7410	960					
GR	945.7	2915	944	4340	944	5450	948	6345	952	7020
GR	952	7090	948	7120	948	7295	952	7500	952	7570
GR	948	7585	948	8005	944	8040	944	9650	940	9670
GR	936	9690	936	9880	940	10130	944	10230	948	10260
GR	948	10290	944	10390	940	10495	940	10660	944	10765
GR	948	10840	952	10855	956	10870	956	10890	952	10905
GR	952	13950	956	14640						
NH	3	0.045	9540	0.033	11145	0.045	14170			
X1	1.333	27	9540	11145	485	515	500			
X3	0			7530	960					
GR	944.3	3530	948	5090	948	6235	952	6510	952	7050
GR	948	7130	948	7280	952	7400	952	7790	948	7985
GR	944	8680	944	8890	948	9110	948	9540	944	9645
GR	940	9675	936	9690	936	10040	940	10145	944	10450
GR	944	10950	948	11135	956	11145	956	11170	952	11195

GR	952	12790	953.9	14170						

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NH	3	0.045	9285	0.033	11160	0.045	14685			
X1	1.428	29	9430	11160	470	525	500			
X3	0			7650	960					
GR	946.7	2930	948	3670	948	4850	952	5980	952	7095
GR	948	7120	948	7260	952	7530	952	7890	948	7960
GR	944	8450	944	8540	948	8780	948	9200	952	9285
GR	952	9430	948	9500	944	9530	940	9675	936	9750
GR	936	10250	940	10450	944	10650	944	11075	948	11160
GR	952	11500	952	12140	954.6	13180	959.3	14685		
NH	3	0.045	9270	0.033	11410	0.045	13230			
X1	1.523	35	9270	11410	480	515	500			
X3	0			7770	960					
GR	952	4120	952	4280	948.3	4430	952	5080	952	7040
GR	948	7130	948	7280	952	7310	952	7870	948	7890
GR	944	8350	944	8440	948	8570	948	8900	952	9270
GR	948	9365	944	9410	940	9560	936	9630	936	9735
GR	940	9770	944	9830	948	9900	948	10100	944	10200
GR	940	10230	940	10600	936	10610	936	10670	940	10690
GR	940	11030	944	11390	948	11410	952	12170	954.9	13230
NC	0.045	0.045	0.033							
X1	1.618	32	9130	11750	615	385	505			
X3	0			7935	960					
GR	952	4250	952	7325	956	7820	956	7935	952	7970
GR	948	8010	948	9130	944	9200	940	9230	940	9570
GR	944	9650	948	9760	948	9900	944	9940	948	9970
GR	952	10000	952	10115	948	10250	944	10390	940	10435
GR	940	10740	944	10830	948	10940	948	10990	944	11360
GR	940	11670	944	11720	948	11740	952	11750	952.5	12410
GR	953.2	12920	956	13360						
X1	1.712	38	8745	11855	550	410	495			
X3	0			7910	960					
GR	953.8	4835	956	5400	956	6895	952	7090	952	7210
GR	956	7510	956	7920	952	7960	948	8090	948	8745
GR	944	8800	940	8820	940	8900	944	9280	944	9530
GR	948	9760	952	9880	952	10180	948	10210	944	10230
GR	944	10520	940	10540	940	10770	944	10830	948	11160
GR	948	11430	944	11570	944	11640	940	11770	940	11799
GR	944	11820	948	11840	952	11855	954	11960	953.4	12360
GR	952.8	12670	954.5	12935	956	14600				
X1	1.807	28	8600	11900	610	360	500			
GR	956	4690	956	7925	952	7935	948	8385	944	8600
GR	944	8890	948	9020	944	9250	944	9400	948	9435
GR	948	9785	952	9940	952	10200	948	10250	948	10630
GR	944	10645	944	10840	948	11070	948	11460	944	11700
GR	940	11800	944	11860	948	11880	952	11900	954.3	12050
GR	953.3	12480	954.3	12950	956	14570				

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X1	1.902	26	8730	11765	460	555	500			
GR	956	4900	956	7050	960	7985	956	8020	952	8030
GR	948	8240	948	8730	944	8750	948	8980	948	9275
GR	944	9350	948	9495	948	9755	952	9950	952	10030
GR	948	10265	948	10780	944	10830	944	10990	948	11190
GR	948	11415	944	11540	944	11720	948	11755	952	11765
GR	956	12790								
NC	0.045	0.045	0.033							
X1	2.015	90	9095.38	11552.98	585	650	600			
X3	0			8600	960					
GR	960	7774.76	960	7909.57	958	7934.35	958	7940.17	960	7950.17
GR	960	7954.25	958	7972.8	956	7980.18	954	8116.74	952	8296.2
GR	952	8305.46	954	8319.59	954	8426.42	954	8591.54	952	8626.63
GR	950	8701.6	950	8709.22	948	8718.19	946	8726.46	946	8729.83
GR	946	8816.79	944	8856.12	944	8913.8	946	8968.33	948	9001.67
GR	950	9074.38	952	9095.38	952	9124.17	950	9143.81	950	9162.36
GR	950	9211.37	950	9225.14	952	9232.02	952	9386.66	950	9420.63
GR	950	9516.92	950	9518.95	948	9524.26	946	9529.82	946	9740.88
GR	948	9746.05	950	9752.14	952	9757.8	952	9810.78	952	9889.29
GR	952	9995.6	952	10021.75	954	10033.87	956	10041.73	956	10140.15
GR	954	10144.88	952	10206.79	952	10237.4	952	10253.95	950	10347.18
GR	948	10437.7	948	10483.33	948	10717.12	948	10741.96	950	10752.36
GR	952	10837.51	954	10852.96	954	10856.06	952	10877.01	950	10884.26
GR	948	10889.18	946	10894.02	944	10911.64	942	10916.01	942	10961.74
GR	944	11014.34	946	11051.98	946	11071.04	944	11082.74	942	11091.39
GR	942	11154.43	944	11345.7	946	11445.74	948	11526.42	950	11533.28
GR	952	11539.71	954	11546.32	956	11552.98	956	11574.3	956	11578.12
GR	956	11582.49	956	11774.24	958	12392.94	960	12667.74	960	12669.49
X1	2.11	90	9316.55	11402.12	420	560	500			
GR	960	7759.5	960	7773.78	958	7830.23	958	7832.22	960	7837.41
GR	960	7964.8	958	8081.54	956	8194.51	954	8457.44	952	8521.21
GR	948	8538.55	948	8564.11	950	8616.42	950	8635.59	948	8659.05
GR	948	8663.63	950	8671.56	952	8680.78	954	8693.74	956	8707.52
GR	956	8834.77	954	8841.44	950	8857.25	948	8957.79	946	8980.66
GR	944	9002.62	944	9024.16	946	9043.84	948	9063.24	950	9082.59
GR	952	9107.85	952	9128.11	950	9149.74	950	9166.58	952	9197.33
GR	954	9224.12	954	9268.32	952	9288.7	950	9316.55	948	9346.87
GR	948	9406.03	950	9449.79	950	9465.15	948	9501.66	946	9533.12
GR	946	9661.06	948	9663.23	950	9667.18	952	9670	954	9965.7
GR	954	10025.26	954	10240.05	952	10284.49	948	10376.08	948	10548.89
GR	950	10598.35	952	10689.17	954	10699.84	956	10710.14	956	10716.22
GR	952	10740.71	950	10750.92	948	10760.21	948	10812.87	950	10823.73
GR	952	10834.92	952	10936.62	950	10945.26	950	10952.34	952	10969.6
GR	952	10970.67	950	10988.85	948	11014.44	944	11024.97	944	11263.57
GR	946	11277.26	948	11290.4	950	11301.71	952	11308.74	954	11316.34
GR	956	11324.19	956	11384.5	958	11392.95	958	11402.12	958	11498.61
GR	958	11857.08	958	12000.67	960	12323.43	962	12831.91	962	12834.22

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X1	2.205	81	9305.74	11183.14	515	500	505			
GR	960	7697.04	960	7704.01	960	7704.75	960	7732.8	960	7749.45
GR	960	7767.18	960	7774.8	960	7901.21	958	7969.35	956	8001.27
GR	954	8029.85	952	8252.76	950	8336.13	950	8374.69	950	8404.02
GR	948	8431.76	948	8435.54	950	8452.11	950	8462.56	950	8535.81

GR	952	8580.87	954	8622.69	954	8671.06	954	8762.43	956	8954.78
GR	956	9019.8	954	9028.06	952	9042.47	950	9050.87	948	9067.19
GR	948	9075.27	948	9112.27	948	9225.13	950	9285.04	950	9305.74
GR	948	9331.06	946	9363.53	946	9368.77	946	9402.44	946	9419.65
GR	948	9459.28	948	9509.62	946	9572.22	946	9661.66	948	9671.49
GR	950	9681.58	952	9753	954	9864.52	954	9969.97	952	10097.34
GR	950	10224.36	948	10352.29	948	10381.99	948	10510.48	948	10534.28
GR	948	10611.07	946	10626.43	946	10642.6	948	10729.79	948	10775.84
GR	946	10853.61	944	10858.52	944	11030.63	946	11069.89	948	11107.26
GR	950	11116.98	952	11126.14	954	11141.09	956	11169.96	958	11183.14
GR	960	11944.09	960	11949.97	960	12203.45	962	12229.28	962	12236.65
GR	962	12244.69	964	12428.18	964	12434.75	962	12784.68	962	12805.31
GR	962	12859.83								
X1	2.299	90	9305.69	11082.27	495	500	495			
GR	962	7642.31	962	7654.65	960	7676.52	960	7710.92	962	7716.77
GR	962	7841.55	960	7878.82	958	7886.21	956	7893.6	954	7900.8
GR	954	8205.55	954	8350.25	952	8385.3	950	8427.1	950	8459.02
GR	952	8476.03	952	8566.12	954	8582.45	954	8665.32	956	8693.57
GR	956	8697.74	954	8708.13	954	8722.23	956	8729.42	958	8768.75
GR	958	8772.95	956	8860.02	954	8888.34	954	8906.44	956	8931.73
GR	956	9044.64	954	9070.87	952	9097.66	950	9251.09	950	9268.1
GR	952	9273.74	952	9305.69	950	9316.38	948	9327.12	948	9412.7
GR	948	9591.7	946	9598.41	946	9666.22	948	9675.32	950	9728.75
GR	952	9776.24	954	9833.99	954	9911.41	952	9993.53	950	10156.04
GR	948	10475.38	946	10504.03	946	10513.13	946	10533.05	944	10551.5
GR	944	10576.02	946	10614.32	946	10642.55	946	10682.13	946	10708.17
GR	944	10724.94	944	10860.99	946	10898.28	948	10929.83	950	10971.78
GR	950	11004.67	950	11010.46	952	11044.69	954	11051.08	956	11057.44
GR	958	11063.77	958	11071.58	958	11082.27	960	11134.14	960	11178.35
GR	960	11205.08	960	11215.63	960	11282.93	960	11696.94	960	11723.04
GR	962	12067.47	964	12114.16	964	12114.8	962	12729.84	962	12761.41
GR	962	12771.54	962	12773.94	962	13149.79	962	13155.27	962	13160.88
X1	2.394	90	9234.55	11170.93	490	500	500			
X3	0					11770	965			
GR	962	7580.84	962	7600.27	962	7654.43	964	7660.3	964	7661.96
GR	962	8008.12	960	8014.44	958	8020.61	956	8026.71	956	8457.04
GR	956	8476.93	954	8501.15	954	8567.04	954	8592.7	954	8653.68
GR	956	8691.06	958	8735.21	958	8755.45	956	8768.35	954	8783.26
GR	952	8796.06	952	8986.91	952	9022.86	952	9030.61	952	9150.45
GR	950	9158.5	950	9172.86	952	9194.82	952	9234.55	950	9245.45
GR	948	9375.63	948	9419.11	948	9594.08	946	9612.82	946	9723.6
GR	948	9729.45	948	9733.69	948	9746.09	950	9766.21	952	9831.46
GR	954	9908.84	954	9984.66	952	10053.78	950	10237.35	950	10351.25
GR	952	10357.07	954	10362.3	954	10388.62	954	10399.68	954	10450.16
GR	952	10458.76	950	10492.33	948	10523.17	948	10529	950	10538.94
GR	950	10547.38	950	10570.09	950	10594.69	948	10617.91	946	10656.66

GR	946	10678.12	946	10702.57	944	10708.92	944	10729.44	946	10805.3
GR	946	10819.34	946	10933.54	948	10948.39	950	10962.94	950	10991.28
GR	948	11010.91	948	11045.13	950	11054.82	952	11063.76	954	11083.32
GR	956	11140.59	958	11148.25	960	11170.93	960	11257.58	960	11442.08
GR	962	11739.64	962	11742.22	962	11747.56	964	11962.15	964	11966.7
GR	964	11973.04	964	12050.4	964	12058.27	964	12109.47	964	13073.31
X1	2.489	90	9123.29	11273.47	475	515	500			

GR	962	7523.51	962	7572.57	962	7593.93	962	7596.12	964	7602.22
GR	964	7610.2	962	7921.39	960	7931.92	958	7942.29	958	7978.05
GR	958	7986.62	958	8152.76	958	8210.24	956	8227.45	956	8325.55
GR	958	8331.22	958	8354.62	956	8412.37	956	8429.11	958	8657.11
GR	958	8735.84	956	8762.55	954	8779.54	954	8795.9	956	8824.66
GR	956	8898.2	954	8956.87	954	9005.87	954	9026.5	954	9057.36
GR	954	9070.11	954	9100.32	954	9123.29	952	9256.3	950	9344.3
GR	948	9399.07	948	9445.98	950	9478.67	950	9511.18	948	9543.87
GR	946	9576.55	946	9666.48	948	9720.47	950	9763.22	952	9810.31
GR	952	10105.52	952	10248.67	952	10289.39	952	10319.08	952	10331.83
GR	952	10358.92	954	10393.36	956	10422.64	956	10495.64	954	10573.5
GR	952	10582.33	950	10637.56	948	10676.72	946	10707.47	946	10757.67
GR	946	10803.41	946	10926.07	948	10935.52	950	10946.16	952	10966.6
GR	954	10998.89	956	11092.9	956	11093.33	954	11131.91	952	11145.93
GR	950	11166.63	950	11195.44	952	11200.69	954	11206.16	956	11226.95
GR	958	11252.57	960	11273.47	962	11755.92	962	11763.48	962	11765.13
GR	964	11783.51	964	11790.76	964	11824.66	964	11831.49	964	11839.36
GR	964	11975.71	964	11979.37	964	12998.75	964	13003.15	964	13008.75
X1	2.586	90	9183.06	11369.29	535	485	515			
GR	964	7459.16	964	7595.53	964	7774.49	962	7783.33	960	7792.4
GR	958	7910.72	958	8062.22	956	8069.42	954	8076.83	954	8090.18
GR	956	8099.65	956	8129.44	958	8147.87	958	8209.81	960	8213.83
GR	962	8429.32	962	8607.81	960	8619.09	958	8671.98	956	8690.54
GR	956	8696.31	958	8746.92	958	8751.82	956	8778.61	954	8790.94
GR	954	8815.8	956	8884.38	956	8938.25	954	9071.76	954	9140.04
GR	956	9147.75	956	9175.61	954	9183.06	952	9217.92	950	9224.68
GR	950	9300.3	948	9539.27	946	9569.71	946	9635.04	948	9654.04
GR	950	9800.21	952	9863.86	952	10006.98	952	10163.67	954	10170.43
GR	956	10189.85	956	10245.14	954	10255.47	954	10302.09	954	10317.45
GR	954	10345.85	954	10481.85	952	10510.9	950	10572.13	948	10589.44
GR	946	10595.13	946	10649.08	948	10657.16	950	10665.26	952	10675.97
GR	952	10677.06	950	10762.69	950	10784.34	950	10880.51	948	10894.38
GR	946	10908.48	946	10981.7	948	11015.59	950	11074.95	950	11075.7
GR	950	11080.16	952	11107.03	954	11218.29	956	11230.71	958	11266.06
GR	960	11369.29	960	11372.37	960	11375.34	960	11378.23	960	11440.53
GR	962	11606.32	962	11672.74	962	11673.49	964	11676.2	964	11696.75
GR	964	11702.49	964	11766.9	964	11783.08	966	11808.36	966	11833.58
X1	2.679	90	9193.09	11643.87	570	425	490			
GR	964	7201.32	964	7458.06	966	7573.03	966	7697.5	964	7786.18
GR	960	7862.2	958	7977.95	958	8043.45	960	8100.88	960	8132.54
GR	956	8161.4	956	8193.72	958	8243.39	960	8253.71	962	8283.93
GR	962	8519.2	962	8546.38	960	8620.92	958	8626.13	958	8684.01
GR	956	8770.99	956	8794.95	960	8839.18	960	8852.22	956	8875.39
GR	956	8982.42	958	8989.52	958	9017.08	956	9026.03	956	9041.69

GR	958	9067.06	960	9109.68	960	9193.09	960	9214.94	952	9234.8
GR	952	9324.25	950	9330.13	950	9567.48	952	9584.78	952	9687.64
GR	956	9717.99	950	9766.31	950	9946.89	952	9999.14	954	10085.4
GR	956	10113.44	956	10156.25	954	10215.7	952	10226.23	952	10348.12
GR	950	10355.44	948	10379.11	946	10430.41	948	10498.8	948	10517.57
GR	946	10528.99	946	10600.47	950	10620.51	952	10723.12	954	10732.19
GR	958	10740.6	962	10749.17	966	10757.58	970	10766.04	972	10770.28
GR	972	10805.57	958	10832.14	952	10845.87	948	10884.22	948	10917.27
GR	950	10927.27	950	11022.46	954	11079.47	952	11091.89	950	11185.11
GR	950	11456.93	950	11534.8	954	11544.74	956	11591.46	960	11603.17

GR	962	11609.24	966	11621.16	970	11643.87	972	11662	970	11696.13
GR	966	11708.25	964	11728.44	966	11751.33	968	11807.33	966	12388.22
X1	2.775	90	8928.56	11678.76	525	485	505			
X3	0			7500	970	11700	970			
GR	966	7325.26	964	7359.19	964	7390.33	966	7395.63	966	7560.82
GR	964	7661.27	962	7697.93	960	7790.94	960	7859.2	962	7907.78
GR	962	8160.44	960	8212.22	956	8240.64	956	8299.13	958	8344.72
GR	962	8378.21	962	8487	958	8575.07	956	8652.9	956	8690.94
GR	954	8928.56	954	9065.72	956	9087.82	956	9298.85	954	9310.95
GR	952	9353.14	950	9359.99	950	9497.42	952	9584.35	954	9596.43
GR	954	9675.41	952	9702.42	950	9809.81	950	9927.19	952	9940.64
GR	952	10102.51	954	10129.66	956	10216.2	960	10241.74	964	10262
GR	964	10337	960	10353.19	956	10393.49	952	10407.11	950	10448.56
GR	948	10476.02	948	10492.39	952	10505.04	954	10623.57	956	10643.11
GR	958	10648.04	962	10657.97	966	10668.29	962	10686.39	962	10956.48
GR	962	11025.08	964	11033.55	968	11071.81	970	11085.21	972	11115.28
GR	974	11126.48	974	11142.75	972	11154.96	954	11198.06	952	11218.77
GR	948	11229.27	948	11379.41	950	11383.78	954	11392.61	958	11401.28
GR	958	11406.33	954	11418.34	954	11438.44	956	11465.14	956	11478.97
GR	952	11510.58	952	11576.37	954	11607.63	956	11612.58	960	11621.08
GR	964	11629.65	968	11638.44	970	11678.76	972	11742.31	972	11764.38
GR	966	11781	966	11796.03	968	11801.79	968	11831.42	966	13033.81
X1	2.869	90	8485.29	11736.53	495	500	500			
X3	0			7500	970.2	11770	972.2			
GR	966	7263.3	966	7331.64	968	7337.45	968	7356.47	966	7522.73
GR	964	7561.99	962	7626.19	962	7797.39	964	7861.25	964	8079.88
GR	962	8128.45	960	8135.06	958	8154.01	958	8257.42	960	8264.57
GR	962	8271.09	962	8485.29	960	8489.74	958	8508.32	958	8695.33
GR	960	8709.39	960	8712.73	958	8741.36	958	9048.8	958	9179.07
GR	960	9193.59	962	9209.81	962	9335.14	960	9340.99	958	9347.46
GR	954	9360.6	952	9406.8	950	9496.83	950	9583.28	952	9605.38
GR	952	9746.66	950	9805.82	950	9939.21	952	9995.89	954	10017.79
GR	954	10201.12	952	10212.35	952	10299.07	954	10326.4	956	10424.5
GR	956	10702.75	958	10720.31	960	10739.14	962	10747.35	964	10755.63
GR	966	10761.23	966	10768.49	964	10774	964	10970.5	966	10979.67
GR	966	10993.92	964	10997.95	962	11002.26	960	11015.04	960	11069.85
GR	958	11086.94	956	11114.89	954	11148.74	954	11223.75	956	11243.34
GR	958	11270.13	958	11297.9	956	11345.42	956	11427.84	958	11447.86
GR	958	11568.36	956	11585.94	954	11593.02	952	11599.85	952	11671.49
GR	954	11689.64	956	11700.58	958	11704.68	960	11708.86	962	11713.6
GR	964	11717.81	966	11722.36	970	11731.38	972	11736.53	972	11736.74
GR	970	11828.97	968	11834.83	966	11838.17	966	11847.82	968	11854.29

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X1	2.964	90	8510.33	11789	455	520	500			
X3	0			7500	975	11815	975			
GR	966	7119.78	968	7208.56	968	7356.71	966	7407.3	964	7565.08
GR	964	7788.53	964	7992.42	962	8034.25	960	8091.9	960	8152.96
GR	958	8163.03	958	8177.52	960	8250.57	964	8263.71	964	8317.96
GR	966	8340.72	966	8510.33	960	8533.94	958	8599.51	958	8902.2
GR	960	9089.02	962	9121.87	958	9300	956	9367.84	954	9377.46
GR	950	9415.75	950	9523.74	954	9545.43	954	9595.59	952	9680.76
GR	952	9701.03	950	9790.01	950	9888.19	952	9939.5	952	9986.46
GR	954	10019.87	958	10038.44	962	10069.65	962	10102.99	960	10125.5
GR	960	10151.19	962	10178.45	962	10201.25	960	10220.76	960	10259.95

GR	958	10298.04	958	10320.36	960	10327.92	962	10356.96	964	10456.41
GR	964	10513.7	954	10547.15	952	10579.03	954	10670.52	956	10802.1
GR	958	10856.7	958	10945.6	956	10981.03	956	10997.68	958	11073.89
GR	958	11248.31	960	11254.15	960	11326.93	962	11335.57	962	11357.22
GR	960	11363.8	960	11593.97	962	11602.59	962	11618.83	958	11627.21
GR	958	11650.16	954	11665.31	954	11747.71	958	11754.5	962	11761.25
GR	966	11768.09	970	11774.81	974	11781.69	978	11789	978	11899.03
GR	968	11932.46	968	11946.75	972	11989.24	972	12014.07	970	12026.93
GR	970	12049.38	972	12055.74	972	12278.81	972	12574.25	970	12595.69
X1	3.059	90	8705.89	11812.31	500	500	500			
X3	0			7260	975					
GR	968	7129.9	970	7163.61	970	7231.18	968	7328.91	968	7555.48
GR	966	7754.46	964	7925.88	962	8033.73	962	8102.48	960	8186.78
GR	960	8253.19	958	8275.62	958	8323.98	960	8334.92	962	8379.62
GR	964	8389.18	964	8583.64	962	8705.89	960	8755.4	960	8782.1
GR	958	8813.55	958	8994.85	956	9023.61	954	9104.16	952	9129.51
GR	952	9163.97	954	9197.85	954	9354.64	952	9380.75	952	9415.1
GR	954	9435.05	954	9738.49	954	9939.66	956	9982.28	958	10046.52
GR	960	10171.2	962	10262.43	962	10550.4	962	10622.64	960	10669.46
GR	960	10746.07	958	10795.7	956	10839.55	958	10869.81	958	10888.75
GR	956	10978.61	954	11102.64	954	11133.13	956	11160.93	958	11176.18
GR	958	11229.13	960	11235.54	960	11329.93	962	11339.08	962	11360.36
GR	958	11379.95	958	11405.53	962	11451.78	960	11461.1	960	11560.76
GR	962	11569.82	962	11594.41	960	11602.23	960	11621.16	962	11626.18
GR	962	11638.07	956	11656.89	956	11705.88	960	11751.7	962	11767.6
GR	964	11771.78	968	11779.69	972	11787.98	976	11796.24	980	11804.5
GR	980	11812.31	978	11831.38	972	11852.71	972	11978.03	974	11984.36
GR	974	12004.62	970	12017.3	968	12034.38	968	12048.5	970	12183.07
GR	972	12274.59	970	12298.25	972	12301.55	972	12506.13	970	12514.74
X1	3.153	90	8504.94	11326.46	420	560	500			
X3	0			7200	975	11370	975			
GR	968	7079.55	970	7094.48	972	7118.42	972	7147.55	970	7159.66
GR	970	7171.53	968	7415.51	966	7539.65	964	7770.96	962	7782.82
GR	962	7807.34	964	7875.05	964	7949.94	962	7963.99	962	8095.48
GR	960	8165.07	960	8256.22	964	8276.05	966	8319.22	968	8379.34
GR	968	8504.94	966	8515.14	964	8563.92	962	8583.36	960	8591.15
GR	960	8603.16	962	8611.4	964	8691.4	964	8731.53	956	8748.55
GR	956	8781.87	958	8843.19	956	8853.11	956	9020.81	960	9066.43
GR	958	9147.47	956	9210.25	956	9342.46	958	9383.17	958	9499.59
GR	956	9526.54	954	9541.48	954	9552.13	956	9652.96	956	9695.41

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GR	958	9755.16	960	9787.05	960	9810.49	958	9883.37	956	9927.06
GR	956	10040.48	958	10073.71	956	10179.3	956	10234.43	958	10296.06
GR	960	10321.98	960	10351.84	962	10361.88	962	10492.53	964	10505.47
GR	964	10537.2	962	10556.37	962	10750.19	960	10860.03	960	10941.37
GR	962	10962.54	962	11075.1	956	11098.17	954	11110.69	952	11132.76
GR	952	11280.96	955	11294.18	958	11299.13	963	11309.16	968	11319.19
GR	972	11326.46	972	11355.94	971	11379.2	957	11403.72	955	11405.8
GR	955	11449.69	960	11457.66	965	11467.89	968	11489.7	973	11500.3
GR	973	11740.51	975	11752.72	977	11784.52	979	11796.5	980	12563.81
X1	3.248	90	8521.75	11272.98	480	520	500			
X3	0			7125	975	11240	985			
GR	968	7023.08	972	7061.89	972	7087.51	970	7118.69	970	7337.61
GR	968	7418.29	966	7531.82	964	7658.35	962	7770.27	964	7788.82

GR	964	7971.75	962	8006.55	960	8018.99	962	8080.16	962	8186.83
GR	964	8237.56	966	8245.13	968	8274.3	968	8417.33	970	8438.11
GR	970	8521.75	966	8552.96	964	8599.21	960	8625.69	962	8637.35
GR	962	8810.55	956	8816.78	956	8970.76	958	8992.06	956	9038.65
GR	956	9195.92	958	9234.87	958	9267.03	956	9277.14	956	9378.61
GR	958	9390.2	960	9427.27	960	9506.1	958	9589.13	958	9602.04
GR	960	9612.48	960	9753.73	962	9763.39	964	9812.41	962	9855.93
GR	960	9939.8	960	10110.4	958	10145.12	958	10220.3	960	10224.85
GR	960	10239.09	958	10242.23	958	10519.03	962	10566.6	964	10605.91
GR	964	10690.74	964	10963.76	962	10988.01	956	11001.32	956	11017.21
GR	952	11073.59	952	11158.61	953	11191.6	959	11202.04	961	11206.07
GR	966	11214.53	971	11223.26	976	11238.38	981	11248.23	982	11272.98
GR	982	11291.24	967	11320.5	959	11341.24	959	11387.94	961	11390.93
GR	966	11401.97	967	11411.05	973	11421.3	978	11428.74	980	11459.28
GR	980	11605.44	979	11639.36	978	11701.76	978	11727.88	980	11731.79
GR	980	11748.99	979	12396.28	971	12411.78	968	12438.44	967	12484.4
X1	3.343	90	8570.47	11212.8	530	522	500			
X3	0			7300	985	11190	985			
GR	970	6949.94	972	6986.55	972	7002.86	970	7026.93	968	7231.93
GR	968	7347.32	966	7752.78	962	7798.64	962	7843.81	964	7904.72
GR	964	7950.27	960	7960.42	960	7971.11	964	8115.54	968	8130.49
GR	968	8263.27	970	8288.42	970	8325.1	968	8442.22	968	8493.7
GR	970	8517.38	970	8570.47	968	8579.5	966	8632.6	964	8665.2
GR	960	8700.09	956	8751.26	956	8919.79	960	8941.4	960	9164.47
GR	962	9294.19	962	9361.62	960	9376.16	958	9419.54	958	9523.53
GR	964	9546.22	964	9592.12	962	9653.92	960	9740.54	960	9923.52
GR	958	9946.24	958	9991.95	960	10035.11	962	10046.86	960	10060.9
GR	960	10077.35	964	10096.36	964	10145.95	962	10264.92	960	10278.56
GR	960	10311.24	962	10391.26	962	10504.1	958	10512.53	958	10593.63
GR	960	10603.33	960	10670.01	958	10886.63	958	10935.21	956	10946.9
GR	956	11005.93	955	11053.28	955	11102.05	960	11112.16	964	11118.68
GR	970	11129.77	974	11146.23	975	11160.05	980	11172.12	984	11181.83
GR	985	11212.8	985	11218.12	976	11236.37	971	11256.83	959	11275.83
GR	959	11312.23	965	11327.44	968	11334.34	972	11345.04	976	11354.83
GR	977	11371.7	980	11387.47	979	11410.13	980	11468.42	980	11530.27
GR	979	11576.51	979	11665.89	979	12325.66	976	12338.54	969	12340.65

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X1	3.438	90	8598.08	11122.05	520	490	500			
X3	0			7400	985					
GR	970	6879.48	972	6911.48	972	6944.52	970	6966.05	970	7092.01
GR	972	7120.53	972	7180.94	970	7189.56	968	7203.55	968	7280.55
GR	968	7728.2	968	7858.12	966	7865.28	964	7948.07	964	7961.32
GR	966	8022.23	966	8038.63	962	8051.03	962	8119.11	964	8190.37
GR	966	8197.35	968	8273.75	970	8309.05	970	8522.61	970	8598.08
GR	968	8628.96	962	8666.78	960	8683.29	960	8746.66	956	8771.75
GR	956	8858.88	958	8881.21	960	9113.01	962	9252.57	964	9316.64
GR	964	9332.02	962	9370.39	960	9407.03	960	9596.57	962	9612.84
GR	964	9888.58	964	9971.18	962	9984.57	962	10170.4	964	10199.57
GR	964	10295.95	966	10320.28	966	10450.36	964	10586.52	962	10608.68
GR	960	10672.35	960	10721.83	962	10732.81	962	10736.32	960	10750.38
GR	958	10760.39	958	10780.57	956	10787.19	956	10942.41	957	11007.93
GR	957	11028.69	956	11033.31	956	11061.61	958	11065.69	959	11067.12
GR	960	11070.03	962	11073.6	966	11082.32	968	11086.48	971	11092.37
GR	975	11101.38	980	11111.17	981	11113.39	981	11122.05	980	11148.12
GR	979	11165.3	979	11255.45	978	11259.63	978	11518.58	977	11522.58

GR	975	11532.55	975	12192.97	976	12196.75	977	12199.11	979	12205.95
GR	980	12248.01	980	12252.95	979	12257.83	975	12266.32	970	12277.25
X1	3.532	90	8422.34	11072.85	465	495	500			
X3	0			7460	985					
GR	972	6746.2	972	6824.37	970	6855.31	970	7117.76	968	7842.83
GR	966	7854.01	964	8101.34	964	8195.23	966	8265.06	966	8285.48
GR	964	8295.74	964	8340.45	966	8353.94	968	8367.31	968	8422.34
GR	966	8447.09	964	8456.36	962	8613.55	962	8756.28	964	8765.09
GR	964	8807.39	962	8808.98	960	8899.09	960	9112.82	960	9371.33
GR	960	9595.95	962	9608.35	964	9743.55	966	9864.77	966	9904.88
GR	964	10032.22	964	10229.35	966	10409.62	966	10476.47	964	10500.11
GR	962	10575.23	960	10668.91	958	10682.91	958	10696.66	959	10722.89
GR	959	10765.4	958	10774.99	957	10777.97	956	10780.75	956	10909.46
GR	957	10918.86	958	10929.18	960	10949.71	961	10960.04	961	10970.43
GR	960	10982.61	960	11017.08	961	11020.36	963	11025.42	964	11027.99
GR	965	11030.8	966	11032.65	967	11035.23	968	11037.42	969	11039.9
GR	970	11042.62	971	11044.52	972	11046.33	974	11051.01	975	11053.27
GR	976	11055.12	977	11057.38	978	11059.8	979	11061.97	980	11063.71
GR	981	11065.78	982	11067.51	983	11068.91	984	11070.76	985	11072.85
GR	985	11110.24	984	11112.91	983	11115.79	982	11118.77	981	11121.3
GR	980	11126.31	980	11152.43	979	11181.18	978	11184.8	978	11388.32
GR	978	12064.72	979	12071.34	979	12138.01	978	12154.38	977	12168.21
X1	3.627	90	7720	10989.88	510	460	500			
X3	0			7550	985					
GR	974	6644.84	972	6675.68	972	6970.31	972	6984.41	970	7592.42
GR	969	7720	968	8157.87	966	8241.07	966	8244.03	966	8296.05
GR	966	8315.03	968	8326.48	968	8343.69	966	8350.24	964	8360.74
GR	962	8372.71	962	8811.89	964	8822.89	962	8987.34	962	10045.53
GR	962	10047.09	962	10052.46	962	10154.43	962	10174.12	962	10188.32
GR	962	10204.36	962	10222.63	964	10228.62	964	10230.35	964	10230.75
GR	964	10237.35	962	10306.97	962	10344.86	964	10361.39	966	10379.32
GR	966	10430.5	964	10484.2	962	10525.46	960	10580.33	959	10621.76
GR	958	10666.66	957	10678.45	956	10684.55	956	10782.18	957	10790.2

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GR	958	10805.79	958	10830.3	958	10868.15	959	10879.41	960	10891.09
GR	961	10901.21	962	10909.31	963	10914.71	964	10919.15	965	10922.48
GR	966	10924.25	967	10927.44	968	10934.47	969	10941.72	970	10950.57
GR	971	10964.59	972	10968.69	973	10970.84	974	10973.87	975	10976
GR	976	10978.26	977	10980.65	978	10983	979	10985.46	980	10987.36
GR	981	10989.88	981	11028.23	980	11046.78	979	11105.62	978	11136.33
GR	978	11136.98	978	11243.94	978	11668.85	978	11703.88	978	11738.29
GR	978	11747.48	978	11785.6	978	11798.75	978	11851.23	979	11885.64
GR	980	11905.68	980	11988.16	979	12006.06	978	12019.45	977	12033.69
X1	3.721	90	7452.38	10758.93	530	495	450			
X3	0			6470	985					
GR	974	6232.87	974	6313.57	972	7216.99	972	7452.38	970	7508.47
GR	968	7582.42	968	7734.9	966	7813.45	964	7830.88	964	7856.35
GR	966	7867.8	962	7878.14	964	7918.25	968	7955.6	968	8027.18
GR	966	8032.29	966	8050.12	968	8079.45	968	8093.66	966	8143.53
GR	964	8171.87	964	8285.16	966	8293.23	966	8367.77	964	8374.32
GR	964	8512.6	966	8545.11	966	8594.46	964	8603.84	964	8706.04
GR	966	8893.49	966	9009.07	964	9074.53	962	9169.22	960	9224.79
GR	960	9587.25	964	9599.79	964	9658.25	962	9707.77	962	9720.47
GR	964	9769	964	9988.03	962	10109.85	962	10160.56	964	10207.28

GR	964	10267.66	962	10318.44	962	10370.3	957	10456.02	956	10513.73
GR	960	10623.93	963	10706.72	968	10723.59	973	10737.31	977	10747.85
GR	978	10758.93	978	10781.08	976	10828.55	976	11108.41	977	11130.26
GR	977	11170.47	978	11177.46	978	11338.44	976	11350.25	976	11568.79
GR	977	11574.06	977	11614.71	980	11630.68	979	11680.31	978	11817.43
GR	978	11871.46	980	12245.84	980	12359.62	981	12693.8	980	12845.14
GR	982	12879.45	982	12922.22	981	12930.35	979	12993.22	976	13000.99
GR	976	13185.06	976	13554.72	980	13566.33	980	13584.86	978	13735.84
GR	978	13785.02	980	14171.13	980	14209.18	976	14217.43	978	14226.87
X1	3.813	90	7691.06	10760.29	570	445	490			
X3	0			6320	985					
GR	974	6047.74	976	6085.71	976	6434.26	974	7062.93	974	7152.52
GR	972	7442.58	970	7485.89	970	7691.06	968	7718.2	970	7729.04
GR	970	7943.24	966	7956.95	964	7991.66	964	8120.09	966	8168.27
GR	966	8195.68	968	8219.75	968	8314.18	964	8328.68	964	8411.16
GR	968	8426.79	966	8453.71	966	8483.35	968	8518.68	964	8561.95
GR	964	8797	966	8843.49	966	8891.88	964	9009.74	962	9089.05
GR	960	9120.51	960	9410.85	962	9422.84	964	9513.64	966	9527.04
GR	968	9574	968	9606.07	964	9643.79	966	9662.99	964	9740.27
GR	964	9843.36	964	10065.55	966	10120.84	968	10127.9	968	10159.14
GR	964	10322.49	961	10338.46	958	10411.5	961	10424.6	961	10466.06
GR	963	10511.13	963	10543.37	965	10568.13	969	10616.73	974	10674.43
GR	977	10705.06	978	10760.29	978	11007.29	977	11013.29	977	11111.57
GR	981	11142.49	981	11389.06	978	11398.84	976	11435.6	981	11458.71
GR	981	11482.99	975	11512.83	976	11983.68	980	12009.71	980	12049.68
GR	978	12061.99	976	12126.88	976	12275.18	976	12619.99	978	12658.28
GR	980	12667.82	984	12712.93	984	12764.02	982	12770.85	980	12805.9
GR	978	12812.09	976	13285.36	978	13392.86	980	13423.04	978	13426.91
GR	978	14007.24	980	14012.57	980	14051.29	978	14064.38	978	14090.4

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X1	3.908	90	7787.85	10798.78	530	460	500			
X3	0			7520	985					
GR	976	5913.91	976	6270	976	6885.83	974	6903.22	976	6909.95
GR	976	6925.29	974	7289.36	972	7435.39	970	7513.29	968	7529.92
GR	970	7566.05	970	7674.56	972	7770.06	972	7787.85	970	7830.13
GR	968	7941.62	968	7997.45	966	8045.19	966	8197.48	968	8232.91
GR	966	8245.63	966	8472.54	964	8495.67	964	8582.42	966	8760.4
GR	968	8878.83	968	8975.35	964	9007.43	960	9031.85	960	9216.32
GR	962	9224.74	966	9241.69	968	9250.25	968	9360.95	966	9400.44
GR	964	9488.69	964	9529.85	962	9574.05	960	9596.77	964	9646.69
GR	964	9708.3	966	9821.52	966	9877.51	962	10140.37	960	10142.5
GR	960	10227.3	964	10248.82	967	10351.4	966	10473.68	966	10585.98
GR	968	10605.95	971	10635.74	970	10682.46	972	10696.05	975	10733.26
GR	979	10789.15	981	10798.78	981	11020.89	979	11031.12	979	11249.84
GR	980	11258.81	977	11269.67	977	11289.84	980	11297.04	982	11303.03
GR	980	11345.74	979	11425.53	978	11578.35	978	11822.92	980	11846.47
GR	980	11899.26	976	11917.98	976	12348.64	978	12509.75	982	12528.75
GR	984	12543.51	984	12607.17	980	12658.11	976	12675.15	976	12981.95
GR	976	13180.44	978	13213.21	982	13251.24	980	13284.53	980	13853.32
GR	982	13870.38	980	13898.43	976	13905.59	978	13910.85	978	13934.99
X1	4.001	90	7409.35	10861.08	540	420	490			
X3	0			7650	985					
GR	976	5934.8	978	6053.28	978	6683.6	976	6690.47	976	6968.06
GR	974	7229.32	972	7281.26	972	7336.31	970	7392.21	970	7409.35

GR	970	7608.42	972	7639.1	972	7759.14	970	7785.23	970	7837.84
GR	968	7841.69	968	7937.2	970	7954.37	972	8019.58	970	8029.67
GR	968	8068.06	968	8191.45	970	8201.62	970	8224.19	966	8251.82
GR	966	8362.65	968	8451.59	972	8484.52	972	8519.77	968	8533.43
GR	966	8551.21	966	8600.43	968	8648.94	968	8710.03	966	8735.22
GR	966	8992.55	964	9020.51	960	9032.82	960	9192.43	962	9208.66
GR	964	9257.72	966	9285.91	966	9324.42	964	9361.89	964	9463.47
GR	966	9577.46	966	9617.11	964	9640.5	964	9724.33	966	9768.77
GR	966	9949.84	964	10116.8	964	10272.74	966	10303.66	968	10313.18
GR	970	10401.52	971	10540.25	971	10815.26	976	10848.62	980	10861.08
GR	980	10952.14	979	10975.13	979	11081.14	981	11116.01	981	11148.47
GR	978	11164.77	978	11632.03	980	11639.52	982	11666.75	982	11698.59
GR	980	11722.31	978	11892.55	978	12233.85	980	12326.64	984	12352.58
GR	986	12400	984	12405.16	982	12444.18	980	12704.12	980	13026.53
GR	982	13042.38	982	13064.33	980	13092.91	978	13330.69	978	13632.84
GR	980	13642.94	982	13694.65	976	13707.2	978	13711.6	978	13736.75
X1	4.095	90	7486.79	10931.22	600	450	495			
X3	0			7780	985					
GR	978	6495.76	978	6692.49	976	6990.9	974	7048.25	972	7076.16
GR	972	7164.26	974	7186.69	974	7247.68	972	7261.14	972	7486.79
GR	972	7552.32	970	7570.71	970	7581.92	974	7633.37	974	7663
GR	972	7675.33	968	7732.83	968	7788.95	970	7796.79	970	7883.46
GR	972	7894.28	972	7929.37	968	7949.06	968	8052.47	970	8127.14
GR	970	8168.2	968	8178.66	968	8283.86	970	8306.51	974	8317.82
GR	976	8457.2	976	8636.76	970	8663.79	968	8696.59	966	8800.8
GR	966	8845.39	968	8939.1	966	9074.76	962	9096.56	962	9273.21
GR	964	9371.24	966	9461.72	966	9575.94	964	9653.72	964	9682.6

GR	966	9872.33	966	10152.09	968	10180.64	968	10437.22	969	10455.61
GR	970	10487.82	972	10527.25	972	10720.63	971	10745.3	975	10762.61
GR	978	10776.14	979	10811.43	980	10871.87	980	10882.15	978	10892.37
GR	979	10895.49	980	10927.24	981	10931.22	981	10961.75	978	10975.73
GR	978	11422.97	980	11449.41	982	11459.98	982	11506.18	980	11545.58
GR	980	12117.88	982	12133.9	984	12156.46	986	12194.79	986	12212.73
GR	984	12218.8	982	12256.28	978	12269.67	978	12620.17	978	12833.72
GR	980	12843.69	982	12865.31	982	12876.21	978	12899.43	978	13454.33
GR	982	13467.37	982	13509.64	976	13522.14	980	13529.04	980	13538.15
X1	4.189	90	7395.04	10662.87	575	495	500			
X3	0			7920	985					
GR	978	6292.43	978	6401.27	974	6506.07	974	6604.06	976	6842.63
GR	974	6858.89	976	6869.13	976	7036.77	974	7052.89	974	7071.58
GR	976	7102.61	976	7174.28	974	7195.76	974	7395.04	974	7686.95
GR	974	7776.43	972	7798.39	972	7867.91	970	7927.22	970	7974.8
GR	974	8012.43	974	8031.44	970	8047.04	968	8068.6	966	8130.66
GR	966	8167.99	970	8206.96	970	8430.15	972	8487.23	976	8507.24
GR	976	8596.55	974	8604.51	972	8629.25	970	8766.73	970	8842.44
GR	968	8866.72	970	8877.22	970	9018.6	968	9079.55	966	9111.54
GR	964	9172.82	964	9257.39	962	9277.5	964	9302.13	964	9324.15
GR	960	9350.47	962	9431.3	964	9494.86	966	9592.66	966	9734.75
GR	964	9810.16	964	9828.23	966	9931.35	966	10221.66	962	10249.23
GR	962	10318.36	966	10327.51	968	10348.85	969	10400.6	971	10475.62
GR	973	10508.17	975	10605.19	979	10621.26	980	10662.87	980	11112.27
GR	980	11483.48	980	11817.39	980	11941.85	981	11971.83	981	11999.29
GR	983	12009.02	983	12039.69	980	12041.93	979	12104.05	979	12259.25
GR	978	12320.66	978	12365.36	979	12390.25	979	12548.16	978	12592.82

GR	978	12620.54	979	12648.86	976	12737.01	976	13106.84	976	13121.44
GR	977	13703.48	978	13714.37	982	13719.36	982	13732.46	978	13737.01
X1	4.284	90	7336.18	10647.12	580	480	500			
X3	0			8050	985					
GR	980	5053.35	980	5074.39	982	5267.48	982	5341.56	980	5773.52
GR	980	5781.86	978	5813.46	978	7150.02	978	7158.67	976	7170.48
GR	974	7182.14	974	7336.18	974	7407.63	974	7748.95	974	8008.25
GR	974	8167.41	972	8290.59	970	8340.16	970	8428.89	972	8570.3
GR	972	8873.25	972	8926.3	970	9039.07	968	9108.46	968	9140.95
GR	968	9154.84	966	9251.09	966	9275.34	968	9322.91	968	9337.14
GR	968	9392.98	968	9422.09	968	9440.89	968	9457.8	966	9466.7
GR	964	9476.07	964	9504.51	964	9547.52	961	10463.06	961	10466
GR	962	10467.48	963	10468.95	964	10470.53	965	10472.16	966	10473.95
GR	967	10475.54	968	10477.17	969	10478.83	970	10480.49	970	10480.74
GR	970	10496.24	971	10501.92	972	10510.52	973	10515.37	974	10519.77
GR	975	10524.24	976	10529	977	10533.66	978	10538.8	979	10547.87
GR	980	10586.8	981	10606.17	982	10610.34	982	10611.25	981	10612.85
GR	980	10614.41	980	10615.36	981	10616.77	982	10618.26	982	10621.55
GR	981	10627.69	981	10628.89	982	10642.66	983	10647.12	983	10686.85
GR	982	10700.68	982	11671.62	982	11730.45	982	11855.94	984	11918.5
GR	984	11936.56	982	11959.51	980	11991.52	980	13505.74	982	13532.49
GR	982	13580.2	980	13618.2	978	13624.61	978	13625.67	980	13628.87

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X1	4.379	90	7304.78	10600.09	585	420	500			
X3	0			8190	985	10665	985			
GR	982	4998.41	982	5273.12	982	5499.51	980	5575.55	978	5587.8
GR	978	6048.45	980	6964.04	982	6979.34	982	7060.54	980	7091.45
GR	978	7122.45	976	7148.74	976	7219.14	978	7228.15	980	7235.93
GR	980	7261.94	978	7275.59	976	7289.71	974	7304.78	974	7360.99
GR	976	7398.56	976	7633.83	976	7780.74	974	7790.4	972	7799.8
GR	972	7831.32	974	7843.18	976	7855.06	976	8188.06	974	8194.09
GR	972	8200	972	8496.5	970	8532.34	970	8556.07	972	8574.48
GR	972	8875.19	972	9109.11	970	9114.56	966	9124.95	964	9131.31
GR	962	9897.16	962	9907.45	962	10374.74	964	10384.66	965	10444.78
GR	966	10507.93	967	10515.1	968	10516.67	969	10518.19	970	10519.61
GR	972	10522.65	974	10525.74	975	10527.31	976	10528.85	977	10530.45
GR	978	10532.16	979	10533.83	980	10535.41	981	10537.3	982	10539.11
GR	983	10556.47	984	10600.09	984	10629.38	983	10631.87	982	10634.4
GR	981	10636.97	981	10638.05	982	10640.36	982	10643.98	981	10646.19
GR	981	10657.7	982	10667.31	983	10672.24	983	10699.61	981	10706.7
GR	980	10710.26	979	10713.85	978	10717.25	978	10722.18	980	11692.16
GR	982	11699.39	984	11705.82	984	11754.5	982	11766.91	982	13370.32
GR	984	13380.43	984	13383.77	982	13404.67	982	13436.19	980	13440.92
X1	4.473	90	8125.7	10669.79	480	420	500			
X3	0			8310	985					
GR	982	5135.51	982	5269.88	984	5273.58	982	5361.11	980	5381.2
GR	980	6640.85	980	6783.15	974	6810.87	974	6833.62	978	6850.36
GR	980	6885.97	978	7380.76	978	7581.17	978	8053.37	978	8125.7
GR	976	8192.57	972	8217.09	972	8290.17	970	8348.2	972	8456.75
GR	972	8594.53	974	8667.61	976	8707.98	976	8829.75	974	8843.28
GR	972	8903.66	962	8930.6	962	9162.15	966	9178.66	968	9213.95
GR	966	9254.25	970	9335.88	970	9408.94	962	9446.11	962	9509.58
GR	966	9574.73	962	9601.22	962	10077.39	966	10130.75	968	10185
GR	968	10243.11	972	10427.52	970	10503.04	974	10533	976	10581.7

GR	980	10597.63	982	10610.26	984	10669.79	982	10696.01	986	10705.35
GR	984	10744.48	984	10786.14	986	10817.13	990	10870.22	988	10901.25
GR	988	10957.67	990	10966.75	990	11057.24	986	11100.02	990	11127.98
GR	982	11141.78	986	11161.36	988	11163.47	988	11195.2	984	11203.83
GR	982	11471.71	982	11680.32	984	11705.21	982	11731.65	982	11777.09
GR	984	11824.03	982	11901.9	984	12071.72	980	12095.14	982	12122.55
GR	986	12161.9	980	12177.21	980	12236.38	982	12397.74	982	12643.24
GR	984	12649.98	984	12752.2	982	12778.55	984	12827.62	984	12996.36
GR	984	13121.53	986	13150.52	984	13156.66	982	13277.03	980	13288.95
X1	4.568	90	8406.26	10685.94	520	490	500			
GR	984	5011.83	984	5013.5	982	5125.25	980	5165.7	980	5192.28
GR	982	5205.41	982	5212.6	980	5221.32	980	5225.67	982	5240.91
GR	982	5283.71	984	5291.02	984	5355.65	982	5363.52	982	5479.81
GR	984	5490.37	984	5492.42	982	5585.96	982	5842.76	980	5846.98
GR	980	5854.08	982	5859.46	982	5872.03	980	6679.99	980	6718.75
GR	980	7246.43	980	7263.23	978	7546.8	978	7561.7	980	7645.87
GR	982	7674.48	982	7858.91	980	8272.97	978	8278.27	974	8289.25
GR	972	8406.26	972	8543.55	970	8559.24	970	8568.57	972	8576.9
GR	972	8605.39	974	8643.59	976	8735.44	976	8738.21	974	8746.02
GR	972	8753.07	970	8759.74	968	8767.06	966	8773.33	966	8780.4

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GR	968	8789.73	970	8806.47	970	8833.82	966	8844.38	962	8854.79
GR	962	9248.98	964	9252.94	966	9256.61	966	9357.41	964	9389.66
GR	964	9588.41	966	9662.03	966	9666.47	964	9694.02	962	9701.97
GR	962	9890.97	962	9978.33	962	10119.76	964	10157.3	964	10172.5
GR	962	10218.05	962	10304.66	964	10316.53	966	10328.76	968	10346.62
GR	970	10380.43	970	10425.14	972	10468.39	974	10483.79	976	10496.92
GR	976	10601.74	978	10627.03	980	10641.71	982	10685.94	984	10799.29
GR	984	10812.47	982	10841.24	980	10925.82	980	10936.72	982	10991.06
X1	4.663	90	8454.89	10636.02	490	460	500			
X3	0			8200	990	10650	990			
GR	982	6527.36	982	6902.1	982	6902.23	984	6905.62	984	6905.72
GR	982	6920	980	6928.08	978	7122.86	978	7199.91	980	7221.29
GR	980	7360.5	980	7699.54	982	7714.96	984	7853.06	984	7861.69
GR	982	7911.76	980	7934.23	980	7995.9	982	8067.37	982	8125.1
GR	984	8150.07	984	8243.33	982	8251.83	980	8260.96	980	8289.84
GR	982	8296.42	982	8311.18	980	8351.49	978	8454.89	976	8474.58
GR	976	8539.11	974	8554.3	972	8562.41	972	8703.83	972	8808.94
GR	970	8858.51	970	8896.69	972	8976.91	974	9070.4	976	9089.45
GR	978	9110.66	980	9198.41	980	9234.81	978	9252.08	978	9379.3
GR	978	9479.31	976	9483.73	974	9488.3	972	9500.89	970	9508.77
GR	968	9516.29	968	9587.36	970	9605.59	970	9689.4	972	9750.37
GR	974	9775.86	974	9871.94	972	9880.75	970	9889.34	968	9921.64
GR	966	10013.26	964	10139.23	964	10149.82	966	10187.04	966	10343.52
GR	964	10359.97	962	10370.58	962	10400.6	964	10576.38	966	10580.68
GR	968	10585.08	970	10589.49	972	10593.71	974	10597.97	976	10601.97
GR	978	10605.21	980	10609.04	982	10613.43	984	10617.61	986	10622.14
GR	986	10636.02	984	10656.54	984	10679.21	986	10866.46	986	10882.78
GR	986	10886.87	984	10898.26	982	11145.34	982	11265.84	982	11265.87
X1	4.758	90	8848.02	10964.46	450	390	500			
X3	0			8860	990	11030	990			
GR	982	6498.81	982	6871.72	980	6905.19	978	7014.31	978	7062.79
GR	980	7086.33	982	7133.8	982	7333.51	980	7546.77	980	7664.83
GR	982	7751.95	982	7845.66	980	7946.93	980	7949.82	982	7962.54

GR	984	8077.32	984	8281.4	982	8302.28	980	8627.94	980	8676.8
GR	982	8693.65	982	8790.28	980	8797.26	978	8806.28	976	8817.04
GR	974	8832.09	972	8848.02	972	8918.38	974	8940.12	974	8969.71
GR	972	9022.49	972	9099.28	974	9149.37	976	9358.83	976	9360.63
GR	974	9411.94	972	9419.83	970	9427.8	970	9475.61	972	9484.26
GR	974	9505.16	974	9523.57	974	9567.17	976	9629.88	978	9734.56
GR	978	9787	976	9791.21	974	9823.28	972	9840.25	970	9853.23
GR	968	9873.64	966	9884.36	966	10077.73	968	10122.03	968	10257
GR	968	10287.18	970	10298.49	970	10377.36	968	10469.69	968	10523.95
GR	968	10545.93	968	10578.57	970	10613.44	970	10639.93	968	10662.61
GR	966	10676.61	966	10709.67	968	10718.43	968	10765.15	968	10845.11
GR	968	10868.35	966	10881.34	966	10900.88	968	10904.71	970	10908.88
GR	972	10912.65	974	10917.07	976	10923.71	978	10929.93	980	10936.43
GR	982	10942.38	984	10950.11	986	10960.18	986	10964.46	984	11130.57
GR	982	11171.06	980	11456.43	978	11484.77	976	11498.91	974	11514.68

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X1	4.852	90	8788.2	10990.93	410	525	500			
X3	0			8770	995	11050	995			
GR	982	6025.03	984	6789.04	982	6824.5	982	8075.32	984	8159.95
GR	984	8184.81	986	8192.62	986	8264.13	984	8324.42	984	8400.29
GR	986	8418.59	988	8426.42	994	8434.74	998	8440.17	1002	8445.98
GR	1002	8456.91	1004	8462.17	1004	8465.98	1002	8470.14	1002	8472.24
GR	1004	8476.28	1004	8587.93	1002	8593.07	996	8601.88	986	8615.38
GR	984	8629.34	984	8630.46	986	8640.09	986	8749.78	988	8754.33
GR	994	8768.19	994	8788.2	992	8797.71	990	8824.45	986	8837.86
GR	986	8872.83	984	8895.65	982	8908.89	972	8929.79	972	8939.51
GR	974	8972.66	974	8989.92	972	9003.07	972	9029.47	974	9115.26
GR	974	9276.52	974	9414.02	974	9629.62	972	9726.05	970	9774.57
GR	968	9798.68	968	10062.72	970	10134	972	10211.1	972	10367.86
GR	970	10381.81	968	10391.69	966	10399	966	10461.71	968	10490.73
GR	968	10532.79	970	10585.63	972	10601.95	972	10637.79	970	10672.83
GR	970	10705.83	968	10732.88	966	10775.45	966	10778.12	968	10790.68
GR	968	10899.16	970	10932.02	972	10959.75	976	10968.72	980	10977.64
GR	986	10990.93	986	11078.32	982	11093.56	980	11266.35	980	11273.35
GR	982	11299.27	984	11338.3	984	11361.08	982	11368.1	980	11409.79
GR	976	11419.48	976	11483.89	978	11498.77	980	11516.92	982	11837.93

X1	4.947	84	9601.89	10945.26	520	470	500			
X3	0			9290	988.5					
GR	984	6614.65	984	6617.26	984	6621.75	984	6623.83	982	6974.67
GR	982	6979.68	982	7979.68	982	7980.72	984	7983.13	986	8012.7
GR	986	8021.52	986	8074.18	986	8077.33	986	8201.75	986	8276.25
GR	986	8315.59	986	8415.32	984	8684.54	984	8700.27	984	8708.75
GR	982	8716.22	982	8776.84	982	8935.51	980	8961.01	980	9074.93
GR	980	9086.57	978	9095.89	978	9151.5	980	9170.41	982	9186.51
GR	982	9194.28	982	9264.13	984	9269.02	986	9273.55	988	9278.24
GR	988	9312.51	986	9320.07	984	9325.67	982	9330.06	980	9347.39
GR	980	9361.14	980	9601.89	978	9617.91	976	9623.9	974	9629.96
GR	972	9661.19	970	9727.35	968	9779.21	968	10022.3	970	10086.58
GR	972	10176.08	974	10261.92	976	10283.59	976	10623.47	974	10650.74
GR	972	10715.14	970	10727.7	970	10745.26	970	10753.8	968	10764.87
GR	968	10777.88	970	10835.28	972	10844.27	974	10853.82	976	10865.06
GR	978	10875.66	980	10880.17	982	10884.65	984	10889.2	986	10893.82
GR	988	10898.65	990	10903.34	992	10945.26	992	10969.52	990	10975.12
GR	988	10981.01	986	10986.32	984	10991.92	984	11112.49	984	11248.18
GR	984	11343.67	986	11755.28	986	11811.14	986	11856.81		

X1	5.042	81	9739.89	10852.36	460	510	500			
X3	0			9060	989.2					
GR	988	8055.23	988	8059.2	986	8065.3	986	8095.14	986	8179.64
GR	986	8254.02	986	8259.41	986	8281.94	986	8283.35	986	8522.58
GR	988	8529.13	988	8535.28	986	8541.82	984	8548.36	984	8556.88
GR	984	8635.15	984	8635.19	980	8689.96	980	8764.85	982	8876.09
GR	982	8911.1	980	8916.86	978	8922.82	978	8957.77	980	8962.52
GR	982	8967.1	984	9050.01	986	9055.19	988	9060.82	988	9069.34
GR	986	9073.3	984	9077.06	982	9163.72	982	9185.4	982	9420.28
GR	980	9688.15	980	9707.97	982	9726.32	984	9734.37	984	9739.89
GR	982	9745.12	980	9750.51	978	9756.41	976	9762.62	974	9768.81
GR	972	9775.06	970	9781.25	968	9787.48	968	10019.88	970	10139.99

GR	972	10194.11	974	10261.51	976	10409.25	976	10626.85	974	10679.64
GR	974	10693.63	974	10693.75	974	10702.5	974	10719.52	972	10734.81
GR	972	10736.42	974	10745.83	976	10755.19	978	10764.68	980	10774.38
GR	982	10784.07	984	10793.75	986	10802.68	988	10809.04	990	10813.74
GR	992	10831.51	992	10844.01	992	10852.36	992	10872.68	990	10878.27
GR	988	10883.99	986	10889.65	986	11019.19	986	11109.26	986	11560.67
GR	986	11725.69								
X1	5.136	12	9690	10700	420	530	500			
X3	0			8550	995	10700	995			
GR	985.5	6220	984	8550	984	8810	980	9530	976	9690
GR	972	9720	972	10440	976	10670	988	10700	984	10750
GR	984	11390	988	12020						
X1	5.231	14	9390	10480	450	530	500			
X3	0			8650	990	11050	990			
GR	985.5	6000	986	7700	998	7870	988	8060	984	8650
GR	980	9390	976	9420	976	10140	972	10150	972	10450
GR	976	10460	984	10480	988	12050	990	12380		
X1	5.326	18	9420	10480	450	470	500			
X3	0			8520	990	11270	990			
GR	986.5	5950	986	7580	988	7670	992	7730	1004	7790
GR	992	7860	992	8100	988	8120	984	8520	980	9420
GR	976	9440	976	10130	973	10140	973	10440	976	10450
GR	988	10480	988	11280	992	11910				
X1	5.42	9	9425	10500	500	460	500			
X3	0			8500	1000	10960	1000			
GR	988	6270	988	7540	984	8500	980	9425	976	9430
GR	976	10470	988	10500	988	10830	992	11970		
X1	5.515	11	9610	10770	360	500	500			
X3	0			8400	1000					
GR	990	6230	988	7480	984	8400	984	8800	980	8910
GR	980	9210	976	9610	976	10730	992	10770	992	11770
GR	995	12340								
X1	5.61	11	9600	10950	330	560	500			
X3	0			8350	995					
GR	990	6180	988	7620	984	8350	984	9250	980	9340
GR	980	9450	976	9600	976	10920	992	10950	992	11310
GR	995	12050								

X1	5.705	15	10040	10960	330	560	500			
X3	0			8290	995					
GR	988	5500	988	6060	990	6100	988	6130	988	7980
GR	994	8290	988	8580	984	9110	980	9140	980	10040
GR	976	10540	976	10930	988	10960	992	11150	996	11850

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X1	5.799	20	9820	10910	460	510	500			
X3	0			8200	995					
GR	991	6010	988	6040	988	8150	994	8200	988	8240
GR	988	8570	988	8960	984	9250	980	9380	980	9520
GR	984	9580	984	9820	980	9900	976	10000	980	10070
GR	976	10160	976	10850	988	10910	992	10980	996	11510
X1	5.894	16	9780	10760	550	480	500			
X3	0			8120	995					
GR	993	5940	990.4	7000	989.4	8000	993.5	8120	988	8450
GR	988	9300	984	9780	976	9800	976	9940	984	10010
GR	980	10170	976	10280	976	10670	988	10760	992	11080
GR	996	11240								
X1	5.989	16	9380	10800	360	530	500			
X3	0			8030	995					
GR	993	5850	992	6910	992	8000	993	8030	990	8330
GR	988	9380	984	9400	984	9810	980	9890	976	10060
GR	976	10450	980	10740	988	10800	992	11250	992	11480
GR	996	11750								
X1	6.083	16	9130	10350	390	480	500			
X3	0			7890	995					
GR	993	5700	992	7830	994.6	7890	989	7950	988	9040
GR	984	9130	984	9400	980	9420	976	9650	976	10110
GR	980	10170	980	10320	984	10350	988	10850	992	11600
GR	996	12140								
X1	6.178	14	9020	10170	510	460	500			
X3	0			7760	1000					
GR	993.4	5560	992.6	6830	992	7580	996.3	7760	992	7950
GR	992	8550	988	9020	976	9080	976	10000	980	10060
GR	984	10170	988	10630	992	11150	996	12090		
X1	6.273	13	8750	10190	470	480	500			
GR	996	5590	996	7270	997	7600	992	7680	988	8750
GR	976	8790	976	9010	980	9170	980	10130	984	10190
GR	988	10700	992	11090	996	12170				

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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

IHLEQ = 1. THEREFORE FRICTION LOSS (HL) IS CALCULATED AS A FUNCTION OF PROFILE TYPE, WHICH CAN VARY FROM REACH TO REACH. SEE DOCUMENTATION FOR DETAILS.

CRITICAL DEPTH TO BE CALCULATED AT ALL CROSS SECTIONS

CCHV= .100 CEHV= .300
1490 NH CARD USED
*SECNO .000

.000	14.86	942.86	938.11	944.00	943.67	.81	.00	.00	936.00
250000.0	1203.7	220013.4	28782.9	370.9	28802.8	13214.0	.0	.0	940.00
.00	3.24	7.64	2.18	.045	.034	.045	.000	928.00	8545.70
.001198	0.	0.	0.	0	14	4	.00	7975.27	16520.97

*SECNO .102

3265 DIVIDED FLOW

.102	12.86	943.46	938.27	.00	944.30	.85	.62	.01	932.00
250000.0	25058.4	206080.3	18861.3	4645.9	26104.5	9421.0	510.9	96.8	936.00
.02	5.39	7.89	2.00	.045	.033	.045	.000	930.60	8702.72
.001108	525.	540.	540.	2	11	0	.00	7650.28	16504.00

1490 NH CARD USED
*SECNO .197

3470 ENCROACHMENT STATIONS= 8480.0 19480.0 TYPE= 1 TARGET= -8480.000
ELENCL= 945.00 ELENCR= 100000.00

.197	12.30	944.30	938.72	.00	944.80	.49	.46	.04	932.00
250000.0	58426.3	147075.2	44498.5	12659.2	22088.2	20855.6	1060.5	194.3	944.00
.05	4.62	6.66	2.13	.045	.033	.045	.000	932.00	8480.00
.000779	500.	500.	500.	2	11	0	.00	9336.29	17816.29

1490 NH CARD USED
*SECNO .292

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= 7970.0 19135.0 TYPE= 1 TARGET= -7970.000
ELENCL= 945.00 ELENCR= 100000.00

.292	12.76	944.76	940.43	.00	945.24	.48	.45	.00	936.00
243500.0	76705.4	129246.0	37548.6	14994.7	20095.9	16075.0	1671.7	301.4	948.00
.07	5.12	6.43	2.34	.041	.035	.045	.000	932.00	7970.00
.001011	515.	500.	485.	1	19	0	.00	9633.82	17639.98

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1490 NH CARD USED
*SECNO  .386

3470 ENCROACHMENT STATIONS=     7470.0   17230.0  TYPE=      1  TARGET=    -7470.000
 ELENCL=    950.00  ELENCR= 100000.00
      .386     13.20    945.20    941.25       .00    945.87       .67       .57       .06    940.00
  237000.0   72111.8  157716.3    7171.9   15031.0   21390.6    5414.4    2208.4     408.1    944.00
      .09      4.80      7.37      1.32      .044      .034      .045      .000    932.00   7470.00
   .001290     505.      500.      505.         0        19         0       .00   8797.98  16267.98


1490 NH CARD USED
*SECNO  .481

3470 ENCROACHMENT STATIONS=     6990.0   16265.0  TYPE=      1  TARGET=    -6990.000
 ELENCL=    950.00  ELENCR= 100000.00
      .481     14.02    946.02    942.28       .00    946.57       .54       .68       .01    940.00
  230500.0   87046.6  129590.3   13863.1   17880.1   19141.5    6936.6    2701.5     504.4    944.00
      .12      4.87      6.77      2.00      .045      .037      .045      .000    932.00   6990.00
   .001437     500.      500.      505.         2        14         0       .00   7900.63  14890.63


1490 NH CARD USED
*SECNO  .576

3470 ENCROACHMENT STATIONS=     6560.0   13360.0  TYPE=      1  TARGET=     6800.000
 ELENCL=    950.00  ELENCR=    950.00
      .576     14.73    946.73    943.87       .00    947.31       .58       .73       .01    940.00
  224000.0   87604.8  126547.5    9847.7   19126.0   17734.1    4222.6    3188.5     588.0    944.00
      .14      4.58      7.14      2.33      .045      .037      .045      .000    932.00   6560.00
   .001517     490.      500.      525.         2         9         0       .00   6518.43  13078.42


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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


1490 NH CARD USED
*SECNO  .670

3470 ENCROACHMENT STATIONS=     6610.0   13370.0  TYPE=      1  TARGET=     6760.000
 ELENCL=    950.00  ELENCR=    950.00
      .670     15.35    947.35    943.55       .00    947.93       .58       .62       .00    936.00
  217500.0   85122.1  125146.7    7231.2   20775.5   17146.9    3779.5    3659.5     661.8    944.00
      .17      4.10      7.30      1.91      .045      .034      .045      .000    932.00   6610.00
   .001053     490.      500.      505.         2        14         0       .00   6416.13  13026.13


1490 NH CARD USED
*SECNO  .765

3470 ENCROACHMENT STATIONS=     6760.0   15370.0  TYPE=      1  TARGET=    -6760.000
 ELENCL=    950.00  ELENCR= 100000.00
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     .765     15.80    947.80    943.80       .00    948.48       .68       .52       .03    940.00
  211000.0   66162.4  138164.9    6672.8   17153.7   17920.2    2072.8    4113.7     722.8    940.00
      .19      3.86      7.71      3.22      .045      .033      .045      .000    932.00   6760.00
   .001007      510.      500.      460.         2        19         0       .00   4294.64  11054.64


1490 NH CARD USED
*SECNO  .860

3470 ENCROACHMENT STATIONS=     6910.0   10800.0  TYPE=      1  TARGET=     3890.000
 ELENCL=    950.00  ELENCR=    950.00
     .860     16.18    948.18    944.63       .00    949.14       .97       .58       .09    940.00
  204500.0   69923.7  133012.4    1563.9   16105.8   14355.3     783.5    4515.8     771.2    944.00
      .21      4.34      9.27      2.00      .045      .033      .045      .000    932.00   6910.00
   .001296      525.      500.      500.         2        15         0       .00   3890.00  10800.00


1490 NH CARD USED
*SECNO  .955

3265 DIVIDED FLOW


3470 ENCROACHMENT STATIONS=     7040.0   15230.0  TYPE=      1  TARGET=    -7040.000
 ELENCL=    950.00  ELENCR= 100000.00
     .955     17.02    949.02    945.11       .00    949.76       .75       .59       .02    944.00
  198000.0   93716.7  100082.6    4200.7   20358.6   11553.0    3787.8    4896.1     834.6    952.00
      .23      4.60      8.66      1.11      .044      .032      .045      .000    932.00   7040.00
   .001116      490.      500.      505.         2        15         0       .00   7229.74  14581.93


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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


1490 NH CARD USED
*SECNO 1.049

3470 ENCROACHMENT STATIONS=     7160.0   10630.0  TYPE=      1  TARGET=     3470.000
 ELENCL=    950.00  ELENCR=    950.00
    1.049     17.58    949.58    946.26       .00    950.45       .87       .65       .04    948.00
  191500.0   89185.0  102315.0        .0   17543.3   11260.8        .0    5262.1     895.4    952.00
      .25      5.08      9.09       .00      .045      .033      .000      .000    932.00   7160.00
   .001559      490.      500.      505.         2        10         0       .00   3421.61  10581.61


1490 NH CARD USED
*SECNO 1.144

3470 ENCROACHMENT STATIONS=     7290.0   14655.0  TYPE=      1  TARGET=    -7290.000
 ELENCL=    960.00  ELENCR= 100000.00
    1.144     14.33    950.33    948.18       .00    951.51      1.18       .96       .09    948.00
  185000.0   62004.5  122995.5        .0   12343.6   12217.0        .0    5573.6     935.7    956.00
      .26      5.02     10.07       .00      .045      .033      .000      .000    936.00   7290.00
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   .002241      515.      500.      505.         2        19         0       .00   3455.82  10745.82


1490 NH CARD USED
*SECNO 1.239

3265 DIVIDED FLOW


3470 ENCROACHMENT STATIONS=     7410.0   14640.0  TYPE=      1  TARGET=    -7410.000
 ELENCL=    960.00  ELENCR= 100000.00
     1.239      15.52     951.52     948.42       .00     952.47       .95       .94       .02     944.00
  185000.0    67654.5   117345.5         .0   13838.0    12898.8        .0    5863.5     974.0     956.00
       .28       4.89       9.10        .00       .045       .032      .000      .000    936.00    7410.00
   .001644       485.      500.       485.         2        15         0       .00   3346.64  10853.19


1490 NH CARD USED
*SECNO 1.333

3265 DIVIDED FLOW


3470 ENCROACHMENT STATIONS=     7530.0   14170.0  TYPE=      1  TARGET=    -7530.000
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


 ELENCL=    960.00  ELENCR= 100000.00
     1.333      16.34     952.34     948.87       .00     953.25       .91       .78       .00     948.00
  185000.0    42180.8   142463.8      355.3    9963.2    16923.9     584.5    6170.6    1024.1     956.00
       .30       4.23       8.42        .61       .045       .033      .045      .000    936.00    7530.00
   .001509       485.      500.       515.         2         9         0       .00   5454.42  13036.88


1490 NH CARD USED
*SECNO 1.428

3470 ENCROACHMENT STATIONS=     7650.0   14685.0  TYPE=      1  TARGET=    -7650.000
 ELENCL=    960.00  ELENCR= 100000.00
     1.428      17.15     953.15     947.70       .00     953.81       .66       .54       .02     952.00
  185000.0    29924.5   151898.4     3177.1    9138.7    21521.1    2072.9    6510.3    1083.4     948.00
       .32       3.27       7.06       1.53       .045       .033      .045      .000    936.00    7650.00
   .000853       470.      500.       525.         2        16         0       .00   4950.38  12600.38


1490 NH CARD USED
*SECNO 1.523

3470 ENCROACHMENT STATIONS=     7770.0   13230.0  TYPE=      1  TARGET=    -7770.000
 ELENCL=    960.00  ELENCR= 100000.00
     1.523      17.72     953.72     947.80       .00     954.21       .49       .37       .02     952.00
  185000.0    27044.4   151717.1     6238.5    8938.7    25128.9    3366.6    6909.8    1140.5     948.00
       .35       3.03       6.04       1.85       .045       .033      .045      .000    936.00    7770.00
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   .000675      480.      500.      515.         2        17         0       .00   5028.36  12798.36


*SECNO 1.618

3470 ENCROACHMENT STATIONS=     7935.0   13360.0  TYPE=      1  TARGET=    -7935.000
 ELENCL=    960.00  ELENCR= 100000.00
     1.618     14.09    954.09    949.47       .00    954.63       .53       .41       .01    948.00
  185000.0   23031.5  159371.3    2597.3    7017.9   25747.9    1925.1    7340.7    1198.9    952.00
       .37      3.28      6.19      1.35      .045      .033      .045      .000    940.00   7951.61
   .000899      615.      505.      385.         0        11         0       .00   5110.17  13061.78


*SECNO 1.712

3470 ENCROACHMENT STATIONS=     7910.0   14600.0  TYPE=      1  TARGET=    -7910.000
 ELENCL=    960.00  ELENCR= 100000.00
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


     1.712     14.58    954.58    949.43       .00    955.06       .47       .42       .01    948.00
  185000.0   15721.1  167982.4    1296.5    4942.4   29476.5    1232.2    7744.8    1255.7    952.00
       .40      3.18      5.70      1.05      .045      .033      .045      .000    940.00   7934.15
   .000800      550.      495.      410.         2        23         0       .00   5094.88  13029.04


*SECNO 1.807
     1.807     15.01    955.01    950.85       .00    955.57       .55       .49       .02    944.00
  185000.0   16748.8  166272.9    1978.3    4200.8   26932.2    1602.5    8144.3    1314.8    952.00
       .42      3.99      6.17      1.23      .045      .033      .045      .000    940.00   7927.48
   .001145      610.      500.      360.         1        19         0       .00   5695.98  13623.46


*SECNO 1.902
     1.902     11.58    955.58    951.90       .00    956.17       .60       .59       .01    948.00
  185000.0   21020.6  161165.5    2814.0    4898.7   24911.3    1637.9    8510.5    1375.3    952.00
       .44      4.29      6.47      1.72      .045      .033      .045      .000    944.00   8021.06
   .001248      460.      500.      555.         2        11         0       .00   4660.13  12681.19


*SECNO 2.015

3470 ENCROACHMENT STATIONS=     8600.0   12669.5  TYPE=      1  TARGET=    -8600.000
 ELENCL=    960.00  ELENCR= 100000.00
     2.015     14.29    956.29    953.27       .00    957.31      1.02      1.01       .13    952.00
  185000.0   30571.5  154375.5      53.0    4334.5   18629.6      80.2    8885.2    1430.4    956.00
       .46      7.05      8.29       .66      .045      .033      .045      .000    942.00   8600.00
   .002282      585.      600.      650.         1         8         0       .00   3266.93  11866.93


*SECNO 2.110
     2.110     13.44    957.44    955.04       .00    958.66      1.22      1.29       .06    950.00
  185000.0   41833.8  143166.2        .0    6221.7   15247.9        .0    9131.1    1466.6    958.00
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      .48      6.72      9.39       .00      .045      .033      .000      .000    944.00   8113.04
   .003054     420.      500.      560.         2        15         0       .00   3277.55  11390.59


*SECNO 2.205

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.53

     2.205     14.87    958.87    954.72       .00    959.64       .77       .93       .05    950.00
  185000.0   41594.5  143306.8      98.7    9017.8   18895.3     143.9    9419.9    1506.6    958.00
      .50      4.61      7.58       .69      .045      .033      .045      .000    944.00   7939.71
   .001307     515.      505.      500.         2        16         0       .00   3574.39  11514.10


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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 2.299
     2.299     15.46    959.46    955.46       .00    960.31       .86       .65       .03    952.00
  185000.0   33239.6  151733.4      26.9    8140.7   19041.7      27.6    9733.9    1545.4    958.00
      .52      4.08      7.97       .97      .045      .033      .045      .000    944.00   7880.82
   .001327     495.      495.      500.         2        19         0       .00   3239.32  11120.13


*SECNO 2.394

3470 ENCROACHMENT STATIONS=          .0   11770.0  TYPE=      1  TARGET=    11770.000
     2.394     16.16    960.16    955.97       .00    960.96       .81       .64       .00    952.00
  185000.0   29217.6  155767.6      14.8    7181.9   20337.1      44.2   10046.5    1583.4    960.00
      .54      4.07      7.66       .34      .045      .033      .045      .000    944.00   8013.95
   .001261     490.      500.      500.         2        16         0       .00   3451.41  11465.35


*SECNO 2.489
     2.489     14.77    960.77    957.08       .00    961.68       .91       .69       .03    954.00
  185000.0   17985.6  166965.4      49.0    5051.4   20956.6      72.1   10350.9    1622.9    960.00
      .56      3.56      7.97       .68      .045      .033      .045      .000    946.00   7927.85
   .001506     475.      500.      515.         2        19         0       .00   3532.10  11459.95


*SECNO 2.586

3265 DIVIDED FLOW

     2.586     15.60    961.60    957.05       .00    962.37       .77       .67       .01    954.00
  185000.0   17128.5  167593.9     277.7    5046.7   22924.4     220.4   10673.9    1665.3    960.00
      .58      3.39      7.31      1.26      .045      .033      .045      .000    946.00   7785.14
   .001150     535.      515.      485.         2        20         0       .00   3564.52  11573.31


*SECNO 2.679

3265 DIVIDED FLOW
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    2.679      16.23     962.23     956.72       .00     962.88       .65       .50       .01    960.00
 185000.0    11395.5   173604.5         .0    4355.7   26106.1        .0   11012.3    1708.4    970.00
      .60       2.62       6.65        .00       .045      .033      .000      .000    946.00   7819.90
  .000881       570.       490.       425.          2        19         0       .00   3715.54  11609.91
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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 2.775

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS=     7500.0   11700.0  TYPE=      1  TARGET=     4200.000
 ELENCL=    970.00  ELENCR=    970.00
    2.775      14.72     962.72     958.80       .00     963.62       .90       .67       .08    954.00
 185000.0    19245.3   165754.7         .0    4450.0   20937.3        .0   11338.1    1751.9    970.00
      .62       4.32       7.92        .00       .045      .033      .000      .000    948.00   7684.54
  .001771       525.       505.       485.          1        23         0       .00   3683.60  11626.93

*SECNO 2.869

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS=     7500.0   11770.0  TYPE=      1  TARGET=     4270.000
 ELENCL=    970.20  ELENCR=    972.20
    2.869      13.65     963.65     960.20       .00     964.50       .85       .87       .01    962.00
 185000.0     4406.9   180593.0         .0    1491.1   24152.1        .0   11630.6    1793.9    972.00
      .64       2.96       7.48        .00       .045      .033      .000      .000    950.00   7573.48
  .001704       495.       500.       500.          2        19         0       .00   3660.24  11717.06

*SECNO 2.964

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS=     7500.0   11815.0  TYPE=      1  TARGET=     4315.000
 ELENCL=    975.00  ELENCR=    975.00
    2.964      14.55     964.55     961.55       .00     965.41       .86       .91       .00    966.00
 185000.0     4904.2   180095.8         .0    1416.4   23890.9        .0   11921.5    1837.4    978.00
      .65       3.46       7.54        .00       .045      .033      .000      .000    950.00   7521.61
  .001968       455.       500.       520.          2        12         0       .00   4052.19  11765.61

*SECNO 3.059

3470 ENCROACHMENT STATIONS=     7260.0   12514.7  TYPE=      1  TARGET=    -7260.000
 ELENCL=    975.00  ELENCR= 100000.00
```

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
3.059	13.54	965.54	962.34	.00	966.30	.76	.87	.01	962.00
185000.0	9291.7	175708.3	.0	2787.9	24595.8	.0	12223.9	1883.5	980.00
.67	3.33	7.14	.00	.045	.033	.000	.000	952.00	7794.05
.001573	500.	500.	500.	2	16	0	.00	3980.77	11774.82

*SECNO 3.153

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 7200.0 11370.0 TYPE= 1 TARGET= 4170.000
ELENCL= 975.00 ELENCR= 975.00

3.153	14.29	966.29	963.42	.00	967.24	.95	.88	.06	968.00
185000.0	9562.3	175437.7	.0	2533.8	22026.2	.0	12517.1	1925.5	972.00
.69	3.77	7.96	.00	.045	.033	.000	.000	952.00	7521.61
.002009	420.	500.	560.	2	12	0	.00	3608.45	11315.76

*SECNO 3.248

3265 DIVIDED FLOW

3280 CROSS SECTION 3.25 EXTENDED .29 FEET

3470 ENCROACHMENT STATIONS= 7125.0 11240.0 TYPE= 1 TARGET= 4115.000
ELENCL= 975.00 ELENCR= 985.00

3.248	15.29	967.29	964.80	.00	968.28	1.00	1.03	.02	970.00
185000.0	11602.5	173397.5	.0	2918.6	21128.0	.0	12794.9	1965.8	985.00
.71	3.98	8.21	.00	.045	.033	.000	.000	952.00	7458.85
.002122	480.	500.	520.	2	10	0	.00	3478.88	11216.77

*SECNO 3.343

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 7300.0 11190.0 TYPE= 1 TARGET= 3890.000
ELENCL= 985.00 ELENCR= 985.00

3.343	13.31	968.31	965.21	.00	969.30	.99	1.02	.00	970.00
185000.0	10836.1	174163.9	.0	2707.5	21270.4	.0	13072.4	2007.0	985.00
.73	4.00	8.19	.00	.045	.033	.000	.000	955.00	7300.00
.001961	530.	500.	522.	2	23	0	.00	3588.96	11126.64

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 3.438

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 7400.0 12277.3 TYPE= 1 TARGET= -7400.000
ELENCL= 985.00 ELENCR= 100000.00

3.438	13.29	969.29	966.66	.00	970.41	1.12	1.07	.04	970.00
185000.0	10561.2	174438.8	.0	2573.5	20036.9	.0	13341.0	2047.4	981.00
.74	4.10	8.71	.00	.045	.033	.000	.000	956.00	7400.00
.002312	520.	500.	490.	2	16	0	.00	3376.33	11089.00

*SECNO 3.532

3470 ENCROACHMENT STATIONS= 7460.0 12168.2 TYPE= 1 TARGET= -7460.000
ELENCL= 985.00 ELENCR= 100000.00

3.532	14.55	970.55	967.41	.00	971.38	.83	.94	.03	968.00
185000.0	14604.6	170395.4	.0	3892.0	22544.7	.0	13619.9	2086.6	985.00
.76	3.75	7.56	.00	.045	.033	.000	.000	956.00	7460.00
.001602	465.	500.	495.	2	10	0	.00	3583.66	11043.66

*SECNO 3.627

3470 ENCROACHMENT STATIONS= 7550.0 12033.7 TYPE= 1 TARGET= -7550.000
ELENCL= 985.00 ELENCR= 100000.00

3.627	15.41	971.41	967.27	.00	972.13	.72	.73	.01	969.00
185000.0	536.5	184463.5	.0	300.4	27118.6	.0	13929.5	2126.9	981.00
.78	1.79	6.80	.00	.045	.033	.000	.000	956.00	7550.00
.001348	510.	500.	460.	2	18	0	.00	3416.27	10966.27

*SECNO 3.721

3470 ENCROACHMENT STATIONS= 6470.0 14226.9 TYPE= 1 TARGET= -6470.000
ELENCL= 985.00 ELENCR= 100000.00

3.721	16.02	972.02	968.36	.00	972.74	.73	.62	.00	972.00
185000.0	.2	184999.8	.0	3.4	27064.7	.0	14211.2	2163.2	978.00
.80	.07	6.84	.00	.045	.033	.000	.000	956.00	7210.48
.001386	530.	450.	495.	2	14	0	.00	3524.12	10734.61

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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 3.813

3470 ENCROACHMENT STATIONS= 6320.0 14090.4 TYPE= 1 TARGET= -6320.000
ELENCL= 985.00 ELENCR= 100000.00

3.813	14.67	972.67	969.41	.00	973.60	.92	.80	.06	970.00
185000.0	1673.8	183326.2	.0	654.4	23678.1	.0	14500.9	2202.2	978.00
.82	2.56	7.74	.00	.045	.033	.000	.000	958.00	7344.70
.001858	570.	490.	445.	2	16	0	.00	3314.44	10659.14

*SECNO 3.908

3470 ENCROACHMENT STATIONS= 7520.0 13935.0 TYPE= 1 TARGET= -7520.000
ELENCL= 985.00 ELENCR= 100000.00

3.908	13.61	973.61	970.25	.00	974.49	.88	.89	.00	972.00
185000.0	2748.6	182251.4	.0	887.0	24051.5	.0	14784.2	2239.8	981.00
.84	3.10	7.58	.00	.045	.033	.000	.000	960.00	7520.00
.001712	530.	500.	460.	2	19	0	.00	3196.07	10716.07

*SECNO 4.001

3470 ENCROACHMENT STATIONS= 7650.0 13736.8 TYPE= 1 TARGET= -7650.000
ELENCL= 985.00 ELENCR= 100000.00

4.001	14.49	974.49	971.47	.00	975.40	.91	.90	.01	985.00
185000.0	.0	185000.0	.0	.0	24141.7	.0	15060.8	2275.8	980.00
.86	.00	7.66	.00	.000	.033	.000	.000	960.00	7650.00
.001953	540.	490.	420.	1	12	0	.00	3188.49	10838.49

*SECNO 4.095

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 7780.0 13538.2 TYPE= 1 TARGET= -7780.000
ELENCL= 985.00 ELENCR= 100000.00

4.095	13.39	975.39	972.39	.00	976.50	1.11	1.04	.06	985.00
185000.0	.0	185000.0	.0	.0	21893.2	.0	15322.3	2309.6	981.00
.87	.00	8.45	.00	.000	.033	.000	.000	962.00	7780.00
.002237	600.	495.	450.	2	19	0	.00	2759.35	10764.36

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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 4.189

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 7920.0 13737.0 TYPE= 1 TARGET= -7920.000
ELENCL= 985.00 ELENCR= 100000.00

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    4.189     16.52    976.52    972.85       .00    977.49       .97       .98       .01    985.00
 185000.0        .0  184777.3     222.7        .0   23348.3     281.0   15583.6    2344.9    980.00
      .89       .00      7.91       .79      .000      .033      .045      .000    960.00   7920.00
  .001742      575.      500.      495.         2        10         0       .00   3392.25  13422.76


*SECNO 4.284

3470 ENCROACHMENT STATIONS=     8050.0   13628.9  TYPE=      1  TARGET=    -8050.000
 ELENCL=    985.00  ELENCR= 100000.00
    4.284     16.37    977.37    972.70       .00    978.24       .87       .74       .01    985.00
 185000.0        .0  185000.0        .0        .0   24758.9        .0   15861.2    2378.5    983.00
      .91       .00      7.47       .00      .000      .033      .000      .000    961.00   8050.00
  .001290      580.      500.      480.         2        20         0       .00   2485.58  10535.58


*SECNO 4.379

3470 ENCROACHMENT STATIONS=     8190.0   10665.0  TYPE=      1  TARGET=     2475.000
 ELENCL=    985.00  ELENCR=    985.00
    4.379     16.05    978.05    971.11       .00    978.78       .73       .53       .01    985.00
 185000.0        .0  185000.0        .0        .0   27002.2        .0   16158.3    2406.2    984.00
      .93       .00      6.85       .00      .000      .033      .000      .000    962.00   8190.00
  .000893      585.      500.      420.         2        11         0       .00   2342.25  10532.25


*SECNO 4.473

3470 ENCROACHMENT STATIONS=     8310.0   13289.0  TYPE=      1  TARGET=    -8310.000
 ELENCL=    985.00  ELENCR= 100000.00
    4.473     16.47    978.47    972.69       .00    979.31       .84       .50       .03    985.00
 185000.0        .0  185000.0        .0        .0   25099.4        .0   16457.3    2432.7    984.00
      .95       .00      7.37       .00      .000      .033      .000      .000    962.00   8310.00
  .001103      480.      500.      420.         2        14         0       .00   2281.53  10591.53


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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


*SECNO 4.568

3265 DIVIDED FLOW

    4.568     17.13    979.13    970.88       .00    979.74       .61       .41       .02    972.00
 185000.0   2158.5  182841.5        .0     887.6   28965.1        .0   16772.9    2460.7    982.00
      .97      2.43      6.31       .00      .045      .033      .000      .000    962.00   7386.55
  .000646      520.      500.      490.         2        11         0       .00   2582.77  10635.33


*SECNO 4.663

3265 DIVIDED FLOW
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3301 HV CHANGED MORE THAN HVINS

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

3470 ENCROACHMENT STATIONS= 8200.0 10650.0 TYPE= 1 TARGET= 2450.000
ELENCL= 990.00 ELENCR= 990.00

4.663	17.07	979.07	976.05	.00	980.79	1.71	.71	.33	978.00
185000.0	36.5	184963.5	.0	29.9	17602.1	.0	17045.3	2487.7	986.00
.98	1.22	10.51	.00	.045	.033	.000	.000	962.00	8399.33
.003146	490.	500.	460.	2	13	0	.00	2122.95	10607.27

*SECNO 4.758
3280 CROSS SECTION 4.76 EXTENDED 6.75 FEET

3470 ENCROACHMENT STATIONS= 8860.0 11030.0 TYPE= 1 TARGET= 2170.000
ELENCL= 990.00 ELENCR= 990.00

4.758	14.75	980.75	977.01	.00	982.04	1.29	1.21	.04	990.00
185000.0	.0	185000.0	.0	.0	20332.5	.0	17263.2	2511.7	986.00
1.00	.00	9.10	.00	.000	.033	.000	.000	966.00	8860.00
.001970	450.	500.	390.	3	14	0	.00	2078.67	10938.67

*SECNO 4.852
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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= 8770.0 11050.0 TYPE= 1 TARGET= 2280.000
ELENCL= 995.00 ELENCR= 995.00

4.852	15.82	981.82	977.22	.00	982.89	1.07	.83	.02	994.00
185000.0	.0	185000.0	.0	.0	22304.2	.0	17507.9	2535.6	986.00
1.01	.00	8.29	.00	.000	.033	.000	.000	966.00	8909.26
.001433	410.	500.	525.	2	19	0	.00	2072.42	10981.68

*SECNO 4.947

3301 HV CHANGED MORE THAN HVINS

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

3470 ENCROACHMENT STATIONS= 9290.0 11856.8 TYPE= 1 TARGET= -9290.000
ELENCL= 988.50 ELENCR= 100000.00

4.947	13.89	981.89	980.97	.00	985.21	3.32	1.64	.68	980.00
185000.0	1770.6	183229.4	.0	495.5	12473.2	.0	17710.4	2556.4	992.00
1.02	3.57	14.69	.00	.045	.033	.000	.000	968.00	9331.04

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 .005142     520.     500.     470.       2      12       0     .00  1553.35  10884.40


*SECNO 5.042

3470 ENCROACHMENT STATIONS=     9060.0   11725.7  TYPE=      1  TARGET=    -9060.000
 ELENCL=    989.20  ELENCR= 100000.00
    5.042     16.29    984.29    983.07      .00    987.50     3.21     2.28      .01    984.00
 185000.0    7316.2  177683.8        .0    1734.1   12130.6       .0  17863.4   2574.8    992.00
     1.03      4.22     14.65       .00      .045      .033     .000     .000   968.00   9076.53
 .004099      460.     500.     510.       3       8       0     .00  1718.49  10795.02


*SECNO 5.136

3301 HV CHANGED MORE THAN HVINS


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

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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=     8550.0   10700.0  TYPE=      1  TARGET=     2150.000
 ELENCL=    995.00  ELENCR=    995.00
    5.136     15.20    987.20    983.07      .00    988.83     1.63     1.17      .16    976.00
 185000.0   26388.4  158611.6        .0    6050.8   14535.3       .0  18054.0   2595.3    995.00
     1.05      4.36     10.91       .00      .045      .033     .000     .000   972.00   8550.00
 .001678      420.     500.     530.       3      14       0     .00  2148.00  10698.00


*SECNO 5.231

3470 ENCROACHMENT STATIONS=     8650.0   11050.0  TYPE=      1  TARGET=     2400.000
 ELENCL=    990.00  ELENCR=    990.00
    5.231     16.08    988.08    985.09      .00    989.73     1.64      .89      .00    980.00
 185000.0   21759.3  157011.0    6229.8    4503.2   14273.1   1914.8  18285.5   2620.5    984.00
     1.06      4.83     11.00      3.25      .045      .033     .045     .000   972.00   8650.00
 .001941      450.     500.     530.       2      15       0     .00  2400.00  11050.00


*SECNO 5.326

3470 ENCROACHMENT STATIONS=     8520.0   11270.0  TYPE=      1  TARGET=     2750.000
 ELENCL=    990.00  ELENCR=    990.00
    5.326     16.18    989.18    985.30      .00    990.61     1.43      .86      .02    980.00
 185000.0   31612.7  152016.5    1370.8    6461.3   14680.0    931.6  18523.6   2648.7    988.00
     1.08      4.89     10.36      1.47      .045      .033     .045     .000   973.00   8520.00
 .001597      450.     500.     470.       2      19       0     .00  2750.00  11270.00


*SECNO 5.420
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3470 ENCROACHMENT STATIONS=     8500.0   10960.0  TYPE=      1  TARGET=     2460.000
 ELENCL=   1000.00  ELENCR=   1000.00
    5.420     14.14    990.14    985.78       .00    991.37      1.23       .74       .02    980.00
 185000.0   37339.0  145748.6    1912.4    7530.9   15012.1     955.4   18784.3    2678.0    988.00
     1.09      4.96      9.71      2.00      .045      .033      .045      .000    976.00   8500.00
  .001388      500.      500.      460.         2        14         0       .00   2460.00  10960.00


*SECNO 5.515

3301 HV CHANGED MORE THAN HVINS

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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=     8400.0   12340.0  TYPE=      1  TARGET=    -8400.000
 ELENCL=   1000.00  ELENCR= 100000.00
    5.515     15.18    991.18    984.45       .00    991.88       .70       .45       .05    976.00
 185000.0   55502.3  129497.7        .0   12506.5   17288.4        .0   19058.0    2702.3    992.00
     1.11      4.44      7.49       .00      .045      .033      .000      .000    976.00   8400.00
  .000755      360.      500.      500.         2        14         0       .00   2367.95  10767.95


*SECNO 5.610

3470 ENCROACHMENT STATIONS=     8350.0   12050.0  TYPE=      1  TARGET=    -8350.000
 ELENCL=    995.00  ELENCR= 100000.00
    5.610     15.56    991.56    984.53       .00    992.20       .64       .31       .01    976.00
 185000.0   39842.7  145157.3        .0   10970.7   20766.9        .0   19365.3    2726.0    992.00
     1.13      3.63      6.99       .00      .045      .033      .000      .000    976.00   8350.00
  .000632      330.      500.      560.         2        14         0       .00   2599.18  10949.18


*SECNO 5.705

3470 ENCROACHMENT STATIONS=     8290.0   11850.0  TYPE=      1  TARGET=    -8290.000
 ELENCL=    995.00  ELENCR= 100000.00
    5.705     15.78    991.78    986.04       .00    992.62       .84       .36       .06    980.00
 185000.0   70385.0  114067.3     547.7   14302.5   13336.7     339.2   19659.0    2751.1    988.00
     1.15      4.92      8.55      1.61      .045      .033      .045      .000    976.00   8397.35
  .001024      330.      500.      560.         2        14         0       .00   2742.16  11139.50


*SECNO 5.799

3470 ENCROACHMENT STATIONS=     8200.0   11510.0  TYPE=      1  TARGET=    -8200.000
 ELENCL=    995.00  ELENCR= 100000.00
    5.799     16.19    992.19    986.62       .00    993.16       .97       .50       .04    984.00
 185000.0   42383.4  142344.0     272.6   10469.8   16281.0     155.2   19962.6    2781.4    988.00
     1.17      4.05      8.74      1.76      .045      .033      .045      .000    976.00   8212.10
  .001027      460.      500.      510.         0        14         0       .00   2792.34  11004.44
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*SECNO 5.894

3301 HV CHANGED MORE THAN HVINS

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= 8120.0 11240.0 TYPE= 1 TARGET= -8120.000
ELENCL= 995.00 ELENCR= 100000.00

5.894	16.44	992.44	989.41	.00	994.02	1.58	.67	.18	984.00
185000.0	29815.8	153255.2	1929.0	7458.2	14032.2	785.0	20255.0	2815.9	988.00
1.18	4.00	10.92	2.46	.045	.033	.045	.000	976.00	8183.54
.001698	550.	500.	480.	2	15	0	.00	2914.10	11097.64

*SECNO 5.989

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 8030.0 11750.0 TYPE= 1 TARGET= -8030.000
ELENCL= 995.00 ELENCR= 100000.00

5.989	17.73	993.73	987.73	.00	994.69	.96	.61	.06	988.00
185000.0	15906.6	164144.8	4948.7	5648.1	19829.8	2184.8	20521.5	2848.8	988.00
1.20	2.82	8.28	2.27	.045	.033	.045	.000	976.00	8030.00
.001006	360.	500.	530.	2	15	0	.00	3567.40	11597.40

*SECNO 6.083

3470 ENCROACHMENT STATIONS= 7890.0 12140.0 TYPE= 1 TARGET= -7890.000
ELENCL= 995.00 ELENCR= 100000.00

6.083	18.44	994.44	988.28	.00	995.12	.68	.40	.03	984.00
185000.0	21641.1	139739.7	23619.2	7395.3	18859.3	7955.1	20857.8	2888.6	984.00
1.22	2.93	7.41	2.97	.045	.033	.045	.000	976.00	7891.69
.000704	390.	500.	480.	2	18	0	.00	4037.99	11929.68

*SECNO 6.178

3470 ENCROACHMENT STATIONS= 7760.0 12090.0 TYPE= 1 TARGET= -7760.000
ELENCL= 1000.00 ELENCR= 100000.00

6.178	18.69	994.69	986.42	.00	995.48	.79	.33	.03	988.00
185000.0	7892.3	156522.5	20585.2	3979.8	20355.0	7288.6	21230.0	2933.3	984.00
1.24	1.98	7.69	2.82	.045	.033	.045	.000	976.00	7831.08
.000633	510.	500.	460.	2	11	0	.00	3951.39	11782.47

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 6.273

6.273	19.23	995.23	987.35	.00	995.79	.56	.29	.02	988.00
185000.0	12906.8	150205.5	21887.7	5684.7	22937.8	8163.5	21615.7	2979.3	984.00
1.26	2.27	6.55	2.68	.045	.033	.045	.000	976.00	7628.25
.000528	470.	500.	480.	2	14	0	.00	4335.08	11963.33

THIS RUN EXECUTED 03DEC95 10:24:23

****
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

EXISTING CONDITIONS MODE

SUMMARY PRINTOUT TABLE 150

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10*KS	VCH	AREA	.01K
.000	.00	.00	.00	928.00	250000.00	942.86	938.11	943.67	11.98	7.64	42387.77	72234.96
.102	540.00	.00	.00	930.60	250000.00	943.46	938.27	944.30	11.08	7.89	40171.45	75103.50
.197	500.00	.00	.00	932.00	250000.00	944.30	938.72	944.80	7.79	6.66	55602.94	89547.35
.292	500.00	.00	.00	932.00	243500.00	944.76	940.43	945.24	10.11	6.43	51165.63	76589.77
.386	500.00	.00	.00	932.00	237000.00	945.20	941.25	945.87	12.90	7.37	41835.98	65985.77
.481	500.00	.00	.00	932.00	230500.00	946.02	942.28	946.57	14.37	6.77	43958.18	60796.05
.576	500.00	.00	.00	932.00	224000.00	946.73	943.87	947.31	15.17	7.14	41082.75	57503.61
.670	500.00	.00	.00	932.00	217500.00	947.35	943.55	947.93	10.53	7.30	41701.87	67025.80
.765	500.00	.00	.00	932.00	211000.00	947.80	943.80	948.48	10.07	7.71	37146.61	66491.32
.860	500.00	.00	.00	932.00	204500.00	948.18	944.63	949.14	12.96	9.27	31244.57	56802.07
.955	500.00	.00	.00	932.00	198000.00	949.02	945.11	949.76	11.16	8.66	35699.29	59275.54

1.049	500.00	.00	.00	932.00	191500.00	949.58	946.26	950.45	15.59	9.09	28804.09	48497.50
1.144	500.00	.00	.00	936.00	185000.00	950.33	948.18	951.51	22.41	10.07	24560.56	39080.61
1.239	500.00	.00	.00	936.00	185000.00	951.52	948.42	952.47	16.44	9.10	26736.87	45626.15
1.333	500.00	.00	.00	936.00	185000.00	952.34	948.87	953.25	15.09	8.42	27471.60	47631.33
1.428	500.00	.00	.00	936.00	185000.00	953.15	947.70	953.81	8.53	7.06	32732.66	63355.50
1.523	500.00	.00	.00	936.00	185000.00	953.72	947.80	954.21	6.75	6.04	37434.23	71226.45

1

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10*KS	VCH	AREA	.01K
1.618	505.00	.00	.00	940.00	185000.00	954.09	949.47	954.63	8.99	6.19	34690.85	61705.43
1.712	495.00	.00	.00	940.00	185000.00	954.58	949.43	955.06	8.00	5.70	35651.10	65427.10
1.807	500.00	.00	.00	940.00	185000.00	955.01	950.85	955.57	11.45	6.17	32735.46	54677.38
1.902	500.00	.00	.00	944.00	185000.00	955.58	951.90	956.17	12.48	6.47	31447.88	52376.76
2.015	600.00	.00	.00	942.00	185000.00	956.29	953.27	957.31	22.82	8.29	23044.28	38724.53
2.110	500.00	.00	.00	944.00	185000.00	957.44	955.04	958.66	30.54	9.39	21469.63	33478.51
* 2.205	505.00	.00	.00	944.00	185000.00	958.87	954.72	959.64	13.07	7.58	28056.97	51167.44
2.299	495.00	.00	.00	944.00	185000.00	959.46	955.46	960.31	13.27	7.97	27210.03	50777.59
2.394	500.00	.00	.00	944.00	185000.00	960.16	955.97	960.96	12.61	7.66	27563.20	52097.23
2.489	500.00	.00	.00	946.00	185000.00	960.77	957.08	961.68	15.06	7.97	26080.08	47671.68
2.586	515.00	.00	.00	946.00	185000.00	961.60	957.05	962.37	11.50	7.31	28191.54	54543.07
2.679	490.00	.00	.00	946.00	185000.00	962.23	956.72	962.88	8.81	6.65	30461.89	62317.13
2.775	505.00	.00	.00	948.00	185000.00	962.72	958.80	963.62	17.71	7.92	25387.28	43959.12
2.869	500.00	.00	.00	950.00	185000.00	963.65	960.20	964.50	17.04	7.48	25643.29	44811.64
2.964	500.00	.00	.00	950.00	185000.00	964.55	961.55	965.41	19.68	7.54	25307.22	41700.34
3.059	500.00	.00	.00	952.00	185000.00	965.54	962.34	966.30	15.73	7.14	27383.75	46651.00
3.153	500.00	.00	.00	952.00	185000.00	966.29	963.42	967.24	20.09	7.96	24559.92	41270.29
3.248	500.00	.00	.00	952.00	185000.00	967.29	964.80	968.28	21.22	8.21	24046.60	40164.48
3.343	500.00	.00	.00	955.00	185000.00	968.31	965.21	969.30	19.61	8.19	23977.94	41781.23
3.438	500.00	.00	.00	956.00	185000.00	969.29	966.66	970.41	23.12	8.71	22610.42	38472.37
3.532	500.00	.00	.00	956.00	185000.00	970.55	967.41	971.38	16.02	7.56	26436.65	46215.06

3.627	500.00	.00	.00	956.00	185000.00	971.41	967.27	972.13	13.48	6.80	27418.97	50392.25
3.721	450.00	.00	.00	956.00	185000.00	972.02	968.36	972.74	13.86	6.84	27068.14	49692.29
3.813	490.00	.00	.00	958.00	185000.00	972.67	969.41	973.60	18.58	7.74	24332.50	42915.66
3.908	500.00	.00	.00	960.00	185000.00	973.61	970.25	974.49	17.12	7.58	24938.47	44717.01
4.001	490.00	.00	.00	960.00	185000.00	974.49	971.47	975.40	19.53	7.66	24141.74	41861.66

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10*KS	VCH	AREA	.01K
	4.095	495.00	.00	.00	962.00	185000.00	975.39	972.39	976.50	22.37	8.45	21893.16	39115.91
	4.189	500.00	.00	.00	960.00	185000.00	976.52	972.85	977.49	17.42	7.91	23629.25	44330.61
	4.284	500.00	.00	.00	961.00	185000.00	977.37	972.70	978.24	12.90	7.47	24758.90	51517.89
	4.379	500.00	.00	.00	962.00	185000.00	978.05	971.11	978.78	8.93	6.85	27002.22	61908.80
	4.473	500.00	.00	.00	962.00	185000.00	978.47	972.69	979.31	11.03	7.37	25099.40	55714.25
	4.568	500.00	.00	.00	962.00	185000.00	979.13	970.88	979.74	6.46	6.31	29852.74	72815.02
*	4.663	500.00	.00	.00	962.00	185000.00	979.07	976.05	980.79	31.46	10.51	17631.98	32983.92
	4.758	500.00	.00	.00	966.00	185000.00	980.75	977.01	982.04	19.70	9.10	20332.54	41682.71
	4.852	500.00	.00	.00	966.00	185000.00	981.82	977.22	982.89	14.33	8.29	22304.19	48867.25
*	4.947	500.00	.00	.00	968.00	185000.00	981.89	980.97	985.21	51.42	14.69	12968.72	25798.39
	5.042	500.00	.00	.00	968.00	185000.00	984.29	983.07	987.50	40.99	14.65	13864.74	28897.28
*	5.136	500.00	.00	.00	972.00	185000.00	987.20	983.07	988.83	16.78	10.91	20586.06	45158.39
	5.231	500.00	.00	.00	972.00	185000.00	988.08	985.09	989.73	19.41	11.00	20691.05	41989.51
	5.326	500.00	.00	.00	973.00	185000.00	989.18	985.30	990.61	15.97	10.36	22072.80	46293.08
	5.420	500.00	.00	.00	976.00	185000.00	990.14	985.78	991.37	13.88	9.71	23498.39	49648.71
	5.515	500.00	.00	.00	976.00	185000.00	991.18	984.45	991.88	7.55	7.49	29794.82	67326.70
	5.610	500.00	.00	.00	976.00	185000.00	991.56	984.53	992.20	6.32	6.99	31737.61	73612.47
	5.705	500.00	.00	.00	976.00	185000.00	991.78	986.04	992.62	10.24	8.55	27978.46	57815.76
	5.799	500.00	.00	.00	976.00	185000.00	992.19	986.62	993.16	10.27	8.74	26906.01	57740.29
	5.894	500.00	.00	.00	976.00	185000.00	992.44	989.41	994.02	16.98	10.92	22275.33	44891.40
	5.989	500.00	.00	.00	976.00	185000.00	993.73	987.73	994.69	10.06	8.28	27662.75	58335.92
	6.083	500.00	.00	.00	976.00	185000.00	994.44	988.28	995.12	7.04	7.41	34209.79	69743.45

6.178	500.00	.00	.00	976.00	185000.00	994.69	986.42	995.48	6.33	7.69	31623.42	73526.77
6.273	500.00	.00	.00	976.00	185000.00	995.23	987.35	995.79	5.28	6.55	36785.96	80472.98

EXISTING CONDITIONS MODE

SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
.000	250000.00	942.86	.00	.00	-1.14	7975.27	.00
.102	250000.00	943.46	.00	.59	.00	7650.28	540.00
.197	250000.00	944.30	.00	.85	.00	9336.29	500.00
.292	243500.00	944.76	.00	.46	.00	9633.82	500.00
.386	237000.00	945.20	.00	.44	.00	8797.98	500.00
.481	230500.00	946.02	.00	.82	.00	7900.63	500.00
.576	224000.00	946.73	.00	.71	.00	6518.43	500.00
.670	217500.00	947.35	.00	.62	.00	6416.13	500.00
.765	211000.00	947.80	.00	.45	.00	4294.64	500.00
.860	204500.00	948.18	.00	.38	.00	3890.00	500.00
.955	198000.00	949.02	.00	.84	.00	7229.74	500.00
1.049	191500.00	949.58	.00	.56	.00	3421.61	500.00
1.144	185000.00	950.33	.00	.75	.00	3455.82	500.00
1.239	185000.00	951.52	.00	1.19	.00	3346.64	500.00
1.333	185000.00	952.34	.00	.82	.00	5454.42	500.00
1.428	185000.00	953.15	.00	.81	.00	4950.38	500.00
1.523	185000.00	953.72	.00	.57	.00	5028.36	500.00
1.618	185000.00	954.09	.00	.37	.00	5110.17	505.00
1.712	185000.00	954.58	.00	.49	.00	5094.88	495.00
1.807	185000.00	955.01	.00	.43	.00	5695.98	500.00
1.902	185000.00	955.58	.00	.56	.00	4660.13	500.00
2.015	185000.00	956.29	.00	.72	.00	3266.93	600.00

2.110	185000.00	957.44	.00	1.15	.00	3277.55	500.00
* 2.205	185000.00	958.87	.00	1.43	.00	3574.39	505.00

1

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
2.299	185000.00	959.46	.00	.59	.00	3239.32	495.00
2.394	185000.00	960.16	.00	.70	.00	3451.41	500.00
2.489	185000.00	960.77	.00	.62	.00	3532.10	500.00
2.586	185000.00	961.60	.00	.83	.00	3564.52	515.00
2.679	185000.00	962.23	.00	.62	.00	3715.54	490.00
2.775	185000.00	962.72	.00	.50	.00	3683.60	505.00
2.869	185000.00	963.65	.00	.92	.00	3660.24	500.00
2.964	185000.00	964.55	.00	.90	.00	4052.19	500.00
3.059	185000.00	965.54	.00	.99	.00	3980.77	500.00
3.153	185000.00	966.29	.00	.75	.00	3608.45	500.00
3.248	185000.00	967.29	.00	.99	.00	3478.88	500.00
3.343	185000.00	968.31	.00	1.02	.00	3588.96	500.00
3.438	185000.00	969.29	.00	.98	.00	3376.33	500.00
3.532	185000.00	970.55	.00	1.26	.00	3583.66	500.00
3.627	185000.00	971.41	.00	.86	.00	3416.27	500.00
3.721	185000.00	972.02	.00	.61	.00	3524.12	450.00
3.813	185000.00	972.67	.00	.66	.00	3314.44	490.00
3.908	185000.00	973.61	.00	.94	.00	3196.07	500.00
4.001	185000.00	974.49	.00	.87	.00	3188.49	490.00
4.095	185000.00	975.39	.00	.90	.00	2759.35	495.00
4.189	185000.00	976.52	.00	1.13	.00	3392.25	500.00
4.284	185000.00	977.37	.00	.86	.00	2485.58	500.00
4.379	185000.00	978.05	.00	.68	.00	2342.25	500.00
4.473	185000.00	978.47	.00	.42	.00	2281.53	500.00
4.568	185000.00	979.13	.00	.66	.00	2582.77	500.00

*	4.663	185000.00	979.07	.00	-.06	.00	2122.95	500.00

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	4.758	185000.00	980.75	.00	1.68	.00	2078.67	500.00
	4.852	185000.00	981.82	.00	1.07	.00	2072.42	500.00
*	4.947	185000.00	981.89	.00	.07	.00	1553.35	500.00
	5.042	185000.00	984.29	.00	2.40	.00	1718.49	500.00
*	5.136	185000.00	987.20	.00	2.91	.00	2148.00	500.00
	5.231	185000.00	988.08	.00	.88	.00	2400.00	500.00
	5.326	185000.00	989.18	.00	1.09	.00	2750.00	500.00
	5.420	185000.00	990.14	.00	.96	.00	2460.00	500.00
	5.515	185000.00	991.18	.00	1.04	.00	2367.95	500.00
	5.610	185000.00	991.56	.00	.38	.00	2599.18	500.00
	5.705	185000.00	991.78	.00	.22	.00	2742.16	500.00
	5.799	185000.00	992.19	.00	.41	.00	2792.34	500.00
	5.894	185000.00	992.44	.00	.25	.00	2914.10	500.00
	5.989	185000.00	993.73	.00	1.29	.00	3567.40	500.00
	6.083	185000.00	994.44	.00	.71	.00	4037.99	500.00
	6.178	185000.00	994.69	.00	.25	.00	3951.39	500.00
	6.273	185000.00	995.23	.00	.54	.00	4335.08	500.00

SUMMARY OF ERRORS AND SPECIAL NOTES

WARNING SECNO= 2.205 PROFILE= 1 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO= 4.663 PROFILE= 1 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO= 4.947 PROFILE= 1 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO= 5.136 PROFILE= 1 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

1********** **********

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*  HEC-2 WATER SURFACE PROFILES            *
*                                          *
*  Version   4.6.2;  May 1991              *
*                                          *
*  RUN DATE    03DEC95    TIME   10:13:01  *
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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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1

03DEC95 10:13:01 PAGE 1

THIS RUN EXECUTED 03DEC95 10:13:01

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*************************************
 HEC-2 WATER SURFACE PROFILES

 Version   4.6.2;  May 1991
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THIS IS AN ARCHIVAL RUN ALL DATA AND RESULTS ARE SAVED ON UNIT 96

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AC
AC      EXISTING CONDITIONS WITH CSA
AC
T1      CPH05
T2      91ST AVE. WWTP, SALT RIVER
T3      EXISTING CONDITIONS MODEL

J1  ICHECK    INQ      NINV     IDIR     STRT     METRIC   HVINS    Q        WSEL     FQ

              2                         0.0012                     250000    944

J2  NPROF     IPLOT    PRFVS    XSECV    XSECH    FN       ALLDC    IBW      CHNIM    ITRACE

    -1                 -1                                  -1       -6

J6  IHLEQ     ICOPY    SUBDIV   STRTDS   RMILE

    1                  0

NC    0.045     0.045     0.033     0.1       0.3
NH        5     0.045      8625     0.033     10120     0.04      10700     0.033     11140     0.045
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NH	18490									
X1	0	37	8625	11140						
GR	960	8490	956	8520	952	8530	948	8537	944	8544
GR	940	8550	936	8625	932	8660	936	8880	936	9100
GR	932	9305	932	9385	932	9435	936	9470	936	9585
GR	932	9620	928	9820	932	9900	936	9940	936	10050
GR	932	10065	928	10120	928	10600	928	10700	928	11005
GR	928	11070	932	11110	936	11125	940	11140	936	11155
GR	936	11170	940	11180	940	11935	940	13940	940	14910
GR	944	17160	944	18490						
NC	0.045	0.045	0.033							
X1	0.102	24	9150	11310	525	540	540			
GR	960	8650	956	8665	952	8680	948	8690	944	8700
GR	940	8720	936	8750	932	8815	932	9150	932	9270
GR	930.8	10030	930.6	10830	932	11135	936	11310	940	11480
GR	940.6	11630	942.6	12425	943.6	13230	940.4	14010	940.3	14800
GR	941.8	15600	943.3	16400	944.5	17200	945.6	18000		

NH	3	0.045	9600	0.033	11410	0.045	19480			
X1	0.197	18	9600	11410	500	500	500			
X3	0			8480	945					
GR	960	5815	956	5930	952	5990	948	6025	944	6130
GR	940	6300	936	7360	932	9600	932	11380	936	11390
GR	940	11400	944	11410	944	11445	940.8	11510	940	14180
GR	940	15290	944	17680	948	19480				
NH	5	0.045	9220	0.033	11180	0.045	11470	0.033	11530	0.045
NH	19135									
QT	7	243500	243500	194500	148100	94000	39600	3330		
X1	0.292	31	9585	11530	515	485	500			
X3	0			7970	945					
GR	960	5560	956	5580	952	5600	948	5625	944	5740
GR	940	5850	939	7010	938.5	8135	932	9220	932	9280
GR	936	9380	936	9585	932	9610	936	10330	936	10920
GR	932	11180	932	11470	936	11495	940	11510	944	11520
GR	948	11530	948	11550	944	11560	940.8	12170	944	12600
GR	944	13360	940	13720	940	15120	944	16900	944	17285
GR	948	19135								
NH	5	0.045	9230	0.033	10520	0.045	10770	0.033	11350	0.045
NH	17230									
QT	7	237000	237000	189000	146200	93000	39200	3260		
X1	0.386	31	9460	11590	505	505	500			
X3	0			7470	950					
GR	952	5320	948	5380	944	5390	940	5460	940	5780
GR	939.3	6400	940	6960	940	7470	936	8750	932	8850
GR	932	8940	936	8990	940	9230	940	9460	936	9520
GR	932	9580	932	9870	936	10000	936	10520	940	10580
GR	940	10770	936	10830	932	11175	932	11350	936	11515
GR	940	11535	944	11590	944	12620	944	13460	944	15850
GR	948	17230								
NH	5	0.045	9385	0.033	10440	0.045	11030	0.033	11410	0.045
NH	16265									
QT	7	230500	230500	183500	144300	92000	38800	3190		

X1	0.481	27	9385	11440	500	505	500			
X3	0			6990	950					
GR	956	4990	952	5010	948	5200	944	5450	940	6150
GR	940	7510	936	8635	932	8640	932	8680	936	8720
GR	940	9025	940	9385	932	9680	932	9850	936	10070
GR	940	10440	940	10720	936	11030	936	11410	940	11430
GR	944	11440	944	13420	944	13700	944	14840	948	14940
GR	952	14945	956	16265						
NH	5	0.045	9400	0.033	10150	0.045	10680	0.033	11205	0.045
NH	15590									
QT	7	224000	224000	178000	142400	91000	38400	3120		

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X1	0.576	27	9400	11230	490	525	500			
X3	0			6560	950	13360	950			
GR	956	3650	952	3690	948	3715	944	3775	944	4290
GR	940	6315	940	9400	936	9570	932	9810	932	10050
GR	936	10150	940	10210	944	10350	944	10530	940	10630
GR	936	10680	936	11205	940	11215	944	11230	944	12470
GR	948	13360	944	13950	944	14460	944	14730	948	15405
GR	952	15500	956	15590						
NH	5	0.045	9515	0.033	10160	0.045	10415	0.033	10820	0.045
NH	15420									
QT	7	217500	217500	172500	140500	90000	38000	3050		
X1	0.67	34	9515	10980	490	505	500			
X3	0			6610	950	13370	950			
GR	956	4135	952	4205	948	4250	944	4480	941.2	6750
GR	941.7	7860	940	8560	936	8590	932	8605	932	8635
GR	936	8655	940	8680	940	8890	936	9515	932	10035
GR	932	10160	936	10190	940	10240	940	10335	936	10415
GR	936	10820	940	10950	944	10980	944.8	11830	946.4	12380
GR	947.3	13000	948	13370	948	13440	944	14080	944	14670
GR	948	14885	952	15030	952	15205	956	15420		
NH	3	0.045	9210	0.033	10585	0.045	15370			
QT	7	211000	211000	167000	138600	89000	37600	2980		
X1	0.765	22	9210	10630	510	460	500			
X3	0			6760	950					
GR	952	3850	948	3870	944	4120	944	5620	940	8520
GR	936	8530	936	8560	940	8585	940	9210	936	9490
GR	936	9825	932	10080	932	10230	936	10585	940	10630
GR	944	10955	948	11060	948	13515	948	14830	952	14925
GR	952	15170	956	15370						
NH	3	0.045	9390	0.033	10440	0.045	15230			
QT	7	204500	204500	161500	136700	88000	37200	2910		
X1	0.86	24	9390	10440	525	500	500			
X3	0			6910	950	10800	950			
GR	952	3315	948	3335	944	5010	944.1	6070	942.9	6770
GR	944	7530	944	7970	940	8190	936	8205	936	8250
GR	940	8260	940	9390	936	9440	936	9670	932	10025
GR	932	10290	936	10370	940	10410	944	10440	948	10800
GR	948	14855	952	14885	952	15035	956	15230		
NH	3	0.045	9235	0.033	10405	0.045	15230			
QT	7	198000	198000	156000	127000	87000	36800	2840		

X1	0.955	23	9605	10500	490	505	500			
X3	0			7040	950					
GR	944.6	2925	944	3095	942.2	6610	944.4	7175	940	7540
GR	940	9235	944	9270	944	9605	940	9670	936	9710
GR	932	9740	932	10145	936	10215	940	10390	944	10405
GR	948	10480	952	10500	952	10760	948	10810	948	14470
GR	952	14910	952	15000	956	15230				

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NH	3	0.045	9610	0.033	10630	0.045	15270			
QT	7	191500	191500	150500	126000	86000	36400	2770		
X1	1.049	40	9610	10630	490	505	500			
X3	0			7160	950	10630	950			
GR	945.8	3560	945.1	4180	944	4540	944	6160	940	7485
GR	940	7580	944	7680	944	7820	940	8030	940	8415
GR	944	9060	948	9610	944	9640	940	9660	936	9690
GR	932	9710	932	9900	936	9940	936	10020	932	10040
GR	932	10100	936	10150	940	10175	944	10200	944	10280
GR	940	10315	940	10470	944	10510	948	10550	952	10630
GR	952	10755	948	11010	948	12850	952	13150	952	13460
GR	948	14060	948	14410	952	14910	952	15080	956	15270
NH	5	0.045	9405	0.033	10110	0.04	10280	0.033	10800	0.045
NH	14655									
QT	7	185000	185000	145000	131000	85000	36000	2700		
X1	1.144	35	9550	10760	515	505	500			
X3	0			7290	960					
GR	946.9	4230	945	5200	944	5570	940	6280	940	7225
GR	944	7360	944	7510	948	7580	948	7630	944	7750
GR	944	8970	948	9405	948	9550	944	9620	940	9650
GR	936	9680	936	9880	940	10110	944	10145	944	10280
GR	940	10385	940	10710	944	10730	948	10740	952	10750
GR	956	10760	956	10770	952	10800	952	11745	950.5	11830
GR	952	12730	952	13455	950.5	13690	952	14600	956	14655
NH	5	0.045	9650	0.033	10130	0.04	10230	0.033	10870	0.045
NH	14640									
X1	1.239	32	9650	10870	485	485	500			
X3	0			7410	960					
GR	945.7	2915	944	4340	944	5450	948	6345	952	7020
GR	952	7090	948	7120	948	7295	952	7500	952	7570
GR	948	7585	948	8005	944	8040	944	9650	940	9670
GR	936	9690	936	9880	940	10130	944	10230	948	10260
GR	948	10290	944	10390	940	10495	940	10660	944	10765
GR	948	10840	952	10855	956	10870	956	10890	952	10905
GR	952	13950	956	14640						
NH	3	0.045	9540	0.033	11145	0.045	14170			
X1	1.333	27	9540	11145	485	515	500			
X3	0			7530	960					
GR	944.3	3530	948	5090	948	6235	952	6510	952	7050
GR	948	7130	948	7280	952	7400	952	7790	948	7985
GR	944	8680	944	8890	948	9110	948	9540	944	9645
GR	940	9675	936	9690	936	10040	940	10145	944	10450
GR	944	10950	948	11135	956	11145	956	11170	952	11195
GR	952	12790	953.9	14170						

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NH	3	0.045	9285	0.033	11160	0.045	14685			
X1	1.428	29	9430	11160	470	525	500			
X3	0			7650	960					
GR	946.7	2930	948	3670	948	4850	952	5980	952	7095
GR	948	7120	948	7260	952	7530	952	7890	948	7960
GR	944	8450	944	8540	948	8780	948	9200	952	9285
GR	952	9430	948	9500	944	9530	940	9675	936	9750
GR	936	10250	940	10450	944	10650	944	11075	948	11160
GR	952	11500	952	12140	954.6	13180	959.3	14685		
NH	3	0.045	9270	0.033	11410	0.045	13230			
X1	1.523	35	9270	11410	480	515	500			
X3	0			7770	960					
GR	952	4120	952	4280	948.3	4430	952	5080	952	7040
GR	948	7130	948	7280	952	7310	952	7870	948	7890
GR	944	8350	944	8440	948	8570	948	8900	952	9270
GR	948	9365	944	9410	940	9560	936	9630	936	9735
GR	940	9770	944	9830	948	9900	948	10100	944	10200
GR	940	10230	940	10600	936	10610	936	10670	940	10690
GR	940	11030	944	11390	948	11410	952	12170	954.9	13230
NC	0.045	0.045	0.033							
X1	1.618	32	9130	11750	615	385	505			
X3	0			7935	960					
GR	952	4250	952	7325	956	7820	956	7935	952	7970
GR	948	8010	948	9130	944	9200	940	9230	940	9570
GR	944	9650	948	9760	948	9900	944	9940	948	9970
GR	952	10000	952	10115	948	10250	944	10390	940	10435
GR	940	10740	944	10830	948	10940	948	10990	944	11360
GR	940	11670	944	11720	948	11740	952	11750	952.5	12410
GR	953.2	12920	956	13360						
X1	1.712	38	8745	11855	550	410	495			
X3	0			7910	960					
GR	953.8	4835	956	5400	956	6895	952	7090	952	7210
GR	956	7510	956	7920	952	7960	948	8090	948	8745
GR	944	8800	940	8820	940	8900	944	9280	944	9530
GR	948	9760	952	9880	952	10180	948	10210	944	10230
GR	944	10520	940	10540	940	10770	944	10830	948	11160
GR	948	11430	944	11570	944	11640	940	11770	940	11799
GR	944	11820	948	11840	952	11855	954	11960	953.4	12360
GR	952.8	12670	954.5	12935	956	14600				
X1	1.807	28	8600	11900	610	360	500			
GR	956	4690	956	7925	952	7935	948	8385	944	8600
GR	944	8890	948	9020	944	9250	944	9400	948	9435
GR	948	9785	952	9940	952	10200	948	10250	948	10630
GR	944	10645	944	10840	948	11070	948	11460	944	11700
GR	940	11800	944	11860	948	11880	952	11900	954.3	12050
GR	953.3	12480	954.3	12950	956	14570				

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X1	1.902	26	8730	11765	460	555	500

GR	956	4900	956	7050	960	7985	956	8020	952	8030
GR	948	8240	948	8730	944	8750	948	8980	948	9275
GR	944	9350	948	9495	948	9755	952	9950	952	10030
GR	948	10265	948	10780	944	10830	944	10990	948	11190
GR	948	11415	944	11540	944	11720	948	11755	952	11765
GR	956	12790								
NC	0.045	0.045	0.033							
X1	2.015	90	9095.38	11552.98	585	650	600			
X3	0			8600	960					
GR	960	7774.76	960	7909.57	958	7934.35	958	7940.17	960	7950.17
GR	960	7954.25	958	7972.8	956	7980.18	954	8116.74	952	8296.2
GR	952	8305.46	954	8319.59	954	8426.42	954	8591.54	952	8626.63
GR	950	8701.6	950	8709.22	948	8718.19	946	8726.46	946	8729.83
GR	946	8816.79	944	8856.12	944	8913.8	946	8968.33	948	9001.67
GR	950	9074.38	952	9095.38	952	9124.17	950	9143.81	950	9162.36
GR	950	9211.37	950	9225.14	952	9232.02	952	9386.66	950	9420.63
GR	950	9516.92	950	9518.95	948	9524.26	946	9529.82	946	9740.88
GR	948	9746.05	950	9752.14	952	9757.8	952	9810.78	952	9889.29
GR	952	9995.6	952	10021.75	954	10033.87	956	10041.73	956	10140.15
GR	954	10144.88	952	10206.79	952	10237.4	952	10253.95	950	10347.18
GR	948	10437.7	948	10483.33	948	10717.12	948	10741.96	950	10752.36
GR	952	10837.51	954	10852.96	954	10856.06	952	10877.01	950	10884.26
GR	948	10889.18	946	10894.02	944	10911.64	942	10916.01	942	10961.74
GR	944	11014.34	946	11051.98	946	11071.04	944	11082.74	942	11091.39
GR	942	11154.43	944	11345.7	946	11445.74	948	11526.42	950	11533.28
GR	952	11539.71	954	11546.32	956	11552.98	956	11574.3	956	11578.12
GR	956	11582.49	956	11774.24	958	12392.94	960	12667.74	960	12669.49
X1	2.11	90	9316.55	11402.12	420	560	500			
GR	960	7759.5	960	7773.78	958	7830.23	958	7832.22	960	7837.41
GR	960	7964.8	958	8081.54	956	8194.51	954	8457.44	952	8521.21
GR	948	8538.55	948	8564.11	950	8616.42	950	8635.59	948	8659.05
GR	948	8663.63	950	8671.56	952	8680.78	954	8693.74	956	8707.52
GR	956	8834.77	954	8841.44	950	8857.25	948	8957.79	946	8980.66
GR	944	9002.62	944	9024.16	946	9043.84	948	9063.24	950	9082.59
GR	952	9107.85	952	9128.11	950	9149.74	950	9166.58	952	9197.33
GR	954	9224.12	954	9268.32	952	9288.7	950	9316.55	948	9346.87
GR	948	9406.03	950	9449.79	950	9465.15	948	9501.66	946	9533.12
GR	946	9661.06	948	9663.23	950	9667.18	952	9670	954	9965.7
GR	954	10025.26	954	10240.05	952	10284.49	948	10376.08	948	10548.89
GR	950	10598.35	952	10689.17	954	10699.84	956	10710.14	956	10716.22
GR	952	10740.71	950	10750.92	948	10760.21	948	10812.87	950	10823.73
GR	952	10834.92	952	10936.62	950	10945.26	950	10952.34	952	10969.6
GR	952	10970.67	950	10988.85	948	11014.44	944	11024.97	944	11263.57
GR	946	11277.26	948	11290.4	950	11301.71	952	11308.74	954	11316.34
GR	956	11324.19	956	11384.5	958	11392.95	958	11402.12	958	11498.61
GR	958	11857.08	958	12000.67	960	12323.43	962	12831.91	962	12834.22

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X1	2.205	81	9305.74	11183.14	515	500	505			
GR	960	7697.04	960	7704.01	960	7704.75	960	7732.8	960	7749.45
GR	960	7767.18	960	7774.8	960	7901.21	958	7969.35	956	8001.27
GR	954	8029.85	952	8252.76	950	8336.13	950	8374.69	950	8404.02
GR	948	8431.76	948	8435.54	950	8452.11	950	8462.56	950	8535.81
GR	952	8580.87	954	8622.69	954	8671.06	954	8762.43	956	8954.78
GR	956	9019.8	954	9028.06	952	9042.47	950	9050.87	948	9067.19

GR	948	9075.27	948	9112.27	948	9225.13	950	9285.04	950	9305.74
GR	948	9331.06	946	9363.53	946	9368.77	946	9402.44	946	9419.65
GR	948	9459.28	948	9509.62	946	9572.22	946	9661.66	948	9671.49
GR	950	9681.58	952	9753	954	9864.52	954	9969.97	952	10097.34
GR	950	10224.36	948	10352.29	948	10381.99	948	10510.48	948	10534.28
GR	948	10611.07	946	10626.43	946	10642.6	948	10729.79	948	10775.84
GR	946	10853.61	944	10858.52	944	11030.63	946	11069.89	948	11107.26
GR	950	11116.98	952	11126.14	954	11141.09	956	11169.96	958	11183.14
GR	960	11944.09	960	11949.97	960	12203.45	962	12229.28	962	12236.65
GR	962	12244.69	964	12428.18	964	12434.75	962	12784.68	962	12805.31
GR	962	12859.83								
X1	2.299	90	9305.69	11082.27	495	500	495			
GR	962	7642.31	962	7654.65	960	7676.52	960	7710.92	962	7716.77
GR	962	7841.55	960	7878.82	958	7886.21	956	7893.6	954	7900.8
GR	954	8205.55	954	8350.25	952	8385.3	950	8427.1	950	8459.02
GR	952	8476.03	952	8566.12	954	8582.45	954	8665.32	956	8693.57
GR	956	8697.74	954	8708.13	954	8722.23	956	8729.42	958	8768.75
GR	958	8772.95	956	8860.02	954	8888.34	954	8906.44	956	8931.73
GR	956	9044.64	954	9070.87	952	9097.66	950	9251.09	950	9268.1
GR	952	9273.74	952	9305.69	950	9316.38	948	9327.12	948	9412.7
GR	948	9591.7	946	9598.41	946	9666.22	948	9675.32	950	9728.75
GR	952	9776.24	954	9833.99	954	9911.41	952	9993.53	950	10156.04
GR	948	10475.38	946	10504.03	946	10513.13	946	10533.05	944	10551.5
GR	944	10576.02	946	10614.32	946	10642.55	946	10682.13	946	10708.17
GR	944	10724.94	944	10860.99	946	10898.28	948	10929.83	950	10971.78
GR	950	11004.67	950	11010.46	952	11044.69	954	11051.08	956	11057.44
GR	958	11063.77	958	11071.58	958	11082.27	960	11134.14	960	11178.35
GR	960	11205.08	960	11215.63	960	11282.93	960	11696.94	960	11723.04
GR	962	12067.47	964	12114.16	964	12114.8	962	12729.84	962	12761.41
GR	962	12771.54	962	12773.94	962	13149.79	962	13155.27	962	13160.88
X1	2.394	90	9234.55	11170.93	490	500	500			
X3	0					11770	965			
GR	962	7580.84	962	7600.27	962	7654.43	964	7660.3	964	7661.96
GR	962	8008.12	960	8014.44	958	8020.61	956	8026.71	956	8457.04
GR	956	8476.93	954	8501.15	954	8567.04	954	8592.7	954	8653.68
GR	956	8691.06	958	8735.21	958	8755.45	956	8768.35	954	8783.26
GR	952	8796.06	952	8986.91	952	9022.86	952	9030.61	952	9150.45
GR	950	9158.5	950	9172.86	952	9194.82	952	9234.55	950	9245.45
GR	948	9375.63	948	9419.11	948	9594.08	946	9612.82	946	9723.6
GR	948	9729.45	948	9733.69	948	9746.09	950	9766.21	952	9831.46
GR	954	9908.84	954	9984.66	952	10053.78	950	10237.35	950	10351.25
GR	952	10357.07	954	10362.3	954	10388.62	954	10399.68	954	10450.16
GR	952	10458.76	950	10492.33	948	10523.17	948	10529	950	10538.94
GR	950	10547.38	950	10570.09	950	10594.69	948	10617.91	946	10656.66

GR	946	10678.12	946	10702.57	944	10708.92	944	10729.44	946	10805.3
GR	946	10819.34	946	10933.54	948	10948.39	950	10962.94	950	10991.28
GR	948	11010.91	948	11045.13	950	11054.82	952	11063.76	954	11083.32
GR	956	11140.59	958	11148.25	960	11170.93	960	11257.58	960	11442.08
GR	962	11739.64	962	11742.22	962	11747.56	964	11962.15	964	11966.7
GR	964	11973.04	964	12050.4	964	12058.27	964	12109.47	964	13073.31
X1	2.489	90	9123.29	11273.47	475	515	500			
GR	962	7523.51	962	7572.57	962	7593.93	962	7596.12	964	7602.22
GR	964	7610.2	962	7921.39	960	7931.92	958	7942.29	958	7978.05

GR	958	7986.62	958	8152.76	958	8210.24	956	8227.45	956	8325.55
GR	958	8331.22	958	8354.62	956	8412.37	956	8429.11	958	8657.11
GR	958	8735.84	956	8762.55	954	8779.54	954	8795.9	956	8824.66
GR	956	8898.2	954	8956.87	954	9005.87	954	9026.5	954	9057.36
GR	954	9070.11	954	9100.32	954	9123.29	952	9256.3	950	9344.3
GR	948	9399.07	948	9445.98	950	9478.67	950	9511.18	948	9543.87
GR	946	9576.55	946	9666.48	948	9720.47	950	9763.22	952	9810.31
GR	952	10105.52	952	10248.67	952	10289.39	952	10319.08	952	10331.83
GR	952	10358.92	954	10393.36	956	10422.64	956	10495.64	954	10573.5
GR	952	10582.33	950	10637.56	948	10676.72	946	10707.47	946	10757.67
GR	946	10803.41	946	10926.07	948	10935.52	950	10946.16	952	10966.6
GR	954	10998.89	956	11092.9	956	11093.33	954	11131.91	952	11145.93
GR	950	11166.63	950	11195.44	952	11200.69	954	11206.16	956	11226.95
GR	958	11252.57	960	11273.47	962	11755.92	962	11763.48	962	11765.13
GR	964	11783.51	964	11790.76	964	11824.66	964	11831.49	964	11839.36
GR	964	11975.71	964	11979.37	964	12998.75	964	13003.15	964	13008.75
X1	2.586	90	9183.06	11369.29	535	485	515			
GR	964	7459.16	964	7595.53	964	7774.49	962	7783.33	960	7792.4
GR	958	7910.72	958	8062.22	956	8069.42	954	8076.83	954	8090.18
GR	956	8099.65	956	8129.44	958	8147.87	958	8209.81	960	8213.83
GR	962	8429.32	962	8607.81	960	8619.09	958	8671.98	956	8690.54
GR	956	8696.31	958	8746.92	958	8751.82	956	8778.61	954	8790.94
GR	954	8815.8	956	8884.38	956	8938.25	954	9071.76	954	9140.04
GR	956	9147.75	956	9175.61	954	9183.06	952	9217.92	950	9224.68
GR	950	9300.3	948	9539.27	946	9569.71	946	9635.04	948	9654.04
GR	950	9800.21	952	9863.86	952	10006.98	952	10163.67	954	10170.43
GR	956	10189.85	956	10245.14	954	10255.47	954	10302.09	954	10317.45
GR	954	10345.85	954	10481.85	952	10510.9	950	10572.13	948	10589.44
GR	946	10595.13	946	10649.08	948	10657.16	950	10665.26	952	10675.97
GR	952	10677.06	950	10762.69	950	10784.34	950	10880.51	948	10894.38
GR	946	10908.48	946	10981.7	948	11015.59	950	11074.95	950	11075.7
GR	950	11080.16	952	11107.03	954	11218.29	956	11230.71	958	11266.06
GR	960	11369.29	960	11372.37	960	11375.34	960	11378.23	960	11440.53
GR	962	11606.32	962	11672.74	962	11673.49	964	11676.2	964	11696.75
GR	964	11702.49	964	11766.9	964	11783.08	966	11808.36	966	11833.58
X1	2.679	90	9193.09	11643.87	570	425	490			
GR	964	7201.32	964	7458.06	966	7573.03	966	7697.5	964	7786.18
GR	960	7862.2	958	7977.95	958	8043.45	960	8100.88	960	8132.54
GR	956	8161.4	956	8193.72	958	8243.39	960	8253.71	962	8283.93
GR	962	8519.2	962	8546.38	960	8620.92	958	8626.13	958	8684.01
GR	956	8770.99	956	8794.95	960	8839.18	960	8852.22	956	8875.39
GR	956	8982.42	958	8989.52	958	9017.08	956	9026.03	956	9041.69

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GR	958	9067.06	960	9109.68	960	9193.09	960	9214.94	952	9234.8
GR	952	9324.25	950	9330.13	950	9567.48	952	9584.78	952	9687.64
GR	956	9717.99	950	9766.31	950	9946.89	952	9999.14	954	10085.4
GR	956	10113.44	956	10156.25	954	10215.7	952	10226.23	952	10348.12
GR	950	10355.44	948	10379.11	946	10430.41	948	10498.8	948	10517.57
GR	946	10528.99	946	10600.47	950	10620.51	952	10723.12	954	10732.19
GR	958	10740.6	962	10749.17	966	10757.58	970	10766.04	972	10770.28
GR	972	10805.57	958	10832.14	952	10845.87	948	10884.22	948	10917.27
GR	950	10927.27	950	11022.46	954	11079.47	952	11091.89	950	11185.11
GR	950	11456.93	950	11534.8	954	11544.74	956	11591.46	960	11603.17
GR	962	11609.24	966	11621.16	970	11643.87	972	11662	970	11696.13
GR	966	11708.25	964	11728.44	966	11751.33	968	11807.33	966	12388.22

X1	2.775	90	8928.56	11678.76	525	485	505			
X3	0			7500	970	11700	970			
GR	966	7325.26	964	7359.19	964	7390.33	966	7395.63	966	7560.82
GR	964	7661.27	962	7697.93	960	7790.94	960	7859.2	962	7907.78
GR	962	8160.44	960	8212.22	956	8240.64	956	8299.13	958	8344.72
GR	962	8378.21	962	8487	958	8575.07	956	8652.9	956	8690.94
GR	954	8928.56	954	9065.72	956	9087.82	956	9298.85	954	9310.95
GR	952	9353.14	950	9359.99	950	9497.42	952	9584.35	954	9596.43
GR	954	9675.41	952	9702.42	950	9809.81	950	9927.19	952	9940.64
GR	952	10102.51	954	10129.66	956	10216.2	960	10241.74	964	10262
GR	964	10337	960	10353.19	956	10393.49	952	10407.11	950	10448.56
GR	948	10476.02	948	10492.39	952	10505.04	954	10623.57	956	10643.11
GR	958	10648.04	962	10657.97	966	10668.29	962	10686.39	962	10956.48
GR	962	11025.08	964	11033.55	968	11071.81	970	11085.21	972	11115.28
GR	974	11126.48	974	11142.75	972	11154.96	954	11198.06	952	11218.77
GR	948	11229.27	948	11379.41	950	11383.78	954	11392.61	958	11401.28
GR	958	11406.33	954	11418.34	954	11438.44	956	11465.14	956	11478.97
GR	952	11510.58	952	11576.37	954	11607.63	956	11612.58	960	11621.08
GR	964	11629.65	968	11638.44	970	11678.76	972	11742.31	972	11764.38
GR	966	11781	966	11796.03	968	11801.79	968	11831.42	966	13033.81

X1	2.869	90	8485.29	11736.53	495	500	500			
X3	0			7500	970.2	11770	972.2			
GR	966	7263.3	966	7331.64	968	7337.45	968	7356.47	966	7522.73
GR	964	7561.99	962	7626.19	962	7797.39	964	7861.25	964	8079.88
GR	962	8128.45	960	8135.06	958	8154.01	958	8257.42	960	8264.57
GR	962	8271.09	962	8485.29	960	8489.74	958	8508.32	958	8695.33
GR	960	8709.39	960	8712.73	958	8741.36	958	9048.8	958	9179.07
GR	960	9193.59	962	9209.81	962	9335.14	960	9340.99	958	9347.46
GR	954	9360.6	952	9406.8	950	9496.83	950	9583.28	952	9605.38
GR	952	9746.66	950	9805.82	950	9939.21	952	9995.89	954	10017.79
GR	954	10201.12	952	10212.35	952	10299.07	954	10326.4	956	10424.5
GR	956	10702.75	958	10720.31	960	10739.14	962	10747.35	964	10755.63
GR	966	10761.23	966	10768.49	964	10774	964	10970.5	966	10979.67
GR	966	10993.92	964	10997.95	962	11002.26	960	11015.04	960	11069.85
GR	958	11086.94	956	11114.89	954	11148.74	954	11223.75	956	11243.34
GR	958	11270.13	958	11297.9	956	11345.42	956	11427.84	958	11447.86
GR	958	11568.36	956	11585.94	954	11593.02	952	11599.85	952	11671.49
GR	954	11689.64	956	11700.58	958	11704.68	960	11708.86	962	11713.6
GR	964	11717.81	966	11722.36	970	11731.38	972	11736.53	972	11736.74
GR	970	11828.97	968	11834.83	966	11838.17	966	11847.82	968	11854.29

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NC	0.045	0.045	0.033	0.1	0.3					
X1	2.964	90	8510.33	11789	455	520	500			
X3	0			7500	975	11815	975			
GR	966	7119.78	968	7208.56	968	7356.71	966	7407.3	964	7565.08
GR	964	7788.53	964	7992.42	962	8034.25	960	8091.9	960	8152.96
GR	958	8163.03	958	8177.52	960	8250.57	964	8263.71	964	8317.96
GR	966	8340.72	966	8510.33	960	8533.94	958	8599.51	958	8902.2
GR	960	9089.02	962	9121.87	958	9300	956	9367.84	954	9377.46
GR	950	9415.75	950	9523.74	954	9545.43	954	9595.59	952	9680.76
GR	952	9701.03	950	9790.01	950	9888.19	952	9939.5	952	9986.46
GR	954	10019.87	958	10038.44	962	10069.65	962	10102.99	960	10125.5
GR	960	10151.19	962	10178.45	962	10201.25	960	10220.76	960	10259.95
GR	958	10298.04	958	10320.36	960	10327.92	962	10356.96	964	10456.41

GR	964	10513.7	954	10547.15	952	10579.03	954	10670.52	956	10802.1
GR	958	10856.7	958	10945.6	956	10981.03	956	10997.68	958	11073.89
GR	958	11248.31	960	11254.15	960	11326.93	962	11335.57	962	11357.22
GR	960	11363.8	960	11593.97	962	11602.59	962	11618.83	958	11627.21
GR	958	11650.16	954	11665.31	954	11747.71	958	11754.5	962	11761.25
GR	966	11768.09	970	11774.81	974	11781.69	978	11789	978	11899.03
GR	968	11932.46	968	11946.75	972	11989.24	972	12014.07	970	12026.93
GR	970	12049.38	972	12055.74	972	12278.81	972	12574.25	970	12595.69
X1	3.059	90	8705.89	11812.31	500	500	500			
X3	10			7260	975					
GR	968	7129.9	970	7163.61	970	7231.18	968	7328.91	968	7555.48
GR	966	7754.46	964	7925.88	962	8033.73	962	8102.48	960	8186.78
GR	960	8253.19	958	8275.62	958	8323.98	960	8334.92	962	8379.62
GR	964	8389.18	964	8583.64	962	8705.89	960	8755.4	960	8782.1
GR	958	8813.55	958	8994.85	956	9023.61	954	9104.16	952	9129.51
GR	952	9163.97	954	9197.85	954	9354.64	952	9380.75	952	9415.1
GR	954	9435.05	954	9738.49	954	9939.66	956	9982.28	958	10046.52
GR	960	10171.2	962	10262.43	962	10550.4	962	10622.64	960	10669.46
GR	960	10746.07	958	10795.7	956	10839.55	958	10869.81	958	10888.75
GR	956	10978.61	954	11102.64	954	11133.13	956	11160.93	958	11176.18
GR	958	11229.13	960	11235.54	960	11329.93	962	11339.08	962	11360.36
GR	958	11379.95	958	11405.53	962	11451.78	960	11461.1	960	11560.76
GR	962	11569.82	962	11594.41	960	11602.23	960	11621.16	962	11626.18
GR	962	11638.07	956	11656.89	956	11705.88	960	11751.7	962	11767.6
GR	964	11771.78	968	11779.69	972	11787.98	976	11796.24	980	11804.5
GR	980	11812.31	978	11831.38	972	11852.71	972	11978.03	974	11984.36
GR	974	12004.62	970	12017.3	968	12034.38	968	12048.5	970	12183.07
GR	972	12274.59	970	12298.25	972	12301.55	972	12506.13	970	12514.74
X1	3.153	90	8504.94	11250	420	560	500			
X3	10			7200	975	11252.76	975			
GR	968	7079.55	972	7118.42	972	7147.55	970	7159.66	970	7171.53
GR	968	7415.51	966	7539.65	964	7770.96	962	7782.82	962	7807.34
GR	964	7875.05	964	7949.94	962	7963.99	962	8095.48	960	8165.07
GR	960	8256.22	964	8276.05	966	8319.22	968	8379.34	968	8504.94
GR	966	8515.14	964	8563.92	962	8583.36	960	8591.15	960	8603.16
GR	962	8611.4	964	8691.4	964	8731.53	956	8748.55	956	8781.87
GR	958	8843.19	956	8853.11	956	9020.81	960	9066.43	958	9147.47
GR	956	9210.25	956	9342.46	958	9383.17	958	9499.59	956	9526.54

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GR	954	9541.48	954	9552.13	956	9652.96	956	9695.41	958	9755.16
GR	960	9787.05	960	9810.49	958	9883.37	956	9927.06	956	10040.48
GR	958	10073.71	956	10179.3	956	10234.43	958	10296.06	960	10321.98
GR	960	10351.84	962	10361.88	962	10492.53	964	10505.47	964	10537.2
GR	962	10556.37	962	10750.19	960	10860.03	960	10941.37	962	10962.54
GR	962	11075.1	956	11098.17	952	11132.76	952	11224.2	970	11250
GR	952	11280.96	955	11294.18	958	11299.13	963	11309.16	968	11319.19
GR	972	11326.46	972	11355.94	971	11379.2	957	11403.72	955	11405.8
GR	955	11449.69	960	11457.66	965	11467.89	968	11489.7	973	11500.3
GR	973	11740.51	975	11752.72	977	11784.52	979	11796.5	980	12563.81
X1	3.248	90	8521.75	11040	480	520	500			
X3	10			7125	975	11046.32	984.96			
GR	968	7023.08	972	7061.89	972	7087.51	970	7118.69	970	7337.61
GR	968	7418.29	966	7531.82	964	7658.35	962	7770.27	964	7788.82
GR	964	7971.75	962	8006.55	960	8018.99	962	8080.16	962	8186.83

GR	964	8237.56	966	8245.13	968	8274.3	968	8417.33	970	8438.11
GR	970	8521.75	966	8552.96	964	8599.21	960	8625.69	962	8637.35
GR	962	8810.55	956	8816.78	956	8970.76	958	8992.06	956	9038.65
GR	956	9195.92	958	9234.87	958	9267.03	956	9277.14	956	9378.61
GR	958	9390.2	960	9427.27	960	9506.1	958	9602.04	960	9612.48
GR	960	9753.73	962	9763.39	964	9812.41	962	9855.93	960	9939.8
GR	960	10110.4	958	10145.12	958	10220.3	960	10224.85	960	10239.09
GR	958	10242.23	958	10519.03	962	10566.6	964	10605.91	964	10690.74
GR	964	10963.76	962	10988.01	956	11001.32	956	11017.21	971	11040
GR	953	11060.58	952	11073.59	952	11158.61	953	11191.6	959	11202.04
GR	961	11206.07	966	11214.53	971	11223.26	976	11238.38	981	11248.23
GR	982	11291.24	967	11320.5	959	11341.24	959	11387.94	961	11390.93
GR	966	11401.97	967	11411.05	973	11421.3	978	11428.74	980	11459.28
GR	980	11605.44	979	11639.36	978	11701.76	978	11727.88	980	11731.79
GR	980	11748.99	979	12396.28	971	12411.78	968	12438.44	967	12484.4
X1	3.343	90	8570.47	11060	530	522	500			
X3	10			7300	985	11062.47	985.04			
GR	970	6949.94	972	6986.55	972	7002.86	970	7026.93	968	7231.93
GR	968	7347.32	966	7752.78	962	7798.64	962	7843.81	964	7904.72
GR	964	7950.27	960	7960.42	960	7971.11	964	8115.54	968	8130.49
GR	968	8263.27	970	8288.42	970	8325.1	968	8442.22	968	8493.7
GR	970	8517.38	970	8570.47	968	8579.5	966	8632.6	964	8665.2
GR	960	8700.09	956	8751.26	956	8919.79	960	8941.4	960	9164.47
GR	962	9294.19	962	9361.62	960	9376.16	958	9419.54	958	9523.53
GR	964	9546.22	964	9592.12	962	9653.92	960	9740.54	960	9923.52
GR	958	9946.24	958	9991.95	960	10035.11	962	10046.86	960	10060.9
GR	960	10077.35	964	10096.36	964	10145.95	962	10264.92	960	10278.56
GR	960	10311.24	962	10391.26	962	10504.1	958	10512.53	958	10593.63
GR	960	10603.33	960	10670.01	958	10886.63	958	10935.21	956	10946.9
GR	956	11037	971.5	11060	955	11102.05	960	11112.16	964	11118.68
GR	970	11129.77	971	11139.37	974	11146.23	975	11160.05	980	11172.12
GR	984	11181.83	985	11218.12	976	11236.37	971	11256.83	959	11275.83
GR	959	11312.23	965	11327.44	968	11334.34	972	11345.04	976	11354.83
GR	977	11371.7	980	11387.47	979	11410.13	980	11468.42	980	11530.27
GR	979	11576.51	979	11665.89	979	12325.66	976	12338.54	969	12340.65

X1	3.438	90	8598.08	10920	520	490	500			
X3	10			7400	985	10921.25	978			
GR	970	6879.48	972	6911.48	972	6944.52	970	6966.05	970	7092.01
GR	972	7120.53	972	7180.94	970	7189.56	968	7203.55	968	7280.55
GR	968	7728.2	968	7858.12	966	7865.28	964	7948.07	964	7961.32
GR	966	8022.23	966	8038.63	962	8051.03	962	8119.11	964	8190.37
GR	966	8197.35	968	8273.75	970	8309.05	970	8522.61	970	8598.08
GR	968	8628.96	962	8666.78	960	8683.29	960	8746.66	956	8771.75
GR	956	8858.88	958	8881.21	960	9113.01	962	9252.57	964	9316.64
GR	964	9332.02	962	9370.39	960	9407.03	960	9596.57	962	9612.84
GR	964	9888.58	964	9971.18	962	9984.57	962	10170.4	964	10199.57
GR	964	10295.95	966	10320.28	966	10450.36	964	10586.52	962	10608.68
GR	960	10672.35	960	10721.83	962	10732.81	962	10736.32	960	10750.38
GR	958	10760.39	958	10780.57	956	10787.19	956	10859.64	972	10920
GR	956	10927.45	956	10942.41	957	11007.93	957	11028.69	956	11033.31
GR	956	11061.61	959	11067.12	960	11070.03	962	11073.6	966	11082.32
GR	971	11092.37	975	11101.38	980	11111.17	981	11113.39	981	11122.05
GR	980	11148.12	979	11165.3	979	11255.45	978	11259.63	978	11518.58
GR	977	11522.58	975	11532.55	975	12192.97	976	12196.75	977	12199.11

GR	979	12205.95	980	12248.01	980	12252.95	979	12257.83	970	12277.25
X1	3.532	90	8422.34	10780.75	465	495	500			
X3	10			7460	985	10784.84	985			
GR	972	6746.2	972	6824.37	970	6855.31	970	7117.76	968	7842.83
GR	966	7854.01	964	8101.34	964	8195.23	966	8265.06	966	8285.48
GR	964	8295.74	964	8340.45	966	8353.94	968	8367.31	968	8422.34
GR	966	8447.09	964	8456.36	962	8613.55	962	8756.28	964	8765.09
GR	964	8807.39	962	8808.98	960	8899.09	960	9112.82	960	9371.33
GR	960	9595.95	962	9608.35	964	9743.55	966	9864.77	966	9904.88
GR	964	10032.22	964	10229.35	966	10409.62	966	10476.47	964	10500.11
GR	962	10575.23	960	10668.91	958	10682.91	958	10696.66	959	10722.89
GR	958	10760.75	973	10780.75	956	10909.46	957	10918.86	958	10929.18
GR	960	10949.71	961	10960.04	961	10970.43	960	10982.61	960	11017.08
GR	961	11020.36	962	11022.88	963	11025.42	964	11027.99	965	11030.8
GR	966	11032.65	967	11035.23	968	11037.42	969	11039.9	970	11042.62
GR	971	11044.52	972	11046.33	973	11048.64	974	11051.01	975	11053.27
GR	976	11055.12	977	11057.38	978	11059.8	979	11061.97	980	11063.71
GR	981	11065.78	982	11067.51	983	11068.91	984	11070.76	985	11072.85
GR	985	11110.24	984	11112.91	983	11115.79	982	11118.77	981	11121.3
GR	980	11126.31	980	11152.43	979	11181.18	978	11184.8	978	11388.32
GR	978	12064.72	979	12071.34	979	12138.01	978	12154.38	977	12168.21
X1	3.627	90	7720	10695	510	460	500			
X3	10					10700	980			
GR	974	6644.84	972	6675.68	972	6970.31	972	6984.41	970	7592.42
GR	969	7720	968	8157.87	966	8241.07	966	8244.03	966	8296.05
GR	966	8315.03	968	8326.48	968	8343.69	966	8350.24	964	8360.74
GR	962	8372.71	962	8811.89	964	8822.89	962	8987.34	962	10045.53
GR	962	10047.09	962	10052.46	962	10154.43	962	10174.12	962	10188.32
GR	962	10204.36	962	10222.63	964	10228.62	964	10230.35	964	10230.75
GR	964	10237.35	962	10306.97	962	10344.86	964	10361.39	966	10379.32
GR	966	10430.5	964	10484.2	962	10525.46	960	10580.33	959	10621.76
GR	958	10666.66	958	10670	973	10695	956	10782.18	957	10790.2

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GR	958	10805.79	958	10830.3	958	10868.15	959	10879.41	960	10891.09
GR	961	10901.21	962	10909.31	963	10914.71	964	10919.15	965	10922.48
GR	966	10924.25	967	10927.44	968	10934.47	969	10941.72	970	10950.57
GR	971	10964.59	972	10968.69	973	10970.84	974	10973.87	975	10976
GR	976	10978.26	977	10980.65	978	10983	979	10985.46	980	10987.36
GR	981	10989.88	981	11028.23	980	11046.78	979	11105.62	978	11136.33
GR	978	11136.98	978	11243.94	978	11668.85	978	11703.88	978	11738.29
GR	978	11747.48	978	11785.6	978	11798.75	978	11851.23	979	11885.64
GR	980	11905.68	980	11988.16	979	12006.06	978	12019.45	977	12033.69
X1	3.721	90	7452.38	10670	530	495	450			
X3	10			6470	985	10675	978			
GR	974	6232.87	974	6313.57	972	7216.99	972	7452.38	970	7508.47
GR	968	7582.42	968	7734.9	966	7813.45	964	7830.88	964	7856.35
GR	966	7867.8	962	7878.14	964	7918.25	968	7955.6	968	8027.18
GR	966	8032.29	966	8050.12	968	8079.45	968	8093.66	966	8143.53
GR	964	8171.87	964	8285.16	966	8293.23	966	8367.77	964	8374.32
GR	964	8512.6	966	8545.11	966	8594.46	964	8603.84	964	8706.04
GR	966	8893.49	966	9009.07	964	9074.53	962	9169.22	960	9224.79
GR	960	9587.25	964	9599.79	964	9658.25	962	9720.47	964	9769
GR	964	9988.03	962	10109.85	962	10160.56	964	10207.28	964	10267.66
GR	962	10318.44	962	10370.3	957	10456.02	956	10513.73	959	10598.05

GR	959	10648	974	10670	963	10706.72	968	10723.59	973	10737.31
GR	977	10747.85	978	10781.08	976	10828.55	976	11108.41	977	11130.26
GR	977	11170.47	978	11177.46	978	11338.44	976	11350.25	976	11568.79
GR	977	11574.06	977	11614.71	980	11630.68	979	11680.31	978	11817.43
GR	978	11871.46	980	12245.84	980	12359.62	981	12693.8	980	12845.14
GR	982	12879.45	982	12922.22	981	12930.35	979	12993.22	976	13000.99
GR	976	13185.06	976	13554.72	980	13566.33	980	13584.86	978	13735.84
GR	978	13785.02	980	14171.13	980	14209.18	976	14217.43	978	14226.87
X1	3.813	90	7691.06	10684.92	570	445	490			
X3	10			6320	985					
GR	974	6047.74	976	6085.71	976	6434.26	974	7062.93	974	7152.52
GR	972	7442.58	970	7485.89	970	7691.06	968	7718.2	970	7729.04
GR	970	7943.24	966	7956.95	964	7991.66	964	8120.09	966	8168.27
GR	966	8195.68	968	8219.75	968	8314.18	964	8328.68	964	8411.16
GR	968	8426.79	966	8453.71	966	8483.35	968	8518.68	964	8561.95
GR	964	8797	966	8843.49	966	8891.88	964	9009.74	962	9089.05
GR	960	9120.51	960	9410.85	962	9422.84	964	9513.64	966	9527.04
GR	968	9574	968	9606.07	964	9643.79	966	9662.99	964	9740.27
GR	964	9843.36	964	10065.55	966	10120.84	968	10127.9	968	10159.14
GR	964	10322.49	961	10338.46	958	10411.5	961	10424.6	961	10466.06
GR	963	10511.13	963	10543.37	967	10592.29	965	10645	975	10684.92
GR	977	10705.06	978	10760.29	978	11007.29	977	11013.29	977	11111.57
GR	981	11142.49	981	11389.06	978	11398.84	976	11435.6	981	11458.71
GR	981	11482.99	975	11512.83	976	11983.68	980	12009.71	980	12049.68
GR	978	12061.99	976	12126.88	976	12275.18	976	12619.99	978	12658.28
GR	980	12667.82	984	12712.93	984	12764.02	982	12770.85	980	12805.9
GR	978	12812.09	976	13285.36	978	13392.86	980	13423.04	978	13426.91
GR	978	14007.24	980	14012.57	980	14051.29	978	14064.38	978	14090.4

X1	3.908	90	7787.85	10640	530	460	500			
X3	10			7520	985	10641	981			
GR	976	5913.91	976	6270	976	6885.83	974	6903.22	976	6909.95
GR	976	6925.29	974	7289.36	972	7435.39	970	7513.29	968	7529.92
GR	970	7566.05	970	7674.56	972	7770.06	972	7787.85	970	7830.13
GR	968	7941.62	968	7997.45	966	8045.19	966	8197.48	968	8232.91
GR	966	8245.63	966	8472.54	964	8495.67	964	8582.42	966	8760.4
GR	968	8878.83	968	8975.35	960	9031.85	960	9216.32	962	9224.74
GR	966	9241.69	968	9250.25	968	9360.95	966	9400.44	964	9488.69
GR	964	9529.85	962	9574.05	960	9596.77	964	9646.69	964	9708.3
GR	966	9821.52	966	9877.51	962	10140.37	960	10142.5	960	10227.3
GR	964	10248.82	967	10351.4	966	10473.68	966	10585.98	970	10632
GR	975	10640	970	10662.2	970	10682.46	972	10696.05	975	10733.26
GR	979	10789.15	981	10798.78	981	11020.89	979	11031.12	979	11249.84
GR	980	11258.81	977	11269.67	977	11289.84	980	11297.04	982	11303.03
GR	980	11345.74	979	11425.53	978	11578.35	978	11822.92	980	11846.47
GR	980	11899.26	976	11917.98	976	12348.64	978	12509.75	982	12528.75
GR	984	12543.51	984	12607.17	980	12658.11	976	12675.15	976	12981.95
GR	976	13180.44	978	13213.21	982	13251.24	980	13284.53	980	13853.32
GR	982	13870.38	980	13898.43	976	13905.59	978	13910.85	978	13934.99
X1	4.001	90	7409.35	10620	540	420	490			
X3	10			7650	985	10630	980			
GR	976	5934.8	978	6053.28	978	6683.6	976	6690.47	976	6968.06
GR	974	7229.32	972	7281.26	972	7336.31	970	7409.35	970	7608.42
GR	972	7639.1	972	7759.14	970	7785.23	970	7837.84	968	7841.69

GR	968	7937.2	970	7954.37	972	8019.58	970	8029.67	968	8068.06
GR	968	8191.45	970	8201.62	970	8224.19	966	8251.82	966	8362.65
GR	968	8451.59	972	8484.52	972	8519.77	968	8533.43	966	8551.21
GR	966	8600.43	968	8648.94	968	8710.03	966	8735.22	966	8992.55
GR	964	9020.51	960	9032.82	960	9192.43	962	9208.66	966	9285.91
GR	966	9324.42	964	9361.89	964	9463.47	966	9577.46	966	9617.11
GR	964	9640.5	964	9724.33	966	9768.77	966	9949.84	964	10116.8
GR	964	10272.74	966	10303.66	968	10313.18	970	10401.52	971	10540.25
GR	971	10614	976	10620	971	10693.95	971	10815.26	976	10848.62
GR	980	10861.08	980	10952.14	979	10975.13	979	11081.14	981	11116.01
GR	981	11148.47	978	11164.77	978	11632.03	982	11666.75	982	11698.59
GR	980	11722.31	978	11892.55	978	12233.85	980	12326.64	984	12352.58
GR	986	12400	984	12405.16	982	12444.18	980	12704.12	980	13026.53
GR	982	13042.38	982	13064.33	980	13092.91	978	13330.69	978	13632.84
GR	980	13642.94	982	13694.65	976	13707.2	978	13711.6	978	13736.75
X1	4.095	90	7486.79	10610	600	450	495			
X3	10			7780	985	10611	981			
GR	978	6495.76	978	6692.49	976	6990.9	974	7048.25	972	7076.16
GR	972	7164.26	974	7186.69	974	7247.68	972	7261.14	972	7486.79
GR	972	7552.32	970	7570.71	970	7581.92	974	7633.37	974	7663
GR	972	7675.33	968	7732.83	968	7788.95	970	7796.79	970	7883.46
GR	972	7894.28	972	7929.37	968	7949.06	968	8052.47	970	8127.14
GR	970	8168.2	968	8178.66	968	8283.86	970	8306.51	974	8317.82
GR	976	8457.2	976	8636.76	970	8663.79	968	8696.59	966	8800.8
GR	966	8845.39	968	8939.1	966	9074.76	962	9096.56	962	9273.21
GR	964	9371.24	966	9461.72	966	9575.94	964	9653.72	964	9682.6

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GR	966	9872.33	966	10152.09	968	10180.64	968	10437.22	970	10487.82
GR	972	10527.25	970	10602	978	10610	972	10697.13	972	10720.63
GR	971	10745.3	975	10762.61	978	10776.14	979	10811.43	980	10882.15
GR	978	10892.37	979	10895.49	980	10927.24	981	10931.22	981	10961.75
GR	978	10975.73	978	11422.97	980	11449.41	982	11459.98	982	11506.18
GR	980	11545.58	980	12117.88	984	12156.46	986	12194.79	986	12212.73
GR	984	12218.8	982	12256.28	978	12269.67	978	12620.17	978	12833.72
GR	980	12843.69	982	12865.31	982	12876.21	978	12899.43	978	13454.33
GR	982	13467.37	982	13509.64	976	13522.14	980	13529.04	980	13538.15
X1	4.189	90	7395.04	10585	575	495	500			
X3	10			7920	985	10590	980			
GR	978	6292.43	978	6401.27	974	6506.07	974	6604.06	976	6842.63
GR	974	6858.89	976	6869.13	976	7036.77	974	7052.89	974	7071.58
GR	976	7102.61	976	7174.28	974	7195.76	974	7395.04	974	7686.95
GR	974	7776.43	972	7798.39	972	7867.91	970	7927.22	970	7974.8
GR	974	8012.43	974	8031.44	970	8047.04	968	8068.6	966	8130.66
GR	966	8167.99	970	8206.96	970	8430.15	972	8487.23	976	8507.24
GR	976	8596.55	974	8604.51	972	8629.25	970	8766.73	970	8842.44
GR	968	8866.72	970	8877.22	970	9018.6	968	9079.55	966	9111.54
GR	964	9172.82	964	9257.39	962	9277.5	964	9302.13	964	9324.15
GR	960	9350.47	962	9431.3	964	9494.86	966	9592.66	966	9734.75
GR	964	9810.16	964	9828.23	966	9931.35	966	10221.66	962	10249.23
GR	962	10318.36	966	10327.51	968	10348.85	969	10400.6	971	10475.62
GR	973	10508.17	973	10577	979	10585	975	10605.19	979	10621.26
GR	980	10662.87	980	11112.27	980	11483.48	980	11817.39	980	11941.85
GR	981	11999.29	983	12009.02	983	12039.69	980	12041.93	979	12104.05
GR	979	12259.25	978	12320.66	978	12365.36	979	12390.25	979	12548.16
GR	978	12620.54	979	12648.86	976	12737.01	976	13106.84	976	13121.44

GR	977	13703.48	978	13714.37	982	13719.36	982	13732.46	978	13737.01
X1	4.284	90	7336.18	10647.12	580	480	500			
X3	0			8050	985					
GR	980	5053.35	980	5074.39	982	5267.48	982	5341.56	980	5773.52
GR	980	5781.86	978	5813.46	978	7150.02	978	7158.67	976	7170.48
GR	974	7182.14	974	7336.18	974	7407.63	974	7748.95	974	8008.25
GR	974	8167.41	972	8290.59	970	8340.16	970	8428.89	972	8570.3
GR	972	8873.25	972	8926.3	970	9039.07	968	9108.46	968	9140.95
GR	968	9154.84	966	9251.09	966	9275.34	968	9322.91	968	9337.14
GR	968	9392.98	968	9422.09	968	9440.89	968	9457.8	966	9466.7
GR	964	9476.07	964	9504.51	964	9547.52	961	10463.06	961	10466
GR	962	10467.48	963	10468.95	964	10470.53	965	10472.16	966	10473.95
GR	967	10475.54	968	10477.17	969	10478.83	970	10480.49	970	10480.74
GR	970	10496.24	971	10501.92	972	10510.52	973	10515.37	974	10519.77
GR	975	10524.24	976	10529	977	10533.66	978	10538.8	979	10547.87
GR	980	10586.8	981	10606.17	982	10610.34	982	10611.25	981	10612.85
GR	980	10614.41	980	10615.36	981	10616.77	982	10618.26	982	10621.55
GR	981	10627.69	981	10628.89	982	10642.66	983	10647.12	983	10686.85
GR	982	10700.68	982	11671.62	982	11730.45	982	11855.94	984	11918.5
GR	984	11936.56	982	11959.51	980	11991.52	980	13505.74	982	13532.49
GR	982	13580.2	980	13618.2	978	13624.61	978	13625.67	980	13628.87

X1	4.379	90	7304.78	10600.09	585	420	500			
X3	0			8190	985	10665	985			
GR	982	4998.41	982	5273.12	982	5499.51	980	5575.55	978	5587.8
GR	978	6048.45	980	6964.04	982	6979.34	982	7060.54	980	7091.45
GR	978	7122.45	976	7148.74	976	7219.14	978	7228.15	980	7235.93
GR	980	7261.94	978	7275.59	976	7289.71	974	7304.78	974	7360.99
GR	976	7398.56	976	7633.83	976	7780.74	974	7790.4	972	7799.8
GR	972	7831.32	974	7843.18	976	7855.06	976	8188.06	974	8194.09
GR	972	8200	972	8496.5	970	8532.34	970	8556.07	972	8574.48
GR	972	8875.19	972	9109.11	970	9114.56	966	9124.95	964	9131.31
GR	962	9897.16	962	9907.45	962	10374.74	964	10384.66	965	10444.78
GR	966	10507.93	967	10515.1	968	10516.67	969	10518.19	970	10519.61
GR	972	10522.65	974	10525.74	975	10527.31	976	10528.85	977	10530.45
GR	978	10532.16	979	10533.83	980	10535.41	981	10537.3	982	10539.11
GR	983	10556.47	984	10600.09	984	10629.38	983	10631.87	982	10634.4
GR	981	10636.97	981	10638.05	982	10640.36	982	10643.98	981	10646.19
GR	981	10657.7	982	10667.31	983	10672.24	983	10699.61	981	10706.7
GR	980	10710.26	979	10713.85	978	10717.25	978	10722.18	980	11692.16
GR	982	11699.39	984	11705.82	984	11754.5	982	11766.91	982	13370.32
GR	984	13380.43	984	13383.77	982	13404.67	982	13436.19	980	13440.92
X1	4.473	90	8125.7	10669.79	480	420	500			
X3	0			8310	985					
GR	982	5135.51	982	5269.88	984	5273.58	982	5361.11	980	5381.2
GR	980	6640.85	980	6783.15	974	6810.87	974	6833.62	978	6850.36
GR	980	6885.97	978	7380.76	978	7581.17	978	8053.37	978	8125.7
GR	976	8192.57	972	8217.09	972	8290.17	970	8348.2	972	8456.75
GR	972	8594.53	974	8667.61	976	8707.98	976	8829.75	974	8843.28
GR	972	8903.66	962	8930.6	962	9162.15	966	9178.66	968	9213.95
GR	966	9254.25	970	9335.88	970	9408.94	962	9446.11	962	9509.58
GR	966	9574.73	962	9601.22	962	10077.39	966	10130.75	968	10185
GR	968	10243.11	972	10427.52	970	10503.04	974	10533	976	10581.7
GR	980	10597.63	982	10610.26	984	10669.79	982	10696.01	986	10705.35

GR	984	10744.48	984	10786.14	986	10817.13	990	10870.22	988	10901.25
GR	988	10957.67	990	10966.75	990	11057.24	986	11100.02	990	11127.98
GR	982	11141.78	986	11161.36	988	11163.47	988	11195.2	984	11203.83
GR	982	11471.71	982	11680.32	984	11705.21	982	11731.65	982	11777.09
GR	984	11824.03	982	11901.9	984	12071.72	980	12095.14	982	12122.55
GR	986	12161.9	980	12177.21	980	12236.38	982	12397.74	982	12643.24
GR	984	12649.98	984	12752.2	982	12778.55	984	12827.62	984	12996.36
GR	984	13121.53	986	13150.52	984	13156.66	982	13277.03	980	13288.95
X1	4.568	90	8406.26	10685.94	520	490	500			
GR	984	5011.83	984	5013.5	982	5125.25	980	5165.7	980	5192.28
GR	982	5205.41	982	5212.6	980	5221.32	980	5225.67	982	5240.91
GR	982	5283.71	984	5291.02	984	5355.65	982	5363.52	982	5479.81
GR	984	5490.37	984	5492.42	982	5585.96	982	5842.76	980	5846.98
GR	980	5854.08	982	5859.46	982	5872.03	980	6679.99	980	6718.75
GR	980	7246.43	980	7263.23	978	7546.8	978	7561.7	980	7645.87
GR	982	7674.48	982	7858.91	980	8272.97	978	8278.27	974	8289.25
GR	972	8406.26	972	8543.55	970	8559.24	970	8568.57	972	8576.9
GR	972	8605.39	974	8643.59	976	8735.44	976	8738.21	974	8746.02
GR	972	8753.07	970	8759.74	968	8767.06	966	8773.33	966	8780.4

GR	968	8789.73	970	8806.47	970	8833.82	966	8844.38	962	8854.79
GR	962	9248.98	964	9252.94	966	9256.61	966	9357.41	964	9389.66
GR	964	9588.41	966	9662.03	966	9666.47	964	9694.02	962	9701.97
GR	962	9890.97	962	9978.33	962	10119.76	964	10157.3	964	10172.5
GR	962	10218.05	962	10304.66	964	10316.53	966	10328.76	968	10346.62
GR	970	10380.43	970	10425.14	972	10468.39	974	10483.79	976	10496.92
GR	976	10601.74	978	10627.03	980	10641.71	982	10685.94	984	10799.29
GR	984	10812.47	982	10841.24	980	10925.82	980	10936.72	982	10991.06
X1	4.663	90	8454.89	10636.02	490	460	500			
X3	0			8200	990	10650	990			
GR	982	6527.36	982	6902.1	982	6902.23	984	6905.62	984	6905.72
GR	982	6920	980	6928.08	978	7122.86	978	7199.91	980	7221.29
GR	980	7360.5	980	7699.54	982	7714.96	984	7853.06	984	7861.69
GR	982	7911.76	980	7934.23	980	7995.9	982	8067.37	982	8125.1
GR	984	8150.07	984	8243.33	982	8251.83	980	8260.96	980	8289.84
GR	982	8296.42	982	8311.18	980	8351.49	978	8454.89	976	8474.58
GR	976	8539.11	974	8554.3	972	8562.41	972	8703.83	972	8808.94
GR	970	8858.51	970	8896.69	972	8976.91	974	9070.4	976	9089.45
GR	978	9110.66	980	9198.41	980	9234.81	978	9252.08	978	9379.3
GR	978	9479.31	976	9483.73	974	9488.3	972	9500.89	970	9508.77
GR	968	9516.29	968	9587.36	970	9605.59	970	9689.4	972	9750.37
GR	974	9775.86	974	9871.94	972	9880.75	970	9889.34	968	9921.64
GR	966	10013.26	964	10139.23	964	10149.82	966	10187.04	966	10343.52
GR	964	10359.97	962	10370.58	962	10400.6	964	10576.38	966	10580.68
GR	968	10585.08	970	10589.49	972	10593.71	974	10597.97	976	10601.97
GR	978	10605.21	980	10609.04	982	10613.43	984	10617.61	986	10622.14
GR	986	10636.02	984	10656.54	984	10679.21	986	10866.46	986	10882.78
GR	986	10886.87	984	10898.26	982	11145.34	982	11265.84	982	11265.87
X1	4.758	90	8848.02	10964.46	450	390	500			
X3	0			8860	990	11030	990			
GR	982	6498.81	982	6871.72	980	6905.19	978	7014.31	978	7062.79
GR	980	7086.33	982	7133.8	982	7333.51	980	7546.77	980	7664.83
GR	982	7751.95	982	7845.66	980	7946.93	980	7949.82	982	7962.54
GR	984	8077.32	984	8281.4	982	8302.28	980	8627.94	980	8676.8

GR	982	8693.65	982	8790.28	980	8797.26	978	8806.28	976	8817.04
GR	974	8832.09	972	8848.02	972	8918.38	974	8940.12	974	8969.71
GR	972	9022.49	972	9099.28	974	9149.37	976	9358.83	976	9360.63
GR	974	9411.94	972	9419.83	970	9427.8	970	9475.61	972	9484.26
GR	974	9505.16	974	9523.57	974	9567.17	976	9629.88	978	9734.56
GR	978	9787	976	9791.21	974	9823.28	972	9840.25	970	9853.23
GR	968	9873.64	966	9884.36	966	10077.73	968	10122.03	968	10257
GR	968	10287.18	970	10298.49	970	10377.36	968	10469.69	968	10523.95
GR	968	10545.93	968	10578.57	970	10613.44	970	10639.93	968	10662.61
GR	966	10676.61	966	10709.67	968	10718.43	968	10765.15	968	10845.11
GR	968	10868.35	966	10881.34	966	10900.88	968	10904.71	970	10908.88
GR	972	10912.65	974	10917.07	976	10923.71	978	10929.93	980	10936.43
GR	982	10942.38	984	10950.11	986	10960.18	986	10964.46	984	11130.57
GR	982	11171.06	980	11456.43	978	11484.77	976	11498.91	974	11514.68

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X1	4.852	90	8788.2	10990.93	410	525	500			
X3	0			8770	995	11050	995			
GR	982	6025.03	984	6789.04	982	6824.5	982	8075.32	984	8159.95
GR	984	8184.81	986	8192.62	986	8264.13	984	8324.42	984	8400.29
GR	986	8418.59	988	8426.42	994	8434.74	998	8440.17	1002	8445.98
GR	1002	8456.91	1004	8462.17	1004	8465.98	1002	8470.14	1002	8472.24
GR	1004	8476.28	1004	8587.93	1002	8593.07	996	8601.88	986	8615.38
GR	984	8629.34	984	8630.46	986	8640.09	986	8749.78	988	8754.33
GR	994	8768.19	994	8788.2	992	8797.71	990	8824.45	986	8837.86
GR	986	8872.83	984	8895.65	982	8908.89	972	8929.79	972	8939.51
GR	974	8972.66	974	8989.92	972	9003.07	972	9029.47	974	9115.26
GR	974	9276.52	974	9414.02	974	9629.62	972	9726.05	970	9774.57
GR	968	9798.68	968	10062.72	970	10134	972	10211.1	972	10367.86
GR	970	10381.81	968	10391.69	966	10399	966	10461.71	968	10490.73
GR	968	10532.79	970	10585.63	972	10601.95	972	10637.79	970	10672.83
GR	970	10705.83	968	10732.88	966	10775.45	966	10778.12	968	10790.68
GR	968	10899.16	970	10932.02	972	10959.75	976	10968.72	980	10977.64
GR	986	10990.93	986	11078.32	982	11093.56	980	11266.35	980	11273.35
GR	982	11299.27	984	11338.3	984	11361.08	982	11368.1	980	11409.79
GR	976	11419.48	976	11483.89	978	11498.77	980	11516.92	982	11837.93

X1	4.947	84	9601.89	10945.26	520	470	500			
X3	0			9300	988.2					
GR	984	6614.65	984	6617.26	984	6621.75	984	6623.83	982	6974.67
GR	982	6979.68	982	7979.68	982	7980.72	984	7983.13	986	8012.7
GR	986	8021.52	986	8074.18	986	8077.33	986	8201.75	986	8276.25
GR	986	8315.59	986	8415.32	984	8684.54	984	8700.27	984	8708.75
GR	982	8716.22	982	8776.84	982	8935.51	980	8961.01	980	9074.93
GR	980	9086.57	978	9095.89	978	9151.5	980	9170.41	982	9186.51
GR	982	9194.28	982	9264.13	984	9269.02	986	9273.55	988	9278.24
GR	988	9312.51	986	9320.07	984	9325.67	982	9330.06	980	9347.39
GR	980	9361.14	980	9601.89	978	9617.91	976	9623.9	974	9629.96
GR	972	9661.19	970	9727.35	968	9779.21	968	10022.3	970	10086.58
GR	972	10176.08	974	10261.92	976	10283.59	976	10623.47	974	10650.74
GR	972	10715.14	970	10727.7	970	10745.26	970	10753.8	968	10764.87
GR	968	10777.88	970	10835.28	972	10844.27	974	10853.82	976	10865.06
GR	978	10875.66	980	10880.17	982	10884.65	984	10889.2	986	10893.82
GR	988	10898.65	990	10903.34	992	10945.26	992	10969.52	990	10975.12
GR	988	10981.01	986	10986.32	984	10991.92	984	11112.49	984	11248.18
GR	984	11343.67	986	11755.28	986	11811.14	986	11856.81		

X1	5.042	81	9739.89	10852.36	460	510	500			
X3	0			9070	988.4					
GR	988	8055.23	988	8059.2	986	8065.3	986	8095.14	986	8179.64
GR	986	8254.02	986	8259.41	986	8281.94	986	8283.35	986	8522.58
GR	988	8529.13	988	8535.28	986	8541.82	984	8548.36	984	8556.88
GR	984	8635.15	984	8635.19	980	8689.96	980	8764.85	982	8876.09
GR	982	8911.1	980	8916.86	978	8922.82	978	8957.77	980	8962.52
GR	982	8967.1	984	9050.01	986	9055.19	988	9060.82	988	9069.34
GR	986	9073.3	984	9077.06	982	9163.72	982	9185.4	982	9420.28
GR	980	9688.15	980	9707.97	982	9726.32	984	9734.37	984	9739.89
GR	982	9745.12	980	9750.51	978	9756.41	976	9762.62	974	9768.81
GR	972	9775.06	970	9781.25	968	9787.48	968	10019.88	970	10139.99

GR	972	10194.11	974	10261.51	976	10409.25	976	10626.85	974	10679.64
GR	974	10693.63	974	10693.75	974	10702.5	974	10719.52	972	10734.81
GR	972	10736.42	974	10745.83	976	10755.19	978	10764.68	980	10774.38
GR	982	10784.07	984	10793.75	986	10802.68	988	10809.04	990	10813.74
GR	992	10831.51	992	10844.01	992	10852.36	992	10872.68	990	10878.27
GR	988	10883.99	986	10889.65	986	11019.19	986	11109.26	986	11560.67
GR	986	11725.69								
X1	5.136	12	9690	10700	420	530	500			
X3	0			8550	995	10700	995			
GR	985.5	6220	984	8550	984	8810	980	9530	976	9690
GR	972	9720	972	10440	976	10670	988	10700	984	10750
GR	984	11390	988	12020						
X1	5.231	14	9390	10480	450	530	500			
X3	0			8650	990	11050	990			
GR	985.5	6000	986	7700	998	7870	988	8060	984	8650
GR	980	9390	976	9420	976	10140	972	10150	972	10450
GR	976	10460	984	10480	988	12050	990	12380		
X1	5.326	18	9420	10480	450	470	500			
X3	0			8520	990	11270	990			
GR	986.5	5950	986	7580	988	7670	992	7730	1004	7790
GR	992	7860	992	8100	988	8120	984	8520	980	9420
GR	976	9440	976	10130	973	10140	973	10440	976	10450
GR	988	10480	988	11280	992	11910				
X1	5.42	9	9425	10500	500	460	500			
X3	0			8500	1000	10960	1000			
GR	988	6270	988	7540	984	8500	980	9425	976	9430
GR	976	10470	988	10500	988	10830	992	11970		
X1	5.515	11	9610	10770	360	500	500			
X3	0			8400	1000					
GR	990	6230	988	7480	984	8400	984	8800	980	8910
GR	980	9210	976	9610	976	10730	992	10770	992	11770
GR	995	12340								
X1	5.61	11	9600	10950	330	560	500			
X3	0			8350	995					
GR	990	6180	988	7620	984	8350	984	9250	980	9340
GR	980	9450	976	9600	976	10920	992	10950	992	11310
GR	995	12050								

X1	5.705	15	10040	10960	330	560	500			
X3	0			8290	995					
GR	988	5500	988	6060	990	6100	988	6130	988	7980
GR	994	8290	988	8580	984	9110	980	9140	980	10040
GR	976	10540	976	10930	988	10960	992	11150	996	11850

X1	5.799	20	9820	10910	460	510	500			
X3	0			8200	995					
GR	991	6010	988	6040	988	8150	994	8200	988	8240
GR	988	8570	988	8960	984	9250	980	9380	980	9520
GR	984	9580	984	9820	980	9900	976	10000	980	10070
GR	976	10160	976	10850	988	10910	992	10980	996	11510
X1	5.894	16	9780	10760	550	480	500			
X3	0			8120	995					
GR	993	5940	990.4	7000	989.4	8000	993.5	8120	988	8450
GR	988	9300	984	9780	976	9800	976	9940	984	10010
GR	980	10170	976	10280	976	10670	988	10760	992	11080
GR	996	11240								
X1	5.989	16	9380	10800	360	530	500			
X3	0			8030	995					
GR	993	5850	992	6910	992	8000	993	8030	990	8330
GR	988	9380	984	9400	984	9810	980	9890	976	10060
GR	976	10450	980	10740	988	10800	992	11250	992	11480
GR	996	11750								
X1	6.083	16	9130	10350	390	480	500			
X3	0			7890	995					
GR	993	5700	992	7830	994.6	7890	989	7950	988	9040
GR	984	9130	984	9400	980	9420	976	9650	976	10110
GR	980	10170	980	10320	984	10350	988	10850	992	11600
GR	996	12140								
X1	6.178	14	9020	10170	510	460	500			
X3	0			7760	1000					
GR	993.4	5560	992.6	6830	992	7580	996.3	7760	992	7950
GR	992	8550	988	9020	976	9080	976	10000	980	10060
GR	984	10170	988	10630	992	11150	996	12090		
X1	6.273	13	8750	10190	470	480	500			
GR	996	5590	996	7270	997	7600	992	7680	988	8750
GR	976	8790	976	9010	980	9170	980	10130	984	10190
GR	988	10700	992	11090	996	12170				

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

IHLEQ = 1. THEREFORE FRICTION LOSS (HL) IS CALCULATED AS A FUNCTION OF PROFILE TYPE, WHICH CAN VARY FROM REACH TO REACH. SEE DOCUMENTATION FOR DETAILS.

CRITICAL DEPTH TO BE CALCULATED AT ALL CROSS SECTIONS

CCHV= .100 CEHV= .300
1490 NH CARD USED
*SECNO .000

.000	14.86	942.86	938.11	944.00	943.67	.81	.00	.00	936.00
250000.0	1203.7	220013.4	28782.9	370.9	28802.8	13214.0	.0	.0	940.00
.00	3.24	7.64	2.18	.045	.034	.045	.000	928.00	8545.70
.001198	0.	0.	0.	0	14	4	.00	7975.27	16520.97

*SECNO .102

3265 DIVIDED FLOW

.102	12.86	943.46	938.27	.00	944.30	.85	.62	.01	932.00
250000.0	25058.4	206080.3	18861.3	4645.9	26104.5	9421.0	510.9	96.8	936.00
.02	5.39	7.89	2.00	.045	.033	.045	.000	930.60	8702.72
.001108	525.	540.	540.	2	11	0	.00	7650.28	16504.00

1490 NH CARD USED
*SECNO .197

3470 ENCROACHMENT STATIONS= 8480.0 19480.0 TYPE= 1 TARGET= -8480.000
ELENCL= 945.00 ELENCR= 100000.00

.197	12.30	944.30	938.72	.00	944.80	.49	.46	.04	932.00
250000.0	58426.3	147075.2	44498.5	12659.2	22088.2	20855.6	1060.5	194.3	944.00
.05	4.62	6.66	2.13	.045	.033	.045	.000	932.00	8480.00
.000779	500.	500.	500.	2	11	0	.00	9336.29	17816.29

1490 NH CARD USED
*SECNO .292

3265 DIVIDED FLOW

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= 7970.0 19135.0 TYPE= 1 TARGET= -7970.000
ELENCL= 945.00 ELENCR= 100000.00

.292	12.76	944.76	940.43	.00	945.24	.48	.45	.00	936.00
243500.0	76705.4	129246.0	37548.6	14994.7	20095.9	16075.0	1671.7	301.4	948.00
.07	5.12	6.43	2.34	.041	.035	.045	.000	932.00	7970.00
.001011	515.	500.	485.	1	19	0	.00	9633.82	17639.98

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1490 NH CARD USED
*SECNO  .386

3470 ENCROACHMENT STATIONS=     7470.0   17230.0  TYPE=      1  TARGET=    -7470.000
 ELENCL=    950.00  ELENCR= 100000.00
     .386     13.20    945.20    941.25       .00    945.87       .67       .57       .06    940.00
  237000.0   72111.8  157716.3    7171.9   15031.0   21390.6    5414.4    2208.4     408.1    944.00
      .09      4.80      7.37      1.32      .044      .034      .045      .000    932.00   7470.00
   .001290     505.      500.      505.         0        19         0       .00   8797.98  16267.98


1490 NH CARD USED
*SECNO  .481

3470 ENCROACHMENT STATIONS=     6990.0   16265.0  TYPE=      1  TARGET=    -6990.000
 ELENCL=    950.00  ELENCR= 100000.00
     .481     14.02    946.02    942.28       .00    946.57       .54       .68       .01    940.00
  230500.0   87046.6  129590.3   13863.1   17880.1   19141.5    6936.6    2701.5     504.4    944.00
      .12      4.87      6.77      2.00      .045      .037      .045      .000    932.00   6990.00
   .001437     500.      500.      505.         2        14         0       .00   7900.63  14890.63


1490 NH CARD USED
*SECNO  .576

3470 ENCROACHMENT STATIONS=     6560.0   13360.0  TYPE=      1  TARGET=     6800.000
 ELENCL=    950.00  ELENCR=    950.00
     .576     14.73    946.73    943.87       .00    947.31       .58       .73       .01    940.00
  224000.0   87604.8  126547.5    9847.7   19126.0   17734.1    4222.6    3188.5     588.0    944.00
      .14      4.58      7.14      2.33      .045      .037      .045      .000    932.00   6560.00
   .001517     490.      500.      525.         2         9         0       .00   6518.43  13078.42


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   03DEC95      10:13:01                                                                          PAGE   23


    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


1490 NH CARD USED
*SECNO  .670

3470 ENCROACHMENT STATIONS=     6610.0   13370.0  TYPE=      1  TARGET=     6760.000
 ELENCL=    950.00  ELENCR=    950.00
     .670     15.35    947.35    943.55       .00    947.93       .58       .62       .00    936.00
  217500.0   85122.1  125146.7    7231.2   20775.5   17146.9    3779.5    3659.5     661.8    944.00
      .17      4.10      7.30      1.91      .045      .034      .045      .000    932.00   6610.00
   .001053     490.      500.      505.         2        14         0       .00   6416.13  13026.13


1490 NH CARD USED
*SECNO  .765

3470 ENCROACHMENT STATIONS=     6760.0   15370.0  TYPE=      1  TARGET=    -6760.000
 ELENCL=    950.00  ELENCR= 100000.00
     .765     15.80    947.80    943.80       .00    948.48       .68       .52       .03    940.00
```

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 211000.0   66162.4  138164.9    6672.8   17153.7   17920.2    2072.8    4113.7     722.8    940.00
      .19      3.86       7.71      3.22      .045      .033      .045      .000    932.00   6760.00
  .001007      510.      500.      460.         2        19         0       .00   4294.64  11054.64


1490 NH CARD USED
*SECNO  .860

3470 ENCROACHMENT STATIONS=     6910.0   10800.0  TYPE=      1  TARGET=     3890.000
 ELENCL=    950.00  ELENCR=    950.00
     .860     16.18    948.18    944.63       .00    949.14       .97       .58       .09    940.00
 204500.0   69923.7  133012.4    1563.9   16105.8   14355.3     783.5    4515.8     771.2    944.00
      .21      4.34      9.27      2.00      .045      .033      .045      .000    932.00   6910.00
  .001296      525.      500.      500.         2        15         0       .00   3890.00  10800.00


1490 NH CARD USED
*SECNO  .955

3265 DIVIDED FLOW


3470 ENCROACHMENT STATIONS=     7040.0   15230.0  TYPE=      1  TARGET=    -7040.000
 ELENCL=    950.00  ELENCR= 100000.00
     .955     17.02    949.02    945.11       .00    949.76       .75       .59       .02    944.00
 198000.0   93716.7  100082.6    4200.7   20358.6   11553.0    3787.8    4896.1     834.6    952.00
      .23      4.60      8.66      1.11      .044      .032      .045      .000    932.00   7040.00
  .001116      490.      500.      505.         2        15         0       .00   7229.74  14581.93


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  03DEC95      10:13:01                                                                          PAGE   24


   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


1490 NH CARD USED
*SECNO 1.049

3470 ENCROACHMENT STATIONS=     7160.0   10630.0  TYPE=      1  TARGET=     3470.000
 ELENCL=    950.00  ELENCR=    950.00
    1.049     17.58    949.58    946.26       .00    950.45       .87       .65       .04    948.00
 191500.0   89185.0  102315.0        .0   17543.3   11260.8        .0    5262.1     895.4    952.00
      .25      5.08      9.09       .00      .045      .033      .000      .000    932.00   7160.00
  .001559      490.      500.      505.         2        10         0       .00   3421.61  10581.61


1490 NH CARD USED
*SECNO 1.144

3470 ENCROACHMENT STATIONS=     7290.0   14655.0  TYPE=      1  TARGET=    -7290.000
 ELENCL=    960.00  ELENCR= 100000.00
    1.144     14.33    950.33    948.18       .00    951.51      1.18       .96       .09    948.00
 185000.0   62004.5  122995.5        .0   12343.6   12217.0        .0    5573.6     935.7    956.00
      .26      5.02     10.07       .00      .045      .033      .000      .000    936.00   7290.00
  .002241      515.      500.      505.         2        19         0       .00   3455.82  10745.82
```

1490 NH CARD USED
*SECNO 1.239

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 7410.0 14640.0 TYPE= 1 TARGET= -7410.000
ELENCL= 960.00 ELENCR= 100000.00

1.239	15.52	951.52	948.42	.00	952.47	.95	.94	.02	944.00
185000.0	67654.5	117345.5	.0	13838.0	12898.8	.0	5863.5	974.0	956.00
.28	4.89	9.10	.00	.045	.032	.000	.000	936.00	7410.00
.001644	485.	500.	485.	2	15	0	.00	3346.64	10853.19

1490 NH CARD USED
*SECNO 1.333

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 7530.0 14170.0 TYPE= 1 TARGET= -7530.000

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

ELENCL= 960.00 ELENCR= 100000.00

1.333	16.34	952.34	948.87	.00	953.25	.91	.78	.00	948.00
185000.0	42180.8	142463.8	355.3	9963.2	16923.9	584.5	6170.6	1024.1	956.00
.30	4.23	8.42	.61	.045	.033	.045	.000	936.00	7530.00
.001509	485.	500.	515.	2	9	0	.00	5454.42	13036.88

1490 NH CARD USED
*SECNO 1.428

3470 ENCROACHMENT STATIONS= 7650.0 14685.0 TYPE= 1 TARGET= -7650.000
ELENCL= 960.00 ELENCR= 100000.00

1.428	17.15	953.15	947.70	.00	953.81	.66	.54	.02	952.00
185000.0	29924.5	151898.4	3177.1	9138.7	21521.1	2072.9	6510.3	1083.4	948.00
.32	3.27	7.06	1.53	.045	.033	.045	.000	936.00	7650.00
.000853	470.	500.	525.	2	16	0	.00	4950.38	12600.38

1490 NH CARD USED
*SECNO 1.523

3470 ENCROACHMENT STATIONS= 7770.0 13230.0 TYPE= 1 TARGET= -7770.000
ELENCL= 960.00 ELENCR= 100000.00

1.523	17.72	953.72	947.80	.00	954.21	.49	.37	.02	952.00
185000.0	27044.4	151717.1	6238.5	8938.7	25128.9	3366.6	6909.8	1140.5	948.00
.35	3.03	6.04	1.85	.045	.033	.045	.000	936.00	7770.00
.000675	480.	500.	515.	2	17	0	.00	5028.36	12798.36

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*SECNO 1.618

3470 ENCROACHMENT STATIONS=     7935.0   13360.0  TYPE=      1  TARGET=    -7935.000
 ELENCL=    960.00  ELENCR= 100000.00
    1.618     14.09    954.09    949.47       .00    954.63       .53       .41       .01    948.00
 185000.0   23031.5  159371.3    2597.3    7017.9   25747.9    1925.1    7340.7    1198.9    952.00
      .37      3.28      6.19      1.35      .045      .033      .045      .000    940.00   7951.61
  .000899      615.      505.      385.         0        11         0       .00   5110.17  13061.78


*SECNO 1.712

3470 ENCROACHMENT STATIONS=     7910.0   14600.0  TYPE=      1  TARGET=    -7910.000
 ELENCL=    960.00  ELENCR= 100000.00
1
  03DEC95      10:13:01                                                                          PAGE   26


   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


    1.712     14.58    954.58    949.43       .00    955.06       .47       .42       .01    948.00
 185000.0   15721.1  167982.4    1296.5    4942.4   29476.5    1232.2    7744.8    1255.7    952.00
      .40      3.18      5.70      1.05      .045      .033      .045      .000    940.00   7934.15
  .000800      550.      495.      410.         2        23         0       .00   5094.88  13029.04


*SECNO 1.807
    1.807     15.01    955.01    950.85       .00    955.57       .55       .49       .02    944.00
 185000.0   16748.8  166272.9    1978.3    4200.8   26932.2    1602.5    8144.3    1314.8    952.00
      .42      3.99      6.17      1.23      .045      .033      .045      .000    940.00   7927.48
  .001145      610.      500.      360.         1        19         0       .00   5695.98  13623.46


*SECNO 1.902
    1.902     11.58    955.58    951.90       .00    956.17       .60       .59       .01    948.00
 185000.0   21020.6  161165.5    2814.0    4898.7   24911.3    1637.9    8510.5    1375.3    952.00
      .44      4.29      6.47      1.72      .045      .033      .045      .000    944.00   8021.06
  .001248      460.      500.      555.         2        11         0       .00   4660.13  12681.19


*SECNO 2.015

3470 ENCROACHMENT STATIONS=     8600.0   12669.5  TYPE=      1  TARGET=    -8600.000
 ELENCL=    960.00  ELENCR= 100000.00
    2.015     14.29    956.29    953.27       .00    957.31      1.02      1.01       .13    952.00
 185000.0   30571.5  154375.5      53.0    4334.5   18629.6      80.2    8885.2    1430.4    956.00
      .46      7.05      8.29       .66      .045      .033      .045      .000    942.00   8600.00
  .002282      585.      600.      650.         1         8         0       .00   3266.93  11866.93


*SECNO 2.110
    2.110     13.44    957.44    955.04       .00    958.66      1.22      1.29       .06    950.00
 185000.0   41833.8  143166.2        .0    6221.7   15247.9        .0    9131.1    1466.6    958.00
      .48      6.72      9.39       .00      .045      .033      .000      .000    944.00   8113.04
```

.003054	420.	500.	560.	2	15	0	.00	3277.55	11390.59

*SECNO 2.205

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.53

2.205	14.87	958.87	954.72	.00	959.64	.77	.93	.05	950.00
185000.0	41594.5	143306.8	98.7	9017.8	18895.3	143.9	9419.9	1506.6	958.00
.50	4.61	7.58	.69	.045	.033	.045	.000	944.00	7939.71
.001307	515.	505.	500.	2	16	0	.00	3574.39	11514.10

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 2.299

2.299	15.46	959.46	955.46	.00	960.31	.86	.65	.03	952.00
185000.0	33239.6	151733.4	26.9	8140.7	19041.7	27.6	9733.9	1545.4	958.00
.52	4.08	7.97	.97	.045	.033	.045	.000	944.00	7880.82
.001327	495.	495.	500.	2	19	0	.00	3239.32	11120.13

*SECNO 2.394

3470 ENCROACHMENT STATIONS= .0 11770.0 TYPE= 1 TARGET= 11770.000

2.394	16.16	960.16	955.97	.00	960.96	.81	.64	.00	952.00
185000.0	29217.6	155767.6	14.8	7181.9	20337.1	44.2	10046.5	1583.4	960.00
.54	4.07	7.66	.34	.045	.033	.045	.000	944.00	8013.95
.001261	490.	500.	500.	2	16	0	.00	3451.41	11465.35

*SECNO 2.489

2.489	14.77	960.77	957.08	.00	961.68	.91	.69	.03	954.00
185000.0	17985.6	166965.4	49.0	5051.4	20956.6	72.1	10350.9	1622.9	960.00
.56	3.56	7.97	.68	.045	.033	.045	.000	946.00	7927.85
.001506	475.	500.	515.	2	19	0	.00	3532.10	11459.95

*SECNO 2.586

3265 DIVIDED FLOW

2.586	15.60	961.60	957.05	.00	962.37	.77	.67	.01	954.00
185000.0	17128.5	167593.9	277.7	5046.7	22924.4	220.4	10673.9	1665.3	960.00
.58	3.39	7.31	1.26	.045	.033	.045	.000	946.00	7785.14
.001150	535.	515.	485.	2	20	0	.00	3564.52	11573.31

*SECNO 2.679

3265 DIVIDED FLOW

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   2.679     16.23    962.23    956.72       .00    962.88       .65       .50       .01    960.00
185000.0   11395.5  173604.5        .0    4355.7   26106.1        .0   11012.3    1708.4    970.00
     .60      2.62      6.65       .00      .045      .033      .000      .000    946.00   7819.90
 .000881      570.      490.      425.         2        19         0       .00   3715.54  11609.91
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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 2.775

3265 DIVIDED FLOW


3470 ENCROACHMENT STATIONS=     7500.0   11700.0  TYPE=      1  TARGET=     4200.000
 ELENCL=    970.00  ELENCR=    970.00
    2.775     14.72    962.72    958.80       .00    963.62       .90       .67       .08    954.00
 185000.0   19245.3  165754.7        .0    4450.0   20937.3        .0   11338.1    1751.9    970.00
     .62      4.32      7.92       .00      .045      .033      .000      .000    948.00   7684.54
 .001771      525.      505.      485.         1        23         0       .00   3683.60  11626.93


*SECNO 2.869

3265 DIVIDED FLOW


3470 ENCROACHMENT STATIONS=     7500.0   11770.0  TYPE=      1  TARGET=     4270.000
 ELENCL=    970.20  ELENCR=    972.20
    2.869     13.65    963.65    960.20       .00    964.50       .85       .87       .01    962.00
 185000.0    4406.9  180593.0        .0    1491.1   24152.1        .0   11630.6    1793.9    972.00
     .64      2.96      7.48       .00      .045      .033      .000      .000    950.00   7573.48
 .001704      495.      500.      500.         2        19         0       .00   3660.24  11717.06


CCHV=     .100 CEHV=     .300
*SECNO 2.964

3265 DIVIDED FLOW


3470 ENCROACHMENT STATIONS=     7500.0   11815.0  TYPE=      1  TARGET=     4315.000
 ELENCL=    975.00  ELENCR=    975.00
    2.964     14.55    964.55    961.55       .00    965.41       .86       .91       .00    966.00
 185000.0    4904.2  180095.8        .0    1416.4   23890.9        .0   11921.5    1837.4    978.00
     .65      3.46      7.54       .00      .045      .033      .000      .000    950.00   7521.61
 .001968      455.      500.      520.         2        12         0       .00   4052.19  11765.61


*SECNO 3.059

3470 ENCROACHMENT STATIONS=     7260.0   12514.7  TYPE=      1  TARGET=    -7260.000
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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

ELENCL=    975.00  ELENCR= 100000.00

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=      962.00 ELREA=      980.00

   3.059     13.54    965.54    962.34       .00    966.30       .76       .87       .01    962.00
185000.0    9291.7  175708.3        .0    2787.9   24595.8        .0   12223.9    1883.5    980.00
     .67      3.33      7.14       .00      .045      .033      .000      .000    952.00   7794.05
 .001573      500.      500.      500.         2        16         0       .00   3980.77  11774.82

*SECNO 3.153

3470 ENCROACHMENT STATIONS=     7200.0   11252.8  TYPE=      1  TARGET=     4052.760
 ELENCL=    975.00  ELENCR=    975.00

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=      968.00 ELREA=      970.00

   3.153     14.22    966.22    963.61       .00    967.44      1.22      1.00       .14    968.00
185000.0        .0 185000.0        .0        .0   20875.7        .0   12498.3    1921.2    970.00
     .69       .00      8.86       .00      .000      .033      .000      .000    952.00   8514.01
 .002583      420.      500.      560.         2        15         0       .00   2730.57  11244.58

*SECNO 3.248
3280 CROSS SECTION      3.25 EXTENDED       .47 FEET

3470 ENCROACHMENT STATIONS=     7125.0   11046.3  TYPE=      1  TARGET=     3921.320
 ELENCL=    975.00  ELENCR=    984.96

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=      970.00 ELREA=      971.00

   3.248     11.47    967.47    965.35       .00    968.95      1.48      1.43       .08    970.00
185000.0        .0 185000.0        .0        .0   18963.5        .0   12727.0    1951.2    971.00
     .70       .00      9.76       .00      .000      .033      .000      .000    956.00   8541.46
 .003154      480.      500.      520.         2        14         0       .00   2493.18  11034.64

*SECNO 3.343
3280 CROSS SECTION      3.34 EXTENDED       .08 FEET

3470 ENCROACHMENT STATIONS=     7300.0   11062.5  TYPE=      1  TARGET=     3762.470
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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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ELENCL=    985.00  ELENCR=    985.04

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=       970.00 ELREA=       971.50

    3.343     13.08    969.08    965.52       .00    970.15      1.07      1.16       .04    970.00
 185000.0        .0 185000.0        .0        .0   22255.4        .0   12963.5    1979.8    971.50
      .72       .00      8.31       .00      .000      .033      .000      .000    956.00   8574.62
 .001837      530.      500.      522.         2        15         0       .00   2481.79  11056.41


*SECNO 3.438
3280 CROSS SECTION      3.44 EXTENDED       .05 FEET


3470 ENCROACHMENT STATIONS=     7400.0   10921.3  TYPE=      1  TARGET=     3521.250
 ELENCL=    985.00  ELENCR=    978.00

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=       970.00 ELREA=       972.00

    3.438     14.06    970.06    967.38       .00    971.20      1.14      1.02       .02    970.00
 185000.0   14255.8 170744.2        .0    3277.2   19323.7        .0   13221.7    2014.4    972.00
      .74      4.35      8.84       .00      .045      .033      .000      .000    956.00   7400.00
 .002279      520.      500.      490.         2        12         0       .00   3512.64  10912.64


*SECNO 3.532

3470 ENCROACHMENT STATIONS=     7460.0   10784.8  TYPE=      1  TARGET=     3324.840
 ELENCL=    985.00  ELENCR=    985.00

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=       968.00 ELREA=       973.00

    3.532     13.29    971.29    968.21       .00    972.19       .90       .96       .02    968.00
 185000.0   19184.5 165815.5        .0    4602.8   20950.3        .0   13494.9    2052.8    973.00
      .76      4.17      7.91       .00      .045      .033      .000      .000    958.00   7460.00
 .001683      465.      500.      495.         2        10         0       .00   3318.46  10778.46


*SECNO 3.627

3470 ENCROACHMENT STATIONS=         .0   10700.0  TYPE=      1  TARGET=    10700.000
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


3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=       969.00 ELREA=       973.00

    3.627     14.19    972.19    968.05       .00    972.95       .76       .75       .01    969.00
 185000.0    1819.6 183180.4        .0    1124.8   26014.1        .0   13798.0    2095.1    973.00
      .78      1.62      7.04       .00      .045      .033      .000      .000    958.00   6672.76
 .001360      510.      500.      460.         2        11         0       .00   4020.88  10693.65
```

*SECNO 3.721

3470 ENCROACHMENT STATIONS= 6470.0 10675.0 TYPE= 1 TARGET= 4205.000
ELENCL= 985.00 ELENCR= 978.00

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 972.00 ELREA= 974.00

3.721	16.88	972.88	968.41	.00	973.50	.62	.53	.01	972.00
185000.0	309.1	184690.9	.0	381.6	29284.1	.0	14092.8	2137.3	974.00
.80	.81	6.31	.00	.045	.033	.000	.000	956.00	6819.81
.001035	530.	450.	495.	2	10	0	.00	3848.54	10668.36

*SECNO 3.813

3470 ENCROACHMENT STATIONS= 6320.0 14090.4 TYPE= 1 TARGET= -6320.000
ELENCL= 985.00 ELENCR= 100000.00

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 970.00 ELREA= 975.00

3.813	15.37	973.37	969.34	.00	974.13	.76	.59	.04	970.00
185000.0	2240.9	182759.0	.0	929.3	26023.9	.0	14412.4	2179.3	975.00
.81	2.41	7.02	.00	.045	.033	.000	.000	958.00	7244.18
.001360	570.	490.	445.	2	20	0	.00	3434.22	10678.41

*SECNO 3.908

3470 ENCROACHMENT STATIONS= 7520.0 10641.0 TYPE= 1 TARGET= 3121.000
ELENCL= 985.00 ELENCR= 981.00

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 972.00 ELREA= 975.00

3.908	14.03	974.03	970.27	.00	974.84	.81	.70	.01	972.00
185000.0	3042.8	181957.2	.0	999.1	25077.3	.0	14717.5	2217.1	975.00
.83	3.05	7.26	.00	.045	.033	.000	.000	960.00	7520.00
.001433	530.	500.	460.	2	17	0	.00	3118.45	10638.45

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

*SECNO 4.001

3470 ENCROACHMENT STATIONS= 7650.0 10630.0 TYPE= 1 TARGET= 2980.000
ELENCL= 985.00 ELENCR= 980.00

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 985.00 ELREA= 976.00

4.001	14.74	974.74	971.27	.00	975.65	.91	.78	.03	985.00
185000.0	.0	185000.0	.0	.0	24155.6	.0	15000.6	2251.5	976.00

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     .85       .00      7.66       .00      .000      .033      .000      .000    960.00   7650.00
   .001774     540.      490.      420.         2        15         0       .00   2968.49  10618.49


*SECNO 4.095

3265 DIVIDED FLOW


3470 ENCROACHMENT STATIONS=     7780.0   10611.0  TYPE=      1  TARGET=     2831.000
 ELENCL=    985.00  ELENCR=    981.00

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=       985.00 ELREA=       978.00

    4.095     13.56    975.56    972.29       .00    976.66      1.11       .95       .06    985.00
 185000.0        .0  185000.0        .0        .0   21917.9        .0   15262.3    2283.2    978.00
      .87       .00      8.44       .00      .000      .033      .000      .000    962.00   7780.00
   .002078     600.      495.      450.         0        19         0       .00   2615.86  10607.57


*SECNO 4.189

3470 ENCROACHMENT STATIONS=     7920.0   10590.0  TYPE=      1  TARGET=     2670.000
 ELENCL=    985.00  ELENCR=    980.00

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=       985.00 ELREA=       979.00

    4.189     16.65    976.65    972.74       .00    977.60       .95       .92       .02    985.00
 185000.0        .0  185000.0        .0        .0   23701.5        .0   15524.2    2313.5    979.00
      .89       .00      7.81       .00      .000      .033      .000      .000    960.00   7920.00
   .001637     575.      500.      495.         2        12         0       .00   2661.87  10581.87


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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 4.284

3470 ENCROACHMENT STATIONS=     8050.0   13628.9  TYPE=      1  TARGET=    -8050.000
 ELENCL=    985.00  ELENCR= 100000.00
    4.284     16.46    977.46    972.69       .00    978.31       .85       .71       .01    985.00
 185000.0        .0  185000.0        .0        .0   24982.1        .0   15803.6    2343.1    983.00
      .90       .00      7.41       .00      .000      .033      .000      .000    961.00   8050.00
   .001252     580.      500.      480.         2        20         0       .00   2486.04  10536.04


*SECNO 4.379

3470 ENCROACHMENT STATIONS=     8190.0   10665.0  TYPE=      1  TARGET=     2475.000
 ELENCL=    985.00  ELENCR=    985.00
    4.379     16.12    978.12    971.11       .00    978.84       .72       .52       .01    985.00
 185000.0        .0  185000.0        .0        .0   27165.9        .0   16102.8    2370.8    984.00
      .93       .00      6.81       .00      .000      .033      .000      .000    962.00   8190.00
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 .000875     585.     500.     420.       2       11        0      .00  2342.37  10532.37


*SECNO 4.473

3470 ENCROACHMENT STATIONS=     8310.0   13289.0  TYPE=      1  TARGET=    -8310.000
 ELENCL=    985.00  ELENCR= 100000.00
    4.473     16.53   978.53   972.69      .00   979.36      .83      .49      .03   985.00
 185000.0        .0 185000.0       .0       .0  25238.0       .0  16403.6   2397.3   984.00
      .94       .00     7.33      .00     .000     .033     .000     .000   962.00  8310.00
 .001083      480.     500.     420.       2       14        0      .00  2281.78  10591.77


*SECNO 4.568

3265 DIVIDED FLOW

    4.568     17.18   979.18   970.88      .00   979.79      .61      .40      .02   972.00
 185000.0    2183.0 182817.0       .0     905.6  29076.7       .0  16720.7   2425.4   982.00
      .97      2.41     6.29      .00     .045     .033     .000     .000   962.00  7379.45
 .000637      520.     500.     490.       2       11        0      .00  2592.47  10635.69


*SECNO 4.663
1
 03DEC95      10:13:01                                                                    PAGE   34


    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


3301 HV CHANGED MORE THAN HVINS


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


3470 ENCROACHMENT STATIONS=     8200.0   10650.0  TYPE=      1  TARGET=     2450.000
 ELENCL=    990.00  ELENCR=    990.00
    4.663     17.12   979.12   976.05      .00   980.82     1.69      .70      .33   978.00
 185000.0      40.9 184959.2       .0     32.7  17704.9       .0  16994.5   2452.4   986.00
      .98      1.25    10.45      .00     .045     .033     .000     .000   962.00  8396.76
 .003091      490.     500.     460.       2       13        0      .00  2128.22  10607.36


*SECNO 4.758
3280 CROSS SECTION      4.76 EXTENDED      6.77 FEET


3470 ENCROACHMENT STATIONS=     8860.0   11030.0  TYPE=      1  TARGET=     2170.000
 ELENCL=    990.00  ELENCR=    990.00
    4.758     14.77   980.77   977.01      .00   982.05     1.28     1.20      .04   990.00
 185000.0        .0 185000.0       .0       .0  20374.9       .0  17213.2   2476.5   986.00
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    1.00      .00      9.08      .00      .000      .033      .000      .000    966.00   8860.00
  .001956     450.     500.     390.         3        14         0       .00   2078.73  10938.73


*SECNO 4.852

3470 ENCROACHMENT STATIONS=     8770.0   11050.0  TYPE=      1  TARGET=     2280.000
 ELENCL=    995.00  ELENCR=    995.00
    4.852     15.84    981.84    977.22       .00    982.90      1.07       .83       .02    994.00
 185000.0        .0 185000.0        .0        .0   22331.3        .0  17458.3    2500.4    986.00
    1.01       .00      8.28       .00      .000      .033      .000      .000    966.00   8909.23
  .001427     410.     500.     525.         2        19         0       .00   2072.47  10981.71


*SECNO 4.947
1
  03DEC95      10:13:01                                                                          PAGE   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


3301 HV CHANGED MORE THAN HVINS


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


3470 ENCROACHMENT STATIONS=     9300.0   11856.8  TYPE=      1  TARGET=    -9300.000
 ELENCL=    988.20  ELENCR= 100000.00
    4.947     13.90    981.90    980.98       .00    985.21      3.31      1.64       .67    980.00
 185000.0   1784.2 183215.8        .0     498.4   12487.0        .0  17661.1    2521.2    992.00
    1.02      3.58     14.67       .00      .045      .033      .000      .000    968.00   9330.95
  .005123     520.     500.     470.         2        12         0       .00   1553.47  10884.42


*SECNO 5.042

3470 ENCROACHMENT STATIONS=     9070.0   11725.7  TYPE=      1  TARGET=    -9070.000
 ELENCL=    988.40  ELENCR= 100000.00
    5.042     16.28    984.28    983.07       .00    987.50      3.21      2.27       .01    984.00
 185000.0   7307.4 177692.6        .0    1732.3   12127.7        .0  17814.2    2539.6    992.00
    1.03      4.22     14.65       .00      .045      .033      .000      .000    968.00   9076.53
  .004102     460.     500.     510.         3         8         0       .00   1718.48  10795.01


*SECNO 5.136

3301 HV CHANGED MORE THAN HVINS


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


3470 ENCROACHMENT STATIONS=     8550.0   10700.0  TYPE=      1  TARGET=     2150.000
 ELENCL=    995.00  ELENCR=    995.00
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   5.136      15.20     987.20     983.08       .00     988.83      1.63      1.17       .16    976.00
185000.0    26385.0   158615.0         .0    6049.8    14534.4        .0   18004.7    2560.1    995.00
    1.04       4.36      10.91        .00       .045       .033      .000      .000    972.00   8550.00
 .001679       420.       500.       530.         3         14         0       .00   2148.00  10698.00


*SECNO 5.231
1
  03DEC95      10:13:01                                                                          PAGE   36


   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=     8650.0   11050.0  TYPE=      1  TARGET=     2400.000
 ELENCL=    990.00  ELENCR=    990.00
    5.231      16.08     988.08     985.09       .00     989.73      1.64       .89       .00    980.00
 185000.0    21757.9   157013.5    6228.6    4502.8    14272.5    1914.5   18236.2    2585.3    984.00
    1.06       4.83      11.00      3.25       .045       .033      .045      .000    972.00   8650.00
 .001941       450.       500.       530.         2         15         0       .00   2400.00  11050.00


*SECNO 5.326

3470 ENCROACHMENT STATIONS=     8520.0   11270.0  TYPE=      1  TARGET=     2750.000
 ELENCL=    990.00  ELENCR=    990.00
    5.326      16.18     989.18     985.30       .00     990.61      1.43       .86       .02    980.00
 185000.0    31611.8   152018.1    1370.2    6461.0    14679.6     931.3   18474.3    2613.5    988.00
    1.07       4.89      10.36      1.47       .045       .033      .045      .000    973.00   8520.00
 .001597       450.       500.       470.         2         19         0       .00   2750.00  11270.00


*SECNO 5.420

3470 ENCROACHMENT STATIONS=     8500.0   10960.0  TYPE=      1  TARGET=     2460.000
 ELENCL=   1000.00  ELENCR=   1000.00
    5.420      14.14     990.14     985.78       .00     991.37      1.23       .74       .02    980.00
 185000.0    37338.7   145749.0    1912.3    7530.8    15012.0     955.4   18735.0    2642.8    988.00
    1.09       4.96       9.71      2.00       .045       .033      .045      .000    976.00   8500.00
 .001388       500.       500.       460.         2         14         0       .00   2460.00  10960.00


*SECNO 5.515

3301 HV CHANGED MORE THAN HVINS


3470 ENCROACHMENT STATIONS=     8400.0   12340.0  TYPE=      1  TARGET=    -8400.000
 ELENCL=   1000.00  ELENCR= 100000.00
    5.515      15.18     991.18     984.45       .00     991.88       .70       .45       .05    976.00
 185000.0    55502.0   129498.1         .0   12506.2    17288.2        .0   19008.7    2667.1    992.00
    1.11       4.44       7.49       .00       .045       .033      .000      .000    976.00   8400.00
 .000755       360.       500.       500.         2         14         0       .00   2367.95  10767.95


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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 5.610

3470 ENCROACHMENT STATIONS= 8350.0 12050.0 TYPE= 1 TARGET= -8350.000
ELENCL= 995.00 ELENCR= 100000.00

5.610	15.56	991.56	984.53	.00	992.20	.64	.31	.01	976.00
185000.0	39842.1	145157.9	.0	10970.4	20766.6	.0	19316.0	2690.8	992.00
1.13	3.63	6.99	.00	.045	.033	.000	.000	976.00	8350.00
.000632	330.	500.	560.	2	14	0	.00	2599.18	10949.18

*SECNO 5.705

3470 ENCROACHMENT STATIONS= 8290.0 11850.0 TYPE= 1 TARGET= -8290.000
ELENCL= 995.00 ELENCR= 100000.00

5.705	15.78	991.78	986.04	.00	992.62	.84	.36	.06	980.00
185000.0	70384.3	114068.1	547.6	14302.0	13336.4	339.1	19609.6	2715.9	988.00
1.15	4.92	8.55	1.61	.045	.033	.045	.000	976.00	8397.36
.001024	330.	500.	560.	2	14	0	.00	2742.13	11139.49

*SECNO 5.799

3470 ENCROACHMENT STATIONS= 8200.0 11510.0 TYPE= 1 TARGET= -8200.000
ELENCL= 995.00 ELENCR= 100000.00

5.799	16.19	992.19	986.62	.00	993.16	.97	.50	.04	984.00
185000.0	42382.7	142344.8	272.5	10469.5	16280.8	155.1	19913.3	2746.2	988.00
1.16	4.05	8.74	1.76	.045	.033	.045	.000	976.00	8212.10
.001027	460.	500.	510.	0	14	0	.00	2792.31	11004.42

*SECNO 5.894

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 8120.0 11240.0 TYPE= 1 TARGET= -8120.000
ELENCL= 995.00 ELENCR= 100000.00

5.894	16.44	992.44	989.41	.00	994.01	1.58	.67	.18	984.00
185000.0	29814.8	153256.4	1928.8	7457.9	14032.0	784.9	20205.6	2780.7	988.00
1.18	4.00	10.92	2.46	.045	.033	.045	.000	976.00	8183.55
.001698	550.	500.	480.	2	15	0	.00	2914.08	11097.63

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

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*SECNO 5.989

3301 HV CHANGED MORE THAN HVINS


3470 ENCROACHMENT STATIONS=     8030.0   11750.0  TYPE=      1  TARGET=    -8030.000
 ELENCL=    995.00  ELENCR= 100000.00
     5.989     17.73    993.73    987.73       .00    994.69       .96       .61       .06    988.00
  185000.0   15905.5  164146.4    4948.1    5647.7   19829.4    2184.6   20472.2    2813.6    988.00
      1.20      2.82      8.28      2.27      .045      .033      .045      .000    976.00   8030.00
   .001006      360.      500.      530.         2        15         0       .00   3567.38  11597.38


*SECNO 6.083

3470 ENCROACHMENT STATIONS=     7890.0   12140.0  TYPE=      1  TARGET=    -7890.000
 ELENCL=    995.00  ELENCR= 100000.00
     6.083     18.44    994.44    988.28       .00    995.12       .68       .40       .03    984.00
  185000.0   21640.4  139741.1   23618.4    7395.0   18859.0    7954.8   20808.5    2853.4    984.00
      1.22      2.93      7.41      2.97      .045      .033      .045      .000    976.00   7891.69
   .000704      390.      500.      480.         2        18         0       .00   4037.95  11929.65


*SECNO 6.178

3470 ENCROACHMENT STATIONS=     7760.0   12090.0  TYPE=      1  TARGET=    -7760.000
 ELENCL=   1000.00  ELENCR= 100000.00
     6.178     18.69    994.69    986.42       .00    995.48       .79       .33       .03    988.00
  185000.0    7892.0  156523.2   20584.8    3979.6   20354.9    7288.4   21180.6    2898.1    984.00
      1.24      1.98      7.69      2.82      .045      .033      .045      .000    976.00   7831.08
   .000633      510.      500.      460.         2        11         0       .00   3951.35  11782.44


*SECNO 6.273
     6.273     19.23    995.23    987.35       .00    995.79       .56       .29       .02    988.00
  185000.0   12906.7  150205.8   21887.5    5684.6   22937.7    8163.4   21566.3    2944.1    984.00
      1.26      2.27      6.55      2.68      .045      .033      .045      .000    976.00   7628.25
   .000529      470.      500.      480.         2        14         0       .00   4335.07  11963.31


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   03DEC95      10:13:01                                                                          PAGE   39


                                                                    THIS RUN EXECUTED 03DEC95     10:13:09

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


EXISTING CONDITIONS MODE
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SUMMARY PRINTOUT TABLE 150

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10*KS	VCH	AREA	.01K
.000	.00	.00	.00	928.00	250000.00	942.86	938.11	943.67	11.98	7.64	42387.77	72234.96
.102	540.00	.00	.00	930.60	250000.00	943.46	938.27	944.30	11.08	7.89	40171.45	75103.50
.197	500.00	.00	.00	932.00	250000.00	944.30	938.72	944.80	7.79	6.66	55602.94	89547.35
.292	500.00	.00	.00	932.00	243500.00	944.76	940.43	945.24	10.11	6.43	51165.63	76589.77
.386	500.00	.00	.00	932.00	237000.00	945.20	941.25	945.87	12.90	7.37	41835.98	65985.77
.481	500.00	.00	.00	932.00	230500.00	946.02	942.28	946.57	14.37	6.77	43958.18	60796.05
.576	500.00	.00	.00	932.00	224000.00	946.73	943.87	947.31	15.17	7.14	41082.75	57503.61
.670	500.00	.00	.00	932.00	217500.00	947.35	943.55	947.93	10.53	7.30	41701.87	67025.80
.765	500.00	.00	.00	932.00	211000.00	947.80	943.80	948.48	10.07	7.71	37146.61	66491.32
.860	500.00	.00	.00	932.00	204500.00	948.18	944.63	949.14	12.96	9.27	31244.57	56802.07
.955	500.00	.00	.00	932.00	198000.00	949.02	945.11	949.76	11.16	8.66	35699.29	59275.54
1.049	500.00	.00	.00	932.00	191500.00	949.58	946.26	950.45	15.59	9.09	28804.09	48497.50
1.144	500.00	.00	.00	936.00	185000.00	950.33	948.18	951.51	22.41	10.07	24560.56	39080.61
1.239	500.00	.00	.00	936.00	185000.00	951.52	948.42	952.47	16.44	9.10	26736.87	45626.15
1.333	500.00	.00	.00	936.00	185000.00	952.34	948.87	953.25	15.09	8.42	27471.60	47631.33
1.428	500.00	.00	.00	936.00	185000.00	953.15	947.70	953.81	8.53	7.06	32732.66	63355.50
1.523	500.00	.00	.00	936.00	185000.00	953.72	947.80	954.21	6.75	6.04	37434.23	71226.45

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SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10*KS	VCH	AREA	.01K
1.618	505.00	.00	.00	940.00	185000.00	954.09	949.47	954.63	8.99	6.19	34690.85	61705.43
1.712	495.00	.00	.00	940.00	185000.00	954.58	949.43	955.06	8.00	5.70	35651.10	65427.10
1.807	500.00	.00	.00	940.00	185000.00	955.01	950.85	955.57	11.45	6.17	32735.46	54677.38
1.902	500.00	.00	.00	944.00	185000.00	955.58	951.90	956.17	12.48	6.47	31447.88	52376.76
2.015	600.00	.00	.00	942.00	185000.00	956.29	953.27	957.31	22.82	8.29	23044.28	38724.53
2.110	500.00	.00	.00	944.00	185000.00	957.44	955.04	958.66	30.54	9.39	21469.63	33478.51
* 2.205	505.00	.00	.00	944.00	185000.00	958.87	954.72	959.64	13.07	7.58	28056.97	51167.44

2.299	495.00	.00	.00	944.00	185000.00	959.46	955.46	960.31	13.27	7.97	27210.03	50777.59
2.394	500.00	.00	.00	944.00	185000.00	960.16	955.97	960.96	12.61	7.66	27563.20	52097.23
2.489	500.00	.00	.00	946.00	185000.00	960.77	957.08	961.68	15.06	7.97	26080.08	47671.68
2.586	515.00	.00	.00	946.00	185000.00	961.60	957.05	962.37	11.50	7.31	28191.54	54543.07
2.679	490.00	.00	.00	946.00	185000.00	962.23	956.72	962.88	8.81	6.65	30461.89	62317.13
2.775	505.00	.00	.00	948.00	185000.00	962.72	958.80	963.62	17.71	7.92	25387.28	43959.12
2.869	500.00	.00	.00	950.00	185000.00	963.65	960.20	964.50	17.04	7.48	25643.29	44811.64
2.964	500.00	.00	.00	950.00	185000.00	964.55	961.55	965.41	19.68	7.54	25307.22	41700.34
3.059	500.00	.00	.00	952.00	185000.00	965.54	962.34	966.30	15.73	7.14	27383.75	46651.00
3.153	500.00	.00	.00	952.00	185000.00	966.22	963.61	967.44	25.83	8.86	20875.67	36398.45
3.248	500.00	.00	.00	956.00	185000.00	967.47	965.35	968.95	31.54	9.76	18963.47	32938.72
3.343	500.00	.00	.00	956.00	185000.00	969.08	965.52	970.15	18.37	8.31	22255.45	43163.50
3.438	500.00	.00	.00	956.00	185000.00	970.06	967.38	971.20	22.79	8.84	22600.89	38753.45
3.532	500.00	.00	.00	958.00	185000.00	971.29	968.21	972.19	16.83	7.91	25553.08	45096.07
3.627	500.00	.00	.00	958.00	185000.00	972.19	968.05	972.95	13.60	7.04	27138.83	50168.15
3.721	450.00	.00	.00	956.00	185000.00	972.88	968.41	973.50	10.35	6.31	29665.69	57505.45
3.813	490.00	.00	.00	958.00	185000.00	973.37	969.34	974.13	13.60	7.02	26953.16	50163.45
3.908	500.00	.00	.00	960.00	185000.00	974.03	970.27	974.84	14.33	7.26	26076.36	48874.89
4.001	490.00	.00	.00	960.00	185000.00	974.74	971.27	975.65	17.74	7.66	24155.56	43929.45

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10*KS	VCH	AREA	.01K
4.095	495.00	.00	.00	962.00	185000.00	975.56	972.29	976.66	20.78	8.44	21917.94	40583.46
4.189	500.00	.00	.00	960.00	185000.00	976.65	972.74	977.60	16.37	7.81	23701.51	45718.84
4.284	500.00	.00	.00	961.00	185000.00	977.46	972.69	978.31	12.52	7.41	24982.08	52286.39
4.379	500.00	.00	.00	962.00	185000.00	978.12	971.11	978.84	8.75	6.81	27165.91	62531.94
4.473	500.00	.00	.00	962.00	185000.00	978.53	972.69	979.36	10.83	7.33	25237.96	56222.75
4.568	500.00	.00	.00	962.00	185000.00	979.18	970.88	979.79	6.37	6.29	29982.25	73284.84
* 4.663	500.00	.00	.00	962.00	185000.00	979.12	976.05	980.82	30.91	10.45	17737.59	33277.25
4.758	500.00	.00	.00	966.00	185000.00	980.77	977.01	982.05	19.56	9.08	20374.92	41826.46

	4.852	500.00	.00	.00	966.00	185000.00	981.84	977.22	982.90	14.27	8.28	22331.26	48965.17
*	4.947	500.00	.00	.00	968.00	185000.00	981.90	980.98	985.21	51.23	14.67	12985.41	25847.47
	5.042	500.00	.00	.00	968.00	185000.00	984.28	983.07	987.50	41.02	14.65	13860.02	28884.58
*	5.136	500.00	.00	.00	972.00	185000.00	987.20	983.08	988.83	16.79	10.91	20584.23	45153.02
	5.231	500.00	.00	.00	972.00	185000.00	988.08	985.09	989.73	19.41	11.00	20689.73	41985.90
	5.326	500.00	.00	.00	973.00	185000.00	989.18	985.30	990.61	15.97	10.36	22071.79	46290.55
	5.420	500.00	.00	.00	976.00	185000.00	990.14	985.78	991.37	13.88	9.71	23498.09	49647.84
	5.515	500.00	.00	.00	976.00	185000.00	991.18	984.45	991.88	7.55	7.49	29794.39	67325.19
	5.610	500.00	.00	.00	976.00	185000.00	991.56	984.53	992.20	6.32	6.99	31736.97	73610.26
	5.705	500.00	.00	.00	976.00	185000.00	991.78	986.04	992.62	10.24	8.55	27977.62	57813.35
	5.799	500.00	.00	.00	976.00	185000.00	992.19	986.62	993.16	10.27	8.74	26905.50	57738.82
	5.894	500.00	.00	.00	976.00	185000.00	992.44	989.41	994.01	16.98	10.92	22274.80	44890.11
	5.989	500.00	.00	.00	976.00	185000.00	993.73	987.73	994.69	10.06	8.28	27661.66	58333.20
	6.083	500.00	.00	.00	976.00	185000.00	994.44	988.28	995.12	7.04	7.41	34208.81	69740.95
	6.178	500.00	.00	.00	976.00	185000.00	994.69	986.42	995.48	6.33	7.69	31622.94	73525.60
	6.273	500.00	.00	.00	976.00	185000.00	995.23	987.35	995.79	5.29	6.55	36785.70	80472.31

EXISTING CONDITIONS MODE

SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
.000	250000.00	942.86	.00	.00	-1.14	7975.27	.00
.102	250000.00	943.46	.00	.59	.00	7650.28	540.00
.197	250000.00	944.30	.00	.85	.00	9336.29	500.00
.292	243500.00	944.76	.00	.46	.00	9633.82	500.00
.386	237000.00	945.20	.00	.44	.00	8797.98	500.00
.481	230500.00	946.02	.00	.82	.00	7900.63	500.00
.576	224000.00	946.73	.00	.71	.00	6518.43	500.00
.670	217500.00	947.35	.00	.62	.00	6416.13	500.00
.765	211000.00	947.80	.00	.45	.00	4294.64	500.00

.860	204500.00	948.18	.00	.38	.00	3890.00	500.00
.955	198000.00	949.02	.00	.84	.00	7229.74	500.00
1.049	191500.00	949.58	.00	.56	.00	3421.61	500.00
1.144	185000.00	950.33	.00	.75	.00	3455.82	500.00
1.239	185000.00	951.52	.00	1.19	.00	3346.64	500.00
1.333	185000.00	952.34	.00	.82	.00	5454.42	500.00
1.428	185000.00	953.15	.00	.81	.00	4950.38	500.00
1.523	185000.00	953.72	.00	.57	.00	5028.36	500.00
1.618	185000.00	954.09	.00	.37	.00	5110.17	505.00
1.712	185000.00	954.58	.00	.49	.00	5094.88	495.00
1.807	185000.00	955.01	.00	.43	.00	5695.98	500.00
1.902	185000.00	955.58	.00	.56	.00	4660.13	500.00
2.015	185000.00	956.29	.00	.72	.00	3266.93	600.00
2.110	185000.00	957.44	.00	1.15	.00	3277.55	500.00
* 2.205	185000.00	958.87	.00	1.43	.00	3574.39	505.00

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SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
2.299	185000.00	959.46	.00	.59	.00	3239.32	495.00
2.394	185000.00	960.16	.00	.70	.00	3451.41	500.00
2.489	185000.00	960.77	.00	.62	.00	3532.10	500.00
2.586	185000.00	961.60	.00	.83	.00	3564.52	515.00
2.679	185000.00	962.23	.00	.62	.00	3715.54	490.00
2.775	185000.00	962.72	.00	.50	.00	3683.60	505.00
2.869	185000.00	963.65	.00	.92	.00	3660.24	500.00
2.964	185000.00	964.55	.00	.90	.00	4052.19	500.00
3.059	185000.00	965.54	.00	.99	.00	3980.77	500.00
3.153	185000.00	966.22	.00	.68	.00	2730.57	500.00
3.248	185000.00	967.47	.00	1.25	.00	2493.18	500.00
3.343	185000.00	969.08	.00	1.61	.00	2481.79	500.00

	3.438	185000.00	970.06	.00	.98	.00	3512.64	500.00
	3.532	185000.00	971.29	.00	1.23	.00	3318.46	500.00
	3.627	185000.00	972.19	.00	.90	.00	4020.88	500.00
	3.721	185000.00	972.88	.00	.69	.00	3848.54	450.00
	3.813	185000.00	973.37	.00	.49	.00	3434.22	490.00
	3.908	185000.00	974.03	.00	.66	.00	3118.45	500.00
	4.001	185000.00	974.74	.00	.71	.00	2968.49	490.00
	4.095	185000.00	975.56	.00	.82	.00	2615.86	495.00
	4.189	185000.00	976.65	.00	1.09	.00	2661.87	500.00
	4.284	185000.00	977.46	.00	.81	.00	2486.04	500.00
	4.379	185000.00	978.12	.00	.66	.00	2342.37	500.00
	4.473	185000.00	978.53	.00	.41	.00	2281.78	500.00
	4.568	185000.00	979.18	.00	.65	.00	2592.47	500.00
*	4.663	185000.00	979.12	.00	-.06	.00	2128.22	500.00

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	4.758	185000.00	980.77	.00	1.65	.00	2078.73	500.00
	4.852	185000.00	981.84	.00	1.06	.00	2072.47	500.00
*	4.947	185000.00	981.90	.00	.07	.00	1553.47	500.00
	5.042	185000.00	984.28	.00	2.38	.00	1718.48	500.00
*	5.136	185000.00	987.20	.00	2.92	.00	2148.00	500.00
	5.231	185000.00	988.08	.00	.88	.00	2400.00	500.00
	5.326	185000.00	989.18	.00	1.09	.00	2750.00	500.00
	5.420	185000.00	990.14	.00	.96	.00	2460.00	500.00
	5.515	185000.00	991.18	.00	1.04	.00	2367.95	500.00
	5.610	185000.00	991.56	.00	.38	.00	2599.18	500.00
	5.705	185000.00	991.78	.00	.22	.00	2742.13	500.00
	5.799	185000.00	992.19	.00	.41	.00	2792.31	500.00
	5.894	185000.00	992.44	.00	.25	.00	2914.08	500.00

5.989	185000.00	993.73	.00	1.29	.00	3567.38	500.00
6.083	185000.00	994.44	.00	.71	.00	4037.95	500.00
6.178	185000.00	994.69	.00	.25	.00	3951.35	500.00
6.273	185000.00	995.23	.00	.54	.00	4335.07	500.00

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SUMMARY OF ERRORS AND SPECIAL NOTES

WARNING SECNO= 2.205 PROFILE= 1 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO= 4.663 PROFILE= 1 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO= 4.947 PROFILE= 1 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO= 5.136 PROFILE= 1 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

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1*******************************************
 *  HEC-2 WATER SURFACE PROFILES            *
 *                                          *
 *  Version   4.6.2;  May 1991              *
 *                                          *
 *  RUN DATE    03DEC95    TIME   10:25:05  *
 *******************************************
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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              *
****************************************
```

```
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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1
  03DEC95      10:25:05                                                                    PAGE    1
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                                                                THIS RUN EXECUTED 03DEC95    10:25:05
*************************************
 HEC-2 WATER SURFACE PROFILES

 Version   4.6.2;  May 1991
*************************************
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THIS IS AN ARCHIVAL RUN ALL DATA AND RESULTS ARE SAVED ON UNIT   96

AC
AC      WITH CSA AND PIT IN PLACE
AC
T1      CPH05
T2      91ST AVE. WWTP, SALT RIVER
T3      EXISTING CONDITIONS MODEL

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

                2                         0.0012                        250000     944

J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE

     -1                  -1                                      -1        -6

J6  IHLEQ     ICOPY     SUBDIV    STRTDS    RMILE

      1                  0

NC    0.045     0.045     0.033     0.1       0.3
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```
NH      5     0.045     8625     0.033    10120     0.04    10700     0.033    11140     0.045
NH  18490
X1      0        37     8625     11140
GR    960      8490      956      8520      952     8530      948      8537      944      8544
GR    940      8550      936      8625      932     8660      936      8880      936      9100
GR    932      9305      932      9385      932     9435      936      9470      936      9585
GR    932      9620      928      9820      932     9900      936      9940      936     10050
GR    932     10065      928     10120      928    10600      928     10700      928     11005
GR    928     11070      932     11110      936    11125      940     11140      936     11155
GR    936     11170      940     11180      940    11935      940     13940      940     14910
GR    944     17160      944     18490

NC  0.045     0.045    0.033
X1  0.102        24     9150     11310      525      540      540
GR    960      8650      956      8665      952     8680      948      8690      944      8700
GR    940      8720      936      8750      932     8815      932      9150      932      9270
GR  930.8     10030    930.6     10830      932    11135      936     11310      940     11480
GR  940.6     11630    942.6     12425    943.6    13230    940.4     14010    940.3     14800
GR  941.8     15600    943.3     16400    944.5    17200    945.6     18000
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03DEC95 10:25:05 PAGE 2

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NH      3     0.045     9600     0.033    11410     0.045    19480
X1  0.197        18     9600     11410      500      500      500
X3      0                       8480      945
GR    960      5815      956      5930      952     5990      948      6025      944      6130
GR    940      6300      936      7360      932     9600      932     11380      936     11390
GR    940     11400      944     11410      944    11445    940.8     11510      940     14180
GR    940     15290      944     17680      948    19480

NH      5     0.045     9220     0.033    11180     0.045    11470     0.033    11530     0.045
NH  19135
QT      7    243500    243500    194500    148100    94000    39600      3330
X1  0.292        31     9585     11530      515      485      500
X3      0                       7970      945
GR    960      5560      956      5580      952     5600      948      5625      944      5740
GR    940      5850      939      7010    938.5     8135      932      9220      932      9280
GR    936      9380      936      9585      932     9610      936     10330      936     10920
GR    932     11180      932     11470      936    11495      940     11510      944     11520
GR    948     11530      948     11550      944    11560    940.8     12170      944     12600
GR    944     13360      940     13720      940    15120      944     16900      944     17285
GR    948     19135

NH      5     0.045     9230     0.033    10520     0.045    10770     0.033    11350     0.045
NH  17230
QT      7    237000    237000    189000    146200    93000    39200      3260
X1  0.386        31     9460     11590      505      505      500
X3      0                       7470      950
GR    952      5320      948      5380      944     5390      940      5460      940      5780
GR  939.3      6400      940      6960      940     7470      936      8750      932      8850
GR    932      8940      936      8990      940     9230      940      9460      936      9520
GR    932      9580      932      9870      936    10000      936     10520      940     10580
GR    940     10770      936     10830      932    11175      932     11350      936     11515
GR    940     11535      944     11590      944    12620      944     13460      944     15850
GR    948     17230

NH      5     0.045     9385     0.033    10440     0.045    11030     0.033    11410     0.045
NH  16265
```

QT	7	230500	230500	183500	144300	92000	38800	3190		
X1	0.481	27	9385	11440	500	505	500			
X3	0			6990	950					
GR	956	4990	952	5010	948	5200	944	5450	940	6150
GR	940	7510	936	8635	932	8640	932	8680	936	8720
GR	940	9025	940	9385	932	9680	932	9850	936	10070
GR	940	10440	940	10720	936	11030	936	11410	940	11430
GR	944	11440	944	13420	944	13700	944	14840	948	14940
GR	952	14945	956	16265						
NH	5	0.045	9400	0.033	10150	0.045	10680	0.033	11205	0.045
NH	15590									
QT	7	224000	224000	178000	142400	91000	38400	3120		

X1	0.576	27	9400	11230	490	525	500			
X3	0			6560	950	13360	950			
GR	956	3650	952	3690	948	3715	944	3775	944	4290
GR	940	6315	940	9400	936	9570	932	9810	932	10050
GR	936	10150	940	10210	944	10350	944	10530	940	10630
GR	936	10680	936	11205	940	11215	944	11230	944	12470
GR	948	13360	944	13950	944	14460	944	14730	948	15405
GR	952	15500	956	15590						
NH	5	0.045	9515	0.033	10160	0.045	10415	0.033	10820	0.045
NH	15420									
QT	7	217500	217500	172500	140500	90000	38000	3050		
X1	0.67	34	9515	10980	490	505	500			
X3	0			6610	950	13370	950			
GR	956	4135	952	4205	948	4250	944	4480	941.2	6750
GR	941.7	7860	940	8560	936	8590	932	8605	932	8635
GR	936	8655	940	8680	940	8890	936	9515	932	10035
GR	932	10160	936	10190	940	10240	940	10335	936	10415
GR	936	10820	940	10950	944	10980	944.8	11830	946.4	12380
GR	947.3	13000	948	13370	948	13440	944	14080	944	14670
GR	948	14885	952	15030	952	15205	956	15420		
NH	3	0.045	9210	0.033	10585	0.045	15370			
QT	7	211000	211000	167000	138600	89000	37600	2980		
X1	0.765	22	9210	10630	510	460	500			
X3	0			6760	950					
GR	952	3850	948	3870	944	4120	944	5620	940	8520
GR	936	8530	936	8560	940	8585	940	9210	936	9490
GR	936	9825	932	10080	932	10230	936	10585	940	10630
GR	944	10955	948	11060	948	13515	948	14830	952	14925
GR	952	15170	956	15370						
NH	3	0.045	9390	0.033	10440	0.045	15230			
QT	7	204500	204500	161500	136700	88000	37200	2910		
X1	0.86	24	9390	10440	525	500	500			
X3	0			6910	950	10800	950			
GR	952	3315	948	3335	944	5010	944.1	6070	942.9	6770
GR	944	7530	944	7970	940	8190	936	8205	936	8250
GR	940	8260	940	9390	936	9440	936	9670	932	10025
GR	932	10290	936	10370	940	10410	944	10440	948	10800
GR	948	14855	952	14885	952	15035	956	15230		
NH	3	0.045	9235	0.033	10405	0.045	15230			

QT	7	198000	198000	156000	127000	87000	36800	2840		
X1	0.955	23	9605	10500	490	505	500			
X3	0			7040	950					
GR	944.6	2925	944	3095	942.2	6610	944.4	7175	940	7540
GR	940	9235	944	9270	944	9605	940	9670	936	9710
GR	932	9740	932	10145	936	10215	940	10390	944	10405
GR	948	10480	952	10500	952	10760	948	10810	948	14470
GR	952	14910	952	15000	956	15230				

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NH	3	0.045	9610	0.033	10630	0.045	15270			
QT	7	191500	191500	150500	126000	86000	36400	2770		
X1	1.049	40	9610	10630	490	505	500			
X3	0			7160	950	10630	950			
GR	945.8	3560	945.1	4180	944	4540	944	6160	940	7485
GR	940	7580	944	7680	944	7820	940	8030	940	8415
GR	944	9060	948	9610	944	9640	940	9660	936	9690
GR	932	9710	932	9900	936	9940	936	10020	932	10040
GR	932	10100	936	10150	940	10175	944	10200	944	10280
GR	940	10315	940	10470	944	10510	948	10550	952	10630
GR	952	10755	948	11010	948	12850	952	13150	952	13460
GR	948	14060	948	14410	952	14910	952	15080	956	15270
NH	5	0.045	9405	0.033	10110	0.04	10280	0.033	10800	0.045
NH	14655									
QT	7	185000	185000	145000	131000	85000	36000	2700		
X1	1.144	35	9550	10760	515	505	500			
X3	0			7290	960					
GR	946.9	4230	945	5200	944	5570	940	6280	940	7225
GR	944	7360	944	7510	948	7580	948	7630	944	7750
GR	944	8970	948	9405	948	9550	944	9620	940	9650
GR	936	9680	936	9880	940	10110	944	10145	944	10280
GR	940	10385	940	10710	944	10730	948	10740	952	10750
GR	956	10760	956	10770	952	10800	952	11745	950.5	11830
GR	952	12730	952	13455	950.5	13690	952	14600	956	14655
NH	5	0.045	9650	0.033	10130	0.04	10230	0.033	10870	0.045
NH	14640									
X1	1.239	32	9650	10870	485	485	500			
X3	0			7410	960					
GR	945.7	2915	944	4340	944	5450	948	6345	952	7020
GR	952	7090	948	7120	948	7295	952	7500	952	7570
GR	948	7585	948	8005	944	8040	944	9650	940	9670
GR	936	9690	936	9880	940	10130	944	10230	948	10260
GR	948	10290	944	10390	940	10495	940	10660	944	10765
GR	948	10840	952	10855	956	10870	956	10890	952	10905
GR	952	13950	956	14640						
NH	3	0.045	9540	0.033	11145	0.045	14170			
X1	1.333	27	9540	11145	485	515	500			
X3	0			7530	960					
GR	944.3	3530	948	5090	948	6235	952	6510	952	7050
GR	948	7130	948	7280	952	7400	952	7790	948	7985
GR	944	8680	944	8890	948	9110	948	9540	944	9645
GR	940	9675	936	9690	936	10040	940	10145	944	10450
GR	944	10950	948	11135	956	11145	956	11170	952	11195
GR	952	12790	953.9	14170						

NH	3	0.045	9285	0.033	11160	0.045	14685			
X1	1.428	29	9430	11160	470	525	500			
X3	0			7650	960					
GR	946.7	2930	948	3670	948	4850	952	5980	952	7095
GR	948	7120	948	7260	952	7530	952	7890	948	7960
GR	944	8450	944	8540	948	8780	948	9200	952	9285
GR	952	9430	948	9500	944	9530	940	9675	936	9750
GR	936	10250	940	10450	944	10650	944	11075	948	11160
GR	952	11500	952	12140	954.6	13180	959.3	14685		
NH	3	0.045	9270	0.033	11410	0.045	13230			
X1	1.523	35	9270	11410	480	515	500			
X3	0			7770	960					
GR	952	4120	952	4280	948.3	4430	952	5080	952	7040
GR	948	7130	948	7280	952	7310	952	7870	948	7890
GR	944	8350	944	8440	948	8570	948	8900	952	9270
GR	948	9365	944	9410	940	9560	936	9630	936	9735
GR	940	9770	944	9830	948	9900	948	10100	944	10200
GR	940	10230	940	10600	936	10610	936	10670	940	10690
GR	940	11030	944	11390	948	11410	952	12170	954.9	13230
NC	0.045	0.045	0.033							
X1	1.618	32	9130	11750	615	385	505			
X3	0			7935	960					
GR	952	4250	952	7325	956	7820	956	7935	952	7970
GR	948	8010	948	9130	944	9200	940	9230	940	9570
GR	944	9650	948	9760	948	9900	944	9940	948	9970
GR	952	10000	952	10115	948	10250	944	10390	940	10435
GR	940	10740	944	10830	948	10940	948	10990	944	11360
GR	940	11670	944	11720	948	11740	952	11750	952.5	12410
GR	953.2	12920	956	13360						
X1	1.712	38	8745	11855	550	410	495			
X3	0			7910	960					
GR	953.8	4835	956	5400	956	6895	952	7090	952	7210
GR	956	7510	956	7920	952	7960	948	8090	948	8745
GR	944	8800	940	8820	940	8900	944	9280	944	9530
GR	948	9760	952	9880	952	10180	948	10210	944	10230
GR	944	10520	940	10540	940	10770	944	10830	948	11160
GR	948	11430	944	11570	944	11640	940	11770	940	11799
GR	944	11820	948	11840	952	11855	954	11960	953.4	12360
GR	952.8	12670	954.5	12935	956	14600				
X1	1.807	28	8600	11900	610	360	500			
GR	956	4690	956	7925	952	7935	948	8385	944	8600
GR	944	8890	948	9020	944	9250	944	9400	948	9435
GR	948	9785	952	9940	952	10200	948	10250	948	10630
GR	944	10645	944	10840	948	11070	948	11460	944	11700
GR	940	11800	944	11860	948	11880	952	11900	954.3	12050
GR	953.3	12480	954.3	12950	956	14570				

X1	1.902	26	8730	11765	460	555	500			
GR	956	4900	956	7050	960	7985	956	8020	952	8030
GR	948	8240	948	8730	944	8750	948	8980	948	9275
GR	944	9350	948	9495	948	9755	952	9950	952	10030
GR	948	10265	948	10780	944	10830	944	10990	948	11190
GR	948	11415	944	11540	944	11720	948	11755	952	11765
GR	956	12790								
NC	0.045	0.045	0.033							
X1	2.015	90	9095.38	11552.98	585	650	600			
X3	0			8600	960					
GR	960	7774.76	960	7909.57	958	7934.35	958	7940.17	960	7950.17
GR	960	7954.25	958	7972.8	956	7980.18	954	8116.74	952	8296.2
GR	952	8305.46	954	8319.59	954	8426.42	954	8591.54	952	8626.63
GR	950	8701.6	950	8709.22	948	8718.19	946	8726.46	946	8729.83
GR	946	8816.79	944	8856.12	944	8913.8	946	8968.33	948	9001.67
GR	950	9074.38	952	9095.38	952	9124.17	950	9143.81	950	9162.36
GR	950	9211.37	950	9225.14	952	9232.02	952	9386.66	950	9420.63
GR	950	9516.92	950	9518.95	948	9524.26	946	9529.82	946	9740.88
GR	948	9746.05	950	9752.14	952	9757.8	952	9810.78	952	9889.29
GR	952	9995.6	952	10021.75	954	10033.87	956	10041.73	956	10140.15
GR	954	10144.88	952	10206.79	952	10237.4	952	10253.95	950	10347.18
GR	948	10437.7	948	10483.33	948	10717.12	948	10741.96	950	10752.36
GR	952	10837.51	954	10852.96	954	10856.06	952	10877.01	950	10884.26
GR	948	10889.18	946	10894.02	944	10911.64	942	10916.01	942	10961.74
GR	944	11014.34	946	11051.98	946	11071.04	944	11082.74	942	11091.39
GR	942	11154.43	944	11345.7	946	11445.74	948	11526.42	950	11533.28
GR	952	11539.71	954	11546.32	956	11552.98	956	11574.3	956	11578.12
GR	956	11582.49	956	11774.24	958	12392.94	960	12667.74	960	12669.49
X1	2.11	90	9316.55	11402.12	420	560	500			
GR	960	7759.5	960	7773.78	958	7830.23	958	7832.22	960	7837.41
GR	960	7964.8	958	8081.54	956	8194.51	954	8457.44	952	8521.21
GR	948	8538.55	948	8564.11	950	8616.42	950	8635.59	948	8659.05
GR	948	8663.63	950	8671.56	952	8680.78	954	8693.74	956	8707.52
GR	956	8834.77	954	8841.44	950	8857.25	948	8957.79	946	8980.66
GR	944	9002.62	944	9024.16	946	9043.84	948	9063.24	950	9082.59
GR	952	9107.85	952	9128.11	950	9149.74	950	9166.58	952	9197.33
GR	954	9224.12	954	9268.32	952	9288.7	950	9316.55	948	9346.87
GR	948	9406.03	950	9449.79	950	9465.15	948	9501.66	946	9533.12
GR	946	9661.06	948	9663.23	950	9667.18	952	9670	954	9965.7
GR	954	10025.26	954	10240.05	952	10284.49	948	10376.08	948	10548.89
GR	950	10598.35	952	10689.17	954	10699.84	956	10710.14	956	10716.22
GR	952	10740.71	950	10750.92	948	10760.21	948	10812.87	950	10823.73
GR	952	10834.92	952	10936.62	950	10945.26	950	10952.34	952	10969.6
GR	952	10970.67	950	10988.85	948	11014.44	944	11024.97	944	11263.57
GR	946	11277.26	948	11290.4	950	11301.71	952	11308.74	954	11316.34
GR	956	11324.19	956	11384.5	958	11392.95	958	11402.12	958	11498.61
GR	958	11857.08	958	12000.67	960	12323.43	962	12831.91	962	12834.22

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X1	2.205	81	9305.74	11183.14	515	500	505			
GR	960	7697.04	960	7704.01	960	7704.75	960	7732.8	960	7749.45
GR	960	7767.18	960	7774.8	960	7901.21	958	7969.35	956	8001.27
GR	954	8029.85	952	8252.76	950	8336.13	950	8374.69	950	8404.02
GR	948	8431.76	948	8435.54	950	8452.11	950	8462.56	950	8535.81
GR	952	8580.87	954	8622.69	954	8671.06	954	8762.43	956	8954.78

GR	956	9019.8	954	9028.06	952	9042.47	950	9050.87	948	9067.19
GR	948	9075.27	948	9112.27	948	9225.13	950	9285.04	950	9305.74
GR	948	9331.06	946	9363.53	946	9368.77	946	9402.44	946	9419.65
GR	948	9459.28	948	9509.62	946	9572.22	946	9661.66	948	9671.49
GR	950	9681.58	952	9753	954	9864.52	954	9969.97	952	10097.34
GR	950	10224.36	948	10352.29	948	10381.99	948	10510.48	948	10534.28
GR	948	10611.07	946	10626.43	946	10642.6	948	10729.79	948	10775.84
GR	946	10853.61	944	10858.52	944	11030.63	946	11069.89	948	11107.26
GR	950	11116.98	952	11126.14	954	11141.09	956	11169.96	958	11183.14
GR	960	11944.09	960	11949.97	960	12203.45	962	12229.28	962	12236.65
GR	962	12244.69	964	12428.18	964	12434.75	962	12784.68	962	12805.31
GR	962	12859.83								
X1	2.299	90	9305.69	11082.27	495	500	495			
GR	962	7642.31	962	7654.65	960	7676.52	960	7710.92	962	7716.77
GR	962	7841.55	960	7878.82	958	7886.21	956	7893.6	954	7900.8
GR	954	8205.55	954	8350.25	952	8385.3	950	8427.1	950	8459.02
GR	952	8476.03	952	8566.12	954	8582.45	954	8665.32	956	8693.57
GR	956	8697.74	954	8708.13	954	8722.23	956	8729.42	958	8768.75
GR	958	8772.95	956	8860.02	954	8888.34	954	8906.44	956	8931.73
GR	956	9044.64	954	9070.87	952	9097.66	950	9251.09	950	9268.1
GR	952	9273.74	952	9305.69	950	9316.38	948	9327.12	948	9412.7
GR	948	9591.7	946	9598.41	946	9666.22	948	9675.32	950	9728.75
GR	952	9776.24	954	9833.99	954	9911.41	952	9993.53	950	10156.04
GR	948	10475.38	946	10504.03	946	10513.13	946	10533.05	944	10551.5
GR	944	10576.02	946	10614.32	946	10642.55	946	10682.13	946	10708.17
GR	944	10724.94	944	10860.99	946	10898.28	948	10929.83	950	10971.78
GR	950	11004.67	950	11010.46	952	11044.69	954	11051.08	956	11057.44
GR	958	11063.77	958	11071.58	958	11082.27	960	11134.14	960	11178.35
GR	960	11205.08	960	11215.63	960	11282.93	960	11696.94	960	11723.04
GR	962	12067.47	964	12114.16	964	12114.8	962	12729.84	962	12761.41
GR	962	12771.54	962	12773.94	962	13149.79	962	13155.27	962	13160.88
X1	2.394	90	9234.55	11170.93	490	500	500			
X3	0					11770	965			
GR	962	7580.84	962	7600.27	962	7654.43	964	7660.3	964	7661.96
GR	962	8008.12	960	8014.44	958	8020.61	956	8026.71	956	8457.04
GR	956	8476.93	954	8501.15	954	8567.04	954	8592.7	954	8653.68
GR	956	8691.06	958	8735.21	958	8755.45	956	8768.35	954	8783.26
GR	952	8796.06	952	8986.91	952	9022.86	952	9030.61	952	9150.45
GR	950	9158.5	950	9172.86	952	9194.82	952	9234.55	950	9245.45
GR	948	9375.63	948	9419.11	948	9594.08	946	9612.82	946	9723.6
GR	948	9729.45	948	9733.69	948	9746.09	950	9766.21	952	9831.46
GR	954	9908.84	954	9984.66	952	10053.78	950	10237.35	950	10351.25
GR	952	10357.07	954	10362.3	954	10388.62	954	10399.68	954	10450.16
GR	952	10458.76	950	10492.33	948	10523.17	948	10529	950	10538.94
GR	950	10547.38	950	10570.09	950	10594.69	948	10617.91	946	10656.66

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GR	946	10678.12	946	10702.57	944	10708.92	944	10729.44	946	10805.3
GR	946	10819.34	946	10933.54	948	10948.39	950	10962.94	950	10991.28
GR	948	11010.91	948	11045.13	950	11054.82	952	11063.76	954	11083.32
GR	956	11140.59	958	11148.25	960	11170.93	960	11257.58	960	11442.08
GR	962	11739.64	962	11742.22	962	11747.56	964	11962.15	964	11966.7
GR	964	11973.04	964	12050.4	964	12058.27	964	12109.47	964	13073.31
X1	2.489	90	9123.29	11273.47	475	515	500			
GR	962	7523.51	962	7572.57	962	7593.93	962	7596.12	964	7602.22

GR	964	7610.2	962	7921.39	960	7931.92	958	7942.29	958	7978.05
GR	958	7986.62	958	8152.76	958	8210.24	956	8227.45	956	8325.55
GR	958	8331.22	958	8354.62	956	8412.37	956	8429.11	958	8657.11
GR	958	8735.84	956	8762.55	954	8779.54	954	8795.9	956	8824.66
GR	956	8898.2	954	8956.87	954	9005.87	954	9026.5	954	9057.36
GR	954	9070.11	954	9100.32	954	9123.29	952	9256.3	950	9344.3
GR	948	9399.07	948	9445.98	950	9478.67	950	9511.18	948	9543.87
GR	946	9576.55	946	9666.48	948	9720.47	950	9763.22	952	9810.31
GR	952	10105.52	952	10248.67	952	10289.39	952	10319.08	952	10331.83
GR	952	10358.92	954	10393.36	956	10422.64	956	10495.64	954	10573.5
GR	952	10582.33	950	10637.56	948	10676.72	946	10707.47	946	10757.67
GR	946	10803.41	946	10926.07	948	10935.52	950	10946.16	952	10966.6
GR	954	10998.89	956	11092.9	956	11093.33	954	11131.91	952	11145.93
GR	950	11166.63	950	11195.44	952	11200.69	954	11206.16	956	11226.95
GR	958	11252.57	960	11273.47	962	11755.92	962	11763.48	962	11765.13
GR	964	11783.51	964	11790.76	964	11824.66	964	11831.49	964	11839.36
GR	964	11975.71	964	11979.37	964	12998.75	964	13003.15	964	13008.75
X1	2.586	90	9183.06	11369.29	535	485	515			
GR	964	7459.16	964	7595.53	964	7774.49	962	7783.33	960	7792.4
GR	958	7910.72	958	8062.22	956	8069.42	954	8076.83	954	8090.18
GR	956	8099.65	956	8129.44	958	8147.87	958	8209.81	960	8213.83
GR	962	8429.32	962	8607.81	960	8619.09	958	8671.98	956	8690.54
GR	956	8696.31	958	8746.92	958	8751.82	956	8778.61	954	8790.94
GR	954	8815.8	956	8884.38	956	8938.25	954	9071.76	954	9140.04
GR	956	9147.75	956	9175.61	954	9183.06	952	9217.92	950	9224.68
GR	950	9300.3	948	9539.27	946	9569.71	946	9635.04	948	9654.04
GR	950	9800.21	952	9863.86	952	10006.98	952	10163.67	954	10170.43
GR	956	10189.85	956	10245.14	954	10255.47	954	10302.09	954	10317.45
GR	954	10345.85	954	10481.85	952	10510.9	950	10572.13	948	10589.44
GR	946	10595.13	946	10649.08	948	10657.16	950	10665.26	952	10675.97
GR	952	10677.06	950	10762.69	950	10784.34	950	10880.51	948	10894.38
GR	946	10908.48	946	10981.7	948	11015.59	950	11074.95	950	11075.7
GR	950	11080.16	952	11107.03	954	11218.29	956	11230.71	958	11266.06
GR	960	11369.29	960	11372.37	960	11375.34	960	11378.23	960	11440.53
GR	962	11606.32	962	11672.74	962	11673.49	964	11676.2	964	11696.75
GR	964	11702.49	964	11766.9	964	11783.08	966	11808.36	966	11833.58
X1	2.679	90	9193.09	11643.87	570	425	490			
GR	964	7201.32	964	7458.06	966	7573.03	966	7697.5	964	7786.18
GR	960	7862.2	958	7977.95	958	8043.45	960	8100.88	960	8132.54
GR	956	8161.4	956	8193.72	958	8243.39	960	8253.71	962	8283.93
GR	962	8519.2	962	8546.38	960	8620.92	958	8626.13	958	8684.01
GR	956	8770.99	956	8794.95	960	8839.18	960	8852.22	956	8875.39
GR	956	8982.42	958	8989.52	958	9017.08	956	9026.03	956	9041.69

GR	958	9067.06	960	9109.68	960	9193.09	960	9214.94	952	9234.8
GR	952	9324.25	950	9330.13	950	9567.48	952	9584.78	952	9687.64
GR	956	9717.99	950	9766.31	950	9946.89	952	9999.14	954	10085.4
GR	956	10113.44	956	10156.25	954	10215.7	952	10226.23	952	10348.12
GR	950	10355.44	948	10379.11	946	10430.41	948	10498.8	948	10517.57
GR	946	10528.99	946	10600.47	950	10620.51	952	10723.12	954	10732.19
GR	958	10740.6	962	10749.17	966	10757.58	970	10766.04	972	10770.28
GR	972	10805.57	958	10832.14	952	10845.87	948	10884.22	948	10917.27
GR	950	10927.27	950	11022.46	954	11079.47	952	11091.89	950	11185.11
GR	950	11456.93	950	11534.8	954	11544.74	956	11591.46	960	11603.17
GR	962	11609.24	966	11621.16	970	11643.87	972	11662	970	11696.13

GR	966	11708.25	964	11728.44	966	11751.33	968	11807.33	966	12388.22
X1	2.775	90	8928.56	11678.76	525	485	505			
X3	0			7500	970	11700	970			
GR	966	7325.26	964	7359.19	964	7390.33	966	7395.63	966	7560.82
GR	964	7661.27	962	7697.93	960	7790.94	960	7859.2	962	7907.78
GR	962	8160.44	960	8212.22	956	8240.64	956	8299.13	958	8344.72
GR	962	8378.21	962	8487	958	8575.07	956	8652.9	956	8690.94
GR	954	8928.56	954	9065.72	956	9087.82	956	9298.85	954	9310.95
GR	952	9353.14	950	9359.99	950	9497.42	952	9584.35	954	9596.43
GR	954	9675.41	952	9702.42	950	9809.81	950	9927.19	952	9940.64
GR	952	10102.51	954	10129.66	956	10216.2	960	10241.74	964	10262
GR	964	10337	960	10353.19	956	10393.49	952	10407.11	950	10448.56
GR	948	10476.02	948	10492.39	952	10505.04	954	10623.57	956	10643.11
GR	958	10648.04	962	10657.97	966	10668.29	962	10686.39	962	10956.48
GR	962	11025.08	964	11033.55	968	11071.81	970	11085.21	972	11115.28
GR	974	11126.48	974	11142.75	972	11154.96	954	11198.06	952	11218.77
GR	948	11229.27	948	11379.41	950	11383.78	954	11392.61	958	11401.28
GR	958	11406.33	954	11418.34	954	11438.44	956	11465.14	956	11478.97
GR	952	11510.58	952	11576.37	954	11607.63	956	11612.58	960	11621.08
GR	964	11629.65	968	11638.44	970	11678.76	972	11742.31	972	11764.38
GR	966	11781	966	11796.03	968	11801.79	968	11831.42	966	13033.81
X1	2.869	90	8485.29	11736.53	495	500	500			
X3	0			7500	970.2	11770	972.2			
GR	966	7263.3	966	7331.64	968	7337.45	968	7356.47	966	7522.73
GR	964	7561.99	962	7626.19	962	7797.39	964	7861.25	964	8079.88
GR	962	8128.45	960	8135.06	958	8154.01	958	8257.42	960	8264.57
GR	962	8271.09	962	8485.29	960	8489.74	958	8508.32	958	8695.33
GR	960	8709.39	960	8712.73	958	8741.36	958	9048.8	958	9179.07
GR	960	9193.59	962	9209.81	962	9335.14	960	9340.99	958	9347.46
GR	954	9360.6	952	9406.8	950	9496.83	950	9583.28	952	9605.38
GR	952	9746.66	950	9805.82	950	9939.21	952	9995.89	954	10017.79
GR	954	10201.12	952	10212.35	952	10299.07	954	10326.4	956	10424.5
GR	956	10702.75	958	10720.31	960	10739.14	962	10747.35	964	10755.63
GR	966	10761.23	966	10768.49	964	10774	964	10970.5	966	10979.67
GR	966	10993.92	964	10997.95	962	11002.26	960	11015.04	960	11069.85
GR	958	11086.94	956	11114.89	954	11148.74	954	11223.75	956	11243.34
GR	958	11270.13	958	11297.9	956	11345.42	956	11427.84	958	11447.86
GR	958	11568.36	956	11585.94	954	11593.02	952	11599.85	952	11671.49
GR	954	11689.64	956	11700.58	958	11704.68	960	11708.86	962	11713.6
GR	964	11717.81	966	11722.36	970	11731.38	972	11736.53	972	11736.74
GR	970	11828.97	968	11834.83	966	11838.17	966	11847.82	968	11854.29

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NC	0.045	0.045	0.033	0.1	0.3					
X1	2.964	90	8510.33	11789	455	520	500			
X3	0			7500	975	11815	975			
GR	966	7119.78	968	7208.56	968	7356.71	966	7407.3	964	7565.08
GR	964	7788.53	964	7992.42	962	8034.25	960	8091.9	960	8152.96
GR	958	8163.03	958	8177.52	960	8250.57	964	8263.71	964	8317.96
GR	966	8340.72	966	8510.33	960	8533.94	958	8599.51	958	8902.2
GR	960	9089.02	962	9121.87	958	9300	956	9367.84	954	9377.46
GR	950	9415.75	950	9523.74	954	9545.43	954	9595.59	952	9680.76
GR	952	9701.03	950	9790.01	950	9888.19	952	9939.5	952	9986.46
GR	954	10019.87	958	10038.44	962	10069.65	962	10102.99	960	10125.5
GR	960	10151.19	962	10178.45	962	10201.25	960	10220.76	960	10259.95

GR	958	10298.04	958	10320.36	960	10327.92	962	10356.96	964	10456.41
GR	964	10513.7	954	10547.15	952	10579.03	954	10670.52	956	10802.1
GR	958	10856.7	958	10945.6	956	10981.03	956	10997.68	958	11073.89
GR	958	11248.31	960	11254.15	960	11326.93	962	11335.57	962	11357.22
GR	960	11363.8	960	11593.97	962	11602.59	962	11618.83	958	11627.21
GR	958	11650.16	954	11665.31	954	11747.71	958	11754.5	962	11761.25
GR	966	11768.09	970	11774.81	974	11781.69	978	11789	978	11899.03
GR	968	11932.46	968	11946.75	972	11989.24	972	12014.07	970	12026.93
GR	970	12049.38	972	12055.74	972	12278.81	972	12574.25	970	12595.69
X1	3.059	90	8705.89	11812.31	500	500	500			
X3	10			7260	975					
GR	968	7129.9	970	7163.61	970	7231.18	968	7328.91	968	7555.48
GR	966	7754.46	964	7925.88	962	8033.73	962	8102.48	960	8186.78
GR	960	8253.19	958	8275.62	958	8323.98	960	8334.92	962	8379.62
GR	964	8389.18	964	8583.64	962	8705.89	960	8755.4	960	8782.1
GR	958	8813.55	958	8994.85	956	9023.61	954	9104.16	952	9129.51
GR	952	9163.97	954	9197.85	954	9354.64	952	9380.75	952	9415.1
GR	954	9435.05	954	9738.49	954	9939.66	956	9982.28	958	10046.52
GR	960	10171.2	962	10262.43	962	10550.4	962	10622.64	960	10669.46
GR	960	10746.07	958	10795.7	956	10839.55	958	10869.81	958	10888.75
GR	956	10978.61	954	11102.64	954	11133.13	956	11160.93	958	11176.18
GR	958	11229.13	960	11235.54	960	11329.93	962	11339.08	962	11360.36
GR	958	11379.95	958	11405.53	962	11451.78	960	11461.1	960	11560.76
GR	962	11569.82	962	11594.41	960	11602.23	960	11621.16	962	11626.18
GR	962	11638.07	956	11656.89	956	11705.88	960	11751.7	962	11767.6
GR	964	11771.78	968	11779.69	972	11787.98	976	11796.24	980	11804.5
GR	980	11812.31	978	11831.38	972	11852.71	972	11978.03	974	11984.36
GR	974	12004.62	970	12017.3	968	12034.38	968	12048.5	970	12183.07
GR	972	12274.59	970	12298.25	972	12301.55	972	12506.13	970	12514.74
X1	3.153	90	8504.94	11250	420	560	500			
X3	10			7200	975	11252.76	975			
GR	968	7079.55	972	7118.42	972	7147.55	970	7159.66	970	7171.53
GR	968	7415.51	966	7539.65	964	7770.96	962	7782.82	962	7807.34
GR	964	7875.05	964	7949.94	962	7963.99	962	8095.48	960	8165.07
GR	960	8256.22	964	8276.05	966	8319.22	968	8379.34	968	8504.94
GR	966	8515.14	964	8563.92	962	8583.36	960	8591.15	960	8603.16
GR	962	8611.4	964	8691.4	964	8731.53	956	8748.55	956	8781.87
GR	958	8843.19	956	8853.11	956	9020.81	960	9066.43	958	9147.47
GR	956	9210.25	956	9342.46	958	9383.17	958	9499.59	956	9526.54

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GR	954	9541.48	954	9552.13	956	9652.96	956	9695.41	958	9755.16
GR	960	9787.05	960	9810.49	958	9883.37	956	9927.06	956	10040.48
GR	958	10073.71	956	10179.3	956	10234.43	958	10296.06	960	10321.98
GR	960	10351.84	962	10361.88	962	10492.53	964	10505.47	964	10537.2
GR	962	10556.37	962	10750.19	960	10860.03	960	10941.37	962	10962.54
GR	962	11075.1	956	11098.17	952	11132.76	952	11224.2	970	11250
GR	952	11280.96	955	11294.18	958	11299.13	963	11309.16	968	11319.19
GR	972	11326.46	972	11355.94	971	11379.2	957	11403.72	955	11405.8
GR	955	11449.69	960	11457.66	965	11467.89	968	11489.7	973	11500.3
GR	973	11740.51	975	11752.72	977	11784.52	979	11796.5	980	12563.81
X1	3.248	90	8521.75	11040	480	520	500			
X3	10			7125	975	11046.32	984.96			
GR	968	7023.08	972	7061.89	972	7087.51	970	7118.69	970	7337.61
GR	968	7418.29	966	7531.82	964	7658.35	962	7770.27	964	7788.82

GR	964	7971.75	962	8006.55	960	8018.99	962	8080.16	962	8186.83
GR	964	8237.56	966	8245.13	968	8274.3	968	8417.33	970	8438.11
GR	970	8521.75	966	8552.96	964	8599.21	960	8625.69	962	8637.35
GR	962	8810.55	956	8816.78	956	8970.76	958	8992.06	956	9038.65
GR	956	9195.92	958	9234.87	958	9267.03	956	9277.14	956	9378.61
GR	958	9390.2	960	9427.27	960	9506.1	958	9602.04	960	9612.48
GR	960	9753.73	962	9763.39	964	9812.41	962	9855.93	960	9939.8
GR	960	10110.4	958	10145.12	958	10220.3	960	10224.85	960	10239.09
GR	958	10242.23	958	10519.03	962	10566.6	964	10605.91	964	10690.74
GR	964	10963.76	962	10988.01	956	11001.32	956	11017.21	971	11040
GR	953	11060.58	952	11073.59	952	11158.61	953	11191.6	959	11202.04
GR	961	11206.07	966	11214.53	971	11223.26	976	11238.38	981	11248.23
GR	982	11291.24	967	11320.5	959	11341.24	959	11387.94	961	11390.93
GR	966	11401.97	967	11411.05	973	11421.3	978	11428.74	980	11459.28
GR	980	11605.44	979	11639.36	978	11701.76	978	11727.88	980	11731.79
GR	980	11748.99	979	12396.28	971	12411.78	968	12438.44	967	12484.4
X1	3.343	90	8570.47	11060	530	522	500			
X3	10			7300	985	11062.47	985.04			
GR	970	6949.94	972	6986.55	972	7002.86	970	7026.93	968	7231.93
GR	968	7347.32	966	7752.78	962	7798.64	962	7843.81	964	7904.72
GR	964	7950.27	960	7960.42	960	7971.11	964	8115.54	968	8130.49
GR	968	8263.27	970	8288.42	970	8325.1	968	8442.22	968	8493.7
GR	970	8517.38	970	8570.47	968	8579.5	966	8632.6	964	8665.2
GR	960	8700.09	956	8751.26	956	8919.79	960	8941.4	960	9164.47
GR	962	9294.19	962	9361.62	960	9376.16	958	9419.54	958	9523.53
GR	964	9546.22	964	9592.12	962	9653.92	960	9740.54	960	9923.52
GR	958	9946.24	958	9991.95	960	10035.11	962	10046.86	960	10060.9
GR	960	10077.35	964	10096.36	964	10145.95	962	10264.92	960	10278.56
GR	960	10311.24	962	10391.26	962	10504.1	958	10512.53	958	10593.63
GR	960	10603.33	960	10670.01	958	10886.63	958	10935.21	956	10946.9
GR	956	11037	971.5	11060	955	11102.05	960	11112.16	964	11118.68
GR	970	11129.77	971	11139.37	974	11146.23	975	11160.05	980	11172.12
GR	984	11181.83	985	11218.12	976	11236.37	971	11256.83	959	11275.83
GR	959	11312.23	965	11327.44	968	11334.34	972	11345.04	976	11354.83
GR	977	11371.7	980	11387.47	979	11410.13	980	11468.42	980	11530.27
GR	979	11576.51	979	11665.89	979	12325.66	976	12338.54	969	12340.65

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X1	3.438	90	8598.08	10920	520	490	500			
X3	10			7400	985	10921.25	978			
GR	970	6879.48	972	6911.48	972	6944.52	970	6966.05	970	7092.01
GR	972	7120.53	972	7180.94	970	7189.56	968	7203.55	968	7280.55
GR	968	7728.2	968	7858.12	966	7865.28	964	7948.07	964	7961.32
GR	966	8022.23	966	8038.63	962	8051.03	962	8119.11	964	8190.37
GR	966	8197.35	968	8273.75	970	8309.05	970	8522.61	970	8598.08
GR	968	8628.96	962	8666.78	960	8683.29	960	8746.66	956	8771.75
GR	956	8858.88	958	8881.21	960	9113.01	962	9252.57	964	9316.64
GR	964	9332.02	962	9370.39	960	9407.03	960	9596.57	962	9612.84
GR	964	9888.58	964	9971.18	962	9984.57	962	10170.4	964	10199.57
GR	964	10295.95	966	10320.28	966	10450.36	964	10586.52	962	10608.68
GR	960	10672.35	960	10721.83	962	10732.81	962	10736.32	960	10750.38
GR	958	10760.39	958	10780.57	956	10787.19	956	10859.64	972	10920
GR	956	10927.45	956	10942.41	957	11007.93	957	11028.69	956	11033.31
GR	956	11061.61	959	11067.12	960	11070.03	962	11073.6	966	11082.32
GR	971	11092.37	975	11101.38	980	11111.17	981	11113.39	981	11122.05
GR	980	11148.12	979	11165.3	979	11255.45	978	11259.63	978	11518.58

GR	977	11522.58	975	11532.55	975	12192.97	976	12196.75	977	12199.11
GR	979	12205.95	980	12248.01	980	12252.95	979	12257.83	970	12277.25
X1	3.532	90	8422.34	10780.75	465	495	500			
X3	10			7460	985	10784.84	985			
GR	972	6746.2	972	6824.37	970	6855.31	970	7117.76	968	7842.83
GR	966	7854.01	964	8101.34	964	8195.23	966	8265.06	966	8285.48
GR	964	8295.74	964	8340.45	966	8353.94	968	8367.31	968	8422.34
GR	966	8447.09	964	8456.36	962	8613.55	962	8756.28	964	8765.09
GR	964	8807.39	962	8808.98	960	8899.09	960	9112.82	960	9371.33
GR	960	9595.95	962	9608.35	964	9743.55	966	9864.77	966	9904.88
GR	964	10032.22	964	10229.35	966	10409.62	966	10476.47	964	10500.11
GR	962	10575.23	960	10668.91	958	10682.91	958	10696.66	959	10722.89
GR	958	10760.75	973	10780.75	956	10909.46	957	10918.86	958	10929.18
GR	960	10949.71	961	10960.04	961	10970.43	960	10982.61	960	11017.08
GR	961	11020.36	962	11022.88	963	11025.42	964	11027.99	965	11030.8
GR	966	11032.65	967	11035.23	968	11037.42	969	11039.9	970	11042.62
GR	971	11044.52	972	11046.33	973	11048.64	974	11051.01	975	11053.27
GR	976	11055.12	977	11057.38	978	11059.8	979	11061.97	980	11063.71
GR	981	11065.78	982	11067.51	983	11068.91	984	11070.76	985	11072.85
GR	985	11110.24	984	11112.91	983	11115.79	982	11118.77	981	11121.3
GR	980	11126.31	980	11152.43	979	11181.18	978	11184.8	978	11388.32
GR	978	12064.72	979	12071.34	979	12138.01	978	12154.38	977	12168.21
X1	3.627	90	7720	10695	510	460	500			
X3	10					10700	980			
GR	974	6644.84	972	6675.68	972	6970.31	972	6984.41	970	7592.42
GR	969	7720	968	8157.87	966	8241.07	966	8244.03	966	8296.05
GR	966	8315.03	968	8326.48	968	8343.69	966	8350.24	964	8360.74
GR	962	8372.71	962	8811.89	964	8822.89	962	8987.34	962	10045.53
GR	962	10047.09	962	10052.46	962	10154.43	962	10174.12	962	10188.32
GR	962	10204.36	962	10222.63	964	10228.62	964	10230.35	964	10230.75
GR	964	10237.35	962	10306.97	962	10344.86	964	10361.39	966	10379.32
GR	966	10430.5	964	10484.2	962	10525.46	960	10580.33	959	10621.76
GR	958	10666.66	958	10670	973	10695	956	10782.18	957	10790.2

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GR	958	10805.79	958	10830.3	958	10868.15	959	10879.41	960	10891.09
GR	961	10901.21	962	10909.31	963	10914.71	964	10919.15	965	10922.48
GR	966	10924.25	967	10927.44	968	10934.47	969	10941.72	970	10950.57
GR	971	10964.59	972	10968.69	973	10970.84	974	10973.87	975	10976
GR	976	10978.26	977	10980.65	978	10983	979	10985.46	980	10987.36
GR	981	10989.88	981	11028.23	980	11046.78	979	11105.62	978	11136.33
GR	978	11136.98	978	11243.94	978	11668.85	978	11703.88	978	11738.29
GR	978	11747.48	978	11785.6	978	11798.75	978	11851.23	979	11885.64
GR	980	11905.68	980	11988.16	979	12006.06	978	12019.45	977	12033.69
X1	3.721	90	7452.38	10670	530	495	450			
X3	10			6470	985	10675	978			
GR	974	6232.87	974	6313.57	972	7216.99	972	7452.38	970	7508.47
GR	968	7582.42	968	7734.9	966	7813.45	964	7830.88	964	7856.35
GR	966	7867.8	962	7878.14	964	7918.25	968	7955.6	968	8027.18
GR	966	8032.29	966	8050.12	968	8079.45	968	8093.66	966	8143.53
GR	964	8171.87	964	8285.16	966	8293.23	966	8367.77	964	8374.32
GR	964	8512.6	966	8545.11	966	8594.46	964	8603.84	964	8706.04
GR	966	8893.49	966	9009.07	964	9074.53	962	9169.22	960	9224.79
GR	960	9587.25	964	9599.79	964	9658.25	962	9720.47	964	9769
GR	964	9988.03	962	10109.85	962	10160.56	964	10207.28	964	10267.66

GR	962	10318.44	962	10370.3	957	10456.02	956	10513.73	959	10598.05
GR	959	10648	974	10670	963	10706.72	968	10723.59	973	10737.31
GR	977	10747.85	978	10781.08	976	10828.55	976	11108.41	977	11130.26
GR	977	11170.47	978	11177.46	978	11338.44	976	11350.25	976	11568.79
GR	977	11574.06	977	11614.71	980	11630.68	979	11680.31	978	11817.43
GR	978	11871.46	980	12245.84	980	12359.62	981	12693.8	980	12845.14
GR	982	12879.45	982	12922.22	981	12930.35	979	12993.22	976	13000.99
GR	976	13185.06	976	13554.72	980	13566.33	980	13584.86	978	13735.84
GR	978	13785.02	980	14171.13	980	14209.18	976	14217.43	978	14226.87
X1	3.813	90	7691.06	10684.92	570	445	490			
X3	10			6320	985					
GR	974	6047.74	976	6085.71	976	6434.26	974	7062.93	974	7152.52
GR	972	7442.58	970	7485.89	970	7691.06	968	7718.2	970	7729.04
GR	970	7943.24	966	7956.95	964	7991.66	964	8120.09	966	8168.27
GR	966	8195.68	968	8219.75	968	8314.18	964	8328.68	964	8411.16
GR	968	8426.79	966	8453.71	966	8483.35	968	8518.68	964	8561.95
GR	964	8797	966	8843.49	966	8891.88	964	9009.74	962	9089.05
GR	960	9120.51	960	9410.85	962	9422.84	964	9513.64	966	9527.04
GR	968	9574	968	9606.07	964	9643.79	966	9662.99	964	9740.27
GR	964	9843.36	964	10065.55	966	10120.84	968	10127.9	968	10159.14
GR	964	10322.49	961	10338.46	958	10411.5	961	10424.6	961	10466.06
GR	963	10511.13	963	10543.37	967	10592.29	965	10645	975	10684.92
GR	977	10705.06	978	10760.29	978	11007.29	977	11013.29	977	11111.57
GR	981	11142.49	981	11389.06	978	11398.84	976	11435.6	981	11458.71
GR	981	11482.99	975	11512.83	976	11983.68	980	12009.71	980	12049.68
GR	978	12061.99	976	12126.88	976	12275.18	976	12619.99	978	12658.28
GR	980	12667.82	984	12712.93	984	12764.02	982	12770.85	980	12805.9
GR	978	12812.09	976	13285.36	978	13392.86	980	13423.04	978	13426.91
GR	978	14007.24	980	14012.57	980	14051.29	978	14064.38	978	14090.4

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X1	3.908	90	7787.85	10640	530	460	500			
X3	10			7520	985	10641	981			
GR	976	5913.91	976	6270	976	6885.83	974	6903.22	976	6909.95
GR	976	6925.29	974	7289.36	972	7435.39	970	7513.29	968	7529.92
GR	970	7566.05	970	7674.56	972	7770.06	972	7787.85	970	7830.13
GR	968	7941.62	968	7997.45	966	8045.19	966	8197.48	968	8232.91
GR	966	8245.63	966	8472.54	964	8495.67	964	8582.42	966	8760.4
GR	968	8878.83	968	8975.35	960	9031.85	960	9216.32	962	9224.74
GR	966	9241.69	968	9250.25	968	9360.95	966	9400.44	964	9488.69
GR	964	9529.85	962	9574.05	960	9596.77	964	9646.69	964	9708.3
GR	966	9821.52	966	9877.51	962	10140.37	960	10142.5	960	10227.3
GR	964	10248.82	967	10351.4	966	10473.68	966	10585.98	970	10632
GR	975	10640	970	10662.2	970	10682.46	972	10696.05	975	10733.26
GR	979	10789.15	981	10798.78	981	11020.89	979	11031.12	979	11249.84
GR	980	11258.81	977	11269.67	977	11289.84	980	11297.04	982	11303.03
GR	980	11345.74	979	11425.53	978	11578.35	978	11822.92	980	11846.47
GR	980	11899.26	976	11917.98	976	12348.64	978	12509.75	982	12528.75
GR	984	12543.51	984	12607.17	980	12658.11	976	12675.15	976	12981.95
GR	976	13180.44	978	13213.21	982	13251.24	980	13284.53	980	13853.32
GR	982	13870.38	980	13898.43	976	13905.59	978	13910.85	978	13934.99
X1	4.001	90	7409.35	10620	540	420	490			
X3	10			7650	985	10630	980			
GR	976	5934.8	978	6053.28	978	6683.6	976	6690.47	976	6968.06
GR	974	7229.32	972	7281.26	972	7336.31	970	7409.35	970	7608.42

GR	972	7639.1	972	7759.14	970	7785.23	970	7837.84	968	7841.69
GR	968	7937.2	970	7954.37	972	8019.58	970	8029.67	968	8068.06
GR	968	8191.45	970	8201.62	970	8224.19	966	8251.82	966	8362.65
GR	968	8451.59	972	8484.52	972	8519.77	968	8533.43	966	8551.21
GR	966	8600.43	968	8648.94	968	8710.03	966	8735.22	966	8992.55
GR	964	9020.51	960	9032.82	960	9192.43	962	9208.66	966	9285.91
GR	966	9324.42	964	9361.89	964	9463.47	966	9577.46	966	9617.11
GR	964	9640.5	964	9724.33	966	9768.77	966	9949.84	964	10116.8
GR	964	10272.74	966	10303.66	968	10313.18	970	10401.52	971	10540.25
GR	971	10614	976	10620	971	10693.95	971	10815.26	976	10848.62
GR	980	10861.08	980	10952.14	979	10975.13	979	11081.14	981	11116.01
GR	981	11148.47	978	11164.77	978	11632.03	982	11666.75	982	11698.59
GR	980	11722.31	978	11892.55	978	12233.85	980	12326.64	984	12352.58
GR	986	12400	984	12405.16	982	12444.18	980	12704.12	980	13026.53
GR	982	13042.38	982	13064.33	980	13092.91	978	13330.69	978	13632.84
GR	980	13642.94	982	13694.65	976	13707.2	978	13711.6	978	13736.75
X1	4.095	90	7486.79	10610	600	450	495			
X3	10			7780	985	10611	981			
GR	978	6495.76	978	6692.49	976	6990.9	974	7048.25	972	7076.16
GR	972	7164.26	974	7186.69	974	7247.68	972	7261.14	972	7486.79
GR	972	7552.32	970	7570.71	970	7581.92	974	7633.37	974	7663
GR	972	7675.33	968	7732.83	968	7788.95	970	7796.79	970	7883.46
GR	972	7894.28	972	7929.37	968	7949.06	968	8052.47	970	8127.14
GR	970	8168.2	968	8178.66	968	8283.86	970	8306.51	974	8317.82
GR	976	8457.2	976	8636.76	970	8663.79	968	8696.59	966	8800.8
GR	966	8845.39	968	8939.1	966	9074.76	962	9096.56	962	9273.21
GR	964	9371.24	966	9461.72	966	9575.94	964	9653.72	964	9682.6

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GR	966	9872.33	966	10152.09	968	10180.64	968	10437.22	970	10487.82
GR	972	10527.25	970	10602	978	10610	972	10697.13	972	10720.63
GR	971	10745.3	975	10762.61	978	10776.14	979	10811.43	980	10882.15
GR	978	10892.37	979	10895.49	980	10927.24	981	10931.22	981	10961.75
GR	978	10975.73	978	11422.97	980	11449.41	982	11459.98	982	11506.18
GR	980	11545.58	980	12117.88	984	12156.46	986	12194.79	986	12212.73
GR	984	12218.8	982	12256.28	978	12269.67	978	12620.17	978	12833.72
GR	980	12843.69	982	12865.31	982	12876.21	978	12899.43	978	13454.33
GR	982	13467.37	982	13509.64	976	13522.14	980	13529.04	980	13538.15
X1	4.189	90	7395.04	10585	575	495	500			
X3	10			7920	985	10590	980			
GR	978	6292.43	978	6401.27	974	6506.07	974	6604.06	976	6842.63
GR	974	6858.89	976	6869.13	976	7036.77	974	7052.89	974	7071.58
GR	976	7102.61	976	7174.28	974	7195.76	974	7395.04	974	7686.95
GR	974	7776.43	972	7798.39	972	7867.91	970	7927.22	970	7974.8
GR	974	8012.43	974	8031.44	970	8047.04	968	8068.6	966	8130.66
GR	966	8167.99	970	8206.96	970	8430.15	972	8487.23	976	8507.24
GR	976	8596.55	974	8604.51	972	8629.25	970	8766.73	970	8842.44
GR	968	8866.72	970	8877.22	970	9018.6	968	9079.55	966	9111.54
GR	964	9172.82	964	9257.39	962	9277.5	964	9302.13	964	9324.15
GR	960	9350.47	962	9431.3	964	9494.86	966	9592.66	966	9734.75
GR	964	9810.16	964	9828.23	966	9931.35	966	10221.66	962	10249.23
GR	962	10318.36	966	10327.51	968	10348.85	969	10400.6	971	10475.62
GR	973	10508.17	973	10577	979	10585	975	10605.19	979	10621.26
GR	980	10662.87	980	11112.27	980	11483.48	980	11817.39	980	11941.85
GR	981	11999.29	983	12009.02	983	12039.69	980	12041.93	979	12104.05
GR	979	12259.25	978	12320.66	978	12365.36	979	12390.25	979	12548.16

GR	978	12620.54	979	12648.86	976	12737.01	976	13106.84	976	13121.44
GR	977	13703.48	978	13714.37	982	13719.36	982	13732.46	978	13737.01
X1	4.284	59	7336.18	10647.12	580	480	500			
X3	0			8050	985					
GR	980	5053.35	980	5074.39	982	5267.48	982	5341.56	980	5773.52
GR	980	5781.86	978	5813.46	978	7150.02	978	7158.67	976	7170.48
GR	974	7182.14	974	7336.18	974	7407.63	974	7748.95	974	8008.25
GR	974	8167.41	972	8290.59	970	8340.16	970	8428.89	972	8570.3
GR	972	8873.25	972	8926.3	970	9039.07	968	9108.46	968	9140.95
GR	968	9154.84	966	9251.09	932	9360	932	10470.53	980	10586.8
GR	981	10606.17	982	10610.34	982	10611.25	981	10612.85	980	10614.41
GR	980	10615.36	981	10616.77	982	10618.26	982	10621.55	981	10627.69
GR	981	10628.89	982	10642.66	983	10647.12	983	10686.85	982	10700.68
GR	982	11671.62	982	11730.45	982	11855.94	984	11918.5	984	11936.56
GR	982	11959.51	980	11991.52	980	13505.74	982	13532.49	982	13580.2
GR	980	13618.2	978	13624.61	978	13625.67	980	13628.87		
X1	4.379	84	7304.78	10600.09	585	420	500			
X3	0			8190	985	10665	985			
GR	982	4998.41	982	5273.12	982	5499.51	980	5575.55	978	5587.8
GR	978	6048.45	980	6964.04	982	6979.34	982	7060.54	980	7091.45
GR	978	7122.45	976	7148.74	976	7219.14	978	7228.15	980	7235.93
GR	980	7261.94	978	7275.59	976	7289.71	974	7304.78	974	7360.99
GR	976	7398.56	976	7633.83	976	7780.74	974	7790.4	972	7799.8
GR	972	7831.32	974	7843.18	976	7855.06	976	8188.06	974	8194.09

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GR	972	8200	972	8496.5	970	8532.34	970	8556.07	972	8574.48
GR	972	8875.19	932	9170	932	10340	965	10444.78	966	10507.93
GR	967	10515.1	968	10516.67	969	10518.19	970	10519.61	972	10522.65
GR	974	10525.74	975	10527.31	976	10528.85	977	10530.45	978	10532.16
GR	979	10533.83	980	10535.41	981	10537.3	982	10539.11	983	10556.47
GR	984	10600.09	984	10629.38	983	10631.87	982	10634.4	981	10636.97
GR	981	10638.05	982	10640.36	982	10643.98	981	10646.19	981	10657.7
GR	982	10667.31	983	10672.24	983	10699.61	981	10706.7	980	10710.26
GR	979	10713.85	978	10717.25	978	10722.18	980	11692.16	982	11699.39
GR	984	11705.82	984	11754.5	982	11766.91	982	13370.32	984	13380.43
GR	984	13383.77	982	13404.67	982	13436.19	980	13440.92		
X1	4.473	77	8125.7	10669.79	480	420	500			
X3	0			8310	985					
GR	982	5135.51	982	5269.88	984	5273.58	982	5361.11	980	5381.2
GR	980	6640.85	980	6783.15	974	6810.87	974	6833.62	978	6850.36
GR	980	6885.97	978	7380.76	978	7581.17	978	8053.37	978	8125.7
GR	976	8192.57	972	8217.09	972	8290.17	970	8348.2	972	8456.75
GR	972	8594.53	974	8667.61	976	8707.98	976	8829.75	974	8843.28
GR	972	8903.66	962	8930.6	932	9000	932	10400	970	10503.04
GR	974	10533	976	10581.7	980	10597.63	982	10610.26	984	10669.79
GR	982	10696.01	986	10705.35	984	10744.48	984	10786.14	986	10817.13
GR	990	10870.22	988	10901.25	988	10957.67	990	10966.75	990	11057.24
GR	986	11100.02	990	11127.98	982	11141.78	986	11161.36	988	11163.47
GR	988	11195.2	984	11203.83	982	11471.71	982	11680.32	984	11705.21
GR	982	11731.65	982	11777.09	984	11824.03	982	11901.9	984	12071.72
GR	980	12095.14	982	12122.55	986	12161.9	980	12177.21	980	12236.38
GR	982	12397.74	982	12643.24	984	12649.98	984	12752.2	982	12778.55
GR	984	12827.62	984	12996.36	984	13121.53	986	13150.52	984	13156.66
GR	982	13277.03	980	13288.95						

X1	4.568	63	8406.26	10685.94	520	490	500			
GR	984	5011.83	984	5013.5	982	5125.25	980	5165.7	980	5192.28
GR	982	5205.41	982	5212.6	980	5221.32	980	5225.67	982	5240.91
GR	982	5283.71	984	5291.02	984	5355.65	982	5363.52	982	5479.81
GR	984	5490.37	984	5492.42	982	5585.96	982	5842.76	980	5846.98
GR	980	5854.08	982	5859.46	982	5872.03	980	6679.99	980	6718.75
GR	980	7246.43	980	7263.23	978	7546.8	978	7561.7	980	7645.87
GR	982	7674.48	982	7858.91	980	8272.97	978	8278.27	974	8289.25
GR	972	8406.26	972	8543.55	970	8559.24	970	8568.57	972	8576.9
GR	972	8605.39	974	8643.59	976	8735.44	976	8738.21	974	8746.02
GR	972	8753.07	970	8759.74	968	8767.06	966	8773.33	966	8780.4
GR	968	8789.73	932	8880	932	10460	976	10601.74	978	10627.03
GR	980	10641.71	982	10685.94	984	10799.29	984	10812.47	982	10841.24
GR	980	10925.82	980	10936.72	982	10991.06				
X1	4.663	56	8454.89	10636.02	490	460	500			
X3	0			8200	990	10650	990			
GR	982	6527.36	982	6902.1	982	6902.23	984	6905.62	984	6905.72
GR	982	6920	980	6928.08	978	7122.86	978	7199.91	980	7221.29
GR	980	7360.5	980	7699.54	982	7714.96	984	7853.06	984	7861.69
GR	982	7911.76	980	7934.23	980	7995.9	982	8067.37	982	8125.1
GR	984	8150.07	984	8243.33	982	8251.83	980	8260.96	980	8289.84
GR	982	8296.42	982	8311.18	980	8351.49	978	8454.89	976	8474.58

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GR	976	8539.11	974	8554.3	972	8562.41	972	8703.83	972	8808.94
GR	970	8858.51	970	8896.69	972	8976.91	974	9070.4	976	9089.45
GR	978	9110.66	980	9198.41	980	9234.81	978	9252.08	932	9390
GR	932	10530	986	10636.02	984	10656.54	984	10679.21	986	10866.46
GR	986	10882.78	986	10886.87	984	10898.26	982	11145.34	982	11265.84
GR	982	11265.87								
X1	4.758	56	8848.02	10964.46	450	390	500			
X3	0			8860	990	11030	990			
GR	982	6498.81	982	6871.72	980	6905.19	978	7014.31	978	7062.79
GR	980	7086.33	982	7133.8	982	7333.51	980	7546.77	980	7664.83
GR	982	7751.95	982	7845.66	980	7946.93	980	7949.82	982	7962.54
GR	984	8077.32	984	8281.4	982	8302.28	980	8627.94	980	8676.8
GR	982	8693.65	982	8790.28	980	8797.26	978	8806.28	976	8817.04
GR	974	8832.09	972	8848.02	972	8918.38	974	8940.12	974	8969.71
GR	972	9022.49	972	9099.28	974	9149.37	932	9210	932	10760
GR	968	10845.11	968	10868.35	966	10881.34	966	10900.88	968	10904.71
GR	970	10908.88	972	10912.65	974	10917.07	976	10923.71	978	10929.93
GR	980	10936.43	982	10942.38	984	10950.11	986	10960.18	986	10964.46
GR	984	11130.57	982	11171.06	980	11456.43	978	11484.77	976	11498.91
GR	974	11514.68								
X1	4.852	62	8788.2	10990.93	410	525	500			
X3	0			8770	995	11050	995			
GR	982	6025.03	984	6789.04	982	6824.5	982	8075.32	984	8159.95
GR	984	8184.81	986	8192.62	986	8264.13	984	8324.42	984	8400.29
GR	986	8418.59	988	8426.42	994	8434.74	998	8440.17	1002	8445.98
GR	1002	8456.91	1004	8462.17	1004	8465.98	1002	8470.14	1002	8472.24
GR	1004	8476.28	1004	8587.93	1002	8593.07	996	8601.88	986	8615.38
GR	984	8629.34	984	8630.46	986	8640.09	986	8749.78	988	8754.33
GR	994	8768.19	994	8788.2	992	8797.71	990	8824.45	986	8837.86
GR	986	8872.83	984	8895.65	982	8908.89	972	8929.79	972	8939.51

GR	932	9045	932	10750	968	10899.16	970	10932.02	972	10959.75
GR	976	10968.72	980	10977.64	986	10990.93	986	11078.32	982	11093.56
GR	980	11266.35	980	11273.35	982	11299.27	984	11338.3	984	11361.08
GR	982	11368.1	980	11409.79	976	11419.48	976	11483.89	978	11498.77
GR	980	11516.92	982	11837.93						
X1	4.947	54	8684.54	10945.26	520	470	500			
GR	984	6614.65	984	6617.26	984	6621.75	984	6623.83	982	6974.67
GR	982	6979.68	982	7979.68	982	7980.72	984	7983.13	986	8012.7
GR	986	8021.52	986	8074.18	986	8077.33	986	8201.75	986	8276.25
GR	986	8315.59	986	8415.32	984	8684.54	984	8700.27	984	8708.75
GR	982	8716.22	932	8860	932	10570	976	10623.47	974	10650.74
GR	972	10715.14	970	10727.7	970	10745.26	970	10753.8	968	10764.87
GR	968	10777.88	970	10835.28	972	10844.27	974	10853.82	976	10865.06
GR	978	10875.66	980	10880.17	982	10884.65	984	10889.2	986	10893.82
GR	988	10898.65	990	10903.34	992	10945.26	992	10969.52	990	10975.12
GR	988	10981.01	986	10986.32	984	10991.92	984	11112.49	984	11248.18
GR	984	11343.67	986	11755.28	986	11811.14	986	11856.81		

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X1	5.042	45	8541.82	10852.36	460	510	500			
GR	988	8055.23	988	8059.2	986	8065.3	986	8095.14	986	8179.64
GR	986	8254.02	986	8259.41	986	8281.94	986	8283.35	986	8522.58
GR	988	8529.13	988	8535.28	986	8541.82	984	8548.36	984	8556.88
GR	932	8650	932	10400	976	10626.85	974	10679.64	974	10693.63
GR	974	10693.75	974	10702.5	974	10719.52	972	10734.81	972	10736.42
GR	974	10745.83	976	10755.19	978	10764.68	980	10774.38	982	10784.07
GR	984	10793.75	986	10802.68	988	10809.04	990	10813.74	992	10831.51
GR	992	10844.01	992	10852.36	992	10872.68	990	10878.27	988	10883.99
GR	986	10889.65	986	11019.19	986	11109.26	986	11560.67	986	11725.69
X1	5.136	12	9530	10700	420	530	500			
X3	0			8550	995	10700	995			
GR	985.5	6220	984	8550	984	8810	980	9530	932	9660
GR	932	10200	972	10440	976	10670	988	10700	984	10750
GR	984	11390	988	12020						
X1	5.231	14	9390	10480	450	530	500			
X3	0			8650	990	11050	990			
GR	985.5	6000	986	7700	998	7870	988	8060	984	8650
GR	980	9390	976	9420	976	10140	973	10150	973	10450
GR	976	10460	984	10480	988	12050	990	12380		
X1	5.326	18	9420	10480	450	470	500			
X3	0			8520	990	11270	990			
GR	986.5	5950	986	7580	988	7670	992	7730	1004	7790
GR	992	7860	992	8100	988	8120	984	8520	980	9420
GR	976	9440	976	10130	973	10140	973	10440	976	10450
GR	988	10480	988	11280	992	11910				
X1	5.42	9	9425	10500	500	460	500			
X3	0			8500	1000	10960	1000			
GR	988	6270	988	7540	984	8500	980	9425	976	9430
GR	976	10470	988	10500	988	10830	992	11970		
X1	5.515	11	9610	10770	360	500	500			
X3	0			8400	1000					

GR	990	6230	988	7480	984	8400	984	8800	980	8910
GR	980	9210	976	9610	976	10730	992	10770	992	11770
GR	995	12340								
X1	5.61	11	9600	10950	330	560	500			
X3	0			8350	995					
GR	990	6180	988	7620	984	8350	984	9250	980	9340
GR	980	9450	976	9600	976	10920	992	10950	992	11310
GR	995	12050								
X1	5.705	15	10040	10960	330	560	500			
X3	0			8290	995					
GR	988	5500	988	6060	990	6100	988	6130	988	7980
GR	994	8290	988	8580	984	9110	980	9140	980	10040
GR	976	10540	976	10930	988	10960	992	11150	996	11850

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X1	5.799	20	9820	10910	460	510	500			
X3	0			8200	995					
GR	991	6010	988	6040	988	8150	994	8200	988	8240
GR	988	8570	988	8960	984	9250	980	9380	980	9520
GR	984	9580	984	9820	980	9900	976	10000	980	10070
GR	976	10160	976	10850	988	10910	992	10980	996	11510
X1	5.894	16	9780	10760	550	480	500			
X3	0			8120	995					
GR	993	5940	990.4	7000	989.4	8000	993.5	8120	988	8450
GR	988	9300	984	9780	976	9800	976	9940	984	10010
GR	980	10170	976	10280	976	10670	988	10760	992	11080
GR	996	11240								
X1	5.989	16	9380	10800	360	530	500			
X3	0			8030	995					
GR	993	5850	992	6910	992	8000	993	8030	990	8330
GR	988	9380	984	9400	984	9810	980	9890	976	10060
GR	976	10450	980	10740	988	10800	992	11250	992	11480
GR	996	11750								
X1	6.083	16	9130	10350	390	480	500			
X3	0			7890	995					
GR	993	5700	992	7830	994.6	7890	989	7950	988	9040
GR	984	9130	984	9400	980	9420	976	9650	976	10110
GR	980	10170	980	10320	984	10350	988	10850	992	11600
GR	996	12140								
X1	6.178	14	9020	10170	510	460	500			
X3	0			7760	1000					
GR	993.4	5560	992.6	6830	992	7580	996.3	7760	992	7950
GR	992	8550	988	9020	976	9080	976	10000	980	10060
GR	984	10170	988	10630	992	11150	996	12090		
X1	6.273	13	8750	10190	470	480	500			
GR	996	5590	996	7270	997	7600	992	7680	988	8750
GR	976	8790	976	9010	980	9170	980	10130	984	10190
GR	988	10700	992	11090	996	12170				

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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

IHLEQ = 1. THEREFORE FRICTION LOSS (HL) IS CALCULATED AS A FUNCTION OF PROFILE TYPE, WHICH CAN VARY FROM REACH TO REACH. SEE DOCUMENTATION FOR DETAILS.

CRITICAL DEPTH TO BE CALCULATED AT ALL CROSS SECTIONS

CCHV= .100 CEHV= .300
1490 NH CARD USED
*SECNO .000

.000	14.86	942.86	938.11	944.00	943.67	.81	.00	.00	936.00
250000.0	1203.7	220013.4	28782.9	370.9	28802.8	13214.0	.0	.0	940.00
.00	3.24	7.64	2.18	.045	.034	.045	.000	928.00	8545.70
.001198	0.	0.	0.	0	14	4	.00	7975.27	16520.97

*SECNO .102

3265 DIVIDED FLOW

.102	12.86	943.46	938.27	.00	944.30	.85	.62	.01	932.00
250000.0	25058.4	206080.3	18861.3	4645.9	26104.5	9421.0	510.9	96.8	936.00
.02	5.39	7.89	2.00	.045	.033	.045	.000	930.60	8702.72
.001108	525.	540.	540.	2	11	0	.00	7650.28	16504.00

1490 NH CARD USED
*SECNO .197

3470 ENCROACHMENT STATIONS= 8480.0 19480.0 TYPE= 1 TARGET= -8480.000
ELENCL= 945.00 ELENCR= 100000.00

.197	12.30	944.30	938.72	.00	944.80	.49	.46	.04	932.00
250000.0	58426.3	147075.2	44498.5	12659.2	22088.2	20855.6	1060.5	194.3	944.00
.05	4.62	6.66	2.13	.045	.033	.045	.000	932.00	8480.00
.000779	500.	500.	500.	2	11	0	.00	9336.29	17816.29

1490 NH CARD USED
*SECNO .292

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

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*SECNO 5.989

3301 HV CHANGED MORE THAN HVINS


3470 ENCROACHMENT STATIONS=     8030.0   11750.0  TYPE=      1  TARGET=    -8030.000
 ELENCL=    995.00  ELENCR= 100000.00
     5.989     17.67    993.67    987.74       .00    994.64       .97       .63       .06    988.00
  185000.0   15683.1  164482.5    4834.4    5565.3   19742.7    2136.1   26110.0    2812.1    988.00
      1.57      2.82      8.33      2.26      .045      .033      .045      .000    976.00   8030.00
   .001025      360.      500.      530.         2        15         0       .00   3563.26  11593.26


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   03DEC95      10:25:05                                                                          PAGE   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 6.083

3470 ENCROACHMENT STATIONS=     7890.0   12140.0  TYPE=      1  TARGET=    -7890.000
 ELENCL=    995.00  ELENCR= 100000.00
     6.083     18.39    994.39    988.29       .00    995.08       .68       .41       .03    984.00
  185000.0   21509.6  140013.9   23476.5    7335.1   18800.0    7878.5   26444.1    2851.9    984.00
      1.59      2.93      7.45      2.98      .045      .033      .045      .000    976.00   7892.21
   .000714      390.      500.      480.         2        18         0       .00   4030.90  11923.11


*SECNO 6.178

3470 ENCROACHMENT STATIONS=     7760.0   12090.0  TYPE=      1  TARGET=    -7760.000
 ELENCL=   1000.00  ELENCR= 100000.00
     6.178     18.65    994.65    986.42       .00    995.45       .80       .33       .03    988.00
  185000.0    7778.9  156764.0   20457.1    3927.4   20304.4    7217.8   26814.2    2896.4    984.00
      1.61      1.98      7.72      2.83      .045      .033      .045      .000    976.00   7833.03
   .000640      510.      500.      460.         2        11         0       .00   3939.08  11772.11


*SECNO 6.273
     6.273     19.20    995.20    987.35       .00    995.76       .56       .29       .02    988.00
  185000.0   12816.3  150392.4   21791.3    5642.1   22883.1    8096.4   27198.0    2942.3    984.00
      1.63      2.27      6.57      2.69      .045      .033      .045      .000    976.00   7628.85
   .000534      470.      500.      480.         2        14         0       .00   4324.23  11953.08


1
   03DEC95      10:25:05                                                                          PAGE   38


                                                                    THIS RUN EXECUTED 03DEC95     10:25:12
*************************************
 HEC-2 WATER SURFACE PROFILES
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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

EXISTING CONDITIONS MODE

SUMMARY PRINTOUT TABLE 150

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10*KS	VCH	AREA	.01K
.000	.00	.00	.00	928.00	250000.00	942.86	938.11	943.67	11.98	7.64	42387.77	72234.96
.102	540.00	.00	.00	930.60	250000.00	943.46	938.27	944.30	11.08	7.89	40171.45	75103.50
.197	500.00	.00	.00	932.00	250000.00	944.30	938.72	944.80	7.79	6.66	55602.94	89547.35
.292	500.00	.00	.00	932.00	243500.00	944.76	940.43	945.24	10.11	6.43	51165.63	76589.77
.386	500.00	.00	.00	932.00	237000.00	945.20	941.25	945.87	12.90	7.37	41835.98	65985.77
.481	500.00	.00	.00	932.00	230500.00	946.02	942.28	946.57	14.37	6.77	43958.18	60796.05
.576	500.00	.00	.00	932.00	224000.00	946.73	943.87	947.31	15.17	7.14	41082.75	57503.61
.670	500.00	.00	.00	932.00	217500.00	947.35	943.55	947.93	10.53	7.30	41701.87	67025.80
.765	500.00	.00	.00	932.00	211000.00	947.80	943.80	948.48	10.07	7.71	37146.61	66491.32
.860	500.00	.00	.00	932.00	204500.00	948.18	944.63	949.14	12.96	9.27	31244.57	56802.07
.955	500.00	.00	.00	932.00	198000.00	949.02	945.11	949.76	11.16	8.66	35699.29	59275.54
1.049	500.00	.00	.00	932.00	191500.00	949.58	946.26	950.45	15.59	9.09	28804.09	48497.50
1.144	500.00	.00	.00	936.00	185000.00	950.33	948.18	951.51	22.41	10.07	24560.56	39080.61
1.239	500.00	.00	.00	936.00	185000.00	951.52	948.42	952.47	16.44	9.10	26736.87	45626.15
1.333	500.00	.00	.00	936.00	185000.00	952.34	948.87	953.25	15.09	8.42	27471.60	47631.33
1.428	500.00	.00	.00	936.00	185000.00	953.15	947.70	953.81	8.53	7.06	32732.66	63355.50
1.523	500.00	.00	.00	936.00	185000.00	953.72	947.80	954.21	6.75	6.04	37434.23	71226.45

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SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10*KS	VCH	AREA	.01K
1.618	505.00	.00	.00	940.00	185000.00	954.09	949.47	954.63	8.99	6.19	34690.85	61705.43
1.712	495.00	.00	.00	940.00	185000.00	954.58	949.43	955.06	8.00	5.70	35651.10	65427.10
1.807	500.00	.00	.00	940.00	185000.00	955.01	950.85	955.57	11.45	6.17	32735.46	54677.38

1.902	500.00	.00	.00	944.00	185000.00	955.58	951.90	956.17	12.48	6.47	31447.88	52376.76
2.015	600.00	.00	.00	942.00	185000.00	956.29	953.27	957.31	22.82	8.29	23044.28	38724.53
2.110	500.00	.00	.00	944.00	185000.00	957.44	955.04	958.66	30.54	9.39	21469.63	33478.51
* 2.205	505.00	.00	.00	944.00	185000.00	958.87	954.72	959.64	13.07	7.58	28056.97	51167.44
2.299	495.00	.00	.00	944.00	185000.00	959.46	955.46	960.31	13.27	7.97	27210.03	50777.59
2.394	500.00	.00	.00	944.00	185000.00	960.16	955.97	960.96	12.61	7.66	27563.20	52097.23
2.489	500.00	.00	.00	946.00	185000.00	960.77	957.08	961.68	15.06	7.97	26080.08	47671.68
2.586	515.00	.00	.00	946.00	185000.00	961.60	957.05	962.37	11.50	7.31	28191.54	54543.07
2.679	490.00	.00	.00	946.00	185000.00	962.23	956.72	962.88	8.81	6.65	30461.89	62317.13
2.775	505.00	.00	.00	948.00	185000.00	962.72	958.80	963.62	17.71	7.92	25387.28	43959.12
2.869	500.00	.00	.00	950.00	185000.00	963.65	960.20	964.50	17.04	7.48	25643.29	44811.64
2.964	500.00	.00	.00	950.00	185000.00	964.55	961.55	965.41	19.68	7.54	25307.22	41700.34
3.059	500.00	.00	.00	952.00	185000.00	965.54	962.34	966.30	15.73	7.14	27383.75	46651.00
3.153	500.00	.00	.00	952.00	185000.00	966.22	963.61	967.44	25.83	8.86	20875.67	36398.45
3.248	500.00	.00	.00	956.00	185000.00	967.47	965.35	968.95	31.54	9.76	18963.47	32938.72
3.343	500.00	.00	.00	956.00	185000.00	969.08	965.52	970.15	18.37	8.31	22255.45	43163.50
3.438	500.00	.00	.00	956.00	185000.00	970.06	967.38	971.20	22.79	8.84	22600.89	38753.45
3.532	500.00	.00	.00	958.00	185000.00	971.29	968.21	972.19	16.83	7.91	25553.08	45096.07
3.627	500.00	.00	.00	958.00	185000.00	972.19	968.05	972.95	13.60	7.04	27138.83	50168.15
3.721	450.00	.00	.00	956.00	185000.00	972.88	968.41	973.50	10.35	6.31	29665.69	57505.45
3.813	490.00	.00	.00	958.00	185000.00	973.37	969.34	974.13	13.60	7.02	26953.16	50163.45
3.908	500.00	.00	.00	960.00	185000.00	974.03	970.27	974.84	14.33	7.26	26076.36	48874.89
4.001	490.00	.00	.00	960.00	185000.00	974.74	971.27	975.65	17.74	7.66	24155.56	43929.45

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SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10*KS	VCH	AREA	.01K
4.095	495.00	.00	.00	962.00	185000.00	975.56	972.29	976.66	20.78	8.44	21917.94	40583.46
4.189	500.00	.00	.00	960.00	185000.00	976.65	972.74	977.60	16.37	7.81	23701.51	45718.84
* 4.284	500.00	.00	.00	932.00	185000.00	977.60	941.43	977.73	.56	2.89	64020.00	247267.10
4.379	500.00	.00	.00	932.00	185000.00	977.64	941.03	977.76	.39	2.68	68904.05	294600.30

	4.473	500.00	.00	.00	932.00	185000.00	977.67	940.12	977.78	.33	2.56	72143.84323121.30
	4.568	500.00	.00	.00	932.00	185000.00	977.71	939.46	977.79	.22	2.31	80674.23392961.50
*	4.663	500.00	.00	.00	932.00	185000.00	977.68	941.25	977.83	.50	3.06	60518.51261612.00
*	4.758	500.00	.00	.00	932.00	185000.00	977.76	939.57	977.85	.23	2.40	77014.25383078.10
	4.852	500.00	.00	.00	932.00	185000.00	977.79	939.09	977.86	.16	2.16	85524.48460430.90
	4.947	500.00	.00	.00	932.00	185000.00	977.79	939.09	977.87	.18	2.20	84149.16434040.70
	5.042	500.00	.00	.00	932.00	185000.00	977.81	938.97	977.88	.16	2.10	87891.15460808.70
*	5.136	500.00	.00	.00	932.00	185000.00	977.57	946.71	978.02	1.54	5.38	34376.92149195.80
*	5.231	500.00	.00	.00	973.00	185000.00	985.37	985.37	988.85	54.59	15.51	13859.66 25038.48
*	5.326	500.00	.00	.00	973.00	185000.00	988.82	985.31	990.37	17.77	10.74	21093.08 43880.05
	5.420	500.00	.00	.00	976.00	185000.00	989.91	985.78	991.20	14.80	9.92	22952.91 48082.06
	5.515	500.00	.00	.00	976.00	185000.00	991.01	984.45	991.74	7.86	7.59	29407.66 65973.48
	5.610	500.00	.00	.00	976.00	185000.00	991.41	984.51	992.07	6.55	7.07	31353.08 72273.39
	5.705	500.00	.00	.00	976.00	185000.00	991.64	986.05	992.51	10.64	8.66	27599.62 56724.07
	5.799	500.00	.00	.00	976.00	185000.00	992.07	986.62	993.06	10.62	8.85	26563.81 56755.59
	5.894	500.00	.00	.00	976.00	185000.00	992.33	989.41	993.95	17.59	11.06	21951.18 44112.09
	5.989	500.00	.00	.00	976.00	185000.00	993.67	987.74	994.64	10.25	8.33	27444.05 57790.55
	6.083	500.00	.00	.00	976.00	185000.00	994.39	988.29	995.08	7.14	7.45	34013.54 69242.20
	6.178	500.00	.00	.00	976.00	185000.00	994.65	986.42	995.45	6.40	7.72	31449.57 73109.14
	6.273	500.00	.00	.00	976.00	185000.00	995.20	987.35	995.76	5.34	6.57	36621.59 80053.97

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EXISTING CONDITIONS MODE

SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
.000	250000.00	942.86	.00	.00	-1.14	7975.27	.00
.102	250000.00	943.46	.00	.59	.00	7650.28	540.00
.197	250000.00	944.30	.00	.85	.00	9336.29	500.00
.292	243500.00	944.76	.00	.46	.00	9633.82	500.00

.386	237000.00	945.20	.00	.44	.00	8797.98	500.00
.481	230500.00	946.02	.00	.82	.00	7900.63	500.00
.576	224000.00	946.73	.00	.71	.00	6518.43	500.00
.670	217500.00	947.35	.00	.62	.00	6416.13	500.00
.765	211000.00	947.80	.00	.45	.00	4294.64	500.00
.860	204500.00	948.18	.00	.38	.00	3890.00	500.00
.955	198000.00	949.02	.00	.84	.00	7229.74	500.00
1.049	191500.00	949.58	.00	.56	.00	3421.61	500.00
1.144	185000.00	950.33	.00	.75	.00	3455.82	500.00
1.239	185000.00	951.52	.00	1.19	.00	3346.64	500.00
1.333	185000.00	952.34	.00	.82	.00	5454.42	500.00
1.428	185000.00	953.15	.00	.81	.00	4950.38	500.00
1.523	185000.00	953.72	.00	.57	.00	5028.36	500.00
1.618	185000.00	954.09	.00	.37	.00	5110.17	505.00
1.712	185000.00	954.58	.00	.49	.00	5094.88	495.00
1.807	185000.00	955.01	.00	.43	.00	5695.98	500.00
1.902	185000.00	955.58	.00	.56	.00	4660.13	500.00
2.015	185000.00	956.29	.00	.72	.00	3266.93	600.00
2.110	185000.00	957.44	.00	1.15	.00	3277.55	500.00
* 2.205	185000.00	958.87	.00	1.43	.00	3574.39	505.00

1

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
2.299	185000.00	959.46	.00	.59	.00	3239.32	495.00
2.394	185000.00	960.16	.00	.70	.00	3451.41	500.00
2.489	185000.00	960.77	.00	.62	.00	3532.10	500.00
2.586	185000.00	961.60	.00	.83	.00	3564.52	515.00
2.679	185000.00	962.23	.00	.62	.00	3715.54	490.00
2.775	185000.00	962.72	.00	.50	.00	3683.60	505.00
2.869	185000.00	963.65	.00	.92	.00	3660.24	500.00

	2.964	185000.00	964.55	.00	.90	.00	4052.19	500.00
	3.059	185000.00	965.54	.00	.99	.00	3980.77	500.00
	3.153	185000.00	966.22	.00	.68	.00	2730.57	500.00
	3.248	185000.00	967.47	.00	1.25	.00	2493.18	500.00
	3.343	185000.00	969.08	.00	1.61	.00	2481.79	500.00
	3.438	185000.00	970.06	.00	.98	.00	3512.64	500.00
	3.532	185000.00	971.29	.00	1.23	.00	3318.46	500.00
	3.627	185000.00	972.19	.00	.90	.00	4020.88	500.00
	3.721	185000.00	972.88	.00	.69	.00	3848.54	450.00
	3.813	185000.00	973.37	.00	.49	.00	3434.22	490.00
	3.908	185000.00	974.03	.00	.66	.00	3118.45	500.00
	4.001	185000.00	974.74	.00	.71	.00	2968.49	490.00
	4.095	185000.00	975.56	.00	.82	.00	2615.86	495.00
	4.189	185000.00	976.65	.00	1.09	.00	2661.87	500.00
*	4.284	185000.00	977.60	.00	.95	.00	2531.01	500.00
	4.379	185000.00	977.64	.00	.04	.00	2341.55	500.00
	4.473	185000.00	977.67	.00	.03	.00	2278.34	500.00
	4.568	185000.00	977.71	.00	.03	.00	2344.14	500.00
*	4.663	185000.00	977.68	.00	-.03	.00	2015.89	500.00

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	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
*	4.758	185000.00	977.76	.00	.08	.00	2069.18	500.00
	4.852	185000.00	977.79	.00	.03	.00	2054.98	500.00
	4.947	185000.00	977.79	.00	.01	.00	2146.27	500.00
	5.042	185000.00	977.81	.00	.02	.00	2195.76	500.00
*	5.136	185000.00	977.57	.00	-.24	.00	1137.33	500.00
*	5.231	185000.00	985.37	.00	7.80	.00	2366.77	500.00
*	5.326	185000.00	988.82	.00	3.45	.00	2750.00	500.00
	5.420	185000.00	989.91	.00	1.09	.00	2460.00	500.00

APPENDIX B

STEADY STATE ANALYSIS

File
W-EX_CSA.AVG

91st Ave. WWTP
Existing Conditions
w/ CSA in place

REACH	LAST SEC	DISCH.	SLOPE	DEPTH	AVDEPC	V	TOP WID	EW
1	.290	248374.	.0009194	12.6	11.7	6.91	8989.	3110.
2	.760	223999.	.0012891	14.7	10.5	7.19	6845.	3031.
3	1.330	190849.	.0015924	16.1	11.3	9.15	4425.	1854.
4	1.900	184999.	.0009134	15.2	9.9	6.17	5147.	3108.
5	2.490	184998.	.0017703	14.9	9.4	8.15	3388.	2450.
6	3.060	184999.	.0015389	14.7	8.4	7.36	3777.	3046.
7	3.630	185000.	.0021850	13.2	8.4	8.55	3036.	2598.
8	4.090	184999.	.0015310	14.8	8.6	7.33	3188.	2954.
9	4.570	185000.	.0010867	16.5	10.9	7.15	2434.	2399.
10	5.140	184999.	.0029986	15.4	10.4	11.47	1912.	1663.
11	5.700	184999.	.0011710	15.4	14.4	8.86	2550.	1484.
12	6.270	184998.	.0009637	17.8	15.4	8.39	3607.	1471.
1	.290	248374.	.0009194	12.6	11.7	6.91	8989.	3110.
2	.760	223999.	.0012891	14.7	10.5	7.19	6845.	3031.
3	1.330	190849.	.0015924	16.1	11.3	9.15	4425.	1854.
4	1.900	184999.	.0009134	15.2	9.9	6.17	5147.	3108.
5	2.490	184998.	.0017703	14.9	9.4	8.15	3388.	2450.
6	3.060	184999.	.0015389	14.7	8.4	7.36	3777.	3046.
7	3.630	185000.	.0021850	13.2	8.4	8.55	3036.	2598.
8	4.090	184999.	.0015310	14.8	8.6	7.33	3188.	2954.
9	4.570	185000.	.0010867	16.5	10.9	7.15	2434.	2399.
10	5.140	184999.	.0029986	15.4	10.4	11.47	1912.	1663.
11	5.700	184999.	.0011710	15.4	14.4	8.86	2550.	1484.
12	6.270	184998.	.0009637	17.8	15.4	8.39	3607.	1471.
1	.290	198624.	.0009308	11.4	10.6	6.50	7777.	2922.
2	.760	177999.	.0013022	13.6	9.5	6.70	6563.	2870.
3	1.330	149949.	.0015598	15.0	10.2	8.47	3425.	1755.
4	1.900	144999.	.0009503	13.9	8.6	5.71	4389.	3033.
5	2.490	144999.	.0017580	13.7	8.3	7.41	3171.	2414.
6	3.060	144999.	.0015811	13.5	7.2	6.87	3351.	3001.
7	3.630	145000.	.0022205	12.1	7.4	7.86	2729.	2539.
8	4.090	145000.	.0014928	13.7	7.5	6.62	3056.	2934.
9	4.570	145000.	.0010132	15.2	9.6	6.36	2388.	2383.
10	5.140	145000.	.0029348	14.0	9.2	10.49	1858.	1613.
11	5.700	144999.	.0011773	13.7	12.7	8.16	2374.	1432.
12	6.270	144999.	.0009940	16.1	13.7	7.85	3329.	1385.
1	.290	149524.	.0009874	10.0	9.1	6.06	6611.	2725.
2	.760	142399.	.0014863	12.4	8.3	6.51	5008.	2713.
3	1.330	129769.	.0017316	14.1	9.4	8.38	3387.	1681.
4	1.900	130998.	.0009816	13.4	8.1	5.55	4036.	3007.
5	2.490	130999.	.0017434	13.3	7.9	7.15	3112.	2397.
6	3.060	130999.	.0016064	13.0	6.9	6.66	3172.	2918.
7	3.630	131000.	.0022158	11.7	6.9	7.56	2709.	2528.
8	4.090	131000.	.0014991	13.3	7.1	6.37	3038.	2925.
9	4.570	131000.	.0009869	14.7	9.2	6.06	2385.	2380.
10	5.140	130999.	.0029036	13.4	8.7	10.07	1849.	1607.
11	5.700	130999.	.0011795	13.1	12.1	7.88	2275.	1412.
12	6.270	130998.	.0010040	15.5	13.1	7.62	3164.	1355.
1	.290	94749.	.0011113	7.9	7.0	5.32	3381.	2571.
2	.760	90999.	.0015754	10.7	6.6	5.89	4340.	2451.
3	1.330	85899.	.0017829	12.3	7.7	7.57	3202.	1516.
4	1.900	84999.	.0010297	11.5	6.3	4.87	3561.	2908.
5	2.490	84999.	.0017147	11.6	6.2	6.01	2941.	2350.
6	3.060	84999.	.0017184	11.2	5.6	5.79	2911.	2692.

7	3.630	85000.	.0022047	10.1	5.4	6.39	2574.	2480.
8	4.090	85000.	.0015145	11.6	5.5	5.43	2901.	2854.
9	4.570	85000.	.0008380	12.9	7.7	4.93	2277.	2274.
10	5.140	85000.	.0027816	11.4	6.9	8.50	1595.	1543.
11	5.700	84999.	.0012291	10.6	9.6	6.87	2169.	1327.
12	6.270	84999.	.0010071	13.0	10.6	6.57	2222.	1264.
1	.290	39899.	.0017950	4.6	3.8	4.34	2872.	2478.
2	.760	38399.	.0016435	8.2	4.3	4.69	3281.	2068.
3	1.330	36359.	.0017552	9.5	5.3	6.04	2139.	1202.
4	1.900	35999.	.0014670	8.5	4.2	3.90	2491.	2409.
5	2.490	35999.	.0014582	8.8	4.1	4.63	2022.	1912.
6	3.060	36000.	.0018299	8.3	3.9	4.63	2074.	2060.
7	3.630	36000.	.0023368	7.5	3.6	5.01	2034.	2034.
8	4.090	36000.	.0015601	9.0	3.6	4.11	2473.	2473.
9	4.570	36000.	.0005208	9.8	6.6	3.32	1716.	1716.
10	5.140	36000.	.0026662	8.1	4.7	6.47	1280.	1272.
11	5.700	35999.	.0013375	6.9	6.0	5.14	1553.	1217.
12	6.270	35999.	.0009055	9.1	6.8	4.59	1343.	1206.
1	.290	3382.	.0041286	1.2	1.0	2.34	1850.	1636.
2	.760	3119.	.0009298	3.4	2.2	2.20	720.	709.
3	1.330	2763.	.0017043	3.6	2.8	2.51	492.	491.
4	1.900	2700.	.0045132	2.9	1.8	2.90	697.	696.
5	2.490	2700.	.0010156	3.7	1.9	2.15	714.	704.
6	3.060	2700.	.0022112	3.1	1.8	2.77	622.	622.
7	3.630	2700.	.0024103	3.2	1.4	2.69	818.	818.
8	4.090	2700.	.0011373	4.2	2.5	2.59	511.	511.
9	4.570	2700.	.0001420	4.2	3.0	.91	1088.	1088.
10	5.140	2700.	.0032021	2.6	1.8	3.34	508.	508.
11	5.700	2699.	.0016666	1.8	1.7	2.38	903.	881.
12	6.270	2700.	.0004247	2.9	2.5	1.60	730.	730.

REACH	LAST SEC	DISCH.	SLOPE	DEPTH	AVDEPC	V	TOP WID	EW
1	.290	248374.	.0009194	12.6	11.7	6.91	8989.	3110.
2	.760	223999.	.0012891	14.7	10.5	7.19	6845.	3031.
3	1.330	190849.	.0015924	16.1	11.3	9.15	4425.	1854.
4	1.900	184999.	.0009134	15.2	9.9	6.17	5147.	3108.
5	2.490	184998.	.0017703	14.9	9.4	8.15	3388.	2450.
6	3.060	184999.	.0015389	14.7	8.4	7.36	3777.	3046.
7	3.630	185000.	.0021850	13.2	8.4	8.55	3036.	2598.
8	4.090	184999.	.0015310	14.8	8.6	7.33	3188.	2954.
9	4.570	185000.	.0002394	42.0	27.1	3.30	2414.	2406.
10	5.140	185000.	.0000351	45.8	37.6	2.62	2009.	2009.
11	5.700	184999.	.0015921	14.8	13.9	9.48	2545.	1468.
12	6.270	184999.	.0009872	17.7	15.3	8.45	3597.	1467.
1	.290	248374.	.0009194	12.6	11.7	6.91	8989.	3110.
2	.760	223999.	.0012891	14.7	10.5	7.19	6845.	3031.
3	1.330	190849.	.0015924	16.1	11.3	9.15	4425.	1854.
4	1.900	184999.	.0009134	15.2	9.9	6.17	5147.	3108.
5	2.490	184998.	.0017703	14.9	9.4	8.15	3388.	2450.
6	3.060	184999.	.0015389	14.7	8.4	7.36	3777.	3046.
7	3.630	185000.	.0021850	13.2	8.4	8.55	3036.	2598.
8	4.090	184999.	.0015310	14.8	8.6	7.33	3188.	2954.
9	4.570	185000.	.0002394	42.0	27.1	3.30	2414.	2406.
10	5.140	185000.	.0000351	45.8	37.6	2.62	2009.	2009.
11	5.700	184999.	.0015921	14.8	13.9	9.48	2545.	1468.
12	6.270	184999.	.0009872	17.7	15.3	8.45	3597.	1467.
1	.290	198624.	.0009308	11.4	10.6	6.50	7777.	2922.
2	.760	177999.	.0013022	13.6	9.5	6.70	6563.	2870.
3	1.330	149949.	.0015598	15.0	10.2	8.47	3425.	1755.
4	1.900	144999.	.0009503	13.9	8.6	5.71	4389.	3033.
5	2.490	144999.	.0017580	13.7	8.3	7.41	3171.	2414.
6	3.060	144999.	.0015811	13.5	7.2	6.87	3351.	3001.
7	3.630	145000.	.0022205	12.1	7.4	7.86	2729.	2539.
8	4.090	145000.	.0014928	13.7	7.5	6.62	3056.	2934.
9	4.570	145000.	.0002175	40.7	25.8	2.79	2396.	2391.
10	5.140	145000.	.0000245	44.3	36.4	2.14	1998.	1998.
11	5.700	144999.	.0016389	13.3	12.3	8.70	2310.	1421.
12	6.270	144998.	.0010070	16.1	13.7	7.88	3324.	1384.
1	.290	149524.	.0009874	10.0	9.1	6.06	6611.	2725.
2	.760	142399.	.0014863	12.4	8.3	6.51	5008.	2713.
3	1.330	129769.	.0017316	14.1	9.4	8.38	3387.	1681.
4	1.900	130998.	.0009816	13.4	8.1	5.55	4036.	3007.
5	2.490	130999.	.0017434	13.3	7.9	7.15	3112.	2397.
6	3.060	130999.	.0016064	13.0	6.9	6.66	3172.	2918.
7	3.630	131000.	.0022158	11.7	6.9	7.56	2709.	2528.
8	4.090	131000.	.0014991	13.3	7.1	6.37	3038.	2925.
9	4.570	131000.	.0002127	40.2	25.8	2.60	2359.	2356.
10	5.140	131000.	.0000207	43.8	36.1	1.96	1985.	1985.
11	5.700	130999.	.0016825	12.7	11.7	8.41	2201.	1402.
12	6.270	130999.	.0010155	15.5	13.0	7.64	3160.	1353.
1	.290	94749.	.0011113	7.9	7.0	5.32	3381.	2571.
2	.760	90999.	.0015754	10.7	6.6	5.89	4340.	2451.
3	1.330	85899.	.0017829	12.3	7.7	7.57	3202.	1516.
4	1.900	84999.	.0010297	11.5	6.3	4.87	3561.	2908.
5	2.490	84999.	.0017147	11.6	6.2	6.01	2941.	2350.
6	3.060	84999.	.0017184	11.2	5.6	5.79	2911.	2692.

File
W_PT_CSA.AVG

91st Ave WWTP
w/ Pit & CSA
in place

7	3.630	85000.	.0022047	10.1	5.4	6.39	2574.	2480.
8	4.090	85000.	.0015145	11.6	5.5	5.43	2901.	2854.
9	4.570	85000.	.0001910	38.3	24.8	1.93	2277.	2277.
10	5.140	85000.	.0000098	41.9	35.3	1.35	1926.	1926.
11	5.700	84999.	.0018577	10.3	9.4	7.33	2129.	1323.
12	6.270	84999.	.0010115	13.0	10.6	6.58	2220.	1264.
1	.290	39899.	.0017950	4.6	3.8	4.34	2872.	2478.
2	.760	38399.	.0016435	8.2	4.3	4.69	3281.	2068.
3	1.330	36359.	.0017552	9.5	5.3	6.04	2139.	1202.
4	1.900	35999.	.0014670	8.5	4.2	3.90	2491.	2409.
5	2.490	35999.	.0014582	8.8	4.1	4.63	2022.	1912.
6	3.060	36000.	.0018299	8.3	3.9	4.63	2074.	2060.
7	3.630	36000.	.0023368	7.5	3.6	5.01	2034.	2034.
8	4.090	36000.	.0015601	9.0	3.6	4.11	2473.	2473.
9	4.570	36000.	.0001602	35.4	28.5	1.09	1790.	1790.
10	5.140	36000.	.0000020	39.0	35.2	.62	1785.	1785.
11	5.700	35999.	.0020724	6.8	5.9	5.42	1558.	1216.
12	6.270	35999.	.0009016	9.1	6.8	4.59	1343.	1206.
1	.290	3382.	.0041286	1.2	1.0	2.34	1850.	1636.
2	.760	3119.	.0009298	3.4	2.2	2.20	720.	709.
3	1.330	2763.	.0017043	3.6	2.8	2.51	492.	491.
4	1.900	2700.	.0045132	2.9	1.8	2.90	697.	696.
5	2.490	2700.	.0010156	3.7	1.9	2.15	714.	704.
6	3.060	2700.	.0022112	3.1	1.8	2.77	622.	622.
7	3.630	2700.	.0024103	3.2	1.4	2.69	818.	818.
8	4.090	2700.	.0011373	4.2	2.5	2.59	511.	511.
9	4.570	2700.	.0000837	30.1	27.2	.28	1417.	1417.
10	5.140	2700.	.0000001	33.6	31.5	.05	1702.	1702.
11	5.700	2699.	.0026244	1.8	1.7	2.53	904.	882.
12	6.270	2700.	.0004234	2.9	2.5	1.60	730.	730.

File
WWTP_EXT.AVG
Existing Conditions

REACH	LAST SEC	DISCH.	SLOPE	DEPTH	AVDEPC	V	TOP WID	EW
1	.290	248374.	.0009194	12.6	11.7	6.91	8989.	3110.
2	.760	223999.	.0012891	14.7	10.5	7.19	6845.	3031.
3	1.330	190849.	.0015924	16.1	11.3	9.15	4425.	1854.
4	1.900	184999.	.0009134	15.2	9.9	6.17	5147.	3108.
5	2.490	184998.	.0017703	14.9	9.4	8.15	3388.	2450.
6	3.060	184999.	.0015389	14.7	8.4	7.36	3777.	3046.
7	3.630	184999.	.0019351	14.3	8.0	8.01	3508.	2885.
8	4.090	184999.	.0018339	14.4	7.8	7.66	3210.	3093.
9	4.570	185000.	.0011196	16.4	10.6	7.20	2524.	2475.
10	5.140	184999.	.0030111	15.4	10.4	11.49	1912.	1663.
11	5.700	184999.	.0011709	15.4	14.4	8.86	2550.	1484.
12	6.270	184999.	.0009636	17.8	15.4	8.39	3607.	1471.
1	.290	248374.	.0009194	12.6	11.7	6.91	8989.	3110.
2	.760	223999.	.0012891	14.7	10.5	7.19	6845.	3031.
3	1.330	190849.	.0015924	16.1	11.3	9.15	4425.	1854.
4	1.900	184999.	.0009134	15.2	9.9	6.17	5147.	3108.
5	2.490	184998.	.0017703	14.9	9.4	8.15	3388.	2450.
6	3.060	184999.	.0015389	14.7	8.4	7.36	3777.	3046.
7	3.630	184999.	.0019351	14.3	8.0	8.01	3508.	2885.
8	4.090	184999.	.0018339	14.4	7.8	7.66	3210.	3093.
9	4.570	185000.	.0011196	16.4	10.6	7.20	2524.	2475.
10	5.140	184999.	.0030111	15.4	10.4	11.49	1912.	1663.
11	5.700	184999.	.0011709	15.4	14.4	8.86	2550.	1484.
12	6.270	184999.	.0009636	17.8	15.4	8.39	3607.	1471.
1	.290	198624.	.0009308	11.4	10.6	6.50	7777.	2922.
2	.760	177999.	.0013022	13.6	9.5	6.70	6563.	2870.
3	1.330	149949.	.0015598	15.0	10.2	8.47	3425.	1755.
4	1.900	144999.	.0009503	13.9	8.6	5.71	4389.	3033.
5	2.490	144999.	.0017580	13.7	8.3	7.41	3171.	2414.
6	3.060	144999.	.0015811	13.5	7.2	6.87	3351.	3001.
7	3.630	144999.	.0019335	13.2	7.0	7.31	3379.	2851.
8	4.090	145000.	.0018372	13.3	6.8	6.98	3129.	3066.
9	4.570	145000.	.0010353	15.2	9.6	6.40	2391.	2386.
10	5.140	145000.	.0029424	14.0	9.2	10.50	1858.	1613.
11	5.700	144999.	.0011773	13.7	12.7	8.16	2374.	1432.
12	6.270	144998.	.0009940	16.1	13.7	7.85	3329.	1385.
1	.290	149524.	.0009874	10.0	9.1	6.06	6611.	2725.
2	.760	142399.	.0014863	12.4	8.3	6.51	5008.	2713.
3	1.330	129769.	.0017316	14.1	9.4	8.38	3387.	1681.
4	1.900	130998.	.0009816	13.4	8.1	5.55	4036.	3007.
5	2.490	130999.	.0017434	13.3	7.9	7.15	3112.	2397.
6	3.060	130999.	.0016064	13.0	6.9	6.66	3172.	2918.
7	3.630	130999.	.0019320	12.8	6.6	7.04	3241.	2840.
8	4.090	131000.	.0018418	12.8	6.4	6.72	3119.	3058.
9	4.570	131000.	.0010017	14.7	9.1	6.08	2388.	2383.
10	5.140	130999.	.0029082	13.4	8.7	10.08	1849.	1607.
11	5.700	130999.	.0011795	13.1	12.1	7.88	2275.	1412.
12	6.270	130998.	.0010040	15.5	13.1	7.62	3164.	1355.
1	.290	94749.	.0011113	7.9	7.0	5.32	3381.	2571.
2	.760	90999.	.0015754	10.7	6.6	5.89	4340.	2451.
3	1.330	85899.	.0017829	12.3	7.7	7.57	3202.	1516.
4	1.900	84999.	.0010297	11.5	6.3	4.87	3561.	2908.
5	2.490	84999.	.0017147	11.6	6.2	6.01	2941.	2350.
6	3.060	84999.	.0017184	11.2	5.6	5.79	2911.	2692.

7	3.630	84999.	.0019057	11.2	5.2	5.98	2983.	2760.
8	4.090	85000.	.0018770	11.2	5.1	5.80	2899.	2895.
9	4.570	85000.	.0008332	12.9	7.7	4.93	2270.	2267.
10	5.140	85000.	.0027820	11.4	6.9	8.50	1595.	1543.
11	5.700	84999.	.0012291	10.6	9.6	6.87	2169.	1327.
12	6.270	84999.	.0010071	13.0	10.6	6.57	2222.	1264.
1	.290	39899.	.0017950	4.6	3.8	4.34	2872.	2478.
2	.760	38399.	.0016435	8.2	4.3	4.69	3281.	2068.
3	1.330	36359.	.0017552	9.5	5.3	6.04	2139.	1202.
4	1.900	35999.	.0014670	8.5	4.2	3.90	2491.	2409.
5	2.490	35999.	.0014582	8.8	4.1	4.63	2022.	1912.
6	3.060	35999.	.0018286	8.3	3.9	4.63	2081.	2066.
7	3.630	35999.	.0020003	8.5	3.5	4.75	2221.	2197.
8	4.090	36000.	.0018760	8.7	3.4	4.44	2369.	2369.
9	4.570	36000.	.0005252	9.8	6.6	3.33	1715.	1715.
10	5.140	36000.	.0026694	8.1	4.7	6.48	1280.	1272.
11	5.700	35999.	.0013375	6.9	6.0	5.14	1553.	1217.
12	6.270	35999.	.0009055	9.1	6.8	4.59	1343.	1206.
1	.290	3382.	.0041286	1.2	1.0	2.34	1850.	1636.
2	.760	3119.	.0009298	3.4	2.2	2.20	720.	709.
3	1.330	2763.	.0017043	3.6	2.8	2.51	492.	491.
4	1.900	2700.	.0045132	2.9	1.8	2.90	697.	696.
5	2.490	2700.	.0010156	3.7	1.9	2.15	714.	704.
6	3.060	2700.	.0022112	3.1	1.8	2.77	622.	622.
7	3.630	2700.	.0018973	3.8	2.0	3.04	501.	501.
8	4.090	2700.	.0019309	3.6	2.1	3.23	432.	432.
9	4.570	2700.	.0001454	4.2	3.0	.92	1087.	1087.
10	5.140	2700.	.0032067	2.6	1.8	3.34	508.	508.
11	5.700	2699.	.0016666	1.8	1.7	2.38	903.	881.
12	6.270	2700.	.0004247	2.9	2.5	1.60	730.	730.

REACH	LAST SEC	DISCH.	SLOPE	DEPTH	AVDEPC	V	TOP WID	EW
1	.290	248374.	.0009194	12.6	11.7	6.91	8989.	3110.
2	.760	223999.	.0012891	14.7	10.5	7.19	6845.	3031.
3	1.330	190849.	.0015924	16.1	11.3	9.15	4425.	1854.
4	1.900	184999.	.0009134	15.2	9.9	6.17	5147.	3108.
5	2.490	184998.	.0017703	14.9	9.4	8.15	3388.	2450.
6	3.060	184999.	.0015389	14.7	8.4	7.36	3777.	3046.
7	3.630	184999.	.0019351	14.3	8.0	8.01	3508.	2885.
8	4.090	184999.	.0018339	14.4	7.8	7.66	3210.	3093.
9	4.570	185000.	.0000597	44.7	27.4	2.89	2414.	2408.
10	5.140	185000.	.0000383	44.8	36.8	2.68	2002.	2002.
11	5.700	184999.	.0015920	14.8	13.9	9.48	2545.	1468.
12	6.270	184999.	.0009872	17.7	15.3	8.45	3597.	1467.
1	.290	248374.	.0009194	12.6	11.7	6.91	8989.	3110.
2	.760	223999.	.0012891	14.7	10.5	7.19	6845.	3031.
3	1.330	190849.	.0015924	16.1	11.3	9.15	4425.	1854.
4	1.900	184999.	.0009134	15.2	9.9	6.17	5147.	3108.
5	2.490	184998.	.0017703	14.9	9.4	8.15	3388.	2450.
6	3.060	184999.	.0015389	14.7	8.4	7.36	3777.	3046.
7	3.630	184999.	.0019351	14.3	8.0	8.01	3508.	2885.
8	4.090	184999.	.0018339	14.4	7.8	7.66	3210.	3093.
9	4.570	185000.	.0000597	44.7	27.4	2.89	2414.	2408.
10	5.140	185000.	.0000383	44.8	36.8	2.68	2002.	2002.
11	5.700	184999.	.0015920	14.8	13.9	9.48	2545.	1468.
12	6.270	184999.	.0009872	17.7	15.3	8.45	3597.	1467.
1	.290	198624.	.0009308	11.4	10.6	6.50	7777.	2922.
2	.760	177999.	.0013022	13.6	9.5	6.70	6563.	2870.
3	1.330	149949.	.0015598	15.0	10.2	8.47	3425.	1755.
4	1.900	144999.	.0009503	13.9	8.6	5.71	4389.	3033.
5	2.490	144999.	.0017580	13.7	8.3	7.41	3171.	2414.
6	3.060	144999.	.0015811	13.5	7.2	6.87	3351.	3001.
7	3.630	144999.	.0019335	13.2	7.0	7.31	3379.	2851.
8	4.090	145000.	.0018372	13.3	6.8	6.98	3129.	3066.
9	4.570	145000.	.0000428	43.4	26.7	2.39	2355.	2355.
10	5.140	145000.	.0000260	43.5	35.9	2.19	1977.	1977.
11	5.700	144999.	.0016442	13.3	12.3	8.70	2310.	1421.
12	6.270	144998.	.0010067	16.1	13.7	7.88	3324.	1384.
1	.290	149524.	.0009874	10.0	9.1	6.06	6611.	2725.
2	.760	142399.	.0014863	12.4	8.3	6.51	5008.	2713.
3	1.330	129769.	.0017316	14.1	9.4	8.38	3387.	1681.
4	1.900	130998.	.0009816	13.4	8.1	5.55	4036.	3007.
5	2.490	130999.	.0017434	13.3	7.9	7.15	3112.	2397.
6	3.060	130999.	.0016064	13.0	6.9	6.66	3172.	2918.
7	3.630	130999.	.0019320	12.8	6.6	7.04	3241.	2840.
8	4.090	131000.	.0018418	12.8	6.4	6.72	3119.	3058.
9	4.570	131000.	.0000374	42.9	26.4	2.20	2343.	2342.
10	5.140	131000.	.0000219	43.0	35.7	2.01	1966.	1966.
11	5.700	130999.	.0017037	12.7	11.7	8.42	2200.	1402.
12	6.270	130998.	.0010143	15.5	13.0	7.64	3160.	1354.
1	.290	94749.	.0011113	7.9	7.0	5.32	3381.	2571.
2	.760	90999.	.0015754	10.7	6.6	5.89	4340.	2451.
3	1.330	85899.	.0017829	12.3	7.7	7.57	3202.	1516.
4	1.900	84999.	.0010297	11.5	6.3	4.87	3561.	2908.
5	2.490	84999.	.0017147	11.6	6.2	6.01	2941.	2350.
6	3.060	84999.	.0017184	11.2	5.6	5.79	2911.	2692.

File
WWTP_PIT.AVG

91st Ave. WWTP

Existing Conditions
w/ pit

7	3.630	84999.	.0019057	11.2	5.2	5.98	2983.	2760.
8	4.090	85000.	.0018770	11.2	5.1	5.80	2899.	2895.
9	4.570	85000.	.0000196	41.1	25.8	1.54	2232.	2232.
10	5.140	85000.	.0000102	41.1	35.1	1.37	1897.	1897.
11	5.700	84999.	.0018583	10.3	9.4	7.33	2129.	1323.
12	6.270	84999.	.0010115	13.0	10.6	6.58	2220.	1264.
1	.290	39899.	.0017950	4.6	3.8	4.34	2872.	2478.
2	.760	38399.	.0016435	8.2	4.3	4.69	3281.	2068.
3	1.330	36359.	.0017552	9.5	5.3	6.04	2139.	1202.
4	1.900	35999.	.0014670	8.5	4.2	3.90	2491.	2409.
5	2.490	35999.	.0014582	8.8	4.1	4.63	2022.	1912.
6	3.060	35999.	.0018286	8.3	3.9	4.63	2081.	2066.
7	3.630	35999.	.0020003	8.5	3.5	4.75	2221.	2197.
8	4.090	36000.	.0018760	8.7	3.4	4.44	2369.	2369.
9	4.570	36000.	.0000042	38.2	30.2	.73	1724.	1724.
10	5.140	36000.	.0000021	38.2	34.7	.63	1772.	1773.
11	5.700	35999.	.0020616	6.8	5.9	5.42	1558.	1216.
12	6.270	35999.	.0009016	9.1	6.8	4.59	1343.	1206.
1	.290	3382.	.0041286	1.2	1.0	2.34	1850.	1636.
2	.760	3119.	.0009298	3.4	2.2	2.20	720.	709.
3	1.330	2763.	.0017043	3.6	2.8	2.51	492.	491.
4	1.900	2700.	.0045132	2.9	1.8	2.90	697.	696.
5	2.490	2700.	.0010156	3.7	1.9	2.15	714.	704.
6	3.060	2700.	.0022112	3.1	1.8	2.77	622.	622.
7	3.630	2700.	.0018973	3.8	2.0	3.04	501.	501.
8	4.090	2700.	.0019309	3.6	2.1	3.23	432.	432.
9	4.570	2700.	.0000001	33.0	29.3	.07	1464.	1464.
10	5.140	2700.	.0000001	33.0	31.0	.06	1699.	1699.
11	5.700	2700.	.0026234	1.8	1.7	2.53	904.	882.
12	6.270	2700.	.0004234	2.9	2.5	1.60	730.	730.

Existing Conditions

REACH NO.	100-YR	50-YR	25-YR	10-YR	5-YR	2-YR	AVG. ANN.
1	3008518	2513240	2026039	1476009	815481	102501	488522
2	3367905	2768380	2277029	1466014	558417	16448	421667
3	4434727	3539840	3099098	2017308	758273	22392	570053
4	1927701	1571119	1446813	1030507	571819	87948	344121
5	3355532	2522579	2235861	1336004	472211	15865	389440
6	3393997	2653793	2386967	1524301	628397	44761	455425
7	4212390	3229498	2889724	1818810	736074	44999	542851
8	3900270	2985624	2670115	1659212	655383	46999	497279
9	1558326	1023018	852458	393915	84082	311	123949
10	7495770	5649907	5017531	3064112	1191786	76392	921159
11	3173303	2450350	2203897	1408423	581239	43661	422511
12	1708732	1292954	1144740	667818	213964	3917	190679

ASSUMED UNIT WEIGHT OF SEDIMENT = 120 lb/cu ft

REACH NO.	REACH DATA BEGIN	END	LENGTH	100-YR WIDTH	100-YR Vs	dVs	VERTICAL CHANGE (ft)	AVERAGE WIDTH	AVG. ANN. Vs	dVs	VERTICAL CHANGE (ft)
1	0	1790	1790	3110	3008518	359387	1	2574	488522	-66855	-0
2	1790	4290	2500	3031	3367905	1066822	2	2307	421667	148386	0
3	4290	7290	3000	1854	4434727	-2507026	-8	1417	570053	-225932	-1
4	7290	10340	3050	3108	1927701	1427831	3	2527	344121	45319	0
5	10340	13398	3058	2450	3355532	38465	0	2038	389440	65985	0
6	13398	16400	3002	3046	3393997	818393	1	2391	455425	87426	0
7	16400	19398	2998	2885	4212390	-312120	-1	2339	542851	-45572	-0
8	19398	21870	2472	3093	3900270	-2341944	-5	2486	497279	-373330	-1
9	21870	24370	2500	2475	1558326	5937444	16	2052	123949	797210	3
10	24370	27370	3000	1663	7495770	-4322467	-14	1368	921159	-498648	-2
11	27370	30370	3000	1484	3173303	-1464571	-5	1292	422511	-231832	-1
12	30370	33120	2750	1471	1708732	-1708732	-7	1235	190679	-190679	-1

EFFECTIVE WIDTH: (91STAVE.AVG)

REACH NO.	100-YR	50-YR	25-YR	10-YR	5-YR	2-YR	AVG
1	3110	2922	2725	2571	2478	1636	2574
2	3031	2870	2713	2451	2068	709	2307
3	1854	1755	1681	1516	1202	491	1417
4	3108	3033	3007	2908	2409	696	2527
5	2450	2414	2397	2350	1912	704	2038
6	3046	3001	2918	2692	2066	622	2391
7	2885	2851	2840	2760	2197	501	2339
8	3093	3066	3058	2895	2369	432	2486
9	2475	2386	2383	2267	1715	1087	2052
10	1663	1613	1607	1543	1272	508	1368
11	1484	1432	1412	1327	1217	881	1292
12	1471	1385	1355	1264	1206	730	1235

WITH PIT CONDITIONS

REACH NO.	100-YR	50-YR	25-YR	10-YR	5-YR	2-YR	AVG. ANN.
1	3008518	2513240	2026039	1476009	815481	102501	488522
2	3367905	2768380	2277029	1466014	558417	16448	421667
3	4434727	3539840	3099098	2017308	758273	22392	570053
4	1927701	1571119	1446813	1030507	571819	87948	344121
5	3355532	2522579	2235861	1336004	472211	15865	389440
6	3393997	2653793	2386967	1524301	628397	44761	455425
7	4212390	3229498	2889724	1818810	736074	44999	542851
8	3900270	2985624	2670115	1659212	655383	46999	497279
9	10603	4778	3290	615	0	0	441
10	4292	1858	1252	198	0	0	170
11	4950970	3850107	3471613	2215658	905777	67489	661789
12	1722027	1297228	1147136	667090	212854	3907	190799

ASSUMED UNIT WEIGHT OF SEDIMENT = 120 lb/cu ft

REACH NO.	REACH DATA BEGIN	END	LENGTH	100-YR WIDTH	100-YR Vs	dVs	VERTICAL CHANGE (ft)	AVERAGE WIDTH	AVG. ANN. Vs	dVs	VERTICAL CHANGE (ft)
1	0	1790	1790	3110	3008518	359387	1	2574	488522	-66855	-0
2	1790	4290	2500	3031	3367905	1066822	2	2307	421667	148386	0
3	4290	7290	3000	1854	4434727	-2507026	-8	1417	570053	-225932	-1
4	7290	10340	3050	3108	1927701	1427831	3	2527	344121	45319	0
5	10340	13398	3058	2450	3355532	38465	0	2038	389440	65985	0
6	13398	16400	3002	3046	3393997	818393	1	2391	455425	87426	0
7	16400	19398	2998	2885	4212390	-312120	-1	2339	542851	-45572	-0
8	19398	21870	2472	3093	3900270	-3889667	-8	2486	497279	-496838	-1
9	21870	24370	2500	2408	10603	-6311	-0	2088	441	-271	-0
10	24370	27370	3000	2002	4292	4946678	14	1886	170	661619	2
11	27370	30370	3000	1468	4950970	-3228943	-12	1285	661789	-470990	-2
12	30370	33120	2750	1467	1722027	-1722027	-7	1234	190799	-190799	-1

EFFECTIVE WIDTH: (91STAVE.AVG)

REACH NO.	100-YR	50-YR	25-YR	10-YR	5-YR	2-YR	AVG
1	3110	2922	2725	2571	2478	1636	2574
2	3031	2870	2713	2451	2068	709	2307
3	1854	1755	1681	1516	1202	491	1417
4	3108	3033	3007	2908	2409	696	2527
5	2450	2414	2397	2350	1912	704	2038
6	3046	3001	2918	2692	2066	622	2391
7	2885	2851	2840	2760	2197	501	2339

8	3093	3066	3058	2895	2369	432	2486
9	2408	2355	2342	2232	1724	1464	2088
10	2002	1977	1966	1897	1773	1699	1886
11	1468	1421	1402	1323	1216	882	1285
12	1467	1384	1354	1264	1206	730	1234

EXISTING CONDITIONS WITH CSA

REACH NO.	100-YR	50-YR	25-YR	10-YR	5-YR	2-YR	AVG. ANN.
1	3008518	2513240	2026039	1476009	815481	102501	488522
2	3367905	2768380	2277029	1466014	558417	16448	421667
3	4434727	3539840	3099098	2017308	758273	22392	570053
4	1927701	1571119	1446813	1030507	571819	87948	344121
5	3355532	2522579	2235861	1336004	472211	15865	389440
6	3391668	2651630	2384842	1522210	627052	44761	454835
7	3813047	2931289	2626759	1665104	689275	46856	500450
8	2941563	2234239	1995732	1232956	465115	21709	361346
9	1577313	1053969	881535	409115	85052	292	127204
10	7592777	5726037	5085607	3104361	1204924	77441	932850
11	3173320	2450350	2203897	1408423	581239	43661	422512
12	1708741	1292953	1144740	667818	213964	3917	190679

ASSUMED UNIT WEIGHT OF SEDIMENT = 120 lb/cu ft

	REACH DATA						VERTICAL				VERTICAL
REACH NO.	BEGIN	END	LENGTH	100-YR WIDTH	100-YR Vs	dVs	CHANGE (ft)	AVERAGE WIDTH	AVG. ANN. Vs	dVs	CHANGE (ft)
1	0	1790	1790	3110	3008518	359387	1	2574	488522	-66855	-0
2	1790	4290	2500	3031	3367905	1066822	2	2307	421667	148386	0
3	4290	7290	3000	1854	4434727	-2507026	-8	1417	570053	-225932	-1
4	7290	10340	3050	3108	1927701	1427831	3	2527	344121	45319	0
5	10340	13398	3058	2450	3355532	36136	0	2038	389440	65395	0
6	13398	16400	3002	3046	3391668	421379	1	2390	454835	45615	0
7	16400	19398	2998	2598	3813047	-871484	-2	2166	500450	-139104	-0
8	19398	21870	2472	2954	2941563	-1364250	-3	2442	361346	-234142	-1
9	21870	24370	2500	2399	1577313	6015464	17	2040	127204	805646	3
10	24370	27370	3000	1663	7592777	-4419457	-15	1368	932850	-510338	-2
11	27370	30370	3000	1484	3173320	-1464579	-5	1292	422512	-231833	-1
12	30370	33120	2750	1471	1708741	-1708741	-7	1235	190679	-190679	-1

EFFECTIVE WIDTH: (91STAVE.AVG)

REACH NO.	100-YR	50-YR	25-YR	10-YR	5-YR	2-YR	AVG
1	3110	2922	2725	2571	2478	1636	2574

5.515	185000.00	991.01	.00	1.10	.00	2367.54	500.00
5.610	185000.00	991.41	.00	.40	.00	2598.90	500.00
5.705	185000.00	991.64	.00	.23	.00	2728.89	500.00
5.799	185000.00	992.07	.00	.43	.00	2775.23	500.00
5.894	185000.00	992.33	.00	.26	.00	2902.95	500.00
5.989	185000.00	993.67	.00	1.34	.00	3563.26	500.00
6.083	185000.00	994.39	.00	.72	.00	4030.90	500.00
6.178	185000.00	994.65	.00	.25	.00	3939.08	500.00
6.273	185000.00	995.20	.00	.55	.00	4324.23	500.00

SUMMARY OF ERRORS AND SPECIAL NOTES

WARNING SECNO= 2.205 PROFILE= 1 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO= 4.284 PROFILE= 1 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO= 4.663 PROFILE= 1 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO= 4.758 PROFILE= 1 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO= 5.136 PROFILE= 1 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO= 5.231 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 5.231 PROFILE= 1 MINIMUM SPECIFIC ENERGY

WARNING SECNO= 5.326 PROFILE= 1 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

2	3031	2870	2713	2451	2068	709	2307
3	1854	1755	1681	1516	1202	491	1417
4	3108	3033	3007	2908	2409	696	2527
5	2450	2414	2397	2350	1912	704	2038
6	3046	3001	2918	2692	2060	622	2390
7	2598	2539	2528	2480	2034	818	2166
8	2954	2934	2925	2854	2473	511	2442
9	2399	2383	2380	2274	1716	1088	2040
10	1663	1613	1607	1543	1272	508	1368
11	1484	1432	1412	1327	1217	881	1292
12	1471	1385	1355	1264	1206	730	1235

CONDITIONS WITH PIT AND CSA

REACH NO.	100–YR	50–YR	25–YR	10–YR	5–YR	2–YR	AVG. ANN.
1	3008518	2513240	2026039	1476009	815481	102501	488522
2	3367905	2768380	2277029	1466014	558417	16448	421667
3	4434727	3539840	3099098	2017308	758273	22392	570053
4	1927701	1571119	1446813	1030507	571819	87948	344121
5	3355532	2522579	2235861	1336004	472211	15865	389440
6	3391668	2651630	2384842	1522210	627052	44761	454835
7	3813047	2931289	2626759	1665104	689275	46856	500450
8	2941563	2234239	1995732	1232956	465115	21709	361346
9	42330	22876	16797	4285	55	0	2101
10	3785	1544	1035	170	0	0	146
11	4920651	3824434	3449756	2208990	904571	67526	659291
12	1721964	1297119	1147030	667090	212854	3907	190792

ASSUMED UNIT WEIGHT OF SEDIMENT = 120 lb/cu ft

REACH NO.	REACH DATA BEGIN	END	LENGTH	100–YR WIDTH	100–YR Vs	dVs	VERTICAL CHANGE (ft)	AVERAGE WIDTH	AVG. ANN. Vs	dVs	VERTICAL CHANGE (ft)
1	0	1790	1790	3110	3008518	359387	1	2574	488522	–66855	–0
2	1790	4290	2500	3031	3367905	1066822	2	2307	421667	148386	0
3	4290	7290	3000	1854	4434727	–2507026	–8	1417	570053	–225932	–1
4	7290	10340	3050	3108	1927701	1427831	3	2527	344121	45319	0
5	10340	13398	3058	2450	3355532	36136	0	2038	389440	65395	0
6	13398	16400	3002	3046	3391668	421379	1	2390	454835	45615	0
7	16400	19398	2998	2598	3813047	–871484	–2	2166	500450	–139104	–0
8	19398	21870	2472	2954	2941563	–2899233	–7 ←	2442	361346	–359245	–1
9	21870	24370	2500	2406	42330	–38545	–0	2106	2101	–1955	–0
10	24370	27370	3000	2009	3785	4916866	14	1901	146	659145	2
11	27370	30370	3000	1468	4920651	–3198687	–12	1285	659291	–468499	–2

12	30370	33120	2750	1467	1721964	−1721964	−7	1234	190792	−190792	−1

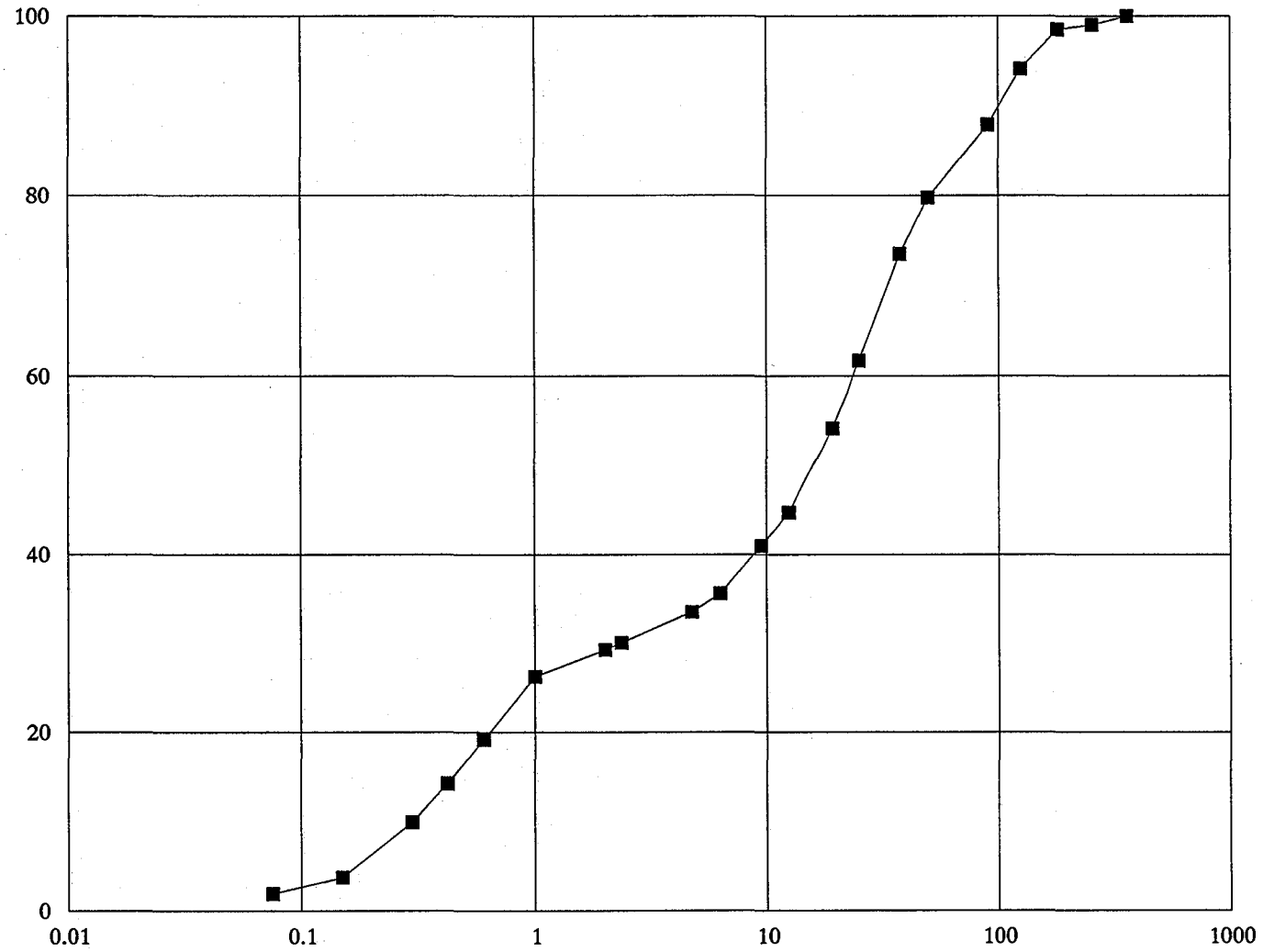
EFFECTIVE WIDTH: (91STAVE.AVG)

REACH NO.	100−YR	50−YR	25−YR	10−YR	5−YR	2−YR	AVG
1	3110	2922	2725	2571	2478	1636	2574
2	3031	2870	2713	2451	2068	709	2307
3	1854	1755	1681	1516	1202	491	1417
4	3108	3033	3007	2908	2409	696	2527
5	2450	2414	2397	2350	1912	704	2038
6	3046	3001	2918	2692	2060	622	2390
7	2598	2539	2528	2480	2034	818	2166
8	2954	2934	2925	2854	2473	511	2442
9	2406	2391	2356	2277	1790	1417	2106
10	2009	1998	1985	1926	1785	1702	1901
11	1468	1421	1402	1323	1216	882	1285
12	1467	1384	1353	1264	1206	730	1234

Sieve Designation		Armor Layer Gradation Percent Finer			Sieve Analyses Gradation Percent Finer			Photo Grid Correction
(in,#)	(mm)	Sample 2	Sample 4	Sample 6	Sample 2	Sample 4	Sample 6	Average
14¼	362.0							
10	254.0		100.0					99.0
7 1/8	181.0	100.0	90.9	100.0				98.5
5	125.0	86.3	84.8	88.8				94.0
3½	90.0	67.6	61.0	70.3		100		87.8
2	50.0	37.5	45.0	39.0	100	96	100	79.7
1½	37.5	21.3	36.1	31.2	94	87	92	73.5
1	25.0	10.2	26.4	23.8	78	74	77	61.7
3/4	19.0				66	67	68	54.2
1/2	12.5				52	56	58	44.7
3/8	9.50				46	53	53	41.0
1/4	6.30				39	47	46	35.6
#4	4.76				36	45	43	33.5
#8	2.36				31	42	38	30.0
#10	2.00				30	41	37	29.2
#16	1.00				26	37	34	26.2
#30	0.60				18	25	28	19.1
#40	0.425				14	17	22	14.2
#50	0.300				11	10	16	9.9
#100	0.150				5	3	6	3.7
#200	0.075				2.6	1.6	2.9	1.9

SIZE	% FINER	GEO. MN. OF SIZE	NAME	REP %	USED IN QUASED
512.000	100.0				
		362.039	COB3	0.9182	0.92
256.000	99.1				
		181.019	COB2	3.2930	3.29
128.000	95.8				
		90.510	COB	12.7424	12.74
64.000	83.0				
		45.255	VCG	14.8607	14.86
32.0000	68.2				
		22.627	CG	18.1824	18.18
16.0000	50.0				
		11.314	MG	11.4839	11.48
8.0000	38.5				
		5.657	FG	6.1388	6.14
4.0000	32.4				
		2.828	VFG	3.1806	3.18
2.0000	29.2				
		1.414	VCS	3.0000	3.00
1.0	26.2				
		0.707	CS	10.0363	26.20
0.5	16.2				
		0.354	MS	7.6550	
0.2500	8.5				
		0.177	FS	5.1689	
0.1250	3.3				
		0.088		2.2437	
0.0630	1.1				

SIZE	% FINER
362.0	100.0
254.0	99.0
181.0	98.5
125.0	94.0
90.0	87.8
50.0	79.7
37.5	73.5
25.0	61.7
19.0	54.2
12.5	44.7
9.50	41.0
6.30	35.6
4.76	33.5
2.36	30.0
2.00	29.2
1.00	26.2
0.60	19.1
0.425	14.2
0.300	9.9
0.150	3.7
0.075	1.9



FROM TAPE 96 IN *.SUM FILES

EXISTING CONDITIONS

SECNO	SXLCH	S	ELMIN	LBEL	CWSEL	RBEL	DEPTH	HD DEPTH	ACH	VLOB	VCH	VROB	QLOB	QCH	QROB	TOP WID	EW
0	0	11977	928	936	942.86	940	14.86	11.45	28803	3.24	7.64	2.18	1203	220013	28782	7975	2858
0.1	540	11080	930.6	932	943.46	936	12.86	12.09	26105	5.39	7.89	2	25058	206080	18861	7650	2620
0.2	1040	7794	932	932	944.3	944	12.3	12.2	22088	4.62	6.66	2.13	58426	147075	44498	9336	3077
0.29	1540	10107	932	936	944.76	948	12.76	10.33	20096	5.12	6.43	2.34	76705	129246	37548	9634	3664
0.39	2040	12900	932	940	945.2	944	13.2	10.04	21390	4.8	7.37	1.32	72111	157716	7171	8798	3201
0.48	2540	14374	932	940	946.02	944	14.02	9.31	19142	4.87	6.77	2	87046	129590	13863	7901	3655
0.58	3040	15174	932	940	946.73	944	14.73	9.69	17734	4.58	7.14	2.33	87604	126547	9847	6518	3239
0.67	3540	10530	932	936	947.35	944	15.35	11.7	17147	4.1	7.3	1.91	85122	125146	7231	6416	2546
0.76	4040	10070	932	940	947.8	940	15.8	12.62	17920	3.86	7.71	3.22	66162	138164	6672	4295	2169
0.86	4540	12961	932	940	948.18	944	16.18	13.67	14355	4.34	9.27	2	69923	133012	1563	3890	1614
0.95	5040	11157	932	944	949.02	952	17.02	12.91	11553	4.6	8.66	1.11	93716	100082	4200	7230	1771
1.05	5540	15591	932	948	949.58	952	17.58	11.04	11261	5.08	9.09	0	89185	102315	0	3422	1909
1.14	6040	22408	936	948	950.33	956	14.33	10.1	12217	5.02	10.07	0	62004	122995	0	3456	1820
1.24	6540	16440	936	944	951.52	956	15.52	10.57	12899	4.89	9.1	0	67654	117345	0	3347	1923
1.33	7040	15085	936	948	952.34	956	16.34	10.54	16924	4.23	8.42	0.61	42180	142463	355	5454	2084
1.43	7540	8526	936	952	953.15	948	17.15	12.44	21521	3.27	7.06	1.53	29924	151898	3177	4950	2107
1.52	8040	6746	936	952	953.72	948	17.72	11.74	25129	3.03	6.04	1.85	27044	151717	6238	5028	2609
1.62	8545	8988	940	948	954.09	952	14.09	9.83	25748	3.28	6.19	1.35	23031	159371	2597	5110	3041
1.71	9040	7995	940	948	954.58	952	14.58	9.48	29476	3.18	5.7	1.05	15721	167982	1296	5095	3425
1.81	9540	11447	940	944	955.01	952	15.01	8.16	26932	3.99	6.17	1.23	16748	166272	1978	5696	3672
1.9	10040	12475	944	948	955.58	952	11.58	8.21	24911	4.29	6.47	1.72	21020	161165	2813	4660	3484
2.02	10640	22822	942	952	956.29	956	14.29	7.58	18630	7.05	8.29	0.66	30571	154375	53	3267	2945
2.11	11140	30535	944	950	957.44	958	13.44	7.31	15248	6.72	9.39	0	41833	143166	0	3278	2695
2.2	11645	13072	944	950	958.87	958	14.87	10.06	18895	4.61	7.58	0.69	41594	143306	98	3574	2424
2.3	12140	13273	944	952	959.46	958	15.46	10.72	19042	4.08	7.97	0.97	33239	151733	26	3239	2166
2.39	12640	12609	944	952	960.16	960	16.16	10.5	20337	4.07	7.66	0.34	29217	155767	14	3451	2300
2.49	13140	15059	946	954	960.77	960	14.77	9.75	20957	3.56	7.97	0.68	17985	166965	49	3532	2382
2.59	13655	11504	946	954	961.6	960	15.6	10.49	22924	3.39	7.31	1.26	17128	167593	277	3565	2413
2.68	14145	8813	946	960	962.23	970	16.23	10.65	26106	2.62	6.65	0	11395	173604	0	3716	2612
2.78	14650	17711	948	954	962.72	970	14.72	7.61	20937	4.32	7.92	0	19245	165754	0	3684	3070
2.87	15150	17043	950	962	963.65	972	13.65	7.43	24152	2.96	7.48	0	4406	180593	0	3660	3331
2.96	15650	19681	950	966	964.55	978	14.55	7.29	23891	3.46	7.54	0	4904	180095	0	4052	3368
3.06	16150	15726	952	962	965.54	980	13.54	7.92	24596	3.33	7.14	0	9291	175708	0	3981	3271
3.15	16650	20094	952	968	966.29	972	14.29	7.81	22026	3.77	7.97	0	9562	175437	0	3608	2975
3.25	17150	21215	952	970	967.29	985	15.29	7.68	21128	3.98	8.21	0	11602	173397	0	3479	2935
3.34	17650	19605	955	970	968.31	985	13.31	8.05	21270	4	8.19	0	10836	174163	0	3589	2807
3.44	18150	23123	956	970	969.29	981	13.29	7.94	20037	4.1	8.71	0	10561	174438	0	3376	2677
3.53	18650	16024	956	968	970.55	985	14.55	8.51	22545	3.75	7.56	0	14604	170395	0	3584	2878
3.63	19150	13477	956	969	971.41	981	15.41	8.29	27119	1.79	6.8	0	536	184463	0	3416	3279
3.72	19600	13860	956	972	972.02	978	16.02	8.19	27065	0.07	6.84	0	0	184999	0	3524	3307
3.81	20090	18582	958	970	972.67	978	14.67	7.71	23678	2.56	7.74	0	1673	183326	0	3314	3097
3.91	20590	17115	960	972	973.61	981	13.61	7.99	24052	3.1	7.58	0	2748	182251	0	3196	3056
4	21080	19530	960	985	974.49	980	14.49	7.57	24142	0	7.66	0	0	185000	0	3188	3188
4.09	21575	22368	962	985	975.39	981	13.39	7.93	21893	0	8.45	0	0	185000	0	2759	2759
4.19	22075	17415	960	985	976.52	980	16.52	7.14	23348	0	7.91	0.79	0	184777	222	3392	3272
4.28	22575	12895	961	985	977.37	983	16.37	9.96	24759	0	7.47	0	0	185000	0	2486	2486

4.38	23075	8929	962	985	978.05	984	16.05	11.53	27002	0	6.85	0	0	185000	0	2342	2342
4.47	23575	11025	962	985	978.47	984	16.47	11	25099	0	7.37	0	0	185000	0	2282	2282
4.57	24075	6455	962	972	979.13	982	17.13	12.71	28965	2.43	6.31	0	2158	182841	0	2583	2307
4.66	24575	31458	962	978	979.07	986	17.07	8.31	17602	1.22	10.51	0	36	184963	0	2123	2120
4.76	25075	19698	966	990	980.75	986	14.75	9.78	20333	0	9.1	0	0	185000	0	2079	2079
4.85	25575	14331	966	994	981.82	986	15.82	10.76	22304	0	8.29	0	0	185000	0	2072	2072
4.95	26075	51423	968	980	981.89	992	13.89	9.29	12473	3.57	14.69	0	1770	183229	0	1553	1356
5.04	26575	40985	968	984	984.29	992	16.29	10.9	12131	4.22	14.65	0	7316	177683	0	1718	1158
5.14	27075	16782	972	976	987.2	995	15.2	14.39	14535	4.36	10.91	0	26388	158611	0	2148	1178
5.23	27575	19411	972	980	988.08	984	16.08	13.09	14273	4.83	11	3.25	21759	157011	6229	2400	1284
5.33	28075	15970	973	980	989.18	988	16.18	13.85	14680	4.89	10.36	1.47	31612	152016	1370	2750	1290
5.42	28575	13884	976	980	990.14	988	14.14	13.96	15012	4.96	9.71	2	37338	145748	1912	2460	1365
5.51	29075	7550	976	976	991.18	992	15.18	14.9	17288	4.44	7.49	0	55502	129497	0	2368	1657
5.61	29575	6315	976	976	991.56	992	15.56	15.38	20767	3.63	6.99	0	39842	145157	0	2599	1721
5.7	30075	10238	976	980	991.78	988	15.78	14.5	13337	4.92	8.55	1.61	70384	114067	547	2742	1492
5.8	30575	10265	976	984	992.19	988	16.19	14.94	16281	4.05	8.74	1.76	42383	142344	272	2792	1417
5.89	31075	16983	976	984	992.44	988	16.44	14.32	14032	4	10.92	2.46	29815	153255	1928	2914	1183
5.99	31575	10057	976	988	993.73	988	17.73	13.96	19830	2.82	8.28	2.27	15906	164144	4948	3567	1600
6.08	32075	7036	976	984	994.44	984	18.44	15.46	18859	2.93	7.41	2.97	21641	139739	23619	4038	1615
6.18	32575	6330	976	988	994.69	984	18.69	17.7	20355	1.98	7.69	2.82	7892	156522	20585	3951	1359
6.27	33075	5284	976	988	995.23	984	19.23	15.93	22938	2.27	6.55	2.68	12906	150205	21887	4335	1774

EXISTING CONDITIONS WITH U.S. PIT IN PLACE

SECNO	SXLCH	S	ELMIN	LBEL	CWSEL	RBEL	DEPTH	HD DEPTH	ACH	VLOB	VCH	VROB	QLOB	QCH	QROB	TOP WID	EW
0	0	11977	928	936	942.86	940	14.86	11.45	28803	3.24	7.64	2.18	1203	220013	28782	7975	2858
0.1	540	11080	930.6	932	943.46	936	12.86	12.09	26105	5.39	7.89	2	25058	206080	18861	7650	2620
0.2	1040	7794	932	932	944.3	944	12.3	12.2	22088	4.62	6.66	2.13	58426	147075	44498	9336	3077
0.29	1540	10107	932	936	944.76	948	12.76	10.33	20096	5.12	6.43	2.34	76705	129246	37548	9634	3664
0.39	2040	12900	932	940	945.2	944	13.2	10.04	21390	4.8	7.37	1.32	72111	157716	7171	8798	3201
0.48	2540	14374	932	940	946.02	944	14.02	9.31	19142	4.87	6.77	2	87046	129590	13863	7901	3655
0.58	3040	15174	932	940	946.73	944	14.73	9.69	17734	4.58	7.14	2.33	87604	126547	9847	6518	3239
0.67	3540	10530	932	936	947.35	944	15.35	11.7	17147	4.1	7.3	1.91	85122	125146	7231	6416	2546
0.76	4040	10070	932	940	947.8	940	15.8	12.62	17920	3.86	7.71	3.22	66162	138164	6672	4295	2169
0.86	4540	12961	932	940	948.18	944	16.18	13.67	14355	4.34	9.27	2	69923	133012	1563	3890	1614
0.95	5040	11157	932	944	949.02	952	17.02	12.91	11553	4.6	8.66	1.11	93716	100082	4200	7230	1771
1.05	5540	15591	932	948	949.58	952	17.58	11.04	11261	5.08	9.09	0	89185	102315	0	3422	1909
1.14	6040	22408	936	948	950.33	956	14.33	10.1	12217	5.02	10.07	0	62004	122995	0	3456	1820
1.24	6540	16440	936	944	951.52	956	15.52	10.57	12899	4.89	9.1	0	67654	117345	0	3347	1923
1.33	7040	15085	936	948	952.34	956	16.34	10.54	16924	4.23	8.42	0.61	42180	142463	355	5454	2084
1.43	7540	8526	936	952	953.15	948	17.15	12.44	21521	3.27	7.06	1.53	29924	151898	3177	4950	2107
1.52	8040	6746	936	952	953.72	948	17.72	11.74	25129	3.03	6.04	1.85	27044	151717	6238	5028	2609
1.62	8545	8988	940	948	954.09	952	14.09	9.83	25748	3.28	6.19	1.35	23031	159371	2597	5110	3041
1.71	9040	7995	940	948	954.58	952	14.58	9.48	29476	3.18	5.7	1.05	15721	167982	1296	5095	3425
1.81	9540	11447	940	944	955.01	952	15.01	8.16	26932	3.99	6.17	1.23	16748	166272	1978	5696	3672
1.9	10040	12475	944	948	955.58	952	11.58	8.21	24911	4.29	6.47	1.72	21020	161165	2813	4660	3484
2.02	10640	22822	942	952	956.29	956	14.29	7.58	18630	7.05	8.29	0.66	30571	154375	53	3267	2945
2.11	11140	30535	944	950	957.44	958	13.44	7.31	15248	6.72	9.39	0	41833	143166	0	3278	2695
2.2	11645	13072	944	950	958.87	958	14.87	10.06	18895	4.61	7.58	0.69	41594	143306	98	3574	2424
2.3	12140	13273	944	952	959.46	958	15.46	10.72	19042	4.08	7.97	0.97	33239	151733	26	3239	2166
2.39	12640	12609	944	952	960.16	960	16.16	10.5	20337	4.07	7.66	0.34	29217	155767	14	3451	2300
2.49	13140	15059	946	954	960.77	960	14.77	9.75	20957	3.56	7.97	0.68	17985	166965	49	3532	2382

2.59	13655	11504	946	954	961.6	960	15.6	10.49	22924	3.39	7.31	1.26	17128	167593	277	3565	2413
2.68	14145	8813	946	960	962.23	970	16.23	10.65	26106	2.62	6.65	0	11395	173604	0	3716	2612
2.78	14650	17711	948	954	962.72	970	14.72	7.61	20937	4.32	7.92	0	19245	165754	0	3684	3070
2.87	15150	17043	950	962	963.65	972	13.65	7.43	24152	2.96	7.48	0	4406	180593	0	3660	3331
2.96	15650	19681	950	966	964.55	978	14.55	7.29	23891	3.46	7.54	0	4904	180095	0	4052	3368
3.06	16150	15726	952	962	965.54	980	13.54	7.92	24596	3.33	7.14	0	9291	175708	0	3981	3271
3.15	16650	20094	952	968	966.29	972	14.29	7.81	22026	3.77	7.97	0	9562	175437	0	3608	2975
3.25	17150	21215	952	970	967.29	985	15.29	7.68	21128	3.98	8.21	0	11602	173397	0	3479	2935
3.34	17650	19605	955	970	968.31	985	13.31	8.05	21270	4	8.19	0	10836	174163	0	3589	2807
3.44	18150	23123	956	970	969.29	981	13.29	7.94	20037	4.1	8.71	0	10561	174438	0	3376	2677
3.53	18650	16024	956	968	970.55	985	14.55	8.51	22545	3.75	7.56	0	14604	170395	0	3584	2878
3.63	19150	13477	956	969	971.41	981	15.41	8.29	27119	1.79	6.8	0	536	184463	0	3416	3279
3.72	19600	13860	956	972	972.02	978	16.02	8.19	27065	0.07	6.84	0	0	184999	0	3524	3307
3.81	20090	18582	958	970	972.67	978	14.67	7.71	23678	2.56	7.74	0	1673	183326	0	3314	3097
3.91	20590	17115	960	972	973.61	981	13.61	7.99	24052	3.1	7.58	0	2748	182251	0	3196	3056
4	21080	19530	960	985	974.49	980	14.49	7.57	24142	0	7.66	0	0	185000	0	3188	3188
4.09	21575	22368	962	985	975.39	981	13.39	7.93	21893	0	8.45	0	0	185000	0	2759	2759
4.19	22075	1671	932	985	976.5	980	44.5	17.56	47252	0	3.92	0	0	185000	0	2691	2691
4.28	22575	635	932	985	976.65	983	44.65	24.36	61607	0	3	0	0	185000	0	2529	2529
4.38	23075	438	932	985	976.7	984	44.7	28.51	66722	0	2.77	0	0	185000	0	2340	2340
4.47	23575	361	932	985	976.73	984	44.74	30.78	70007	0	2.64	0	0	185000	0	2275	2275
4.57	24075	240	932	972	976.77	982	44.77	34.23	78038	0.39	2.37	0	174	184825	0	2330	2282
4.66	24575	546	932	978	976.74	986	44.74	29.44	58641	0	3.15	0	0	185000	0	1992	1992
4.76	25075	253	932	990	976.83	986	44.83	36.34	75090	0	2.46	0	0	185000	0	2066	2066
4.85	25575	173	932	994	976.86	986	44.86	40.77	83620	0	2.21	0	0	185000	0	2051	2051
4.95	26075	195	932	984	976.87	992	44.87	38.42	82164	0	2.25	0	0	185000	0	2139	2139
5.04	26575	173	932	986	976.88	992	44.88	39.21	85859	0	2.15	0	0	185000	0	2190	2190
5.14	27075	1697	932	980	976.62	995	44.62	29.41	33308	0	5.55	0	0	185000	0	1132	1132
5.23	27575	54580	973	980	985.37	984	12.37	10.09	11001	5.48	15.51	1.89	13646	170658	695	2367	1182
5.33	28075	17774	973	980	988.82	988	15.82	13.49	14302	4.99	10.74	1.22	30646	153559	794	2750	1277
5.42	28575	14805	976	980	989.91	988	13.91	13.74	14773	5.03	9.92	1.92	36826	146536	1636	2460	1357
5.51	29075	7863	976	976	991.01	992	15.01	14.74	17099	4.49	7.59	0	55216	129783	0	2368	1654
5.61	29575	6552	976	976	991.41	992	15.41	15.23	20567	3.66	7.07	0	39491	145508	0	2599	1716
5.7	30075	10636	976	980	991.64	988	15.64	14.36	13209	4.98	8.66	1.61	70077	114417	505	2729	1488
5.8	30575	10625	976	984	992.07	988	16.07	14.81	16147	4.08	8.85	1.74	41915	142833	251	2775	1412
5.89	31075	17589	976	984	992.33	988	16.33	14.21	13923	4.02	11.06	2.43	29239	153945	1814	2903	1178
5.99	31575	10248	976	988	993.67	988	17.67	13.9	19743	2.82	8.33	2.26	15682	164483	4834	3563	1597
6.08	32075	7138	976	984	994.39	984	18.39	15.41	18800	2.93	7.45	2.98	21509	140014	23476	4031	1612
6.18	32575	6403	976	988	994.65	984	18.65	17.66	20304	1.98	7.72	2.83	7778	156764	20456	3939	1357
6.27	33075	5340	976	988	995.2	984	19.2	15.89	22883	2.27	6.57	2.69	12816	150392	21791	4324	1771

EXISTING CONDITIONS WITH CSA IN PLACE

SECNO	SXLCH	S	ELMIN	LBEL	CWSEL	RBEL	DEPTH	HD DEPTH	ACH	VLOB	VCH	VROB	QLOB	QCH	QROB	TOP WID	EW
0	0	11977	928	936	942.86	940	14.86	11.45	28803	3.24	7.64	2.18	1203	220013	28782	7975	2858
0.1	540	11080	930.6	932	943.46	936	12.86	12.09	26105	5.39	7.89	2	25058	206080	18861	7650	2620
0.2	1040	7794	932	932	944.3	944	12.3	12.2	22088	4.62	6.66	2.13	58426	147075	44498	9336	3077
0.29	1540	10107	932	936	944.76	948	12.76	10.33	20096	5.12	6.43	2.34	76705	129246	37548	9634	3664
0.39	2040	12900	932	940	945.2	944	13.2	10.04	21390	4.8	7.37	1.32	72111	157716	7171	8798	3201
0.48	2540	14374	932	940	946.02	944	14.02	9.31	19142	4.87	6.77	2	87046	129590	13863	7901	3655
0.58	3040	15174	932	940	946.73	944	14.73	9.69	17734	4.58	7.14	2.33	87604	126547	9847	6518	3239
0.67	3540	10530	932	936	947.35	944	15.35	11.7	17147	4.1	7.3	1.91	85122	125146	7231	6416	2546

0.76	4040	10070	932	940	947.8	940	15.8	12.62	17920	3.86	7.71	3.22	66162	138164	6672	4295	2169
0.86	4540	12961	932	940	948.18	944	16.18	13.67	14355	4.34	9.27	2	69923	133012	1563	3890	1614
0.95	5040	11157	932	944	949.02	952	17.02	12.91	11553	4.6	8.66	1.11	93716	100082	4200	7230	1771
1.05	5540	15591	932	948	949.58	952	17.58	11.04	11261	5.08	9.09	0	89185	102315	0	3422	1909
1.14	6040	22408	936	948	950.33	956	14.33	10.1	12217	5.02	10.07	0	62004	122995	0	3456	1820
1.24	6540	16440	936	944	951.52	956	15.52	10.57	12899	4.89	9.1	0	67654	117345	0	3347	1923
1.33	7040	15085	936	948	952.34	956	16.34	10.54	16924	4.23	8.42	0.61	42180	142463	355	5454	2084
1.43	7540	8526	936	952	953.15	948	17.15	12.44	21521	3.27	7.06	1.53	29924	151898	3177	4950	2107
1.52	8040	6746	936	952	953.72	948	17.72	11.74	25129	3.03	6.04	1.85	27044	151717	6238	5028	2609
1.62	8545	8988	940	948	954.09	952	14.09	9.83	25748	3.28	6.19	1.35	23031	159371	2597	5110	3041
1.71	9040	7995	940	948	954.58	952	14.58	9.48	29476	3.18	5.7	1.05	15721	167982	1296	5095	3425
1.81	9540	11447	940	944	955.01	952	15.01	8.16	26932	3.99	6.17	1.23	16748	166272	1978	5696	3672
1.9	10040	12475	944	948	955.58	952	11.58	8.21	24911	4.29	6.47	1.72	21020	161165	2813	4660	3484
2.02	10640	22822	942	952	956.29	956	14.29	7.58	18630	7.05	8.29	0.66	30571	154375	53	3267	2945
2.11	11140	30535	944	950	957.44	958	13.44	7.31	15248	6.72	9.39	0	41833	143166	0	3278	2695
2.2	11645	13072	944	950	958.87	958	14.87	10.06	18895	4.61	7.58	0.69	41594	143306	98	3574	2424
2.3	12140	13273	944	952	959.46	958	15.46	10.72	19042	4.08	7.97	0.97	33239	151733	26	3239	2166
2.39	12640	12609	944	952	960.16	960	16.16	10.5	20337	4.07	7.66	0.34	29217	155767	14	3451	2300
2.49	13140	15059	946	954	960.77	960	14.77	9.75	20957	3.56	7.97	0.68	17985	166965	49	3532	2382
2.59	13655	11504	946	954	961.6	960	15.6	10.49	22924	3.39	7.31	1.26	17128	167593	277	3565	2413
2.68	14145	8813	946	960	962.23	970	16.23	10.65	26106	2.62	6.65	0	11395	173604	0	3716	2612
2.78	14650	17711	948	954	962.72	970	14.72	7.61	20937	4.32	7.92	0	19245	165754	0	3684	3070
2.87	15150	17043	950	962	963.65	972	13.65	7.43	24152	2.96	7.48	0	4406	180593	0	3660	3331
2.96	15650	19681	950	966	964.55	978	14.55	7.29	23891	3.46	7.54	0	4904	180095	0	4052	3368
3.06	16150	15726	952	962	965.54	980	13.54	7.92	24596	3.33	7.14	0	9291	175708	0	3981	3271
3.15	16650	25833	952	968	966.22	970	14.22	7.65	20876	0	8.86	0	0	185000	0	2731	2731
3.25	17150	31545	956	970	967.47	971	11.47	7.61	18963	0	9.76	0	0	185000	0	2493	2493
3.34	17650	18370	956	970	969.08	971.5	13.08	8.97	22255	0	8.31	0	0	185000	0	2482	2482
3.44	18150	22788	956	970	970.06	972	14.06	8.32	19324	4.35	8.84	0	14255	170744	0	3513	2516
3.53	18650	16829	958	968	971.29	973	13.29	8.88	20950	4.17	7.91	0	19184	165815	0	3318	2631
3.63	19150	13598	958	969	972.19	973	14.19	8.74	26014	1.62	7.04	0	1819	183180	0	4021	3005
3.72	19600	10349	956	972	972.88	974	16.88	9.1	29284	0.81	6.31	0	309	184690	0	3849	3223
3.81	20090	13600	958	970	973.37	975	15.37	8.69	26024	2.41	7.02	0	2240	182759	0	3434	3031
3.91	20590	14327	960	972	974.03	975	14.03	8.79	25077	3.05	7.26	0	3042	181957	0	3118	2900
4	21080	17735	960	985	974.74	976	14.74	8.14	24156	0	7.66	0	0	185000	0	2968	2968
4.09	21575	20780	962	985	975.56	978	13.56	8.38	21918	0	8.44	0	0	185000	0	2616	2616
4.19	22075	16373	960	985	976.65	979	16.65	8.9	23702	0	7.81	0	0	185000	0	2662	2662
4.28	22575	12518	961	985	977.46	983	16.46	10.05	24982	0	7.41	0	0	185000	0	2486	2486
4.38	23075	8752	962	985	978.12	984	16.12	11.6	27166	0	6.81	0	0	185000	0	2342	2342
4.47	23575	10827	962	985	978.53	984	16.53	11.06	25238	0	7.33	0	0	185000	0	2282	2282
4.57	24075	6372	962	972	979.18	982	17.18	12.75	29077	2.41	6.29	0	2183	182817	0	2592	2307
4.66	24575	30906	962	978	979.12	986	17.12	8.33	17705	1.25	10.45	0	40	184959	0	2128	2125
4.76	25075	19563	966	990	980.77	986	14.77	9.8	20375	0	9.08	0	0	185000	0	2079	2079
4.85	25575	14274	966	994	981.84	986	15.84	10.78	22331	0	8.28	0	0	185000	0	2072	2072
4.95	26075	51228	968	980	981.9	992	13.9	9.3	12487	3.58	14.67	0	1784	183215	0	1553	1356
5.04	26575	41021	968	984	984.28	992	16.28	10.9	12128	4.22	14.65	0	7307	177692	0	1718	1158
5.14	27075	16786	972	976	987.2	995	15.2	14.39	14534	4.36	10.91	0	26384	158615	0	2148	1178
5.23	27575	19415	972	980	988.08	984	16.08	13.09	14273	4.83	11	3.25	21757	157013	6228	2400	1284
5.33	28075	15972	973	980	989.18	988	16.18	13.85	14680	4.89	10.36	1.47	31611	152018	1370	2750	1290
5.42	28575	13884	976	980	990.14	988	14.14	13.96	15012	4.96	9.71	2	37338	145749	1912	2460	1365
5.51	29075	7550	976	976	991.18	992	15.18	14.9	17288	4.44	7.49	0	55501	129498	0	2368	1657
5.61	29575	6316	976	976	991.56	992	15.56	15.38	20767	3.63	6.99	0	39842	145157	0	2599	1721
5.7	30075	10239	976	980	991.78	988	15.78	14.5	13336	4.92	8.55	1.61	70384	114068	547	2742	1492
5.8	30575	10266	976	984	992.19	988	16.19	14.94	16281	4.05	8.74	1.76	42382	142344	272	2792	1417
5.89	31075	16984	976	984	992.44	988	16.44	14.32	14032	4	10.92	2.46	29814	153256	1928	2914	1183

5.99	31575	10057	976	988	993.73	988	17.73	13.96	19829	2.82	8.28	2.27	15905	164146	4948	3567	1600
6.08	32075	7036	976	984	994.44	984	18.44	15.46	18859	2.93	7.41	2.97	21640	139741	23618	4038	1615
6.18	32575	6330	976	988	994.69	984	18.69	17.7	20355	1.98	7.69	2.82	7891	156523	20584	3951	1359
6.27	33075	5285	976	988	995.23	984	19.23	15.93	22938	2.27	6.55	2.68	12906	150205	21887	4335	1774

EXISTING CONDITIONS WITH CSA AND U.S. PIT IN PLACE

SECNO	SXLCH	S	ELMIN	LBEL	CWSEL	RBEL	DEPTH	HD DEPTH	ACH	VLOB	VCH	VROB	QLOB	QCH	QROB	TOP WID	EW
0	0	11977	928	936	942.86	940	14.86	11.45	28803	3.24	7.64	2.18	1203	220013	28782	7975	2858
0.1	540	11080	930.6	932	943.46	936	12.86	12.09	26105	5.39	7.89	2	25058	206080	18861	7650	2620
0.2	1040	7794	932	932	944.3	944	12.3	12.2	22088	4.62	6.66	2.13	58426	147075	44498	9336	3077
0.29	1540	10107	932	936	944.76	948	12.76	10.33	20096	5.12	6.43	2.34	76705	129246	37548	9634	3664
0.39	2040	12900	932	940	945.2	944	13.2	10.04	21390	4.8	7.37	1.32	72111	157716	7171	8798	3201
0.48	2540	14374	932	940	946.02	944	14.02	9.31	19142	4.87	6.77	2	87046	129590	13863	7901	3655
0.58	3040	15174	932	940	946.73	944	14.73	9.69	17734	4.58	7.14	2.33	87604	126547	9847	6518	3239
0.67	3540	10530	932	936	947.35	944	15.35	11.7	17147	4.1	7.3	1.91	85122	125146	7231	6416	2546
0.76	4040	10070	932	940	947.8	940	15.8	12.62	17920	3.86	7.71	3.22	66162	138164	6672	4295	2169
0.86	4540	12961	932	940	948.18	944	16.18	13.67	14355	4.34	9.27	2	69923	133012	1563	3890	1614
0.95	5040	11157	932	944	949.02	952	17.02	12.91	11553	4.6	8.66	1.11	93716	100082	4200	7230	1771
1.05	5540	15591	932	948	949.58	952	17.58	11.04	11261	5.08	9.09	0	89185	102315	0	3422	1909
1.14	6040	22408	936	948	950.33	956	14.33	10.1	12217	5.02	10.07	0	62004	122995	0	3456	1820
1.24	6540	16440	936	944	951.52	956	15.52	10.57	12899	4.89	9.1	0	67654	117345	0	3347	1923
1.33	7040	15085	936	948	952.34	956	16.34	10.54	16924	4.23	8.42	0.61	42180	142463	355	5454	2084
1.43	7540	8526	936	952	953.15	948	17.15	12.44	21521	3.27	7.06	1.53	29924	151898	3177	4950	2107
1.52	8040	6746	936	952	953.72	948	17.72	11.74	25129	3.03	6.04	1.85	27044	151717	6238	5028	2609
1.62	8545	8988	940	948	954.09	952	14.09	9.83	25748	3.28	6.19	1.35	23031	159371	2597	5110	3041
1.71	9040	7995	940	948	954.58	952	14.58	9.48	29476	3.18	5.7	1.05	15721	167982	1296	5095	3425
1.81	9540	11447	940	944	955.01	952	15.01	8.16	26932	3.99	6.17	1.23	16748	166272	1978	5696	3672
1.9	10040	12475	944	948	955.58	952	11.58	8.21	24911	4.29	6.47	1.72	21020	161165	2813	4660	3484
2.02	10640	22822	942	952	956.29	956	14.29	7.58	18630	7.05	8.29	0.66	30571	154375	53	3267	2945
2.11	11140	30535	944	950	957.44	958	13.44	7.31	15248	6.72	9.39	0	41833	143166	0	3278	2695
2.2	11645	13072	944	950	958.87	958	14.87	10.06	18895	4.61	7.58	0.69	41594	143306	98	3574	2424
2.3	12140	13273	944	952	959.46	958	15.46	10.72	19042	4.08	7.97	0.97	33239	151733	26	3239	2166
2.39	12640	12609	944	952	960.16	960	16.16	10.5	20337	4.07	7.66	0.34	29217	155767	14	3451	2300
2.49	13140	15059	946	954	960.77	960	14.77	9.75	20957	3.56	7.97	0.68	17985	166965	49	3532	2382
2.59	13655	11504	946	954	961.6	960	15.6	10.49	22924	3.39	7.31	1.26	17128	167593	277	3565	2413
2.68	14145	8813	946	960	962.23	970	16.23	10.65	26106	2.62	6.65	0	11395	173604	0	3716	2612
2.78	14650	17711	948	954	962.72	970	14.72	7.61	20937	4.32	7.92	0	19245	165754	0	3684	3070
2.87	15150	17043	950	962	963.65	972	13.65	7.43	24152	2.96	7.48	0	4406	180593	0	3660	3331
2.96	15650	19681	950	966	964.55	978	14.55	7.29	23891	3.46	7.54	0	4904	180095	0	4052	3368
3.06	16150	15726	952	962	965.54	980	13.54	7.92	24596	3.33	7.14	0	9291	175708	0	3981	3271
3.15	16650	25833	952	968	966.22	970	14.22	7.65	20876	0	8.86	0	0	185000	0	2731	2731
3.25	17150	31545	956	970	967.47	971	11.47	7.61	18963	0	9.76	0	0	185000	0	2493	2493
3.34	17650	18370	956	970	969.08	971.5	13.08	8.97	22255	0	8.31	0	0	185000	0	2482	2482
3.44	18150	22788	956	970	970.06	972	14.06	8.32	19324	4.35	8.84	0	14255	170744	0	3513	2516
3.53	18650	16829	958	968	971.29	973	13.29	8.88	20950	4.17	7.91	0	19184	165815	0	3318	2631
3.63	19150	13598	958	969	972.19	973	14.19	8.74	26014	1.62	7.04	0	1819	183180	0	4021	3005
3.72	19600	10349	956	972	972.88	974	16.88	9.1	29284	0.81	6.31	0	309	184690	0	3849	3223
3.81	20090	13600	958	970	973.37	975	15.37	8.69	26024	2.41	7.02	0	2240	182759	0	3434	3031
3.91	20590	14327	960	972	974.03	975	14.03	8.79	25077	3.05	7.26	0	3042	181957	0	3118	2900
4	21080	17735	960	985	974.74	976	14.74	8.14	24156	0	7.66	0	0	185000	0	2968	2968
4.09	21575	20780	962	985	975.56	978	13.56	8.38	21918	0	8.44	0	0	185000	0	2616	2616
4.19	22075	16373	960	985	976.65	979	16.65	8.9	23702	0	7.81	0	0	185000	0	2662	2662

4.28	22575	559	932	985	977.6	983	45.6	25.29	64020	0	2.89	0	0	185000	0	2531	2531
4.38	23075	394	932	985	977.64	984	45.64	29.43	68904	0	2.68	0	0	185000	0	2342	2342
4.47	23575	327	932	985	977.67	984	45.67	31.67	72144	0	2.56	0	0	185000	0	2278	2278
4.57	24075	221	932	972	977.71	982	45.71	35.14	80106	0.43	2.31	0	244	184755	0	2344	2283
4.66	24575	500	932	978	977.68	986	45.68	30.02	60519	0	3.06	0	0	185000	0	2016	2016
4.76	25075	233	932	990	977.76	986	45.76	37.22	77013	0	2.4	0	0	185000	0	2069	2069
4.85	25575	161	932	994	977.79	986	45.79	41.62	85525	0	2.16	0	0	185000	0	2055	2055
4.95	26075	181	932	984	977.79	992	45.79	39.21	84148	0	2.2	0	0	185000	0	2146	2146
5.04	26575	161	932	986	977.81	992	45.81	40.03	87890	0	2.1	0	0	185000	0	2196	2196
5.14	27075	1537	932	980	977.57	995	45.57	30.23	34377	0	5.38	0	0	185000	0	1137	1137
5.23	27575	54591	973	980	985.37	984	12.37	10.09	11001	5.48	15.51	1.89	13643	170661	695	2367	1182
5.33	28075	17774	973	980	988.82	988	15.82	13.49	14302	4.99	10.74	1.22	30646	153559	794	2750	1277
5.42	28575	14803	976	980	989.91	988	13.91	13.74	14774	5.03	9.92	1.92	36827	146535	1637	2460	1357
5.51	29075	7863	976	976	991.01	992	15.01	14.74	17099	4.49	7.59	0	55216	129783	0	2368	1654
5.61	29575	6552	976	976	991.41	992	15.41	15.24	20567	3.66	7.07	0	39491	145508	0	2599	1716
5.7	30075	10636	976	980	991.64	988	15.64	14.36	13209	4.98	8.66	1.61	70077	114417	505	2729	1488
5.8	30575	10624	976	984	992.07	988	16.07	14.81	16147	4.08	8.85	1.74	41915	142832	251	2775	1412
5.89	31075	17588	976	984	992.33	988	16.33	14.21	13923	4.02	11.06	2.43	29240	153944	1815	2903	1178
5.99	31575	10247	976	988	993.67	988	17.67	13.9	19743	2.82	8.33	2.26	15683	164482	4834	3563	1597
6.08	32075	7138	976	984	994.39	984	18.39	15.41	18800	2.93	7.45	2.98	21509	140013	23476	4031	1612
6.18	32575	6403	976	988	994.65	984	18.65	17.66	20304	1.98	7.72	2.83	7778	156764	20457	3939	1357
6.27	33075	5340	976	988	995.2	984	19.2	15.89	22883	2.27	6.57	2.69	12816	150392	21791	4324	1771

1984 FIS

SECNO	SXLCH	S	ELMIN	LBEL	CWSEL	RBEL	DEPTH	HD DEPTH	ACH	VLOB	VCH	VROB	QLOB	QCH	QROB	TOP WID	EW
0	0	5463	926.1	932.2	943.4	934.4	17.3	14.08	30503	4.07	6.13	1.85	25421	186921	37657	9281	2897
0.1	550	4903	928.5	930	943.65	938.1	15.15	14.68	38607	3.77	5.98	1.36	6397	230861	12740	7240	2847
0.23	1200	10457	929.7	936.5	944.03	941.3	14.33	11.28	22175	3.6	7.32	1.61	70434	162272	12293	10336	2968
0.34	1800	21625	931.6	941.2	944.81	942.5	13.21	7.44	19659	4.51	7.97	1.9	75202	156654	8143	10196	4046
0.48	2550	16549	932.1	940.1	946.27	944.5	14.17	8.31	23702	3.79	7.5	1.94	44595	177868	12536	10364	3767
0.6	3170	13155	933.4	943.2	947.29	935.4	13.89	9.1	23168	3.35	7.11	2.88	44784	164717	20497	9398	3555
0.77	4080	19130	934.6	945.6	948.56	946.2	13.96	8.06	22780	3.43	7.91	1.96	31617	180247	8134	8793	3448
0.95	5030	16762	936.1	945.8	950.44	949.6	14.34	7.85	21715	3.74	7.27	2.37	38992	157826	13181	7896	3682
1.09	5730	10257	935	953.9	951.61	948.8	16.61	7.95	25270	3.53	5.75	1.6	50071	145327	4601	8238	4376
1.2	6330	16221	934.6	9999.9	952.12	951.8	17.52	6.85	26396	0	7.21	2.1	0	190335	4664	5306	3946
1.33	7000	14640	936.3	954.7	953.31	953.5	17.01	7.02	28145	0	6.49	1.59	0	182603	2396	5111	4061
1.44	7610	10581	936.8	955.6	954.19	953	17.39	7.91	31400	0	5.88	0.97	0	184557	442	4486	3979
1.6	8460	12552	941	958.2	955.12	955.1	14.12	7.66	29804	0	6.21	0.18	0	184998	1	3996	3893
1.78	9400	12275	941.9	959.8	956.33	956	14.43	7.35	30754	0	6.01	0.64	0	184846	153	4771	4186
1.87	9860	12595	943.1	960.2	956.87	956	13.77	7.72	29539	0	6.25	0.93	0	184672	327	4370	3832
1.99	10480	21872	944	960.4	957.68	956	13.68	6.49	24425	0	7.55	1.91	0	184456	543	3938	3772
2.1	11110	26086	943.9	962.3	959.07	957.8	15.17	6.74	22517	0	8.21	1.44	0	184757	242	3587	3346
2.27	11990	13991	945.6	963.1	961.05	959.8	15.45	8.34	26676	0	6.93	0.91	0	184759	240	3747	3204
2.44	12880	13427	947	966.2	962.32	961.5	15.32	7.96	27600	0	6.68	1.24	0	184458	541	3813	3477
2.57	13580	10386	947.8	965.8	963.29	961	15.49	8.41	30604	0	6.02	1.81	0	184373	626	3787	3653
2.75	14500	12357	951.2	968	964.32	968.2	13.12	7.56	30390	0	6.09	0	0	185000	0	4021	4021
2.87	15160	21878	950.8	970.1	965.24	970	14.44	6.19	26065	0	7.1	0.9	0	184997	2	4214	4214
2.99	15770	11732	952.2	969.2	966.48	970.7	14.28	7.25	32048	0	5.77	0	0	185000	0	4422	4422
3.11	16435	17723	954.9	967.7	967.29	968.7	12.39	6.78	27270	0	6.78	0	0	185000	0	4025	4025
3.21	16955	21632	956.1	968.9	968.24	964.5	12.14	6.38	25555	0	7.23	2.33	0	184817	182	4021	4012
3.33	17605	23388	957.1	970.1	969.66	973	12.56	6.37	24751	0	7.47	0	0	185000	0	3888	3888
3.46	18285	19396	957.5	971.5	971.19	991.4	13.69	6.61	25787	1.4	7.17	0	200	184799	0	3925	3907
3.57	18825	12252	958.3	971.2	972.2	991.3	13.9	7.96	29086	0.89	6.35	0	350	184649	0	4228	3659

3.71	19595	21483	962	973.2	973.28	970.9	11.28	6.56	25307	0.18	7.31	1.68	0	184980	19	3925	3859
3.81	20115	18370	962.8	972.4	974.29	962.8	11.49	7.6	24704	1.36	7.45	4.2	318	184139	541	3519	3264
3.94	20885	16475	963.2	975.1	975.8	980.8	12.6	6.9	27549	0.66	6.71	0	19	184981	0	3996	3992
4.06	21545	17591	963.5	978	976.92	980.3	13.42	6.8	27309	0	6.77	0	0	185000	0	4016	4016
4.13	21915	15362	963.3	978.1	977.61	980.3	14.31	6.93	28847	0	6.41	0	0	185000	0	4162	4162
4.22	22345	17024	965.5	973.2	978.19	981.3	12.69	7.58	25643	2.49	7.2	0	245	184754	0	3397	3388
4.35	23065	29485	967.1	981.1	979.58	981.2	12.48	6.27	22262	0	8.31	0	0	185000	0	3550	3550
4.52	23945	24558	967.2	982.4	981.93	983.1	14.73	7.31	22052	0	8.39	0	0	185000	0	3018	3018
4.53	24025	28341	967.3	985.1	981.98	984.7	14.68	6.81	19696	2.29	9.33	0	1287	183712	0	3111	2913
4.66	24700	15194	968.4	986.8	983.91	985.8	15.51	7.91	24987	1.28	7.33	1.32	1242	183167	590	4498	3191
4.8	25410	38859	970.3	986.9	984.93	980.7	14.63	6.67	16585	1.57	10.65	4.9	1157	176631	7211	4138	2605
4.96	26280	9988	971.9	983.1	987.57	986	15.67	11.29	20504	2.81	7.16	2.27	30030	146774	8194	5664	2289
5.08	26920	12620	972.8	985.2	988.08	985.9	15.28	12	18201	2.97	8.45	1.38	28898	153756	2344	5626	1825
5.25	27790	12711	972.9	985.1	988.96	988.3	16.06	13.95	17482	2.9	9.29	0.97	21998	162360	641	4613	1428
5.44	28790	4684	971.3	983.6	990.39	989.6	19.09	14.69	29018	1.76	5.92	0.39	13131	171834	34	4472	2126
5.61	29700	15671	974.4	987.9	990.76	990.1	16.36	10.23	19650	3.24	8.39	0.62	20055	164927	17	3785	2155
5.73	30330	9579	973.7	988	991.69	991.2	17.99	12.55	23285	2.19	7.5	0.4	10428	174566	4	3815	1966
5.85	30990	18892	975.2	990.7	992.44	991.5	17.24	8.42	21700	3.14	8.1	0.87	9115	175744	139	4497	2713
5.99	31745	13243	976.8	992.3	993.82	992.3	17.02	9.32	24238	2.27	7.25	1	8834	175728	436	5148	2739

BAKER 1994

SECNO	SXLCH	S	ELMIN	LBEL	CWSEL	RBEL	DEPTH	HD DEPTH	ACH	VLOB	VCH	VROB	QLOB	QCH	QROB	TOP WID	EW
199.82	0	17916	931.2	941.8	950.67	944.5	19.47	11.35	32340	0	4.3	7.12	0	139071	75928	5109	4407
199.91	466	15847	932.1	9999.9	951.52	945	19.42	12.74	35318	0	4.01	6.66	0	141505	73494	5139	4211
200	988	5988	933.4	942.2	952.04	944.5	18.64	13.85	30858	0	5.16	3.93	0	159359	55640	5158	3006
200.1	1480	9971	934.5	944.8	952.31	947.2	17.81	12.61	23841	1.45	6.25	4.64	6243	148901	59855	5402	2729
200.2	2005	11669	936.2	949.6	952.97	948	16.77	10.83	30147	0	5.39	4.78	0	162547	52452	5650	3682
200.3	2521	16755	936.3	950.6	953.55	957	17.25	10.64	33160	0	6.42	3.56	0	212777	2222	3517	3148
200.39	3028	3528	937	952.2	954.46	951.3	17.46	11.96	40153	0	3.27	2.6	0	131283	18716	5492	3837
200.49	3525	4805	936.9	953.3	954.64	950.3	17.74	11.12	38397	0	3.53	2.8	0	135365	14634	5267	3825
200.58	4005	7354	937.6	953.3	954.89	952.3	17.29	9.8	36220	0	3.98	2.69	0	144158	5841	4792	3846
200.67	4508	7808	939.8	952.9	955.26	952.3	15.46	9.52	35526	0	4.06	2.8	0	144088	5911	4856	3883
200.77	5004	6132	936.9	955.3	955.63	952.4	18.73	9.06	37351	0	3.84	2.87	0	143451	6548	4996	4310
200.86	5527	9281	938.5	958.1	956.02	954.1	17.52	9.06	37107	0	3.84	3.33	0	142494	7505	4950	4313
200.95	6002	5012	939.8	958	956.34	953.2	16.54	9.27	38278	0	3.81	2.08	0	145671	4328	5158	4252
201.05	6514	7616	941.5	957.7	956.64	955.5	15.14	9.28	36203	0	4.03	2.52	0	145825	4174	4923	4013
201.14	6996	8220	940.4	960.2	956.95	955.2	16.55	8.51	31395	0	4.73	1.95	0	148355	1645	4687	3730
201.24	7484	16025	943	959.9	957.38	957.6	14.38	7.26	25455	0	5.77	2.97	0	146829	3170	4344	3582
201.33	7999	22137	943	961.8	958.32	958.1	15.32	7.2	24869	0	5.94	2.93	0	147711	2288	4226	3506
201.43	8519	16060	941.3	961.9	959.38	957.5	18.08	7.63	26613	0	5.53	2.87	0	147120	2880	4123	3557
201.52	9011	18878	940.9	962.9	960.31	958.4	19.41	8.05	28531	0	5.07	4.01	0	144548	5451	4165	3680
201.62	9498	12233	945.6	963.9	961.01	960.2	15.41	8.52	27659	0	5.38	2.21	0	148723	1276	3853	3276
201.71	9987	16805	946	964.8	961.65	960.3	15.65	7.33	25148	0	5.87	3.45	0	147700	2299	3831	3486
201.81	10499	5653	946	965.6	962.35	9999.9	16.35	9.13	33195	0	4.52	0	0	150000	0	3634	3634
201.9	10995	7343	947.2	966.6	962.63	968	15.43	8.04	30666	0	4.89	0	0	150000	0	3816	3816
201.99	11472	15023	948.7	967.9	963.02	9999.9	14.32	7.46	26264	0	5.71	0	0	150000	0	3522	3522
202.09	11981	35148	950	964.4	963.92	973.7	13.92	5.44	20314	3.64	7.27	0	2288	147711	0	3993	3792
202.18	12493	14817	950	964.7	965.4	977.4	15.4	6.88	26270	2.26	5.62	0	2465	147534	0	4213	3881
202.29	13076	8044	955.5	961.8	966.19	9999.9	10.69	8.83	31830	2.12	4.64	0	2285	147714	0	4044	3661
202.37	13475	13973	954.6	970	966.47	974.1	11.87	7.5	23206	3.59	5.96	0	11753	138246	0	3836	3357
202.48	14054	14605	952.5	971.2	967.29	978.5	14.79	7.71	22779	3.56	6.09	0	11331	138668	0	3757	3198
202.59	14620	16305	953.7	969.6	968.1	974	14.4	7.35	21969	4.28	6.39	0	9592	140407	0	3643	3191
202.69	15182	14427	953.7	973.6	969	981.6	15.3	8.2	22353	3.45	6.28	0	9637	140362	0	3689	2913
202.8	15744	11579	956.4	968.8	969.83	973.8	13.43	9.17	24105	3.55	5.75	0	11452	138547	0	3417	2846

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3470 ENCROACHMENT STATIONS=     7970.0   19135.0  TYPE=      1  TARGET=    -7970.000
 ELENCL=    945.00  ELENCR= 100000.00
      .292     12.76    944.76    940.43       .00    945.24       .48       .45       .00    936.00
  243500.0   76705.4  129246.0   37548.6   14994.7   20095.9   16075.0    1671.7     301.4    948.00
      .07      5.12      6.43      2.34      .041      .035      .045      .000    932.00   7970.00
   .001011     515.      500.      485.         1        19         0       .00   9633.82  17639.98


1490 NH CARD USED
*SECNO  .386

3470 ENCROACHMENT STATIONS=     7470.0   17230.0  TYPE=      1  TARGET=    -7470.000
 ELENCL=    950.00  ELENCR= 100000.00
      .386     13.20    945.20    941.25       .00    945.87       .67       .57       .06    940.00
  237000.0   72111.8  157716.3    7171.9   15031.0   21390.6    5414.4    2208.4     408.1    944.00
      .09      4.80      7.37      1.32      .044      .034      .045      .000    932.00   7470.00
   .001290     505.      500.      505.         0        19         0       .00   8797.98  16267.98


1490 NH CARD USED
*SECNO  .481

3470 ENCROACHMENT STATIONS=     6990.0   16265.0  TYPE=      1  TARGET=    -6990.000
 ELENCL=    950.00  ELENCR= 100000.00
      .481     14.02    946.02    942.28       .00    946.57       .54       .68       .01    940.00
  230500.0   87046.6  129590.3   13863.1   17880.1   19141.5    6936.6    2701.5     504.4    944.00
      .12      4.87      6.77      2.00      .045      .037      .045      .000    932.00   6990.00
   .001437     500.      500.      505.         2        14         0       .00   7900.63  14890.63


1490 NH CARD USED
*SECNO  .576

3470 ENCROACHMENT STATIONS=     6560.0   13360.0  TYPE=      1  TARGET=     6800.000
 ELENCL=    950.00  ELENCR=    950.00
      .576     14.73    946.73    943.87       .00    947.31       .58       .73       .01    940.00
  224000.0   87604.8  126547.5    9847.7   19126.0   17734.1    4222.6    3188.5     588.0    944.00
      .14      4.58      7.14      2.33      .045      .037      .045      .000    932.00   6560.00
   .001517     490.      500.      525.         2         9         0       .00   6518.43  13078.42


1
  03DEC95      10:25:05                                                                          PAGE   22


    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


1490 NH CARD USED
*SECNO  .670

3470 ENCROACHMENT STATIONS=     6610.0   13370.0  TYPE=      1  TARGET=     6760.000
 ELENCL=    950.00  ELENCR=    950.00
      .670     15.35    947.35    943.55       .00    947.93       .58       .62       .00    936.00
  217500.0   85122.1  125146.7    7231.2   20775.5   17146.9    3779.5    3659.5     661.8    944.00
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     .17      4.10      7.30      1.91      .045      .034      .045      .000    932.00   6610.00
  .001053     490.      500.      505.         2        14         0       .00   6416.13  13026.13


1490 NH CARD USED
*SECNO  .765

3470 ENCROACHMENT STATIONS=     6760.0   15370.0  TYPE=      1  TARGET=    -6760.000
 ELENCL=    950.00  ELENCR= 100000.00
     .765     15.80    947.80    943.80       .00    948.48       .68       .52       .03    940.00
  211000.0   66162.4  138164.9    6672.8   17153.7   17920.2    2072.8    4113.7     722.8    940.00
     .19      3.86      7.71      3.22      .045      .033      .045      .000    932.00   6760.00
  .001007     510.      500.      460.         2        19         0       .00   4294.64  11054.64


1490 NH CARD USED
*SECNO  .860

3470 ENCROACHMENT STATIONS=     6910.0   10800.0  TYPE=      1  TARGET=     3890.000
 ELENCL=    950.00  ELENCR=    950.00
     .860     16.18    948.18    944.63       .00    949.14       .97       .58       .09    940.00
  204500.0   69923.7  133012.4    1563.9   16105.8   14355.3     783.5    4515.8     771.2    944.00
     .21      4.34      9.27      2.00      .045      .033      .045      .000    932.00   6910.00
  .001296     525.      500.      500.         2        15         0       .00   3890.00  10800.00


1490 NH CARD USED
*SECNO  .955

3265 DIVIDED FLOW


3470 ENCROACHMENT STATIONS=     7040.0   15230.0  TYPE=      1  TARGET=    -7040.000
 ELENCL=    950.00  ELENCR= 100000.00
     .955     17.02    949.02    945.11       .00    949.76       .75       .59       .02    944.00
  198000.0   93716.7  100082.6    4200.7   20358.6   11553.0    3787.8    4896.1     834.6    952.00
     .23      4.60      8.66      1.11      .044      .032      .045      .000    932.00   7040.00
  .001116     490.      500.      505.         2        15         0       .00   7229.74  14581.93


1
  03DEC95      10:25:05                                                                          PAGE   23


   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


1490 NH CARD USED
*SECNO 1.049

3470 ENCROACHMENT STATIONS=     7160.0   10630.0  TYPE=      1  TARGET=     3470.000
 ELENCL=    950.00  ELENCR=    950.00
    1.049     17.58    949.58    946.26       .00    950.45       .87       .65       .04    948.00
  191500.0   89185.0  102315.0        .0   17543.3   11260.8        .0    5262.1     895.4    952.00
     .25      5.08      9.09       .00      .045      .033      .000      .000    932.00   7160.00
  .001559     490.      500.      505.         2        10         0       .00   3421.61  10581.61
```

```
1490 NH CARD USED
*SECNO 1.144

3470 ENCROACHMENT STATIONS=     7290.0   14655.0  TYPE=      1  TARGET=    -7290.000
 ELENCL=    960.00  ELENCR= 100000.00
    1.144     14.33    950.33    948.18       .00    951.51      1.18       .96       .09    948.00
 185000.0   62004.5  122995.5        .0   12343.6   12217.0        .0    5573.6     935.7    956.00
      .26      5.02     10.07       .00      .045      .033      .000      .000    936.00   7290.00
  .002241      515.      500.      505.         2        19         0       .00   3455.82  10745.82


1490 NH CARD USED
*SECNO 1.239

3265 DIVIDED FLOW


3470 ENCROACHMENT STATIONS=     7410.0   14640.0  TYPE=      1  TARGET=    -7410.000
 ELENCL=    960.00  ELENCR= 100000.00
    1.239     15.52    951.52    948.42       .00    952.47       .95       .94       .02    944.00
 185000.0   67654.5  117345.5        .0   13838.0   12898.8        .0    5863.5     974.0    956.00
      .28      4.89     9.10       .00      .045      .032      .000      .000    936.00   7410.00
  .001644      485.      500.      485.         2        15         0       .00   3346.64  10853.19


1490 NH CARD USED
*SECNO 1.333

3265 DIVIDED FLOW


3470 ENCROACHMENT STATIONS=     7530.0   14170.0  TYPE=      1  TARGET=    -7530.000
1
  03DEC95      10:25:05                                                                          PAGE   24


   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


 ELENCL=    960.00  ELENCR= 100000.00
    1.333     16.34    952.34    948.87       .00    953.25       .91       .78       .00    948.00
 185000.0   42180.8  142463.8     355.3    9963.2   16923.9     584.5    6170.6    1024.1    956.00
      .30      4.23      8.42       .61      .045      .033      .045      .000    936.00   7530.00
  .001509      485.      500.      515.         2         9         0       .00   5454.42  13036.88


1490 NH CARD USED
*SECNO 1.428

3470 ENCROACHMENT STATIONS=     7650.0   14685.0  TYPE=      1  TARGET=    -7650.000
 ELENCL=    960.00  ELENCR= 100000.00
    1.428     17.15    953.15    947.70       .00    953.81       .66       .54       .02    952.00
 185000.0   29924.5  151898.4    3177.1    9138.7   21521.1    2072.9    6510.3    1083.4    948.00
      .32      3.27      7.06      1.53      .045      .033      .045      .000    936.00   7650.00
  .000853      470.      500.      525.         2        16         0       .00   4950.38  12600.38
```

1490 NH CARD USED
*SECNO 1.523

3470 ENCROACHMENT STATIONS= 7770.0 13230.0 TYPE= 1 TARGET= -7770.000
ELENCL= 960.00 ELENCR= 100000.00

1.523	17.72	953.72	947.80	.00	954.21	.49	.37	.02	952.00
185000.0	27044.4	151717.1	6238.5	8938.7	25128.9	3366.6	6909.8	1140.5	948.00
.35	3.03	6.04	1.85	.045	.033	.045	.000	936.00	7770.00
.000675	480.	500.	515.	2	17	0	.00	5028.36	12798.36

*SECNO 1.618

3470 ENCROACHMENT STATIONS= 7935.0 13360.0 TYPE= 1 TARGET= -7935.000
ELENCL= 960.00 ELENCR= 100000.00

1.618	14.09	954.09	949.47	.00	954.63	.53	.41	.01	948.00
185000.0	23031.5	159371.3	2597.3	7017.9	25747.9	1925.1	7340.7	1198.9	952.00
.37	3.28	6.19	1.35	.045	.033	.045	.000	940.00	7951.61
.000899	615.	505.	385.	0	11	0	.00	5110.17	13061.78

*SECNO 1.712

3470 ENCROACHMENT STATIONS= 7910.0 14600.0 TYPE= 1 TARGET= -7910.000
ELENCL= 960.00 ELENCR= 100000.00

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
1.712	14.58	954.58	949.43	.00	955.06	.47	.42	.01	948.00
185000.0	15721.1	167982.4	1296.5	4942.4	29476.5	1232.2	7744.8	1255.7	952.00
.40	3.18	5.70	1.05	.045	.033	.045	.000	940.00	7934.15
.000800	550.	495.	410.	2	23	0	.00	5094.88	13029.04

*SECNO 1.807

1.807	15.01	955.01	950.85	.00	955.57	.55	.49	.02	944.00
185000.0	16748.8	166272.9	1978.3	4200.8	26932.2	1602.5	8144.3	1314.8	952.00
.42	3.99	6.17	1.23	.045	.033	.045	.000	940.00	7927.48
.001145	610.	500.	360.	1	19	0	.00	5695.98	13623.46

*SECNO 1.902

1.902	11.58	955.58	951.90	.00	956.17	.60	.59	.01	948.00
185000.0	21020.6	161165.5	2814.0	4898.7	24911.3	1637.9	8510.5	1375.3	952.00
.44	4.29	6.47	1.72	.045	.033	.045	.000	944.00	8021.06
.001248	460.	500.	555.	2	11	0	.00	4660.13	12681.19

*SECNO 2.015

3470 ENCROACHMENT STATIONS= 8600.0 12669.5 TYPE= 1 TARGET= -8600.000
ELENCL= 960.00 ELENCR= 100000.00

```
    2.015      14.29     956.29     953.27       .00     957.31       1.02       1.01        .13     952.00
 185000.0    30571.5   154375.5       53.0    4334.5    18629.6       80.2     8885.2     1430.4     956.00
      .46       7.05       8.29        .66      .045       .033       .045       .000     942.00    8600.00
  .002282       585.       600.       650.         1          8          0        .00    3266.93   11866.93


*SECNO 2.110
    2.110      13.44     957.44     955.04       .00     958.66       1.22       1.29        .06     950.00
 185000.0    41833.8   143166.2         .0    6221.7    15247.9         .0     9131.1     1466.6     958.00
      .48       6.72       9.39        .00      .045       .033       .000       .000     944.00    8113.04
  .003054       420.       500.       560.         2         15          0        .00    3277.55   11390.59


*SECNO 2.205

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.53

    2.205      14.87     958.87     954.72       .00     959.64        .77        .93        .05     950.00
 185000.0    41594.5   143306.8       98.7    9017.8    18895.3      143.9     9419.9     1506.6     958.00
      .50       4.61       7.58        .69      .045       .033       .045       .000     944.00    7939.71
  .001307       515.       505.       500.         2         16          0        .00    3574.39   11514.10


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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 2.299
    2.299      15.46     959.46     955.46       .00     960.31        .86        .65        .03     952.00
 185000.0    33239.6   151733.4       26.9    8140.7    19041.7       27.6     9733.9     1545.4     958.00
      .52       4.08       7.97        .97      .045       .033       .045       .000     944.00    7880.82
  .001327       495.       495.       500.         2         19          0        .00    3239.32   11120.13


*SECNO 2.394

3470 ENCROACHMENT STATIONS=          .0   11770.0  TYPE=      1  TARGET=    11770.000
    2.394      16.16     960.16     955.97       .00     960.96        .81        .64        .00     952.00
 185000.0    29217.6   155767.6       14.8    7181.9    20337.1       44.2    10046.5     1583.4     960.00
      .54       4.07       7.66        .34      .045       .033       .045       .000     944.00    8013.95
  .001261       490.       500.       500.         2         16          0        .00    3451.41   11465.35


*SECNO 2.489
    2.489      14.77     960.77     957.08       .00     961.68        .91        .69        .03     954.00
 185000.0    17985.6   166965.4       49.0    5051.4    20956.6       72.1    10350.9     1622.9     960.00
      .56       3.56       7.97        .68      .045       .033       .045       .000     946.00    7927.85
  .001506       475.       500.       515.         2         19          0        .00    3532.10   11459.95


*SECNO 2.586

3265 DIVIDED FLOW
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    2.586     15.60    961.60    957.05       .00    962.37       .77       .67       .01    954.00
 185000.0   17128.5  167593.9     277.7    5046.7   22924.4     220.4   10673.9    1665.3    960.00
      .58      3.39      7.31      1.26      .045      .033      .045      .000    946.00   7785.14
  .001150      535.      515.      485.         2        20         0       .00   3564.52  11573.31


*SECNO 2.679

3265 DIVIDED FLOW

    2.679     16.23    962.23    956.72       .00    962.88       .65       .50       .01    960.00
 185000.0   11395.5  173604.5        .0    4355.7   26106.1        .0   11012.3    1708.4    970.00
      .60      2.62      6.65       .00      .045      .033      .000      .000    946.00   7819.90
  .000881      570.      490.      425.         2        19         0       .00   3715.54  11609.91


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  03DEC95      10:25:05                                                                          PAGE   27


    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 2.775

3265 DIVIDED FLOW


3470 ENCROACHMENT STATIONS=     7500.0   11700.0  TYPE=      1  TARGET=     4200.000
 ELENCL=    970.00  ELENCR=    970.00
    2.775     14.72    962.72    958.80       .00    963.62       .90       .67       .08    954.00
 185000.0   19245.3  165754.7        .0    4450.0   20937.3        .0   11338.1    1751.9    970.00
      .62      4.32      7.92       .00      .045      .033      .000      .000    948.00   7684.54
  .001771      525.      505.      485.         1        23         0       .00   3683.60  11626.93


*SECNO 2.869

3265 DIVIDED FLOW


3470 ENCROACHMENT STATIONS=     7500.0   11770.0  TYPE=      1  TARGET=     4270.000
 ELENCL=    970.20  ELENCR=    972.20
    2.869     13.65    963.65    960.20       .00    964.50       .85       .87       .01    962.00
 185000.0    4406.9  180593.0        .0    1491.1   24152.1        .0   11630.6    1793.9    972.00
      .64      2.96      7.48       .00      .045      .033      .000      .000    950.00   7573.48
  .001704      495.      500.      500.         2        19         0       .00   3660.24  11717.06


CCHV=     .100 CEHV=     .300
*SECNO 2.964

3265 DIVIDED FLOW


3470 ENCROACHMENT STATIONS=     7500.0   11815.0  TYPE=      1  TARGET=     4315.000
 ELENCL=    975.00  ELENCR=    975.00
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    2.964      14.55     964.55     961.55       .00     965.41       .86       .91       .00    966.00
 185000.0     4904.2  180095.8         .0     1416.4   23890.9        .0   11921.5    1837.4    978.00
      .65       3.46       7.54        .00       .045      .033      .000      .000    950.00   7521.61
  .001968       455.       500.       520.          2        12         0       .00   4052.19  11765.61


*SECNO 3.059

3470 ENCROACHMENT STATIONS=     7260.0   12514.7  TYPE=      1  TARGET=    -7260.000
1
   03DEC95      10:25:05                                                                          PAGE   28


    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


 ELENCL=    975.00  ELENCR= 100000.00

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=       962.00 ELREA=       980.00

    3.059      13.54     965.54     962.34       .00     966.30       .76       .87       .01    962.00
 185000.0     9291.7  175708.3         .0     2787.9   24595.8        .0   12223.9    1883.5    980.00
      .67       3.33       7.14        .00       .045      .033      .000      .000    952.00   7794.05
  .001573       500.       500.       500.          2        16         0       .00   3980.77  11774.82


*SECNO 3.153

3470 ENCROACHMENT STATIONS=     7200.0   11252.8  TYPE=      1  TARGET=     4052.760
 ELENCL=    975.00  ELENCR=    975.00

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=       968.00 ELREA=       970.00

    3.153      14.22     966.22     963.61       .00     967.44      1.22      1.00       .14    968.00
 185000.0        .0  185000.0         .0        .0   20875.7        .0   12498.3    1921.2    970.00
      .69        .00       8.86        .00       .000      .033      .000      .000    952.00   8514.01
  .002583       420.       500.       560.          2        15         0       .00   2730.57  11244.58


*SECNO 3.248
3280 CROSS SECTION      3.25 EXTENDED       .47 FEET


3470 ENCROACHMENT STATIONS=     7125.0   11046.3  TYPE=      1  TARGET=     3921.320
 ELENCL=    975.00  ELENCR=    984.96

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=       970.00 ELREA=       971.00

    3.248      11.47     967.47     965.35       .00     968.95      1.48      1.43       .08    970.00
 185000.0        .0  185000.0         .0        .0   18963.5        .0   12727.0    1951.2    971.00
      .70        .00       9.76        .00       .000      .033      .000      .000    956.00   8541.46
  .003154       480.       500.       520.          2        14         0       .00   2493.18  11034.64


*SECNO 3.343
3280 CROSS SECTION      3.34 EXTENDED       .08 FEET
```

3470 ENCROACHMENT STATIONS= 7300.0 11062.5 TYPE= 1 TARGET= 3762.470

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

ELENCL= 985.00 ELENCR= 985.04

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 970.00 ELREA= 971.50

3.343	13.08	969.08	965.52	.00	970.15	1.07	1.16	.04	970.00
185000.0	.0	185000.0	.0	.0	22255.4	.0	12963.5	1979.8	971.50
.72	.00	8.31	.00	.000	.033	.000	.000	956.00	8574.62
.001837	530.	500.	522.	2	15	0	.00	2481.79	11056.41

*SECNO 3.438

3280 CROSS SECTION 3.44 EXTENDED .05 FEET

3470 ENCROACHMENT STATIONS= 7400.0 10921.3 TYPE= 1 TARGET= 3521.250

ELENCL= 985.00 ELENCR= 978.00

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 970.00 ELREA= 972.00

3.438	14.06	970.06	967.38	.00	971.20	1.14	1.02	.02	970.00
185000.0	14255.8	170744.2	.0	3277.2	19323.7	.0	13221.7	2014.4	972.00
.74	4.35	8.84	.00	.045	.033	.000	.000	956.00	7400.00
.002279	520.	500.	490.	2	12	0	.00	3512.64	10912.64

*SECNO 3.532

3470 ENCROACHMENT STATIONS= 7460.0 10784.8 TYPE= 1 TARGET= 3324.840

ELENCL= 985.00 ELENCR= 985.00

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 968.00 ELREA= 973.00

3.532	13.29	971.29	968.21	.00	972.19	.90	.96	.02	968.00
185000.0	19184.5	165815.5	.0	4602.8	20950.3	.0	13494.9	2052.8	973.00
.76	4.17	7.91	.00	.045	.033	.000	.000	958.00	7460.00
.001683	465.	500.	495.	2	10	0	.00	3318.46	10778.46

*SECNO 3.627

3470 ENCROACHMENT STATIONS= .0 10700.0 TYPE= 1 TARGET= 10700.000

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= 969.00 ELREA= 973.00

3.627	14.19	972.19	968.05	.00	972.95	.76	.75	.01	969.00
185000.0	1819.6	183180.4	.0	1124.8	26014.1	.0	13798.0	2095.1	973.00
.78	1.62	7.04	.00	.045	.033	.000	.000	958.00	6672.76
.001360	510.	500.	460.	2	11	0	.00	4020.88	10693.65

*SECNO 3.721

3470 ENCROACHMENT STATIONS= 6470.0 10675.0 TYPE= 1 TARGET= 4205.000
ELENCL= 985.00 ELENCR= 978.00

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 972.00 ELREA= 974.00

3.721	16.88	972.88	968.41	.00	973.50	.62	.53	.01	972.00
185000.0	309.1	184690.9	.0	381.6	29284.1	.0	14092.8	2137.3	974.00
.80	.81	6.31	.00	.045	.033	.000	.000	956.00	6819.81
.001035	530.	450.	495.	2	10	0	.00	3848.54	10668.36

*SECNO 3.813

3470 ENCROACHMENT STATIONS= 6320.0 14090.4 TYPE= 1 TARGET= -6320.000
ELENCL= 985.00 ELENCR= 100000.00

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 970.00 ELREA= 975.00

3.813	15.37	973.37	969.34	.00	974.13	.76	.59	.04	970.00
185000.0	2240.9	182759.0	.0	929.3	26023.9	.0	14412.4	2179.3	975.00
.81	2.41	7.02	.00	.045	.033	.000	.000	958.00	7244.18
.001360	570.	490.	445.	2	20	0	.00	3434.22	10678.41

*SECNO 3.908

3470 ENCROACHMENT STATIONS= 7520.0 10641.0 TYPE= 1 TARGET= 3121.000
ELENCL= 985.00 ELENCR= 981.00

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 972.00 ELREA= 975.00

3.908	14.03	974.03	970.27	.00	974.84	.81	.70	.01	972.00
185000.0	3042.8	181957.2	.0	999.1	25077.3	.0	14717.5	2217.1	975.00
.83	3.05	7.26	.00	.045	.033	.000	.000	960.00	7520.00
.001433	530.	500.	460.	2	17	0	.00	3118.45	10638.45

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

*SECNO 4.001

3470 ENCROACHMENT STATIONS= 7650.0 10630.0 TYPE= 1 TARGET= 2980.000
ELENCL= 985.00 ELENCR= 980.00

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 985.00 ELREA= 976.00

4.001	14.74	974.74	971.27	.00	975.65	.91	.78	.03	985.00
185000.0	.0	185000.0	.0	.0	24155.6	.0	15000.6	2251.5	976.00
.85	.00	7.66	.00	.000	.033	.000	.000	960.00	7650.00
.001774	540.	490.	420.	2	15	0	.00	2968.49	10618.49

*SECNO 4.095

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 7780.0 10611.0 TYPE= 1 TARGET= 2831.000
ELENCL= 985.00 ELENCR= 981.00

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 985.00 ELREA= 978.00

4.095	13.56	975.56	972.29	.00	976.66	1.11	.95	.06	985.00
185000.0	.0	185000.0	.0	.0	21917.9	.0	15262.3	2283.2	978.00
.87	.00	8.44	.00	.000	.033	.000	.000	962.00	7780.00
.002078	600.	495.	450.	0	19	0	.00	2615.86	10607.57

*SECNO 4.189

3470 ENCROACHMENT STATIONS= 7920.0 10590.0 TYPE= 1 TARGET= 2670.000
ELENCL= 985.00 ELENCR= 980.00

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 985.00 ELREA= 979.00

4.189	16.65	976.65	972.74	.00	977.60	.95	.92	.02	985.00
185000.0	.0	185000.0	.0	.0	23701.5	.0	15524.2	2313.5	979.00
.89	.00	7.81	.00	.000	.033	.000	.000	960.00	7920.00
.001637	575.	500.	495.	2	12	0	.00	2661.87	10581.87

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 4.284

3301 HV CHANGED MORE THAN HVINS

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 5.41

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3470 ENCROACHMENT STATIONS=     8050.0   13628.9  TYPE=      1  TARGET=    -8050.000
 ELENCL=    985.00  ELENCR= 100000.00
    4.284     45.60    977.60    941.43       .00    977.73       .13       .05       .08    985.00
 185000.0        .0 185000.0        .0        .0   64020.0        .0   16027.6    2343.3    983.00
      .93       .00      2.89       .00      .000      .033      .000      .000    932.00   8050.00
  .000056      580.      500.      480.         1        11         0       .00   2531.01  10581.01


*SECNO 4.379

3470 ENCROACHMENT STATIONS=     8190.0   10665.0  TYPE=      1  TARGET=     2475.000
 ELENCL=    985.00  ELENCR=    985.00
    4.379     45.64    977.64    941.03       .00    977.76       .11       .02       .00    985.00
 185000.0        .0 185000.0        .0        .0   68904.0        .0   16790.5    2371.3    984.00
      .99       .00      2.68       .00      .000      .033      .000      .000    932.00   8190.00
  .000039      585.      500.      420.         2        21         0       .00   2341.55  10531.55


*SECNO 4.473

3470 ENCROACHMENT STATIONS=     8310.0   13289.0  TYPE=      1  TARGET=    -8310.000
 ELENCL=    985.00  ELENCR= 100000.00
    4.473     45.67    977.67    940.12       .00    977.78       .10       .02       .00    985.00
 185000.0        .0 185000.0        .0        .0   72143.8        .0   17600.0    2397.8    984.00
     1.04       .00      2.56       .00      .000      .033      .000      .000    932.00   8310.00
  .000033      480.      500.      420.         0        21         0       .00   2278.34  10588.34


*SECNO 4.568
    4.568     45.71    977.71    939.46       .00    977.79       .08       .01       .00    972.00
 185000.0     244.1 184755.9        .0     568.7   80105.5        .0   18477.2    2424.4    982.00
     1.10       .43      2.31       .00      .045      .033      .000      .000    932.00   8279.09
  .000022      520.      500.      490.         1        20         0       .00   2344.14  10623.23


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  03DEC95      10:25:05                                                                          PAGE   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 4.663

3265 DIVIDED FLOW


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


3470 ENCROACHMENT STATIONS=     8200.0   10650.0  TYPE=      1  TARGET=     2450.000
 ELENCL=    990.00  ELENCR=    990.00
    4.663     45.68    977.68    941.25       .00    977.83       .15       .02       .02    978.00
 185000.0        .0 185000.0        .0        .0   60518.5        .0   19287.4    2449.4    986.00
     1.15       .00      3.06       .00      .000      .033      .000      .000    932.00   8458.03
  .000050      490.      500.      460.         2        21         0       .00   2015.89  10619.69
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*SECNO 4.758
3280 CROSS SECTION      4.76 EXTENDED      3.76 FEET


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.46


3470 ENCROACHMENT STATIONS=     8860.0   11030.0  TYPE=      1  TARGET=     2170.000
 ELENCL=    990.00  ELENCR=    990.00
     4.758     45.76    977.76    939.57       .00    977.85       .09       .02       .01    990.00
  185000.0        .0 185000.0        .0        .0   77014.3        .0  20076.8    2472.8    986.00
     1.20       .00      2.40       .00      .000      .033      .000      .000    932.00   8860.00
   .000023      450.      500.      390.         2        20         0       .00   2069.18  10929.18


*SECNO 4.852

3470 ENCROACHMENT STATIONS=     8770.0   11050.0  TYPE=      1  TARGET=     2280.000
 ELENCL=    995.00  ELENCR=    995.00
     4.852     45.79    977.79    939.09       .00    977.86       .07       .01       .00    994.00
  185000.0        .0 185000.0        .0        .0   85524.5        .0  21009.6    2496.5    986.00
     1.27       .00      2.16       .00      .000      .033      .000      .000    932.00   8917.71
   .000016      410.      500.      525.         1        20         0       .00   2054.98  10972.69


*SECNO 4.947
     4.947     45.79    977.79    939.09       .00    977.87       .08       .01       .00    984.00
  185000.0        .0 185000.0        .0        .0   84149.2        .0  21983.4    2520.6    992.00
     1.33       .00      2.20       .00      .000      .033      .000      .000    932.00   8728.31
   .000018      520.      500.      470.         0        20         0       .00   2146.27  10874.58


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   03DEC95      10:25:05                                                                          PAGE   34


    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 5.042
     5.042     45.81    977.81    938.97       .00    977.88       .07       .01       .00    986.00
  185000.0        .0 185000.0        .0        .0   87891.1        .0  22970.8    2545.5    992.00
     1.40       .00      2.10       .00      .000      .033      .000      .000    932.00   8567.98
   .000016      460.      500.      510.         0        20         0       .00   2195.76  10763.74


*SECNO 5.136

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .32


3470 ENCROACHMENT STATIONS=     8550.0   10700.0  TYPE=      1  TARGET=     2150.000
 ELENCL=    995.00  ELENCR=    995.00
     5.136     45.57    977.57    946.71       .00    978.02       .45       .02       .11    980.00
  185000.0        .0 185000.0        .0        .0   34376.9        .0  23672.5    2564.7    995.00
```

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     1.42       .00      5.38       .00      .000      .033      .000      .000    932.00   9536.59
  .000154      420.      500.      530.         2        17         0       .00   1137.33  10673.92


*SECNO 5.231

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     8650.0   11050.0  TYPE=      1  TARGET=     2400.000
 ELENCL=    990.00  ELENCR=    990.00
     5.231     12.37    985.37    985.37       .00    988.85      3.48      2.72      -.41    980.00
  185000.0   13643.9  170661.1     695.0    2492.0   11000.6     367.0   23948.0    2584.5    984.00
     1.43      5.48     15.51      1.89      .045      .033      .045      .000    973.00   8650.00
  .005459      450.      500.      530.         0        14         0       .00   2366.77  11016.77


*SECNO 5.326

3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.75

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   03DEC95      10:25:05                                                                                PAGE   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


3470 ENCROACHMENT STATIONS=     8520.0   11270.0  TYPE=      1  TARGET=     2750.000
 ELENCL=    990.00  ELENCR=    990.00
     5.326     15.82    988.82    985.31       .00    990.37      1.55      1.32       .19    980.00
  185000.0   30646.7  153559.0     794.3    6140.6   14302.3     650.1   24143.3    2612.5    988.00
     1.45      4.99     10.74      1.22      .045      .033      .045      .000    973.00   8520.00
  .001777      450.      500.      470.         2         5         0       .00   2750.00  11270.00


*SECNO 5.420

3470 ENCROACHMENT STATIONS=     8500.0   10960.0  TYPE=      1  TARGET=     2460.000
 ELENCL=   1000.00  ELENCR=   1000.00
     5.420     13.91    989.91    985.78       .00    991.20      1.29       .81       .03    980.00
  185000.0   36827.2  146535.7    1637.1    7325.8   14773.7     853.4   24395.4    2641.8    988.00
     1.46      5.03      9.92      1.92      .045      .033      .045      .000    976.00   8500.00
  .001480      500.      500.      460.         2        14         0       .00   2460.00  10960.00


*SECNO 5.515

3301 HV CHANGED MORE THAN HVINS
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3470 ENCROACHMENT STATIONS=     8400.0   12340.0  TYPE=      1  TARGET=    -8400.000
 ELENCL=   1000.00  ELENCR= 100000.00
     5.515     15.01    991.01    984.45       .00    991.74       .72       .48       .06    976.00
  185000.0   55216.3  129783.7        .0   12308.6   17099.1        .0   24664.4    2666.1    992.00
      1.48      4.49      7.59       .00      .045      .033      .000      .000    976.00   8400.00
   .000786      360.      500.      500.         2        14         0       .00   2367.54  10767.54


*SECNO 5.610

3470 ENCROACHMENT STATIONS=     8350.0   12050.0  TYPE=      1  TARGET=    -8350.000
 ELENCL=    995.00  ELENCR= 100000.00
     5.610     15.41    991.41    984.51       .00    992.07       .66       .33       .01    976.00
  185000.0   39491.4  145508.6        .0   10785.8   20567.3        .0   24968.0    2689.8    992.00
      1.50      3.66      7.07       .00      .045      .033      .000      .000    976.00   8350.00
   .000655      330.      500.      560.         2        11         0       .00   2598.90  10948.90


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   03DEC95      10:25:05                                                                          PAGE   36


    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 5.705

3470 ENCROACHMENT STATIONS=     8290.0   11850.0  TYPE=      1  TARGET=    -8290.000
 ELENCL=    995.00  ELENCR= 100000.00
     5.705     15.64    991.64    986.05       .00    992.51       .87       .38       .06    980.00
  185000.0   70077.3  114417.4     505.3   14075.5   13209.3     314.8   25258.1    2714.9    988.00
      1.52      4.98      8.66      1.61      .045      .033      .045      .000    976.00   8404.04
   .001064      330.      500.      560.         2        14         0       .00   2728.89  11132.93


*SECNO 5.799

3470 ENCROACHMENT STATIONS=     8200.0   11510.0  TYPE=      1  TARGET=    -8200.000
 ELENCL=    995.00  ELENCR= 100000.00
     5.799     16.07    992.07    986.62       .00    993.06      1.00       .52       .04    984.00
  185000.0   41915.8  142832.8     251.4   10272.2   16147.1     144.6   25557.8    2745.0    988.00
      1.54      4.08      8.85      1.74      .045      .033      .045      .000    976.00   8212.92
   .001062      460.      500.      510.         0        14         0       .00   2775.23  10988.15


*SECNO 5.894

3301 HV CHANGED MORE THAN HVINS


3470 ENCROACHMENT STATIONS=     8120.0   11240.0  TYPE=      1  TARGET=    -8120.000
 ELENCL=    995.00  ELENCR= 100000.00
     5.894     16.33    992.33    989.41       .00    993.95      1.62       .70       .19    984.00
  185000.0   29240.3  153944.7    1815.1    7280.6   13922.9     747.6   25846.1    2779.3    988.00
      1.55      4.02     11.06      2.43      .045      .033      .045      .000    976.00   8190.23
   .001759      550.      500.      480.         2        15         0       .00   2902.95  11093.18
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202.9	16289	12797	956.5	968.2	970.44	973.7	13.94	8.92	22790	3.33	6.16	0	9602	140397	0	3252	2730
202.99	16751	17183	959.2	969.3	971.03	970.2	11.83	8.5	20895	3.33	6.83	0.92	7368	142630	1	3252	2584
203.09	17271	21536	958.7	971.4	971.97	9999.9	13.27	7.93	19120	3.92	7.28	0	10872	139127	0	3183	2599
203.19	17794	17857	956.7	971.9	973.15	976.5	16.45	7.72	20850	4.6	6.58	0	12904	137095	0	3454	2954
203.29	18345	15479	960.7	972.5	974.03	976.7	13.33	6.99	21132	3.74	6.8	0	6389	143610	0	3365	3157
203.39	18850	13008	959.9	973	974.78	975.6	14.88	7.21	22120	2.98	6.61	0	3862	146137	0	3251	3149
203.48	19355	12526	962.2	974	975.47	979.4	13.27	7.55	22302	3.41	6.46	0	6027	143972	0	3445	3078
203.58	19876	10008	962.1	975.9	976.06	9999.9	13.96	9.1	23465	1.74	6.34	0	1145	148854	0	2992	2598
203.67	20362	9041	962.3	975.3	976.52	982.2	14.22	9.69	22875	2.61	6.37	0	4186	145813	0	2859	2428
203.77	20858	9434	963.3	981.8	977.03	9999.9	13.73	9.89	24750	0	6.06	0	0	150000	0	2503	2503
203.86	21357	9295	962.3	982.7	977.45	9999.9	15.15	10.61	23244	0	6.45	0	0	150000	0	2190	2190
203.96	21858	53062	964.1	983.6	977.51	9999.9	13.41	6.3	13658	0	10.98	0	0	150000	0	2169	2169
204.05	22361	17194	965	986.9	979.85	983.8	14.85	8.72	18428	0	8.14	0	0	150000	0	2114	2114
204.15	22869	9559	966	985.3	980.82	985.3	14.82	10.37	22016	0	6.81	0	0	150000	0	2123	2123
204.25	23378	29488	968	982.6	981.06	989.6	13.06	7.61	15075	5.49	9.88	0	1099	148900	0	2008	1996
204.34	23867	56867	969.3	984.6	982.74	991	13.44	7.04	13538	0	11.08	0	0	150000	0	1924	1924
204.42	24315	32729	971.4	984.6	985.05	9999.9	13.65	8.97	14926	4.11	9.95	0	1420	148579	0	1802	1680
204.53	24873	20383	972.7	983.5	986.73	9999.9	14.03	11.61	15214	5.03	9.31	0	8411	141588	0	1674	1388
204.61	25303	13832	972.6	983.1	987.73	9999.9	15.13	13.67	13833	5.47	8.67	0	30085	119914	0	1830	1265
204.68	25680	9809	971.4	985	988.47	990.6	17.07	13.96	17127	4.63	7.29	0	25167	124832	0	2013	1474
204.78	26183	4840	967.6	983	989.15	9999.9	21.55	15.61	22507	3.55	5.53	0	25466	124533	0	2401	1737

APPENDIX C

QUASED

From "Concept Report Flood Mitigation Study At The 91st Avenue Wastewater Treatment Plant" SLA, 1994
"Study For Flood Control Alternatives To Cliff Dam" USACOE, 1988

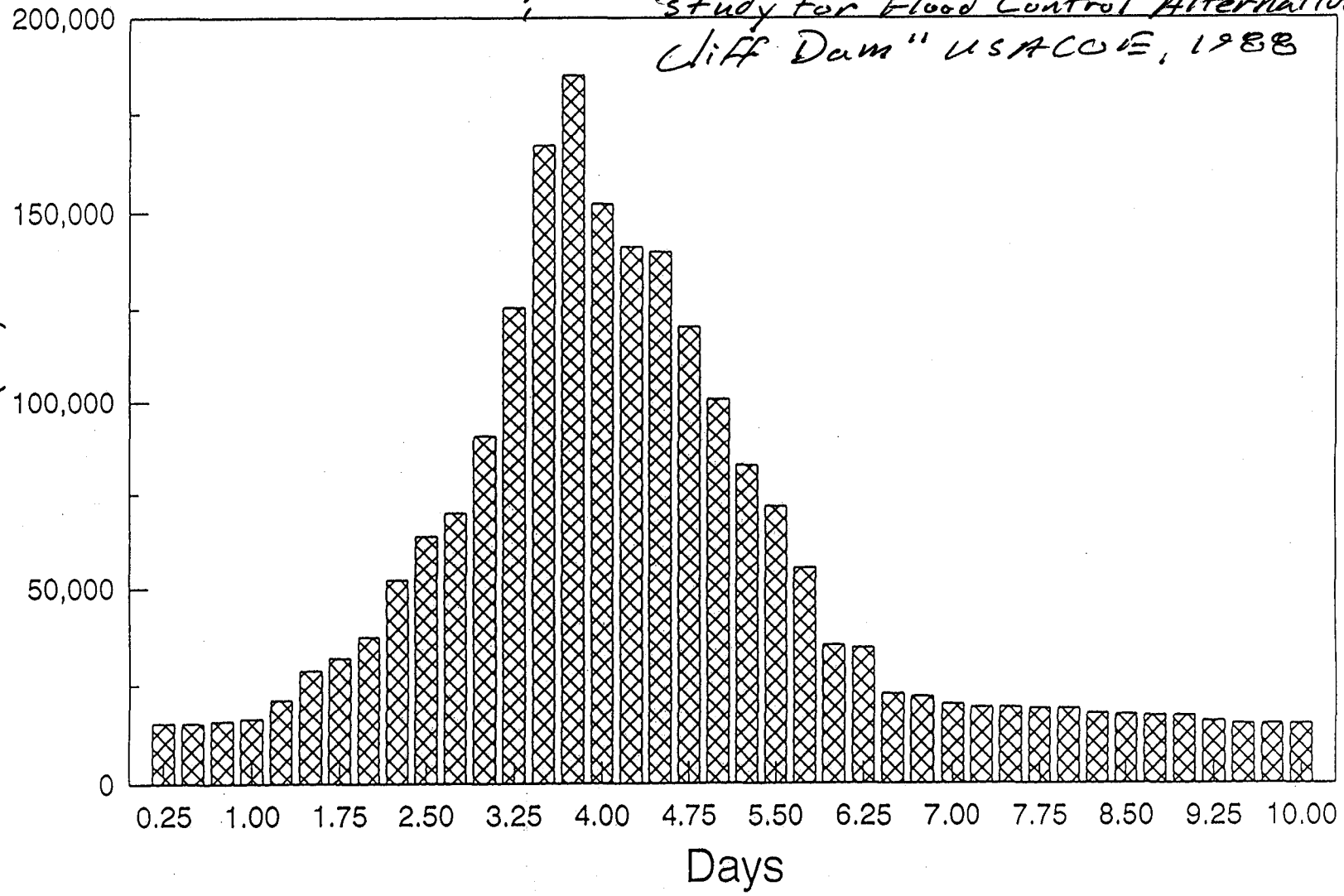

Figure No. 9. Corps Balanced Flood Hydrograph

REACH	SECNO	RUN 1	RUN 2	RUN 3	RUN 4	RUN 5	RUN 6	RUN 7	RUN 8	RUN 9	RUN 10	RUN 11	RUN 12	RUN 13	RUN 14	RUN 15	RUN 16	RUN 17	RUN 18	RUN 19	RUN 20
1	6.27	976	976	976	976	976	976	976	976	976	976	976	976	976	976	976	976	976	976	976	976
1	6.18	976	976	976	976	976	976	976	976	976	976	976	976	976	976	976	976	976	976	976	976
1	6.08	976	976	976	976	976	976	976	976	976	976	976	976	976	976	976	976	976	976	976	976
2	5.99	976	976	976	976	976	976	976	975.8	975.7	975.6	975.5	975.3	975.2	975	974.8	974.6	974.4	974.3	974.2	974.1
2	5.89	976	976	976	976	976	976	975.9	975.8	975.7	975.5	975.3	975	974.8	974.3	973.9	973.5	973.2	973	972.8	972.6
3	5.8	976	976	976	976	976	976	976	976	975.9	975.8	975.6	975.4	975.2	974.9	974.6	974.3	974.1	973.9	973.8	973.7
3	5.7	976	976	976	976	976	976	976	976	975.8	975.6	975.4	975.2	974.9	974.5	974.2	973.8	973.7	973.5	973.3	973.2
4	5.61	976	976	976	976	976	976	976	976	976.1	976.2	976.3	976.3	976.4	976.4	976.2	976	975.6	975.3	975.1	974.8
4	5.51	976	976	976	976	976	976	976	976.2	976.3	976.5	976.7	976.7	976.8	976.7	976.5	976.2	975.8	975.5	975.2	974.8
5	5.42	976	976	975.8	975.8	975.7	975.5	975.4	975.2	975	974.7	974.4	974.1	973.8	973.3	972.5	971.7	971.3	970.8	970.3	969.9
5	5.33	973	973	972.8	972.8	972.7	972.5	972.4	972.3	972.1	971.8	971.7	971.4	971.2	970.8	970.2	969.7	969.3	968.9	968.5	968.2
5	5.23	973	973	972.8	972.8	972.7	972.5	972.4	972.2	972	971.7	971.4	971.1	970.8	970.3	969.5	968.8	968.4	968	967.5	967.1
6	5.14	932	932.1	932.2	932.3	932.4	932.6	933	933.3	933.3	933.1	933.1	933.5	934	934.5	935.3	936.4	937.9	939.5	941.2	942.9
6	5.04	932	932.1	932.2	932.3	932.4	932.5	932.7	932.8	932.8	932.7	932.7	932.9	933.1	933.3	933.7	934.2	934.8	935.5	936.2	936.9
7	4.95	932	932	932	932	932	932	932	932.1	932.4	933	933.6	934.1	934.7	935.9	937.9	940.3	942.1	943.8	945.6	946.9
7	4.85	932	932	932	932	932	932	932	932.1	932.4	933	933.6	934.1	934.7	935.9	938	940.5	942.1	943.7	945.4	946.7
8	4.76	932	932	932	932	932	932	932	932	932	932	932	932	932	932	932	932	932	932	932	932
8	4.66	932	932	932	932	932	932	932	932	932	932	932	932	932	932	932	932	932	932	932	932
9	4.57	932	932	932	932	932	932	932	932	932	932	932	932	932	932	932	932	932	932	932	932
9	4.47	932	932	932	932	932	932	932	932	932	932	932	932	932	932	932	932	932	932	932	932
10	4.38	932	932	932	932	932	932	932	932	932	932	932	932	932	932	932	932	932	932	932	932
10	4.28	932	932	932	932	932	932	932	932	932	932	932	932	932	932	932	932	932	932	932	932
11	4.19	960	960	960	960	960	960	960	960	960	960	959.8	959.7	959.6	959.4	959.1	958.8	958.8	958.7	958.6	958.5
11	4.09	962	962	962	962	962	962	962	962	962	961.9	961.8	961.7	961.6	961.4	961.1	960.9	960.8	960.7	960.6	960.5
11	4	960	960	960	960	960	960	960	960	960	959.9	959.8	959.7	959.6	959.4	959.2	959	958.9	958.8	958.7	958.7
12	3.91	960	960	960	960	960	960	960	960	960	960	960	960	959.9	959.8	959.6	959.4	959.3	959.1	959	958.9
12	3.81	958	958	958	958	958	958	958	958	958	958	958	958	957.9	957.8	957.6	957.4	957.2	957.1	957	956.9
12	3.72	956	956	956	956	956	956	956	956	956	956	956	956	955.9	955.8	955.6	955.4	955.3	955.2	955.1	955
13	3.63	958	958	958	958	958	958	958	958	958	958	957.9	957.8	957.7	957.6	957.4	957.2	957.1	957	956.9	956.8
13	3.53	958	958	958	958	958	958	958	958	958	958	957.9	957.8	957.7	957.6	957.4	957.2	957	956.9	956.8	956.7
13	3.44	956	956	956	956	956	956	956	956	956	956	955.9	955.8	955.7	955.6	955.4	955.1	954.9	954.8	954.6	954.5
14	3.34	956	956	956	956	956	956	956	955.8	955.7	955.6	955.5	955.4	955.3	955	954.8	954.6	954.5	954.4	954.3	954.3
14	3.25	956	956	956	956	956	956	955.9	955.8	955.7	955.6	955.5	955.4	955.3	955.1	954.8	954.6	954.5	954.4	954.3	954.3
14	3.15	952	952	952	952	952	952	951.9	951.8	951.7	951.6	951.5	951.4	951.3	951.1	950.8	950.6	950.5	950.4	950.3	950.3
15	3.06	952	952	952	952	952	952	952	952	952	952.2	952.2	952.2	952.2	952.2	952.3	952.3	952.2	952.1	952	951.9
15	2.96	950	950	950	950	950	950	950	950	950	950.1	950.1	950.1	950.1	950.1	950.2	950.2	950.1	950	949.9	949.8
16	2.87	950	950	950	950	950	950	950	950	949.9	949.8	949.8	949.8	949.8	949.9	949.9	949.8	949.7	949.6	949.5	949.4
16	2.78	948	948	948	948	948	948	948	948	948	947.8	947.8	947.8	947.8	947.9	947.9	947.8	947.7	947.6	947.5	947.4
17	2.68	946	946	946	946	946	946.1	946.2	946.3	946.4	946.6	946.8	947	947.2	947.3	947.2	947.1	947	947.1	947	947
17	2.59	946	946.1	946.2	946.3	946.4	946.5	946.6	946.7	946.8	947	947.2	947.4	947.6	947.7	947.6	947.5	947.4	947.4	947.3	947.3
18	2.49	946	946	946	946	946	946	946	946	946	946	946	946	946	946	945.9	945.8	945.8	945.8	945.8	945.8
18	2.39	944	944	944	944	944	944	944	944	944	944	944	944	944	944	943.9	943.8	943.8	943.8	943.8	943.8
19	2.3	944	944	944	944	944	944	944	944	944	944	944.2	944.3	944.4	944.5	944.4	944.3	944.3	944.4	944.4	944.4
19	2.2	944	944	944	944	944	944	944	944	944	944	944.1	944.2	944.3	944.3	944.3	944.2	944.3	944.2	944.2	944.2
20	2.11	944	944	943.9	943.8	943.8	943.8	943.7	943.6	943.5	943.3	943.1	943	942.9	942.8	942.7	942.6	942.7	942.7	942.7	942.7
20	2.02	942	942	942	942	942	941.9	941.8	941.7	941.6	941.4	941.3	941.1	941	940.9	940.8	940.7	940.8	940.8	940.8	940.8
21	1.9	944	944	944	944	944	944	944	944	944	944.1	944.2	944.3	944.4	944.7	945.1	945.5	945.6	945.6	945.6	945.5
21	1.81	940	940	940	940	940	940	940	940	940	940.1	940.2	940.3	940.4	940.7	941	941.4	941.5	941.5	941.5	941.5
22	1.71	940	940	940	940	940	940	940	940	940	940.1	940.2	940.3	940.4	940.6	941	941.3	941.3	941.3	941.2	941.1
22	1.62	940	940	940	940	940	940	940.1	940.2	940.3	940.3	940.4	940.5	940.6	940.8	941.2	941.6	941.6	941.5	941.5	941.4
23	1.52	936	936.1	936.2	936.3	936.4	936.5	936.5	936.7	936.7	936.7	936.7	936.7	936.8	936.7	936.7	936.8	936.8	936.9	936.9	937
23	1.43	936	936.1	936.2	936.3	936.4	936.5	936.6	936.7	936.8	936.8	936.8	937	937.1	937.1	937.1	937.2	937.3	937.3	937.3	937.4
24	1.33	936	936	936	936	936	935.8	935.7	935.6	935.5	935.4	935.3	935	934.8	934.5	934.2	933.9	933.9	933.9	933.9	933.9
24	1.24	936	936	936	936	936	935.9	935.8	935.7	935.6	935.5	935.3	935.1	934.8	934.5	934	933.8	933.8	933.8	933.8	933.8
25	1.14	936	935.7	935.5	935.3	935.2	935.1	934.9	934.7	934.5	934.3	934.1	934	933.8	933.6	933.4	933.2	933.2	933.2	933.1	933.1
25	1.05	932	931.8	931.5	931.4	931.3	931.2	931	930.8	930.6	930.3	930.1	930	929.8	929.6	929.3	929	929.1	929.1	929	929
26	0.95	932	932.3	932.5	932.7	932.7	932.8	933	933.4	933.7	933.9	934	934	933.9	933.6	933	932.5	932.4	932.4	932.5	932.6
26	0.86	932	932.2	932.4	932.5	932.6	932.7	932.9	933.1	933.3	933.5	933.6	933.6	933.5	933.2	932.7	932.2	932.1	932.1	932.2	932.3
27	0.76	932	932	932	932	932	932	932	932	932.1	932.2	932.2	932.2	932.2	932.1	931.7	931.4	931.5	931.6	931.6	931.7
27	0.67	932	932	932	932	932	932	932	932	932.2	932.3	932.3	932.3	932.3	932.2	931.8	931.5	931.6	931.7	931.7	931.8
28	0.58	932	932	932	932	932	932	931.8	931.7	931.6	931.5	931.5	931.5	931.5	931.6	931.9	932	931.8	931.6	931.4	931.2
28	0.48	932	932	932	932	932	932	931.9	931.8	931.7	931.6	931.5	931.5	931.5	931.6	931.9	932	931.8	931.6	931.4	931.2
28	0.39	932	932	932	932	932	932	931.9	931.8	931.7	931.6	931.5	931.5	931.5	931.6	931.9	932	931.8	931.6	931.4	931.2
29	0.29	932	931.9	931.8	931.7	931.6	931.6	931.6	931.6	931.6	931.6	931.6	931.6	931.7	931.8	932	931.9	931.3	930.9	930.7	930.4
29	0.2	932	931.9	931.8	931.7	931.6	931.5	931.6	931.6	931.6	931.6	931.6	931.7	931.7	931.8	932	931.9	931.3	930.9	930.7	930.4
30	0.1	930.6	930.6	930.6	930.6	930.6	930.6	930.7	930.8	930.9	931	931	931	930.9	930.5	929.8	929.3	929.3	929.3	929.2	929.3
30	0	928	928	928	928	928	928	928.1	928.2	928.3	928.3	928.3	928.3	928.2	927.8	927.4	927	927	927	926.9	927

RUN 21	RUN 22	RUN 23	RUN 24	RUN 25	RUN 26	RUN 27	RUN 28	RUN 29	RUN 30	RUN 31	RUN 32	RUN 33	RUN 34	RUN 35	RUN 36	RUN 37	RUN 38	RUN 39	RUN 40	MAX DIF.	MIN ELEV.
976	976	976	976	976	976	976	976	976	976	976	976	976	976	976	976	976	976	976	976	0	976
976	976	976	976	976	976	976	976	976	976	976	976	976	976	976	976	976	976	976	976	0	976
976	976	976	976	976	976	976	976	976	976	976	976	976	976	976	976	976	976	976	976	0	976
974	974	974	974	974	974	974	974	974	974	974	974	974	974	974	974	974	974	974	974	−2	974
972.5	972.5	972.5	972.5	972.5	972.5	972.5	972.5	972.5	972.5	972.5	972.5	972.5	972.5	972.5	972.5	972.5	972.5	972.5	972.5	−3.5	972.5
973.7	973.7	973.7	973.7	973.7	973.7	973.7	973.7	973.7	973.7	973.7	973.7	973.7	973.7	973.7	973.7	973.7	973.7	973.7	973.7	−2.3	973.7
973.2	973.2	973.2	973.2	973.2	973.2	973.2	973.2	973.2	973.2	973.2	973.2	973.2	973.2	973.2	973.2	973.2	973.2	973.2	973.2	−2.8	973.2
974.5	974.2	974	973.8	973.7	973.6	973.6	973.6	973.6	973.6	973.6	973.6	973.6	973.6	973.6	973.6	973.6	973.6	973.6	973.6	−2.4	973.6
974.4	974	973.7	973.5	973.4	973.3	973.3	973.3	973.3	973.3	973.3	973.3	973.3	973.3	973.3	973.3	973.3	973.3	973.3	973.3	−2.7	973.3
969.6	969.4	969.2	969.1	969.1	969.1	969.1	969.1	969.1	969.1	969.1	969.1	969.1	969.1	969.1	969.1	969.1	969.1	969.1	969.1	−6.9	969.1
968	967.7	967.6	967.5	967.5	967.5	967.5	967.5	967.5	967.5	967.5	967.5	967.5	967.5	967.5	967.5	967.5	967.5	967.5	967.5	−5.5	967.5
966.8	966.6	966.4	966.3	966.3	966.3	966.3	966.3	966.3	966.3	966.3	966.3	966.3	966.3	966.3	966.3	966.3	966.3	966.3	966.3	−6.7	966.3
944.5	945.7	946.8	947.6	948	948.4	948.6	948.8	948.9	949	949.1	949.2	949.3	949.4	949.5	949.6	949.7	949.8	949.9	950	18	932
937.5	938	938.4	938.7	938.9	939.1	939.2	939.3	939.3	939.5	939.5	939.5	939.5	939.4	939.4	939.4	939.4	939.4	939.4	939.4	7.4	932
947.8	948.4	948.8	949	949	949	949	949	949	949	949	949	949	949	949	949	949	949	949	949	17	932
947.5	948	948.4	948.6	948.6	948.6	948.6	948.6	948.6	948.6	948.6	948.6	948.6	948.6	948.6	948.6	948.6	948.6	948.6	948.6	16.6	932
932	932	932	932	932	932	932	932	932	932	932	932	932	932	932	932	932	932	932	932	0	932
932	932	932	932	932	932	932	932	932	932	932	932	932	932	932	932	932	932	932	932	0	932
932	932	932	932	932	932	932	932	932	932	932	932	932	932	932	932	932	932	932	932	0	932
932	932	932	932	932	932	932	932	932	932	932	932	932	932	932	932	932	932	932	932	0	932
932	932	932	932	932	932	932	932	932	932	932	932	932	932	932	932	932	932	932	932	0	932
932	932	932	932	932	932	932	932	932	932	932	932	932	932	932	932	932	932	932	932	0	932
958.6	958.6	958.6	958.6	958.6	958.6	958.6	958.6	958.6	958.6	958.6	958.6	958.6	958.6	958.6	958.6	958.6	958.6	958.6	958.6	−1.4	958.5
960.6	960.6	960.6	960.6	960.6	960.6	960.6	960.6	960.6	960.6	960.6	960.6	960.6	960.6	960.6	960.6	960.6	960.6	960.6	960.6	−1.4	960.5
958.7	958.7	958.7	958.7	958.7	958.7	958.7	958.7	958.7	958.7	958.7	958.7	958.7	958.7	958.7	958.7	958.7	958.7	958.7	958.7	−1.3	958.7
958.8	958.8	958.8	958.8	958.8	958.8	958.8	958.8	958.8	958.8	958.8	958.8	958.8	958.8	958.8	958.8	958.8	958.8	958.8	958.8	−1.2	958.8
956.8	956.8	956.8	956.8	956.8	956.8	956.8	956.8	956.8	956.8	956.8	956.8	956.8	956.8	956.8	956.8	956.8	956.8	956.8	956.8	−1.2	956.8
954.9	954.9	954.9	954.9	954.9	954.9	954.9	954.9	954.9	954.9	954.9	954.9	954.9	954.9	954.9	954.9	954.9	954.9	954.9	954.9	−1.1	954.9
956.7	956.7	956.7	956.7	956.7	956.7	956.7	956.7	956.7	956.7	956.7	956.7	956.7	956.7	956.7	956.7	956.7	956.7	956.7	956.7	−1.3	956.7
956.6	956.5	956.5	956.5	956.5	956.5	956.5	956.5	956.5	956.5	956.5	956.5	956.5	956.5	956.5	956.5	956.5	956.5	956.5	956.5	−1.5	956.5
954.4	954.3	954.3	954.3	954.3	954.3	954.3	954.3	954.3	954.3	954.3	954.3	954.3	954.3	954.3	954.3	954.3	954.3	954.3	954.3	−1.7	954.3
954.3	954.3	954.3	954.3	954.3	954.3	954.3	954.3	954.3	954.3	954.3	954.3	954.3	954.3	954.3	954.3	954.3	954.3	954.3	954.3	−1.7	954.3
954.3	954.3	954.3	954.3	954.3	954.3	954.3	954.3	954.3	954.3	954.3	954.3	954.3	954.3	954.3	954.3	954.3	954.3	954.3	954.3	−1.7	954.3
950.3	950.3	950.3	950.3	950.3	950.3	950.3	950.3	950.3	950.3	950.3	950.3	950.3	950.3	950.3	950.3	950.3	950.3	950.3	950.3	−1.7	950.3
951.8	951.8	951.7	951.7	951.7	951.7	951.7	951.7	951.7	951.7	951.7	951.7	951.7	951.7	951.7	951.7	951.7	951.7	951.7	951.7	−0.3	951.7
949.7	949.6	949.6	949.6	949.6	949.6	949.6	949.6	949.6	949.6	949.6	949.6	949.6	949.6	949.6	949.6	949.6	949.6	949.6	949.6	−0.4	949.6
949.4	949.4	949.4	949.4	949.4	949.4	949.4	949.4	949.4	949.4	949.4	949.4	949.4	949.4	949.4	949.4	949.4	949.4	949.4	949.4	−0.6	949.4
947.3	947.4	947.4	947.4	947.4	947.4	947.4	947.4	947.4	947.4	947.4	947.4	947.4	947.4	947.4	947.4	947.4	947.4	947.4	947.4	−0.6	947.3
947	947	947	947	947	947	947	947	947	947	947	947	947	947	947	947	947	947	947	947	1	946
947.3	947.3	947.3	947.3	947.3	947.3	947.3	947.3	947.3	947.3	947.3	947.3	947.3	947.3	947.3	947.3	947.3	947.3	947.3	947.3	1.3	946
945.8	945.8	945.8	945.8	945.8	945.8	945.8	945.8	945.8	945.8	945.8	945.8	945.8	945.8	945.8	945.8	945.8	945.8	945.8	945.8	−0.2	945.8
943.8	943.8	943.8	943.8	943.8	943.8	943.8	943.8	943.8	943.8	943.8	943.8	943.8	943.8	943.8	943.8	943.8	943.8	943.8	943.8	−0.2	943.8
944.4	944.4	944.4	944.4	944.4	944.4	944.4	944.4	944.4	944.4	944.4	944.4	944.4	944.4	944.4	944.4	944.4	944.4	944.4	944.4	0.4	944
944.2	944.2	944.2	944.2	944.2	944.2	944.2	944.2	944.2	944.2	944.2	944.2	944.2	944.2	944.2	944.2	944.2	944.2	944.2	944.2	0.2	944
942.7	942.7	942.7	942.7	942.7	942.7	942.7	942.7	942.7	942.7	942.7	942.7	942.7	942.7	942.7	942.7	942.7	942.7	942.7	942.7	−1.3	942.6
940.8	940.8	940.8	940.8	940.8	940.8	940.8	940.8	940.8	940.8	940.8	940.8	940.8	940.8	940.8	940.8	940.8	940.8	940.8	940.8	−1.2	940.7
945.5	945.4	945.3	945.3	945.2	945.1	945.1	945.1	945.1	945.1	945.1	945.1	945.1	945.1	945	944.9	944.8	944.7	944.6	944.5	0.5	944
941.4	941.3	941.2	941.2	941.1	941	940.9	940.8	940.7	940.6	940.5	940.4	940.3	940.2	940.1	940	939.9	939.8	939.7	939.6	−0.4	939.6
941	940.9	940.8	940.7	940.6	940.5	940.5	940.4	940.4	940.4	940.4	940.4	940.4	940.4	940.4	940.4	940.4	940.4	940.4	940.4	0.4	940
941.3	941.2	941.1	941	940.9	940.8	940.7	940.6	940.5	940.6	940.6	940.6	940.6	940.6	940.6	940.6	940.6	940.6	940.6	940.6	0.6	940
936.9	936.9	936.9	936.9	937	936.9	937	936.9	936.9	936.9	936.9	936.9	936.9	936.9	936.9	936.9	936.9	936.9	936.9	936.9	0.9	936
937.5	937.4	937.4	937.4	937.5	937.5	937.6	937.7	937.8	937.8	937.8	937.8	937.8	937.8	937.8	937.8	937.8	937.8	937.8	937.8	1.8	936
933.9	934	934	934.1	934.1	934.1	934.1	934.1	934.1	934.1	934.1	934.1	934.1	934.2	934.3	934.3	934.2	934.3	934.3	934.2	−1.8	933.9
933.8	933.9	934	934	934	934.1	934.2	934.2	934.2	934.2	934.2	934.2	934.2	934.3	934.3	934.3	934.3	934.3	934.3	934.3	−1.7	933.8
933.1	933.1	933.2	933.3	933.4	933.5	933.6	933.7	933.8	933.8	934	934	934	933.9	933.9	933.9	933.9	933.9	933.9	933.9	−2.1	933.1
929	929	929.1	929.2	929.3	929.4	929.5	929.6	929.7	929.8	929.7	929.7	929.7	929.7	929.7	929.7	929.7	929.7	929.7	929.7	−2.3	929
932.8	932.8	932.9	933	933	933	932.9	932.9	932.9	932.9	932.9	932.9	932.9	932.9	932.9	932.9	932.9	932.9	932.9	932.9	0.9	932
932.4	932.5	932.6	932.7	932.7	932.7	932.7	932.6	932.6	932.6	932.6	932.6	932.6	932.6	932.6	932.6	932.6	932.6	932.6	932.6	0.6	932
931.7	931.7	931.7	931.7	931.7	931.7	931.7	931.7	931.7	931.7	931.7	931.7	931.7	931.7	931.7	931.7	931.7	931.7	931.7	931.7	−0.3	931.4
931.8	931.8	931.8	931.8	931.8	931.8	931.8	931.8	931.8	931.8	931.8	931.8	931.8	931.8	931.8	931.8	931.8	931.8	931.8	931.8	−0.2	931.5
931	930.8	930.7	930.6	930.5	930.4	930.4	930.4	930.4	930.4	930.4	930.4	930.4	930.4	930.4	930.4	930.4	930.4	930.4	930.4	−1.6	930.4
931	930.8	930.7	930.6	930.5	930.5	930.5	930.5	930.5	930.5	930.5	930.5	930.5	930.5	930.5	930.5	930.5	930.5	930.5	930.5	−1.5	930.5
931	930.8	930.7	930.6	930.5	930.5	930.5	930.5	930.5	930.5	930.5	930.5	930.5	930.5	930.5	930.5	930.5	930.5	930.5	930.5	−1.5	930.5
930.3	930.3	930.3	930.3	930.3	930.3	930.3	930.3	930.3	930.3	930.3	930.3	930.3	930.3	930.3	930.3	930.3	930.3	930.3	930.3	−1.7	930.3
930.3	930.3	930.3	930.3	930.3	930.3	930.3	930.3	930.3	930.3	930.3	930.3	930.3	930.3	930.3	930.3	930.3	930.3	930.3	930.3	−1.7	930.3
929.4	929.5	929.6	929.7	929.7	929.7	929.7	929.7	929.7	929.7	929.7	929.7	929.7	929.7	929.7	929.7	929.7	929.7	929.7	929.7	−0.9	929.2
927.1	927.2	927.3	927.4	927.4	927.4	927.4	927.4	927.4	927.4	927.4	927.4	927.4	927.4	927.4	927.4	927.4	927.4	927.4	927.4	−0.6	926.9

MIN	MAX ELEV.	MAX		
0	976	0		
0	976	0		
0	976	0		
−2	976	0		
−3.5	976	0		
−2.3	976	0		
−2.8	976	0		
−2.4	976.4	0.4		
−2.7	976.8	0.8		
−6.9	976	0		
−5.5	973	0		
−6.7	973	0		
0	950	18		
0	939.5	7.5		
0	949	17		
0	948.6	16.6		
0	932	0		
0	932	0		
0	932	0		
0	932	0		
0	932	0		
0	932	0		4.28
−1.5	960	0	END CSA	4.19
−1.5	962	0		4.09
−1.3	960	0		4
−1.2	960	0		3.91
−1.2	958	0		3.81
−1.1	956	0		3.72
−1.3	958	0		3.63
−1.5	958	0		3.53
−1.7	956	0		3.44
−1.7	956	0		3.34
−1.7	956	0		3.25
−1.7	952	0	BEGIN CSA	3.15
−0.3	952.3	0.3		3.06
−0.4	950.2	0.2		2.96
−0.6	950	0		2.87
−0.7	948	0		2.78
0	947.3	1.3		
0	947.7	1.7		
−0.2	946	0		
−0.2	944	0		
0	944.5	0.5		
0	944.3	0.3		
−1.4	944	0		
−1.3	942	0		
0	945.6	1.6		
−0.4	941.5	1.5		
0	941.3	1.3		
0	941.6	1.6		
0	937	1		
0	937.8	1.8		
−2.1	936	0		
−2.2	936	0		
−2.9	936	0		
−3	932	0		
0	934	2		
0	933.6	1.6		
−0.6	932.2	0.2		
−0.5	932.3	0.3		
−1.6	932	0		
−1.5	932	0		
−1.5	932	0		
−1.7	932	0		
−1.7	932	0		
−1.4	931	0.4		
−1.1	928.3	0.3		

40	30	1	0.4	
0	3	33120.	31870.	0
0	2	31870.	30870.	0
0	2	30870.	29870.	0
0	2	29870.	28870.	0
0	3	28870.	27370.	0
0	2	27370.	26370.	0
0	2	26370.	25370.	0
0	2	25370.	24370.	0
0	2	24370.	23370.	0
0	2	23370.	22370.	0
0	3	22370.	20880.	0
0	3	20880.	19398.	0
0	3	19398.	17900.	0
0	3	17900.	16400.	0
0	2	16400.	15400.	0
0	2	15400.	14398.	0
0	2	14398.	13398.	0
0	2	13398.	12390.	0
0	2	12390.	11393.	0
0	2	11393.	10340.	0
0	2	10340.	9290.	0
0	2	9290.	8293.	0
0	2	8293.	7290.	0
0	2	7290.	6290.	0
1	2	6290.	5290.	0
1	2	5290.	4290.	0
0	2	4290.	3290.	0
1	3	3290.	1790.	0
0	2	1790.	790.	0
0	2	790.	0.	0
10				

0.707	1.410	2.830	5.660	11.30	22.60	45.30	90.50	181.0	362.0
600.	600.	600.	600.	600.	600.	600.	600.	600.	600.
600.	600.	600.	600.	600.	600.	600.	600.	600.	600.
600.	600.	600.	600.	600.	600.	600.	600.	600.	600.
12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5
12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5
12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5
0.262	0.030	0.032	0.061	0.115	0.182	0.149	0.127	0.033	0.009
0.262	0.030	0.032	0.061	0.115	0.182	0.149	0.127	0.033	0.009
0.262	0.030	0.032	0.061	0.115	0.182	0.149	0.127	0.033	0.009
0.262	0.030	0.032	0.061	0.115	0.182	0.149	0.127	0.033	0.009
0.262	0.030	0.032	0.061	0.115	0.182	0.149	0.127	0.033	0.009
0.262	0.030	0.032	0.061	0.115	0.182	0.149	0.127	0.033	0.009
0.262	0.030	0.032	0.061	0.115	0.182	0.149	0.127	0.033	0.009
0.262	0.030	0.032	0.061	0.115	0.182	0.149	0.127	0.033	0.009
0.262	0.030	0.032	0.061	0.115	0.182	0.149	0.127	0.033	0.009
0.262	0.030	0.032	0.061	0.115	0.182	0.149	0.127	0.033	0.009
0.262	0.030	0.032	0.061	0.115	0.182	0.149	0.127	0.033	0.009
0.262	0.030	0.032	0.061	0.115	0.182	0.149	0.127	0.033	0.009
0.262	0.030	0.032	0.061	0.115	0.182	0.149	0.127	0.033	0.009
0.262	0.030	0.032	0.061	0.115	0.182	0.149	0.127	0.033	0.009
0.262	0.030	0.032	0.061	0.115	0.182	0.149	0.127	0.033	0.009
0.262	0.030	0.032	0.061	0.115	0.182	0.149	0.127	0.033	0.009
0.262	0.030	0.032	0.061	0.115	0.182	0.149	0.127	0.033	0.009
0.262	0.030	0.032	0.061	0.115	0.182	0.149	0.127	0.033	0.009
0.262	0.030	0.032	0.061	0.115	0.182	0.149	0.127	0.033	0.009

0.262	0.030	0.032	0.061	0.115	0.182	0.149	0.127	0.033	0.009
0.262	0.030	0.032	0.061	0.115	0.182	0.149	0.127	0.033	0.009
0.262	0.030	0.032	0.061	0.115	0.182	0.149	0.127	0.033	0.009
0.262	0.030	0.032	0.061	0.115	0.182	0.149	0.127	0.033	0.009
0.262	0.030	0.032	0.061	0.115	0.182	0.149	0.127	0.033	0.009
0.262	0.030	0.032	0.061	0.115	0.182	0.149	0.127	0.033	0.009
0.262	0.030	0.032	0.061	0.115	0.182	0.149	0.127	0.033	0.009
0.262	0.030	0.032	0.061	0.115	0.182	0.149	0.127	0.033	0.009
0.262	0.030	0.032	0.061	0.115	0.182	0.149	0.127	0.033	0.009
0.262	0.030	0.032	0.061	0.115	0.182	0.149	0.127	0.033	0.009
0.262	0.030	0.032	0.061	0.115	0.182	0.149	0.127	0.033	0.009
0.262	0.030	0.032	0.061	0.115	0.182	0.149	0.127	0.033	0.009
0.262	0.030	0.032	0.061	0.115	0.182	0.149	0.127	0.033	0.009
0.262	0.030	0.032	0.061	0.115	0.182	0.149	0.127	0.033	0.009
0.262	0.030	0.032	0.061	0.115	0.182	0.149	0.127	0.033	0.009
0.262	0.030	0.032	0.061	0.115	0.182	0.149	0.127	0.033	0.009
0.262	0.030	0.032	0.061	0.115	0.182	0.149	0.127	0.033	0.009
0.262	0.030	0.032	0.061	0.115	0.182	0.149	0.127	0.033	0.009
0.262	0.030	0.032	0.061	0.115	0.182	0.149	0.127	0.033	0.009
0.262	0.030	0.032	0.061	0.115	0.182	0.149	0.127	0.033	0.009
0.262	0.030	0.032	0.061	0.115	0.182	0.149	0.127	0.033	0.009
0.262	0.030	0.032	0.061	0.115	0.182	0.149	0.127	0.033	0.009
0.262	0.030	0.032	0.061	0.115	0.182	0.149	0.127	0.033	0.009
0.262	0.030	0.032	0.061	0.115	0.182	0.149	0.127	0.033	0.009
0.262	0.030	0.032	0.061	0.115	0.182	0.149	0.127	0.033	0.009
0.262	0.030	0.032	0.061	0.115	0.182	0.149	0.127	0.033	0.009
0.262	0.030	0.032	0.061	0.115	0.182	0.149	0.127	0.033	0.009
0.262	0.030	0.032	0.061	0.115	0.182	0.149	0.127	0.033	0.009
0.262	0.030	0.032	0.061	0.115	0.182	0.149	0.127	0.033	0.009
0.262	0.030	0.032	0.061	0.115	0.182	0.149	0.127	0.033	0.009
0.262	0.030	0.032	0.061	0.115	0.182	0.149	0.127	0.033	0.009
0.262	0.030	0.032	0.061	0.115	0.182	0.149	0.127	0.033	0.009
6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
15235	15235	15724	16401	21028	28589	31786	37354	52099	63911
69967	90845	125415	167019	185000	152236	141289	140010	120148	100813
82870	71811	55410	35209	34532	22608	21931	19975	19147	19147
18846	18846	17605	17379	16965	16965	15573	14896	14896	14896
									1
0.0	0.0								
0.000000000		0.00							
0.000000000		0.00	0.000						
1070	1070	1105	1152	1477	2009	2234	2624	3661	4491
4917	6384	8813	11737	13000	10697	9929	9839	8443	7085
5823	5046	3893	2475	2427	1588	1541	1403	1345	1345
1324	1324	1237	1221	1192	1192	1095	1047	1047	1047
									1
0.0	0.0								
0.000000000		0.00							
0.000000000		0.00	0.000						
2142	2142	2210	2305	2956	4018	4467	5250	7323	8982

9833	12767	17626	23473	26000	21396	19856	19677	16886	14168
11647	10092	7788	4948	4853	3178	3082	2807	2691	2691
2649	2649	2474	2443	2385	2385	2188	2094	2094	2094
									1
0.0	0.0								
0.000000000		0.00							
0.000000000		0.00	0.000						
2141	2141	2209	2305	2955	4018	4467	5250	7322	8982
9834	12767	17625	23473	26000	21395	19857	19677	16886	14168
11647	10092	7787	4948	4853	3177	3082	2808	2691	2691
2649	2649	2474	2442	2384	2384	2189	2093	2093	2093
									1
0.0	0.0								
0.000000000		0.00							
0.000000000		0.00	0.000						

```
AC
AC      HEC-2 DATA MOFIFIED FOR QUASI-DYNAMIC SEDIMENT ROUTING MODEL (QUASED)
AC
AC      THE IMPACT OF THE GILA RIVER IS CONSIDERED IN THIS ANALYSIS.
AC      DISCHARGE CHANGES OCCUR AT SECTIONS 0.567 & 0.955 IN REACHES 3 & 5.
AC
AC      EXISTING CONDITIONS MODEL MODIFIED WITH PROPOSED CSA FROM 91ST AVE.
AC      TO 83RD AVE. AND U.S. S&G PIT TO FULL PERMITED LIMITS
AC
AC      INEFFECTIVE FLOW AREAS WITHIN A CROSS-SECTION WERE REMOVED TO FACILITATE
AC      THE QUASED CALCULATIONS AND LIMIT THE HYDRAULIC CALCULATIONS TO THE
AC      EFFECTIVE AREAS OF THE CHANNEL.
AC
T1      SIMONS, LI & ASSOCIATES, INC. -- TEMPE, AZ
T2      SALT RIVER ANALYSIS (115th TO 67th)
T3      QUASED HEC-2  H2QS.DAT
J1            2                 0.001                           925
J2     1            -1
J3    38      39      42       1       2       3      43       5       8       4
J3    25       0      38      55      56      26      13      15      14      53
J3    54      33
J6     0       1
NC .0450  .04500  .02500  .10000  .30000
NH     5  .04500  8625.0  .02500 10080.0  .04000 10660.0  .02500 11140.0  .04500
NH18490.  .00000
QT     1  20588.
X1     0      37    8625   11140
GR   960    8490     956    8520     952    8530     948    8537     944    8544
GR   940    8550     936    8625     932    8660     936    8880     936    9100
GR   932    9305     932    9385     932    9435     936    9470     936    9585
GR   932    9620     928    9820     932    9900     936    9940     936   10050
GR   932   10065     928   10120     928   10600     928   10700     928   11005
GR   928   11070     932   11110     936   11125     940   11140     936   11155
GR   936   11170     940   11180     940   11935     940   13940     940   14910
GR   944   17160     944   18490
NC 0.045   0.045   0.033
X1 0.102      24    9150   11310     525     540     540
GR   960    8650     956    8665     952    8680     948    8690     944    8700
GR   940    8720     936    8750     932    8815     932    9150     932    9270
GR 930.8   10030   930.6   10830     932   11135     936   11310     940   11480
GR 940.6   11630   942.6   12425   943.6   13230   940.4   14010   940.3   14800
GR 941.8   15600   943.3   16400   944.5   17200   945.6   18000
NH     3   0.045    9600   0.033   11410   0.045   19480
X1 0.197      18    9600   11410     500     500     500
X3     0                   8480     945
GR   960    5815     956    5930     952    5990     948    6025     944    6130
GR   940    6300     936    7360     932    9600     932   11380     936   11390
GR   940   11400     944   11410     944   11445   940.8   11510     940   14180
GR   940   15290     944   17680     948   19480
NH     5   0.045    9220   0.033   11180   0.045   11470   0.033   11530   0.045
NH 19135
X1 0.292      31    9585   11530     515     485     500
X3     0                   7970     945
GR   960    5560     956    5580     952    5600     948    5625     944    5740
GR   940    5850     939    7010   938.5    8135     932    9220     932    9280
GR   936    9380     936    9585     932    9610     936   10330     936   10920
GR   932   11180     932   11470     936   11495     940   11510     944   11520
GR   948   11530     948   11550     944   11560   940.8   12170     944   12600
GR   944   13360     940   13720     940   15120     944   16900     944   17285
GR   948   19135
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NH	5	0.045	9230	0.033	10520	0.045	10770	0.033	11350	0.045
NH	17230									
X1	0.386	31	9460	11590	505	505	500			
X3	0			7470	950					
GR	952	5320	948	5380	944	5390	940	5460	940	5780
GR	939.3	6400	940	6960	940	7470	936	8750	932	8850
GR	932	8940	936	8990	940	9230	940	9460	936	9520
GR	932	9580	932	9870	936	10000	936	10520	940	10580
GR	940	10770	936	10830	932	11175	932	11350	936	11515
GR	940	11535	944	11590	944	12620	944	13460	944	15850
GR	948	17230								
NH	5	0.045	9385	0.033	10440	0.045	11030	0.033	11410	0.045
NH	16265									
X1	0.481	27	9385	11440	500	505	500			
X3	0			6990	950					
GR	956	4990	952	5010	948	5200	944	5450	940	6150
GR	940	7510	936	8635	932	8640	932	8680	936	8720
GR	940	9025	940	9385	932	9680	932	9850	936	10070
GR	940	10440	940	10720	936	11030	936	11410	940	11430
GR	944	11440	944	13420	944	13700	944	14840	948	14940
GR	952	14945	956	16265						
NH	5	0.045	9400	0.033	10150	0.045	10680	0.033	11205	0.045
NH	15590									
QT	1	18447								
X1	0.576	27	9400	11230	490	525	500			
X3	0			6560	950	13360	950			
GR	956	3650	952	3690	948	3715	944	3775	944	4290
GR	940	6315	940	9400	936	9570	932	9810	932	10050
GR	936	10150	940	10210	944	10350	944	10530	940	10630
GR	936	10680	936	11205	940	11215	944	11230	944	12470
GR	948	13360	944	13950	944	14460	944	14730	948	15405
GR	952	15500	956	15590						
NH	5	0.045	9515	0.033	10160	0.045	10415	0.033	10820	0.045
NH	15420									
X1	0.67	34	9515	10980	490	505	500			
X3	0			6610	950	13370	950			
GR	956	4135	952	4205	948	4250	944	4480	941.2	6750
GR	941.7	7860	940	8560	936	8590	932	8605	932	8635
GR	936	8655	940	8680	940	8890	936	9515	932	10035
GR	932	10160	936	10190	940	10240	940	10335	936	10415
GR	936	10820	940	10950	944	10980	944.8	11830	946.4	12380
GR	947.3	13000	948	13370	948	13440	944	14080	944	14670
GR	948	14885	952	15030	952	15205	956	15420		
NH	3	0.045	9210	0.033	10585	0.045	15370			
X1	0.765	22	9210	10630	510	460	500			
X3	0			6760	950					
GR	952	3850	948	3870	944	4120	944	5620	940	8520
GR	936	8530	936	8560	940	8585	940	9210	936	9490
GR	936	9825	932	10080	932	10230	936	10585	940	10630
GR	944	10955	948	11060	948	13515	948	14830	952	14925
GR	952	15170	956	15370						
NH	3	0.045	9390	0.033	10440	0.045	15230			
X1	0.86	24	9390	10440	525	500	500			
X3	0			6910	950	10800	950			
GR	952	3315	948	3335	944	5010	944.1	6070	942.9	6770
GR	944	7530	944	7970	940	8190	936	8205	936	8250
GR	940	8260	940	9390	936	9440	936	9670	932	10025
GR	932	10290	936	10370	940	10410	944	10440	948	10800
GR	948	14855	952	14885	952	15035	956	15230		
NH	3	0.045	9235	0.033	10405	0.045	15230			

QT	1	16305								
X1	0.955	23	9605	10500	490	505	500			
X3	0			7040	950					
GR	944.6	2925	944	3095	942.2	6610	944.4	7175	940	7540
GR	940	9235	944	9270	944	9605	940	9670	936	9710
GR	932	9740	932	10145	936	10215	940	10390	944	10405
GR	948	10480	952	10500	952	10760	948	10810	948	14470
GR	952	14910	952	15000	956	15230				
NH	3	0.045	9610	0.033	10630	0.045	15270			
X1	1.049	40	9610	10630	490	505	500			
X3	0			7160	950	10630	950			
GR	945.8	3560	945.1	4180	944	4540	944	6160	940	7485
GR	940	7580	944	7680	944	7820	940	8030	940	8415
GR	944	9060	948	9610	944	9640	940	9660	936	9690
GR	932	9710	932	9900	936	9940	936	10020	932	10040
GR	932	10100	936	10150	940	10175	944	10200	944	10280
GR	940	10315	940	10470	944	10510	948	10550	952	10630
GR	952	10755	948	11010	948	12850	952	13150	952	13460
GR	948	14060	948	14410	952	14910	952	15080	956	15270
NH	5	0.045	9405	0.033	10110	0.04	10280	0.033	10800	0.045
NH	14655									
QT	1	15235								
X1	1.144	35	9550	10760	515	505	500			
X3	0			7290	960					
GR	946.9	4230	945	5200	944	5570	940	6280	940	7225
GR	944	7360	944	7510	948	7580	948	7630	944	7750
GR	944	8970	948	9405	948	9550	944	9620	940	9650
GR	936	9680	936	9880	940	10110	944	10145	944	10280
GR	940	10385	940	10710	944	10730	948	10740	952	10750
GR	956	10760	956	10770	952	10800	952	11745	950.5	11830
GR	952	12730	952	13455	950.5	13690	952	14600	956	14655
NH	5	0.045	9650	0.033	10130	0.04	10230	0.033	10870	0.045
NH	14640									
X1	1.239	32	9650	10870	485	485	500			
X3	0			7410	960					
GR	945.7	2915	944	4340	944	5450	948	6345	952	7020
GR	952	7090	948	7120	948	7295	952	7500	952	7570
GR	948	7585	948	8005	944	8040	944	9650	940	9670
GR	936	9690	936	9880	940	10130	944	10230	948	10260
GR	948	10290	944	10390	940	10495	940	10660	944	10765
GR	948	10840	952	10855	956	10870	956	10890	952	10905
GR	952	13950	956	14640						
NH	3	0.045	9540	0.033	11145	0.045	14170			
X1	1.333	27	9540	11145	485	515	500			
X3	0			7530	960					
GR	944.3	3530	948	5090	948	6235	952	6510	952	7050
GR	948	7130	948	7280	952	7400	952	7790	948	7985
GR	944	8680	944	8890	948	9110	948	9540	944	9645
GR	940	9675	936	9690	936	10040	940	10145	944	10450
GR	944	10950	948	11135	956	11145	956	11170	952	11195
GR	952	12790	953.9	14170						
NH	3	0.045	9285	0.033	11160	0.045	14685			
X1	1.428	29	9430	11160	470	525	500			
X3	0			7650	960					
GR	946.7	2930	948	3670	948	4850	952	5980	952	7095
GR	948	7120	948	7260	952	7530	952	7890	948	7960
GR	944	8450	944	8540	948	8780	948	9200	952	9285
GR	952	9430	948	9500	944	9530	940	9675	936	9750
GR	936	10250	940	10450	944	10650	944	11075	948	11160
GR	952	11500	952	12140	954.6	13180	959.3	14685		

NH	3	0.045	9270	0.033	11410	0.045	13230			
X1	1.523	35	9270	11410	480	515	500			
X3	0			7770	960					
GR	952	4120	952	4280	948.3	4430	952	5080	952	7040
GR	948	7130	948	7280	952	7310	952	7870	948	7890
GR	944	8350	944	8440	948	8570	948	8900	952	9270
GR	948	9365	944	9410	940	9560	936	9630	936	9735
GR	940	9770	944	9830	948	9900	948	10100	944	10200
GR	940	10230	940	10600	936	10610	936	10670	940	10690
GR	940	11030	944	11390	948	11410	952	12170	954.9	13230
NC	0.045	0.045	0.033							
X1	1.618	32	9130	11750	615	385	505			
X3	0			7935	960					
GR	952	4250	952	7325	956	7820	956	7935	952	7970
GR	948	8010	948	9130	944	9200	940	9230	940	9570
GR	944	9650	948	9760	948	9900	944	9940	948	9970
GR	952	10000	952	10115	948	10250	944	10390	940	10435
GR	940	10740	944	10830	948	10940	948	10990	944	11360
GR	940	11670	944	11720	948	11740	952	11750	952.5	12410
GR	953.2	12920	956	13360						
X1	1.712	38	8745	11855	550	410	495			
X3	0			7910	960					
GR	953.8	4835	956	5400	956	6895	952	7090	952	7210
GR	956	7510	956	7920	952	7960	948	8090	948	8745
GR	944	8800	940	8820	940	8900	944	9280	944	9530
GR	948	9760	952	9880	952	10180	948	10210	944	10230
GR	944	10520	940	10540	940	10770	944	10830	948	11160
GR	948	11430	944	11570	944	11640	940	11770	940	11799
GR	944	11820	948	11840	952	11855	954	11960	953.4	12360
GR	952.8	12670	954.5	12935	956	14600				
X1	1.807	28	8600	11900	610	360	500			
GR	956	4690	956	7925	952	7935	948	8385	944	8600
GR	944	8890	948	9020	944	9250	944	9400	948	9435
GR	948	9785	952	9940	952	10200	948	10250	948	10630
GR	944	10645	944	10840	948	11070	948	11460	944	11700
GR	940	11800	944	11860	948	11880	952	11900	954.3	12050
GR	953.3	12480	954.3	12950	956	14570				
X1	1.902	26	8730	11765	460	555	500			
GR	956	4900	956	7050	960	7985	956	8020	952	8030
GR	948	8240	948	8730	944	8750	948	8980	948	9275
GR	944	9350	948	9495	948	9755	952	9950	952	10030
GR	948	10265	948	10780	944	10830	944	10990	948	11190
GR	948	11415	944	11540	944	11720	948	11755	952	11765
GR	956	12790								
NC	0.045	0.045	0.033							
X1	2.015	90	9095.3811	552.98	585	650	600			
X3	0			8600	960					
GR	960	7774.76	960	7909.57	958	7934.35	958	7940.17	960	7950.17
GR	960	7954.25	958	7972.8	956	7980.18	954	8116.74	952	8296.2
GR	952	8305.46	954	8319.59	954	8426.42	954	8591.54	952	8626.63
GR	950	8701.6	950	8709.22	948	8718.19	946	8726.46	946	8729.83
GR	946	8816.79	944	8856.12	944	8913.8	946	8968.33	948	9001.67
GR	950	9074.38	952	9095.38	952	9124.17	950	9143.81	950	9162.36
GR	950	9211.37	950	9225.14	952	9232.02	952	9386.66	950	9420.63
GR	950	9516.92	950	9518.95	948	9524.26	946	9529.82	946	9740.88
GR	948	9746.05	950	9752.14	952	9757.8	952	9810.78	952	9889.29
GR	952	9995.6	952	10021.75	954	10033.87	956	10041.73	956	10140.15
GR	954	10144.88	952	10206.79	952	10237.4	952	10253.95	950	10347.18
GR	948	10437.7	948	10483.33	948	10717.12	948	10741.96	950	10752.36
GR	952	10837.51	954	10852.96	954	10856.06	952	10877.01	950	10884.26

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GR   94810889.18     94610894.02     94410911.64     94210916.01     94210961.74
GR   94411014.34     94611051.98     94611071.04     94411082.74     94211091.39
GR   94211154.43     944 11345.7     94611445.74     94811526.42     95011533.28
GR   95211539.71     95411546.32     95611552.98     956 11574.3     95611578.12
GR   95611582.49     95611774.24     95812392.94     96012667.74     96012669.49
X1  2.11        90 9316.5511402.12   420       560   500
GR   960  7759.5     960 7773.78     958 7830.23     958 7832.22     960 7837.41
GR   960  7964.8     958 8081.54     956 8194.51     954 8457.44     952 8521.21
GR   948 8538.55     948 8564.11     950 8616.42     950 8635.59     948 8659.05
GR   948 8663.63     950 8671.56     952 8680.78     954 8693.74     956 8707.52
GR   956 8834.77     954 8841.44     950 8857.25     948 8957.79     946 8980.66
GR   944 9002.62     944 9024.16     946 9043.84     948 9063.24     950 9082.59
GR   952 9107.85     952 9128.11     950 9149.74     950 9166.58     952 9197.33
GR   954 9224.12     954 9268.32     952  9288.7     950 9316.55     948 9346.87
GR   948 9406.03     950 9449.79     950 9465.15     948 9501.66     946 9533.12
GR   946 9661.06     948 9663.23     950 9667.18     952     9670     954  9965.7
GR   95410025.26     95410240.05     95210284.49     94810376.08     94810548.89
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GR   95210970.67     95010988.85     94811014.44     94411024.97     94411263.57
GR   94611277.26     948 11290.4     95011301.71     95211308.74     95411316.34
GR   95611324.19     956 11384.5     95811392.95     95811402.12     95811498.61
GR   95811857.08     95812000.67     96012323.43     96212831.91     96212834.22
X1 2.205        81 9305.7411183.14   515       500   505
GR   960 7697.04     960 7704.01     960 7704.75     960  7732.8     960 7749.45
GR   960 7767.18     960  7774.8     960 7901.21     958 7969.35     956 8001.27
GR   954 8029.85     952 8252.76     950 8336.13     950 8374.69     950 8404.02
GR   948 8431.76     948 8435.54     950 8452.11     950 8462.56     950 8535.81
GR   952 8580.87     954 8622.69     954 8671.06     954 8762.43     956 8954.78
GR   956  9019.8     954 9028.06     952 9042.47     950 9050.87     948 9067.19
GR   948 9075.27     948 9112.27     948 9225.13     950 9285.04     950 9305.74
GR   948 9331.06     946 9363.53     946 9368.77     946 9402.44     946 9419.65
GR   948 9459.28     948 9509.62     946 9572.22     946 9661.66     948 9671.49
GR   950 9681.58     952     9753    954 9864.52     954 9969.97     95210097.34
GR   95010224.36     94810352.29     94810381.99     94810510.48     94810534.28
GR   94810611.07     94610626.43     946 10642.6     94810729.79     94810775.84
GR   94610853.61     94410858.52     94411030.63     94611069.89     94811107.26
GR   95011116.98     95211126.14     95411141.09     95611169.96     95811183.14
GR   96011944.09     96011949.97     96012203.45     96212229.28     96212236.65
GR   96212244.69     96412428.18     96412434.75     96212784.68     96212805.31
GR   96212859.83
X1 2.299        90 9305.6911082.27   495       500   495
GR   962 7642.31     962 7654.65     960 7676.52     960 7710.92     962 7716.77
GR   962 7841.55     960 7878.82     958 7886.21     956  7893.6     954  7900.8
GR   954 8205.55     954 8350.25     952  8385.3     950  8427.1     950 8459.02
GR   952 8476.03     952 8566.12     954 8582.45     954 8665.32     956 8693.57
GR   956 8697.74     954 8708.13     954 8722.23     956 8729.42     958 8768.75
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GR   956 9044.64     954 9070.87     952 9097.66     950 9251.09     950  9268.1
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GR   980 5854.08     982 5859.46     982 5872.03     980 6679.99     980 6718.75
GR   980 7246.43     980 7263.23     978  7546.8     978  7561.7     980 7645.87
GR   982 7674.48     982 7858.91     980 8272.97     978 8278.27     974 8289.25
GR   972 8406.26     972 8543.55     970 8559.24     970 8568.57     972  8576.9
GR   972 8605.39     974 8643.59     976 8735.44     976 8738.21     974 8746.02
GR   972 8753.07     970 8759.74     968 8767.06     966 8773.33     966  8780.4
GR   968 8789.73     932     8880    932    10460    97610601.74     97810627.03
GR   98010641.71     98210685.94     98410799.29     98410812.47     98210841.24
GR   98010925.82     98010936.72     98210991.06
X1 4.663       56 8454.8910636.02    490      460    500
X3     0                     8200    990    10650    990
GR   982 6527.36     982  6902.1     982 6902.23     984 6905.62     984 6905.72
GR   982     6920    980 6928.08     978 7122.86     978 7199.91     980 7221.29
GR   980   7360.5    980 7699.54     982 7714.96     984 7853.06     984 7861.69
GR   982 7911.76     980 7934.23     980  7995.9     982 8067.37     982  8125.1
GR   984 8150.07     984 8243.33     982 8251.83     980 8260.96     980 8289.84
GR   982 8296.42     982 8311.18     980 8351.49     978 8454.89     976 8474.58
GR   976 8539.11     974  8554.3     972 8562.41     972 8703.83     972 8808.94
GR   970 8858.51     970 8896.69     972 8976.91     974  9070.4     976 9089.45
GR   978 9110.66     980 9198.41     980 9234.81     978 9252.08     932     9390
GR   932    10530    98610636.02     98410656.54     98410679.21     98610866.46
GR   98610882.78     98610886.87     98410898.26     98211145.34     98211265.84
GR   98211265.87
X1 4.758       56 8848.0210964.46    450      390    500
X3     0                     8860    990    11030    990
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GR   982 6498.81     982 6871.72     980 6905.19     978 7014.31     978 7062.79
GR   980 7086.33     982  7133.8     982 7333.51     980 7546.77     980 7664.83
GR   982 7751.95     982 7845.66     980 7946.93     980 7949.82     982 7962.54
GR   984 8077.32     984  8281.4     982 8302.28     980 8627.94     980  8676.8
GR   982 8693.65     982 8790.28     980 8797.26     978 8806.28     976 8817.04
GR   974 8832.09     972 8848.02     972 8918.38     974 8940.12     974 8969.71
GR   972 9022.49     972 9099.28     974 9149.37     932     9210    932   10760
GR   96810845.11     96810868.35     96610881.34     96610900.88     96810904.71
GR   97010908.88     97210912.65     97410917.07     97610923.71     97810929.93
GR   98010936.43     98210942.38     98410950.11     98610960.18     98610964.46
GR   98411130.57     98211171.06     98011456.43     97811484.77     97611498.91
GR   97411514.68
X1 4.852       62  8788.210990.93     410      525     500
X3     0                    8770     995    11050     995
GR   982 6025.03     984 6789.04     982  6824.5     982 8075.32     984 8159.95
GR   984 8184.81     986 8192.62     986 8264.13     984 8324.42     984 8400.29
GR   986 8418.59     988 8426.42     994 8434.74     998 8440.17     995 8445.98
GR   995 8456.91     995 8462.17     995 8465.98     995 8470.14     995 8472.24
GR   995 8476.28     995 8587.93     995 8593.07     996 8601.88     986 8615.38
GR   984 8629.34     984 8630.46     986 8640.09     986 8749.78     988 8754.33
GR   994 8768.19     994  8788.2     992 8797.71     990 8824.45     986 8837.86
GR   986 8872.83     984 8895.65     982 8908.89     972 8929.79     972 8939.51
GR   932     9045    932   10750     96810899.16     97010932.02     97210959.75
GR   97610968.72     98010977.64     98610990.93     98611078.32     98211093.56
GR   98011266.35     98011273.35     98211299.27     984 11338.3     98411361.08
GR   982 11368.1     98011409.79     97611419.48     97611483.89     97811498.77
GR   98011516.92     98211837.93
X1 4.947       54 8684.5410945.26     520      470     500
GR   984 6614.65     984 6617.26     984 6621.75     984 6623.83     982 6974.67
GR   982 6979.68     982 7979.68     982 7980.72     984 7983.13     986  8012.7
GR   986 8021.52     986 8074.18     986 8077.33     986 8201.75     986 8276.25
GR   986 8315.59     986 8415.32     984 8684.54     984 8700.27     984 8708.75
GR   982 8716.22     932     8860    932   10570     97610623.47     97410650.74
GR   97210715.14     970 10727.7     97010745.26     970 10753.8     96810764.87
GR   96810777.88     97010835.28     97210844.27     97410853.82     97610865.06
GR   97810875.66     98010880.17     98210884.65     984 10889.2     98610893.82
GR   98810898.65     99010903.34     99210945.26     99210969.52     99010975.12
GR   98810981.01     98610986.32     98410991.92     98411112.49     98411248.18
GR   98411343.67     98611755.28     98611811.14     98611856.81
X1 5.042       45 8541.8210852.36     460      510     500
GR   988 8055.23     988  8059.2     986  8065.3     986 8095.14     986 8179.64
GR   986 8254.02     986 8259.41     986 8281.94     986 8283.35     986 8522.58
GR   988 8529.13     988 8535.28     986 8541.82     984 8548.36     984 8556.88
GR   932     8650    932   10400     97610626.85     97410679.64     97410693.63
GR   97410693.75     974 10702.5     97410719.52     97210734.81     97210736.42
GR   97410745.83     97610755.19     97810764.68     98010774.38     98210784.07
GR   98410793.75     98610802.68     98810809.04     99010813.74     99210831.51
GR   99210844.01     99210852.36     99210872.68     99010878.27     98810883.99
GR   98610889.65     98611019.19     98611109.26     98611560.67     98611725.69
X1 5.136       12     9530   10700     420      530     500
X3     0                    8550     995    10700     995
GR 985.5     6220     984     8550     984     8810     980     9530     932     9660
GR   932    10200     972    10440     976    10670     988    10700     984    10750
GR   984    11390     988    12020
X1 5.231       14     9390   10480     450      530     500
X3     0                    8650     990    11050     990
GR 985.5     6000     986     7700     998     7870     988     8060     984     8650
GR   980     9390     976     9420     976    10140     973    10150     973    10450
GR   976    10460     984    10480     988    12050     990    12380
X1 5.326       18     9420   10480     450      470     500
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X3	0			8520	990	11270	990			
GR	986.5	5950	986	7580	988	7670	992	7730	1004	7790
GR	992	7860	992	8100	988	8120	984	8520	980	9420
GR	976	9440	976	10130	973	10140	973	10440	976	10450
GR	988	10480	988	11280	992	11910				
X1	5.42	9	9425	10500	500	460	500			
X3	0			8500	1000	10960	1000			
GR	988	6270	988	7540	984	8500	980	9425	976	9430
GR	976	10470	988	10500	988	10830	992	11970		
X1	5.515	11	9610	10770	360	500	500			
X3	0			8400	1000					
GR	990	6230	988	7480	984	8400	984	8800	980	8910
GR	980	9210	976	9610	976	10730	992	10770	992	11770
GR	995	12340								
X1	5.61	11	9600	10950	330	560	500			
X3	0			8350	995					
GR	990	6180	988	7620	984	8350	984	9250	980	9340
GR	980	9450	976	9600	976	10920	992	10950	992	11310
GR	995	12050								
X1	5.705	15	10040	10960	330	560	500			
X3	0			8290	995					
GR	988	5500	988	6060	990	6100	988	6130	988	7980
GR	994	8290	988	8580	984	9110	980	9140	980	10040
GR	976	10540	976	10930	988	10960	992	11150	996	11850
X1	5.799	20	9820	10910	460	510	500			
X3	0			8200	995					
GR	991	6010	988	6040	988	8150	994	8200	988	8240
GR	988	8570	988	8960	984	9250	980	9380	980	9520
GR	984	9580	984	9820	980	9900	976	10000	980	10070
GR	976	10160	976	10850	988	10910	992	10980	996	11510
X1	5.894	16	9780	10760	550	480	500			
X3	0			8120	995					
GR	993	5940	990.4	7000	989.4	8000	993.5	8120	988	8450
GR	988	9300	984	9780	976	9800	976	9940	984	10010
GR	980	10170	976	10280	976	10670	988	10760	992	11080
GR	996	11240								
X1	5.989	16	9380	10800	360	530	500			
X3	0			8030	995					
GR	993	5850	992	6910	992	8000	993	8030	990	8330
GR	988	9380	984	9400	984	9810	980	9890	976	10060
GR	976	10450	980	10740	988	10800	992	11250	992	11480
GR	996	11750								
X1	6.083	16	9130	10350	390	480	500			
X3	0			7890	995					
GR	993	5700	992	7830	994.6	7890	989	7950	988	9040
GR	984	9130	984	9400	980	9420	976	9650	976	10110
GR	980	10170	980	10320	984	10350	988	10850	992	11600
GR	996	12140								
X1	6.178	14	9020	10170	510	460	500			
X3	0			7760	1000					
GR	993.4	5560	992.6	6830	992	7580	996.3	7760	992	7950
GR	992	8550	988	9020	976	9080	976	10000	980	10060
GR	984	10170	988	10630	992	11150	996	12090		
X1	6.273	13	8750	10190	470	480	500			
GR	996	5590	996	7270	997	7600	992	7680	988	8750
GR	976	8790	976	9010	980	9170	980	10130	984	10190
GR	988	10700	992	11090	996	12170				

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APPENDIX D

SCOUR COMPUTATIONS

HEC-2 CROSS-SECTION NUMBER	MAXIMUM DESIGN CHANNEL DEPTH (ft)	AVERAGE CHANNEL VELOCITY (ft/sec)	DUNE SCOUR (ft)	ANTIDUNE SCOUR (ft)	BED-FORM SCOUR (ft)	
0.0	14.9	7.64	0.9	0.8	0.9	
0.1	12.9	7.89	0.7	0.8	0.8	
0.2	12.3	6.66	0.7	0.6	0.7	
0.3	12.8	6.43	0.7	0.6	0.7	
0.4	13.2	7.37	0.7	0.7	0.7	
0.5	14.0	6.77	0.8	0.6	0.8	
0.6	14.7	7.14	0.8	0.7	0.8	
0.7	15.4	7.3	0.9	0.7	0.9	
0.8	15.8	7.71	0.9	0.8	0.9	
0.9	16.2	9.27	0.9	1.2	1.2	
1.0	17.0	8.66	1.0	1.0	1.0	
1.1	17.6	9.09	1.0	1.1	1.1	
1.1	14.3	10.07	0.8	1.4	1.4	
1.2	15.5	9.1	0.9	1.1	1.1	
1.3	16.3	8.42	1.0	1.0	1.0	
1.4	17.2	7.06	1.0	0.7	1.0	
1.5	17.7	6.04	1.1	0.5	1.1	
1.6	14.1	6.19	0.8	0.5	0.8	
1.7	14.6	5.7	0.8	0.4	0.8	
1.8	15.0	6.17	0.9	0.5	0.9	
1.9	11.6	6.47	0.6	0.6	0.6	
2.02	14.29	8.29	0.8	0.9	0.9	
2.11	13.44	9.39	0.8	1.2	1.2	
2.2	14.87	7.58	0.9	0.8	0.9	
2.3	15.46	7.97	0.9	0.9	0.9	
2.39	16.16	7.66	0.9	0.8	0.9	
2.49	14.77	7.97	0.8	0.9	0.9	
2.59	15.6	7.31	0.9	0.7	0.9	
2.68	16.23	6.65	1.0	0.6	1.0	
2.78	14.72	7.92	0.8	0.9	0.9	
2.87	13.65	7.48	0.8	0.8	0.8	
2.96	14.55	7.54	0.8	0.8	0.8	
3.06	13.54	7.14	0.8	0.7	0.8	
3.15	14.22	8.86	0.8	1.1	1.1	Begin CSA
3.25	11.47	9.76	0.6	1.3	1.3	
3.34	13.08	8.31	0.7	0.9	0.9	*
3.44	14.06	8.84	0.8	1.1	1.1	←
3.53	13.29	7.91	0.7	0.9	0.9	
3.63	14.19	7.04	0.8	0.7	0.8	

3.72	16.88	6.31	1.0	0.5	1.0	
3.81	15.37	7.02	0.9	0.7	0.9	
3.91	14.03	7.26	0.8	0.7	0.8	
4	14.74	7.66	0.8	0.8	0.8	
4.09	13.56	8.44	0.8	1.0	1.0	
4.19	16.65	7.81	1.0	0.8	1.0	End CS A
4.28	16.46	7.41	1.0	0.7	1.0	
4.38	16.12	6.81	0.9	0.6	0.9	
4.47	16.53	7.33	1.0	0.7	1.0	
4.57	17.18	6.29	1.0	0.5	1.0	
4.66	17.12	10.45	1.0	1.5	1.5	
4.76	14.77	9.08	0.8	1.1	1.1	
4.85	15.84	8.28	0.9	0.9	0.9	
4.95	13.9	14.67	0.8	2.9	2.9	
5.04	16.28	14.65	1.0	2.9	2.9	
5.14	15.2	10.91	0.9	1.6	1.6	
5.23	16.08	11	0.9	1.7	1.7	
5.33	16.18	10.36	0.9	1.5	1.5	
5.42	14.14	9.71	0.8	1.3	1.3	
5.51	15.18	7.49	0.9	0.8	0.9	
5.61	15.56	6.99	0.9	0.7	0.9	
5.7	15.78	8.55	0.9	1.0	1.0	
5.8	16.19	8.74	0.9	1.0	1.0	
5.89	16.44	10.92	1.0	1.6	1.6	
5.99	17.73	8.28	1.1	0.9	1.1	
6.08	18.44	7.41	1.1	0.7	1.1	
6.18	18.69	7.69	1.1	0.8	1.1	
6.27	19.23	6.55	1.2	0.6	1.2	

100-YEAR EXISTING CONDITIONS W/ CSA

HEC-2 CROSS SECTION	QCH (cfs)	Q (cfs)	K*CHSL (ft/ft)	10*MS (ft/ft)	DEPTH (ft)	VCH (fps)	AREA (sq ft)	TOPWIDTH (ft)
0.00	220013	249998	0.00	11977	14.86	7.64	28803	7975
0.10	206080	249999	4.81	11080	12.86	7.89	26105	7650
0.20	147075	249999	2.80	7794	12.3	6.66	22088	9336
0.29	129246	243499	0.00	10107	12.76	6.43	20096	9634
0.39	157716	236998	0.00	12900	13.2	7.37	21390	8798
0.48	129590	230499	0.00	14374	14.02	6.77	19142	7901
0.58	126547	223998	0.00	15174	14.73	7.14	17734	6518
0.67	125146	217499	0.00	10530	15.35	7.3	17147	6416
0.76	138164	210998	0.00	10070	15.8	7.71	17920	4295
0.86	133012	204498	0.00	12961	16.18	9.27	14355	3890
0.95	100082	197998	0.00	11157	17.02	8.66	11553	7230
1.05	102315	191500	0.00	15591	17.58	9.09	11261	3422
1.14	122995	184999	8.00	22408	14.33	10.07	12217	3456
1.24	117345	184999	0.00	16440	15.52	9.1	12899	3347
1.33	142463	184998	0.00	15085	16.34	8.42	16924	5454
1.43	151898	184999	0.00	8526	17.15	7.06	21521	4950
1.52	151717	184999	0.00	6746	17.72	6.04	25129	5028
1.62	159371	184999	7.92	8988	14.09	6.19	25748	5110
1.71	167982	184999	0.00	7995	14.58	5.7	29476	5095
1.81	166272	184998	0.00	11447	15.01	6.17	26932	5696
1.90	161165	184998	8.00	12475	11.58	6.47	24911	4660
2.02	154375	184999	-3.33	22822	14.29	8.29	18630	3267
2.11	143166	184999	4.00	30535	13.44	9.39	15248	3278
2.20	143306	184998	0.00	13072	14.87	7.58	18895	3574
2.30	151733	184998	0.00	13273	15.46	7.97	19042	3239
2.39	155767	184998	0.00	12609	16.16	7.66	20337	3451
2.49	166965	184999	4.00	15059	14.77	7.97	20957	3532
2.59	167593	184998	0.00	11504	15.6	7.31	22924	3565
2.68	173604	184999	0.00	8813	16.23	6.65	26106	3716
2.78	165754	184999	3.96	17711	14.72	7.92	20937	3684
2.87	180593	184999	4.00	17043	13.65	7.48	24152	3660
2.96	180095	184999	0.00	19681	14.55	7.54	23891	4052
3.06	175708	184999	4.00	15726	13.54	7.14	24596	3981
3.15	185000	185000	0.00	25833	14.22	8.86	20876	2731
3.25	185000	185000	8.00	31545	11.47	9.76	18963	2493
3.34	185000	185000	0.00	18370	13.08	8.31	22255	2482
3.44	170744	184999	0.00	22788	14.06	8.84	19324	3513
3.53	165815	184999	4.00	16829	13.29	7.91	20950	3318
3.63	183180	184999	0.00	13598	14.19	7.04	26014	4021
3.72	184690	184999	-4.44	10349	16.88	6.31	29284	3849
3.81	182759	184999	4.08	13600	15.37	7.02	26024	3434
3.91	181957	184999	4.00	14327	14.03	7.26	25077	3118
4.00	185000	185000	0.00	17735	14.74	7.66	24156	2968
4.09	185000	185000	4.04	20780	13.56	8.44	21918	2616
4.19	185000	185000	-4.00	16373	16.65	7.81	23702	2662
4.28	185000	185000	2.00	12518	16.46	7.41	24982	2486
4.38	185000	185000	2.00	8752	16.12	6.81	27166	2342
4.47	185000	185000	0.00	10827	16.53	7.33	25238	2282
4.57	182817	185000	0.00	6372	17.18	6.29	29077	2592
4.66	184959	184999	0.00	30906	17.12	10.45	17705	2128
4.76	185000	185000	8.00	19563	14.77	9.08	20375	2079
4.85	185000	185000	0.00	14274	15.84	8.28	22331	2072
4.95	183215	184999	4.00	51228	13.9	14.67	12487	1553
5.04	177692	184999	0.00	41021	16.28	14.65	12128	1718
5.14	158615	184999	8.00	16786	15.2	10.91	14534	2148
5.23	157013	184998	0.00	19415	16.08	11	14273	2400
5.33	152018	184999	2.00	15972	16.18	10.36	14680	2750
5.42	145749	184999	6.00	13884	14.14	9.71	15012	2460
5.51	129498	184999	0.00	7550	15.18	7.49	17288	2368
5.61	145157	184999	0.00	6316	15.56	6.99	20767	2599
5.70	114068	184999	0.00	10239	15.78	8.55	13336	2742
5.80	142344	184998	0.00	10266	16.19	8.74	16281	2792
5.89	153256	184998	0.00	16984	16.44	10.92	14032	2914
5.99	164146	184999	0.00	10057	17.73	8.28	19829	3567
6.08	139741	184999	0.00	7036	18.44	7.41	18859	4038
6.18	156523	184998	0.00	6330	18.69	7.69	20355	3951
6.27	150205	184998	0.00	5285	19.23	6.55	22938	4335

CALCULATED HYDRAULIC VARIABLES

HEC-2 CROSS SECTION	AVERAGE CHANNEL DEPTH (ft)	CHANNEL SLOPE (ft/ft)	ENERGY SLOPE (ft/ft)	CRITICAL SHEAR STRESS (psf)	EFFECTIVE CHANNEL WIDTH (ft)	(Q/QCH)	SHEAR VELOCITY	REYNOLD NUMBER	REYNOLD NUMBER CHECK
0.00	11.45	0.00000	0.00120	0.86	2858	1.14	0.66	2725	OK
0.10	12.09	0.00481	0.00111	0.84	2620	1.21	0.66	2693	OK
0.20	12.2	0.00280	0.00078	0.59	3077	1.70	0.55	2269	OK
0.29	10.33	0.00000	0.00101	0.65	3664	1.88	0.58	2378	OK
0.39	10.04	0.00000	0.00129	0.81	3201	1.50	0.65	2648	OK
0.48	9.31	0.00000	0.00144	0.84	3655	1.78	0.66	2692	OK
0.58	9.69	0.00000	0.00152	0.92	3239	1.77	0.69	2822	OK
0.67	11.7	0.00000	0.00105	0.77	2546	1.74	0.63	2583	OK
0.76	12.62	0.00000	0.00101	0.79	2169	1.53	0.64	2623	OK
0.86	13.67	0.00000	0.00130	1.11	1614	1.54	0.76	3098	OK
0.95	12.91	0.00000	0.00112	0.90	1771	1.98	0.68	2793	OK
1.05	11.04	0.00000	0.00156	1.07	1909	1.87	0.74	3053	OK
1.14	10.1	0.00800	0.00224	1.41	1820	1.50	0.85	3501	OK
1.24	10.57	0.00000	0.00164	1.08	1923	1.58	0.75	3068	OK
1.33	10.54	0.00000	0.00151	0.99	2084	1.30	0.72	2934	OK
1.43	12.44	0.00000	0.00085	0.66	2107	1.22	0.58	2397	OK
1.52	11.74	0.00000	0.00067	0.49	2609	1.22	0.50	2071	OK
1.62	9.83	0.00792	0.00090	0.55	3041	1.16	0.53	2187	OK
1.71	9.48	0.00000	0.00080	0.47	3425	1.10	0.49	2026	OK
1.81	8.16	0.00000	0.00114	0.58	3672	1.11	0.55	2249	OK
1.90	8.21	0.00800	0.00125	0.64	3484	1.15	0.57	2355	OK
2.02	7.58	-0.00333	0.00228	1.08	2945	1.20	0.75	3061	OK
2.11	7.31	0.00400	0.00305	1.39	2695	1.29	0.85	3477	OK
2.20	10.06	0.00000	0.00131	0.82	2424	1.29	0.65	2669	OK
2.30	10.72	0.00000	0.00133	0.89	2166	1.22	0.68	2776	OK
2.39	10.5	0.00000	0.00126	0.83	2300	1.19	0.65	2678	OK
2.49	9.75	0.00400	0.00151	0.92	2382	1.11	0.69	2820	OK
2.59	10.49	0.00000	0.00115	0.75	2413	1.10	0.62	2556	OK
2.68	10.65	0.00000	0.00088	0.59	2612	1.07	0.55	2255	OK
2.78	7.61	0.00396	0.00177	0.84	3070	1.12	0.66	2702	OK
2.87	7.43	0.00400	0.00170	0.79	3331	1.02	0.64	2619	OK
2.96	7.29	0.00000	0.00197	0.90	3368	1.03	0.68	2787	OK
3.06	7.92	0.00400	0.00157	0.78	3271	1.05	0.63	2597	OK
3.15	7.65	0.00000	0.00258	1.23	2731	1.00	0.80	3271	OK
3.25	7.61	0.00800	0.00315	1.50	2493	1.00	0.88	3606	OK
3.34	8.97	0.00000	0.00184	1.03	2482	1.00	0.73	2987	OK
3.44	8.32	0.00000	0.00228	1.18	2516	1.08	0.78	3204	OK
3.53	8.88	0.00400	0.00168	0.93	2631	1.12	0.69	2845	OK
3.63	8.74	0.00000	0.00136	0.74	3005	1.01	0.62	2537	OK
3.72	9.1	-0.00444	0.00103	0.59	3223	1.00	0.55	2258	OK
3.81	8.69	0.00408	0.00136	0.74	3031	1.01	0.62	2530	OK
3.91	8.79	0.00400	0.00143	0.79	2900	1.02	0.64	2612	OK
4.00	8.14	0.00000	0.00177	0.90	2968	1.00	0.68	2796	OK
4.09	8.38	0.00404	0.00208	1.09	2616	1.00	0.75	3071	OK
4.19	8.9	-0.00400	0.00164	0.91	2662	1.00	0.68	2809	OK
4.28	10.05	0.00200	0.00125	0.79	2486	1.00	0.64	2610	OK
4.38	11.6	0.00200	0.00088	0.63	2342	1.00	0.57	2345	OK
4.47	11.06	0.00000	0.00108	0.75	2282	1.00	0.62	2547	OK
4.57	12.75	0.00000	0.00064	0.51	2307	1.01	0.51	2098	OK
4.66	8.33	0.00000	0.00309	1.61	2125	1.00	0.91	3734	OK
4.76	9.8	0.00800	0.00196	1.20	2079	1.00	0.79	3222	OK
4.85	10.76	0.00000	0.00143	0.96	2072	1.00	0.70	2887	OK
4.95	9.3	0.00400	0.00512	2.97	1356	1.01	1.24	5079	OK
5.04	10.9	0.00000	0.00410	2.79	1158	1.04	1.20	4921	OK
5.14	14.39	0.00800	0.00168	1.51	1178	1.17	0.88	3617	OK
5.23	13.09	0.00000	0.00194	1.59	1284	1.18	0.90	3710	OK
5.33	13.85	0.00200	0.00160	1.38	1290	1.22	0.84	3461	OK
5.42	13.96	0.00600	0.00139	1.21	1365	1.27	0.79	3240	OK
5.51	14.9	0.00000	0.00076	0.70	1657	1.43	0.60	2468	OK
5.61	15.38	0.00000	0.00063	0.61	1721	1.27	0.56	2294	OK
5.70	14.5	0.00000	0.00102	0.93	1492	1.62	0.69	2836	OK
5.80	14.94	0.00000	0.00103	0.96	1417	1.30	0.70	2882	OK
5.89	14.32	0.00000	0.00170	1.52	1183	1.21	0.88	3629	OK
5.99	13.96	0.00000	0.00101	0.88	1600	1.13	0.67	2757	OK
6.08	15.46	0.00000	0.00070	0.68	1615	1.32	0.59	2427	OK
6.18	17.7	0.00000	0.00063	0.70	1359	1.18	0.60	2463	OK
6.27	15.93	0.00000	0.00053	0.53	1774	1.23	0.52	2135	OK
AVERAGE	10.81418	0.00143	0.00152	0.96400	2386.04478	1.23123	0.69167		

HEC-2 CROSS SECTION	MEYER-PETER, MULLER (mm)	BOTTOM VELOCITY METHOD (mm)	SHIELD'S DIAGRAM (mm)	YANG INCIPIENT MOTION (mm)	AVERAGE ARMOR SIZE (mm)	SCHOK-LITSCH METHOD	MEYER-PETER, MULLER METHOD	SHIELD'S DIAGRAM METHOD	AVERAGE SLOPE (ft/ft)
0.00	50	110	75	117	88	0.00040	0.00034	0.00015	0.00030
0.10	40	117	74	125	89	0.00038	0.00042	0.00018	0.00033
0.20	27	83	52	89	63	0.00043	0.00062	0.00018	0.00041
0.29	36	78	57	83	64	0.00050	0.00066	0.00018	0.00044
0.39	48	102	71	109	83	0.00046	0.00051	0.00017	0.00038
0.48	57	86	74	92	77	0.00052	0.00057	0.00016	0.00041
0.58	63	96	81	102	85	0.00048	0.00054	0.00015	0.00039
0.67	45	100	68	107	80	0.00041	0.00050	0.00015	0.00035
0.76	45	112	70	119	86	0.00037	0.00043	0.00014	0.00032
0.86	59	162	98	173	123	0.00031	0.00042	0.00014	0.00029
0.95	53	141	79	151	106	0.00034	0.00052	0.00013	0.00033
1.05	77	155	95	166	123	0.00036	0.00047	0.00013	0.00032
1.14	90	191	125	204	152	0.00036	0.00047	0.00016	0.00033
1.24	72	156	96	166	122	0.00038	0.00045	0.00015	0.00033
1.33	69	133	88	142	108	0.00040	0.00035	0.00014	0.00030
1.43	41	94	58	100	73	0.00040	0.00032	0.00013	0.00028
1.52	34	69	44	73	55	0.00047	0.00031	0.00013	0.00030
1.62	36	72	49	77	58	0.00053	0.00037	0.00016	0.00035
1.71	33	61	42	65	50	0.00058	0.00034	0.00016	0.00036
1.81	48	72	51	76	62	0.00061	0.00033	0.00015	0.00036
1.90	41	79	56	84	65	0.00059	0.00044	0.00020	0.00041
2.02	91	129	95	138	113	0.00052	0.00037	0.00016	0.00035
2.11	115	166	123	177	145	0.00049	0.00043	0.00017	0.00036
2.20	54	108	72	115	88	0.00045	0.00039	0.00015	0.00033
2.30	58	119	78	128	96	0.00041	0.00035	0.00015	0.00030
2.39	57	110	73	118	90	0.00043	0.00033	0.00014	0.00030
2.49	62	119	81	128	98	0.00044	0.00033	0.00015	0.00031
2.59	50	100	66	107	81	0.00045	0.00032	0.00015	0.00030
2.68	40	83	52	89	66	0.00047	0.00029	0.00014	0.00030
2.78	73	118	74	126	98	0.00053	0.00034	0.00015	0.00034
2.87	65	105	70	112	88	0.00057	0.00033	0.00017	0.00036
2.96	80	107	79	114	95	0.00057	0.00031	0.00016	0.00035
3.06	60	96	69	102	82	0.00056	0.00035	0.00017	0.00036
3.15	103	148	109	158	129	0.00049	0.00031	0.00016	0.00032
3.25	101	179	132	191	151	0.00046	0.00039	0.00020	0.00035
3.34	67	130	91	139	107	0.00046	0.00034	0.00017	0.00032
3.44	90	147	104	157	125	0.00046	0.00034	0.00016	0.00032
3.53	63	118	82	126	97	0.00048	0.00037	0.00017	0.00034
3.63	54	93	65	100	78	0.00053	0.00032	0.00016	0.00033
3.72	49	75	52	80	64	0.00055	0.00026	0.00013	0.00032
3.81	59	93	65	99	79	0.00053	0.00029	0.00015	0.00032
3.91	56	99	69	106	83	0.00051	0.00032	0.00016	0.00033
4.00	73	110	79	118	95	0.00052	0.00030	0.00015	0.00033
4.09	79	134	96	143	113	0.00047	0.00033	0.00017	0.00032
4.19	76	115	80	123	98	0.00048	0.00027	0.00014	0.00029
4.28	58	103	69	110	85	0.00046	0.00027	0.00014	0.00029
4.38	40	87	56	93	69	0.00044	0.00028	0.00014	0.00028
4.47	50	101	66	108	81	0.00043	0.00027	0.00014	0.00028
4.57	31	74	45	79	57	0.00043	0.00026	0.00013	0.00028
4.66	148	205	142	219	179	0.00041	0.00026	0.00013	0.00027
4.76	81	155	106	166	127	0.00040	0.00030	0.00015	0.00028
4.85	63	129	85	138	104	0.00040	0.00028	0.00014	0.00027
4.95	200	405	262	432	325	0.00029	0.00032	0.00016	0.00026
5.04	187	403	246	431	317	0.00026	0.00029	0.00014	0.00023
5.14	72	224	133	239	167	0.00026	0.00034	0.00015	0.00025
5.23	88	227	140	243	174	0.00028	0.00033	0.00014	0.00025
5.33	72	202	122	216	153	0.00028	0.00034	0.00014	0.00025
5.42	55	177	107	189	132	0.00029	0.00040	0.00016	0.00028
5.51	32	105	62	113	78	0.00034	0.00042	0.00015	0.00030
5.61	28	92	53	98	68	0.00035	0.00037	0.00015	0.00029
5.70	45	137	82	147	103	0.00031	0.00046	0.00014	0.00030
5.80	47	144	84	153	107	0.00030	0.00036	0.00014	0.00027
5.89	78	224	134	240	169	0.00026	0.00033	0.00014	0.00024
5.99	50	129	77	138	98	0.00033	0.00028	0.00013	0.00025
6.08	36	103	60	110	77	0.00033	0.00032	0.00012	0.00026
6.18	33	111	62	119	81	0.00029	0.00028	0.00012	0.00023
6.27	28	81	46	86	60	0.00035	0.00029	0.00012	0.00025
AVERAGE	64	130	85	139	104	0.00043	0.00036	0.00015	0.00031

ASSUMED VALUES:

STREAMBED "n" =	0.033
SHIELDS PARAMETER =	0.06
D50 =	12.5 mm
D90 =	104 mm
SPECIFIC WEIGHT OF SEDIMENT =	120 pcf
SPECIFIC WEIGHT OF WATER =	62.4 pcf
KINEMATIC VISCOSITY =	0.00001 sq ft/s

Example of Computations/Calculations

Bed Form

USE Existing Conditions w/ CSA in place HEC-2 Model for Hydraulics

Antidune Scour

$\Delta z_{ds} = \frac{1}{2} h_d = 0.0135 V^2$

Δz_{ds} = Bed Form Scour (ft)

h_d = Antidune Height (ft)

V = Design Flow Velocity (fps)

X-Sec 3.34
100-year @ Q = 185,000 cfs

V = 8.31 Max. depth = 13.08

$\Delta z_{ds} = 0.0135 (8.31)^2 = 0.932'$

Dune Scour

$\Delta z_{ds} = \frac{1}{2} (0.0655 d^{1.209})$

$h_d = (0.0655)(13.08)^{1.209} = 1.46'$

$\Delta z_{ds} = 0.73'$

checks w/ spread sheet

Example of Comps / Calc.
Ref: "Comp. Deg. & Local Scour", USBR 1984
Armoring X-Sec 3.34

1. Meyer-Peter, Muller:

$$D_c = \frac{\partial S}{K\left(\frac{n_s}{D_{90}^{1/6}}\right)^{3/2}}$$

$$D_c = \frac{13.08(0.00184)}{0.19\left(\frac{0.033}{104^{1/6}}\right)^{3/2}} = 67.48\,mm$$

2. Competent Bottom Velocity:

$$D_c = 1.88\,V_m^2$$

$$D_c = 1.88(8.31)^2 = 129.83\,mm$$

3. Shields Diagram:

$$D_c = \frac{\gamma_w \partial S}{(\gamma_s - \gamma_w)(0.06)} =$$

$$D_c = \frac{62.4(8.97)0.00184}{(120-62.4)(0.060)} = 0.298$$

$$D_c = 90.8\,mm$$

4. Yang's Incipient Motion:

$$D_c = 0.00659\,V_{cr}^2$$

$$D_c = 0.00659(8.31)^2 = 0.455$$

$$D_c = 138.7\,mm$$

checks w/ spread sheet

AVERAGE $\Rightarrow (68+130+91+139)/4 = 107\,mm$

sla
SIMONS, Li & ASSOCIATES, INC.

CLIENT CUP
PROJECT 91st Ave WWTP
DETAIL Armor / Scour
JOB NO.
DATE CHECKED 12/4/95
CHECKED BY M.L.
PAGE 1/1
DATE 11/28/95
COMPUTED BY TDhq

Armoring Ref: "Comp. Deg. & Local Scour", USBR 1984, Pp 14

Average 100 year Armor size = 104mm

$104mm \cong D_{91}$

$$\text{Long-Term Deg.} = 2(104)\left(\frac{1}{0.09} - 1\right) = 2103.1mm$$

$2103.1mm \cong 6.89'$ USE $\underline{\underline{7.0'}}$

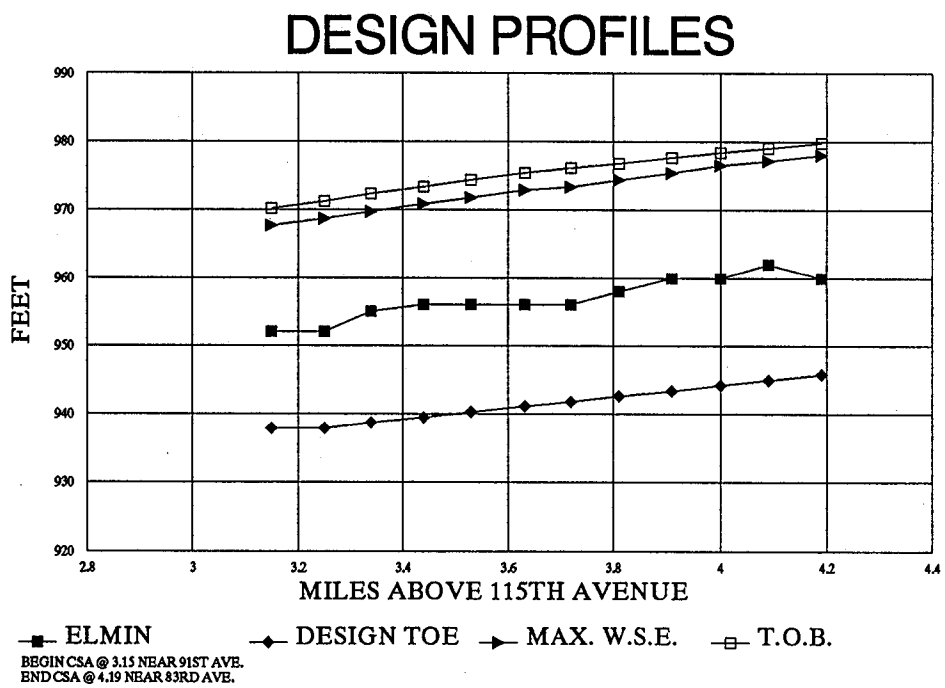
Total

1. Long-Term	7.0
2. general Scour (QUASED)	1.7
3. Low-Flow Insisement	3.0
4. bed Form Scour	1.3
Safety Factor 30% of 2 & 4 = 0.9' USE → 1.0'	1.0
	14.0'

SECNO	1995 SLA EXISTING WSE	1995 SLA W PIT WSE	1995 SLA W CSA WSE	1995 SLA W/ CSA & PIT WSE	1994 PRE. BAKER	1984 FIS WSE	(1) 1984 + 1'	(2) MAX. 1995 SLA WSE + 3'	CHECK BAKER + 3'	MAX. W/ FREE. 1 OR 2	DESIGN ELV & S	
2.96	964.55	964.5	964.55	964.55		966.08	967.08	967.55				
3.06	965.54	965.5	965.54	965.54		966.93	967.93	968.54				
3.15	966.29	966.21	966.22	966.22	966.24	967.67	968.67	969.29	969.24	969.29	970.20	BEGIN CSA @ 91ST AVE.
3.25	967.29	967.23	967.47	967.47	967.04	968.75	969.75	970.47	970.04	970.47	971.25	0.0021
3.34	968.31	968.28	969.08	969.08	967.76	969.73	970.73	972.08	970.76	972.08	972.30	
3.44	969.29	969.23	970.06	970.06	968.56	970.88	971.88	973.06	971.56	973.06	973.35	
3.53	970.55	970.49	971.29	971.29	969.27	971.83	972.83	974.29	972.27	974.29	974.40	
3.63	971.41	971.36	972.19	972.19	970.07	972.89	973.89	975.19	973.07	975.19	975.45	GRADE BREAK
3.72	972.02	971.98	972.88	972.88	970.79	973.36	974.36	975.88	973.79	975.88	976.13	0.0015
3.81	972.67	972.59	973.37	973.37	971.51	974.35	975.35	976.37	974.51	976.37	976.86	
3.91	973.61	973.56	974.03	974.03	972.30	975.45	976.45	977.03	975.30	977.03	977.61	
4	974.49	974.45	974.74	974.74	973.02	976.50	977.50	977.74	976.02	977.74	978.35	
4.09	975.39	975.3	975.56	975.56	973.74	977.21	978.21	978.56	976.74	978.56	979.09	
4.19	976.52	976.36	976.65	976.65	974.53	977.99	978.99	979.65	977.53	979.65	979.84	END CSA @ 83RD AVE.
4.28	977.37	976.51	977.46	977.6		978.70	979.70	980.6				
4.38	978.05	976.56	978.12	977.64		979.99	980.99	981.12				

	100-YEAR ARMOR SIZE	100-YEAR AVG. ARM. D. (FT) A	MAX BED FORM DEPTH (FT) B	QUASED CHANGE (FT) C	LOW FLOW INC. (FT) D	SAFETY FAC. 30% B & C (FT)	COMPUTED TOE (FT)	DESIGN TOE (FT)	ELEV. MIN.	COMPUTED TOE	DESIGN TOE	
2.96	99	7.03	0.8	−0.4	3	0.37	11.6		950			
3.06	72	7.03	0.8	−0.3	3	0.32	11.4		952			
3.15	99	7.03	1.1	−1.7	3	0.83	13.6	14.1	952	937.9	937.90	BEGIN CSA @ 91ST AVE.
3.25	109	7.03	1.3	−1.7	3	0.90	13.9	14.1	952	937.9	937.90	0.0016 GRADE BREAK
3.34	67	7.03	0.9	−1.7	3	0.79	13.5	14.1	955	940.9	938.70	
3.44	115	7.03	1.1	−1.7	3	0.83	13.6	14.1	956	941.9	939.50	
3.53	70	7.03	0.9	−1.5	3	0.71	13.1	14.1	956	941.9	940.30	
3.63	57	7.03	0.8	−1.3	3	0.63	12.8	14.1	956	941.9	941.10	
3.72	47	7.03	1.0	−1.1	3	0.63	12.8	14.1	956	941.9	941.82	
3.81	63	7.03	0.9	−1.2	3	0.63	12.7	14.1	958	943.9	942.60	
3.91	61	7.03	0.8	−1.2	3	0.60	12.6	14.1	960	945.9	943.40	
4.00	78	7.03	0.8	−1.3	3	0.64	12.8	14.1	960	945.9	944.19	
4.09	78	7.03	1.0	−1.4	3	0.71	13.1	14.1	962	947.9	944.98	
4.19	72	7.03	1.0	−1.4	3	0.71	13.1	14.1	960	945.9	945.78	END CSA @ 83RD AVE.
4.28	55	7.03	1.0	0	3	0.29	11.3		961			
									962			

SECNO	DES. TOE	DES. TOP	DEPTH	
3.15	937.90	970.20	32.30	BEGIN CSA @ 91ST AVE.

3.25	937.90	971.25	33.35
3.34	938.70	972.30	33.60
3.44	939.50	973.35	33.85
3.53	940.30	974.40	34.10
3.63	941.10	975.45	34.35
3.72	941.82	976.13	34.30
3.81	942.60	976.86	34.26
3.91	943.40	977.61	34.21
4.00	944.19	978.35	34.16
4.09	944.98	979.09	34.11
4.19	945.78	979.84	34.06 END CSA @ 83RD AVE.

SECNO	MIN INVERT EL	DESIGN TOE	MAX WSE	DESIGN T.O.B.	DEPTH
3.15	952.00	937.90	967.67	970.20	32.30
3.25	952.00	937.90	968.75	971.25	33.35
3.34	955.00	938.70	969.73	972.30	33.60
3.44	956.00	939.50	970.88	973.35	33.85
3.53	956.00	940.30	971.83	974.40	34.10
3.63	956.00	941.10	972.89	975.45	34.35
3.72	956.00	941.82	973.36	976.13	34.30
3.81	958.00	942.60	974.35	976.86	34.26
3.91	960.00	943.40	975.45	977.61	34.21
4.00	960.00	944.19	976.50	978.35	34.16
4.09	962.00	944.98	977.21	979.09	34.11
4.19	960.00	945.78	977.99	979.84	34.06
3.11	954.9		967.29		
3.21	956.1		968.24		
3.33	957.1		969.66		
3.46	957.5		971.19		
3.57	958.3		972.2		
3.71	962		973.28		
3.81	962.8		974.29		
3.94	963.2		975.8		
4.06	963.5		976.92		
4.13	963.3		977.61		
4.22	965.5		978.19