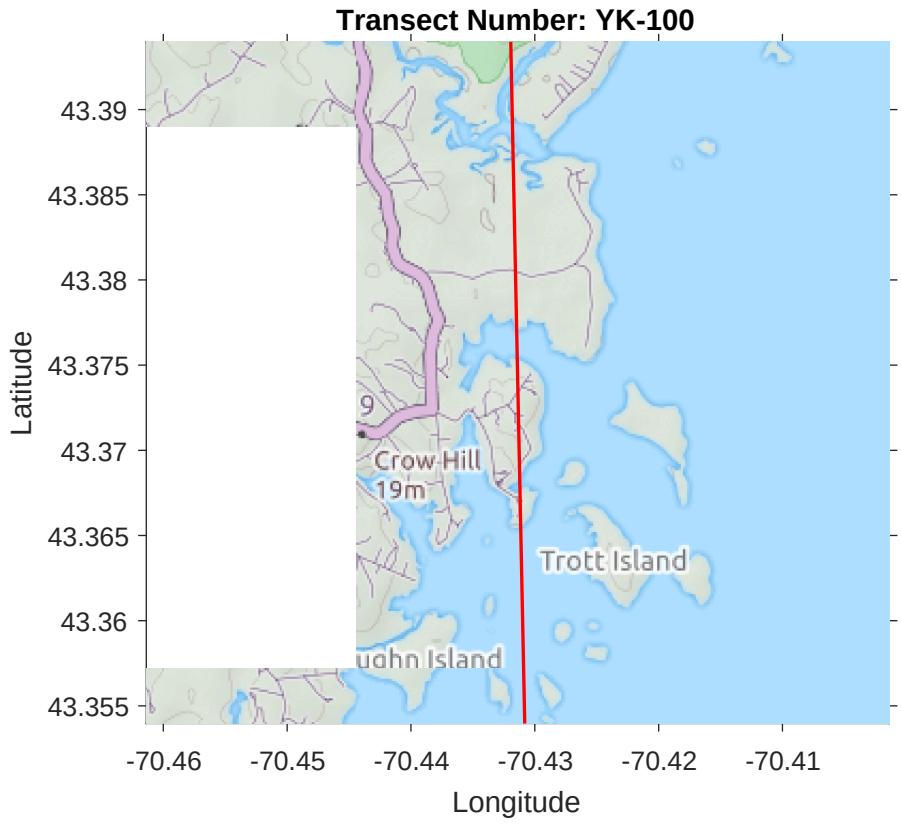
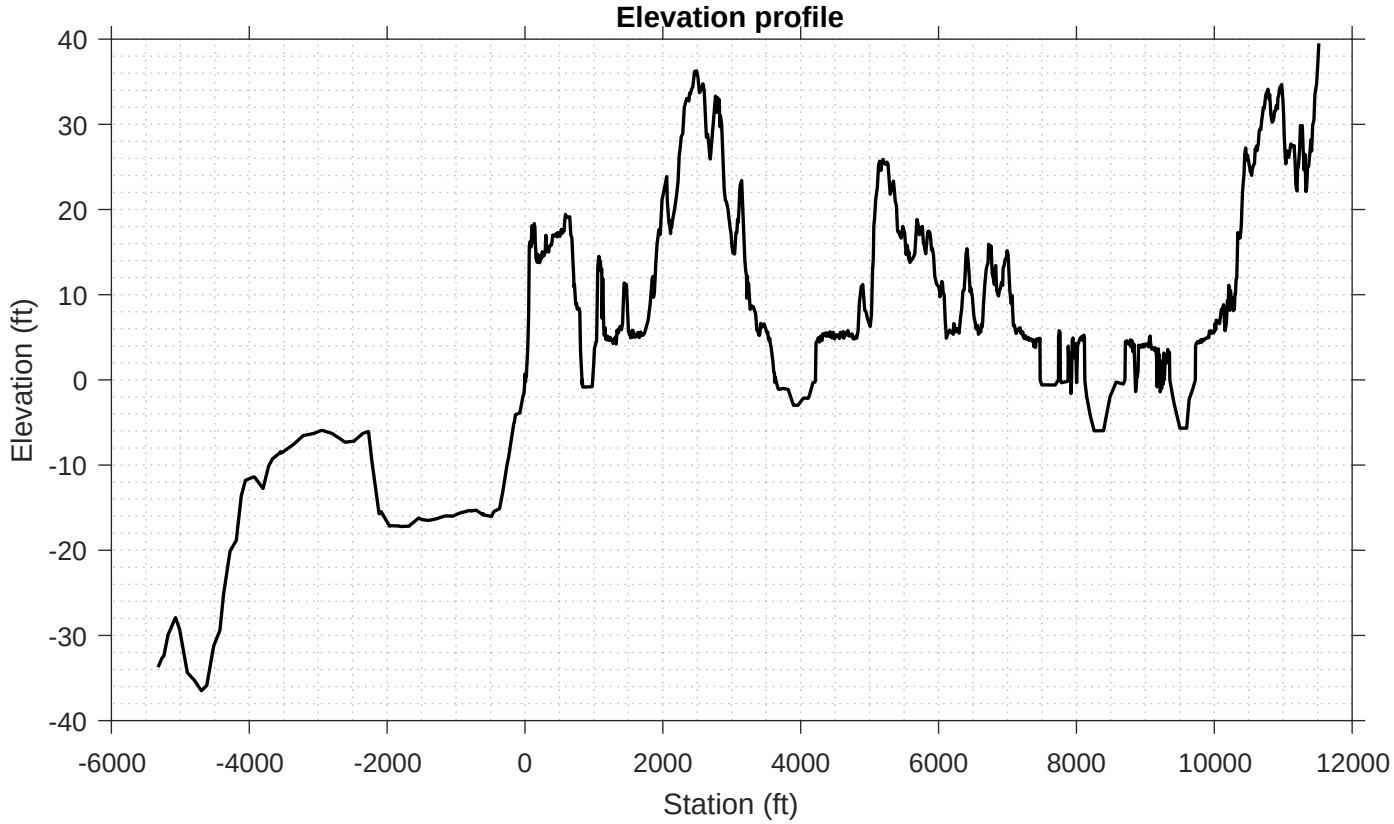

Transect Number: YK-100
Latitude
Longitude
43.39
43.385
43.38
43.375
43.37
43.365
43.36
43.355
-70.46
-70.45
-70.44
-70.43
-70.42
-70.41
Crow Hill
19m
Trott Island


Elevation profile
Elevation (ft)
Station (ft)
40
30
20
10
0
-10
-20
-30
-40
-6000
-4000
-2000
0
2000
4000
6000
8000
10000
12000

DATA LOG FOR TRANSECT ID: YK-100

PART 1: USER INPUT

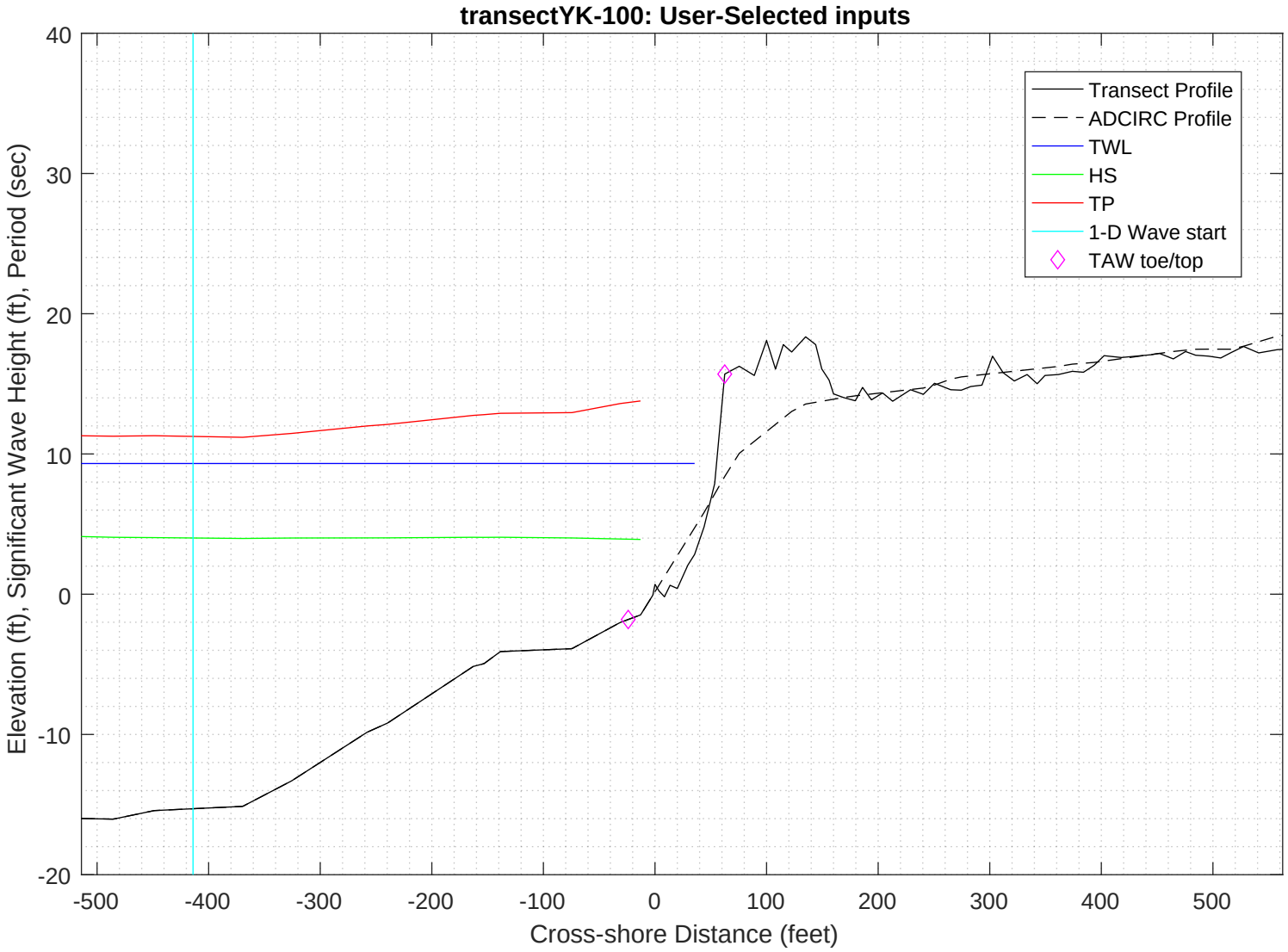
SWAN 1-D / WHAFIS input

station: -414 ft
LON: -70.4311 deg E
LAT: 43.3643 deg N
Bottom ELEV: -15.2964 ft-NAVD88
TWL: 9.32 ft-NAVD88
HS: 4.0095 ft
TP: 11.251 sec
Wave Direction bin: 90 deg CCW from East (90 deg sector)
Transect Direction: 91.62 deg CCW from East

TAW/RUNUP input

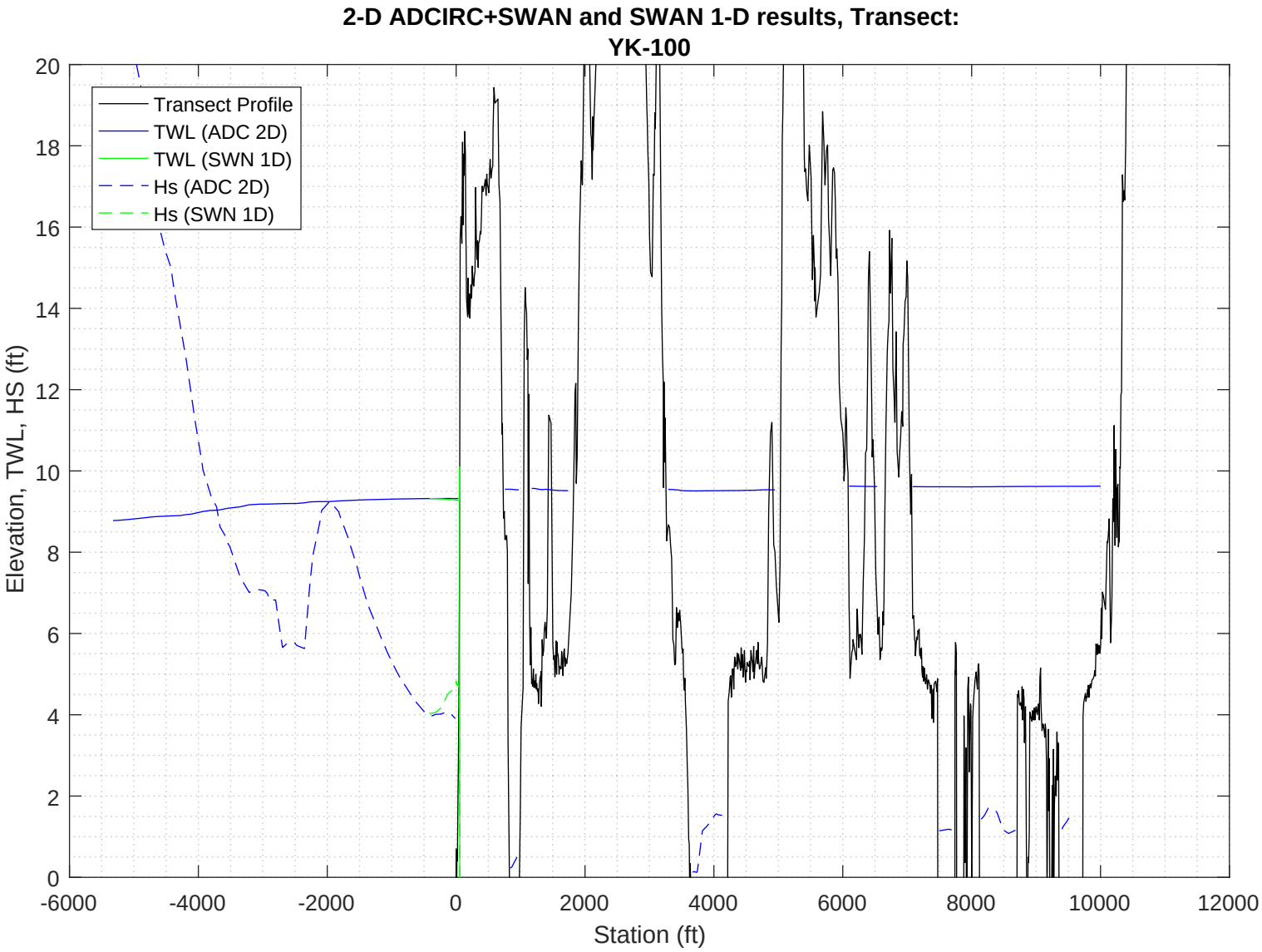
toe sta: -24 ft
toe elev: -1.803 ft-NAVD88
top sta: 62.5 ft
top elev: 15.6955 ft-NAVD88
Wave and water level conditions at toe to be calculated in SWAN 1-D

PART 1 COMPLETE


transectYK-100: User-Selected inputs
Transect Profile
ADCIRC Profile
TWL
HS
TP
1-D Wave start
TAW toe/top
Elevation (ft), Significant Wave Height (ft), Period (sec)
Cross-shore Distance (feet)
40
30
20
10
0
-10
-20
-500
-400
-300
-200
-100
0
100
200
300
400
500

```
_____________________________________________________________
PART 2: SWAN 1-D

swan input grid name: 2_swan/gridfiles/YK-100zmeters_xmeters.grd
swan file name:       2_swan/swanfiles/YK-100.swn
swan output name:     2_swan/swanfiles/YK-100.dat

Boundary Conditions:
    TWL- 2.8408 meters
    HS-  1.2221 meters
    PER- 11.251 seconds

Batch File: 2_swan/swanfiles/runswan.dat

SWAN maximum additional wave setup: 0.77566 feet
SWAN output at toe:
    SETUP- -0.033077 feet
    HS-    4.7158 feet
    PER-   11.1241 seconds

PART 2 COMPLETE_____________________________________________
```


```
SWAN maximum additional wave setup: 0.77566 feet
SWAN output at toe:
    SETUP- -0.033077 feet
    HS-    4.7158 feet
    PER-   11.1241 seconds

PART 2 COMPLETE_____________________________________________
```


2-D ADCIRC+SWAN and SWAN 1-D results, Transect:
YK-100
Transect Profile
TWL (ADC 2D)
TWL (SWN 1D)
Hs (ADC 2D)
Hs (SWN 1D)
Elevation, TWL, HS (ft)
Station (ft)
20
18
16
14
12
10
8
6
4
2
0
-6000
-4000
-2000
0
2000
4000
6000
8000
10000
12000

1

```
                    Execution started at 20200401.174318


                    ---------------------------------------
                                    SWAN
                    SIMULATION OF WAVES IN NEAR SHORE AREAS
                             VERSION NUMBER 41.20A
                    ---------------------------------------


 PROJECT '2018FemaAppeal' '1'
    '100-year Wind and Wave conditions'
 ! -- SET commands ------------------------------------------------------
  SET DEPMIN=0.01 MAXMES=999 MAXERR=3 PWTAIL=4
  SET LEVEL 0
  SET CARTESIAN
 ! -- MODE commands -----------------------------------------------------
  MODE STATIONARY ONED
 !-- COORDINATES commands-----------------------------------------------
 COORDINATES CART
 !
 !  --  computational (CGRID) grid commands -------------------------------------
 !                                   xlenc=length of grid in meters
 !  mxc = number of mesh cells (one less than number of grid points)
 !CGRID REGular [xpc]  [ypc]  [alpc]  [xlenc]   [ylenc]  [mxc]  [myc] &
 !      [ CIRcle|SECtor[dir1] [dir2] ] [mdc] [flow] [fhigh] [msc]
  CGRID REGULAR   0      0       0      145       0.   145     0    &
        CIRCLE                          36    0.03    0.8     30
 Resolution in sigma-space: df/f =  0.1157
 ! -- READgrid ---- not used in 1-D mode ----------------------------------
 ! -- INPgrid commands  -------------------------------------------------------
 !INPgrid BOTtom REGular [xpinp] [ypinp] [alpinp] [mxinp] [myinp] [dxinp] [dyinp]
 !
  INPGRID BOTTOM REGULAR    0       0        0      145   0      1       1
 !READinp BOTtom [fac]  'fname1'  [idla]  [nhedf]  [FREe|FORmat[form]|UNFormatted]
  READ    BOTTOM   -1. '../gridfiles/YK-100zmeters_xmeters.grd'    1      0       FREE
 !-------------------------------------------------------------------------
 ! -- WIND [vel] [dir]
 WIND      25.1  0
 ! -- BOUnd SHAPespec
 BOUND SHAPE JONSWAP 3.3  PEAK DSPR POWER
 ! -- BOUndspec
 ! BOU SIDE W CCW CON FILE 'swanspec.txt' 1
 BOUN SIDE W CCW CONSTANT PAR   1.2221     11.251     0  2
 !-- BOUndnest1  - optional for boundary from parent run
 !-- BOUndnest2
 !-- BOUndnest3
 !-- INITial -- usest to specify initial values
 !
```

```
!---------------- P H Y S I C S ------------------------
!-- GEN1 [cf10] [cf20] [cf30] [cf40] [edm1pm] [cdrag] [umin] [cfpm]
!-- GEN2 [cf10] [cf20] [cf30] [cf40] [cf50] [cf60] [edm1pm] [cdrag] [umin] [cfpm]
    GEN3 KOMEN
!   whitecapping ( on by default)
!-- WCAPping KOMen [cds2] [stpm] [powst] [delta] [powk]
    WCAP KOM
!   quadruplet wave interactions
!-- QUADrupl [iquad] [lambda] [Cn14] [Csh1] [Csh2]
! -- BREaking CONstant [alpha] [gamma]
     BREAK    CON       1.      0.73
!-- FRICtion JONswap CONstant [cfjon]
    FRIC     JONSWAP CON       0.038
!-- TRIad [itriad] [trfac] [cutfr]   [a]  [b]  [urcrit] [urslim]
! TRIAD        1      0.65    2.5    0.95 -0.75  0.2       0.01
  TRIAD
!-- VEGEtation [height] [diamtr] [nstems] [drag]
!-- MUD [layer] [rhom] [viscm]
!- LIMiter [ursell] [qb] deactivates quadruplets with Ursell number exceeds ursell
!-- OBSTacle -- not in 1-D
!-- SETUP [supcor]
   SETUP    0
!
! ----------------- N U M E R I C S -----------------------------
!
!-- PROP  can use BBST or GSE instead of default
! -- NUMeric -- lots of options
!     NUM ACCUR npnts=100. stat 30
     NUMeric STOPC
!
! -------------------O U T P U T ------------------------------
!
!OUTPut OPTIons "comment' (TABLE [field]) (BLOck [ndec] [len]) (SPEC [ndec])
 OUTPUT OPTIONS '%' TABLE 16
 $BLOCK 9 1000 SPEC 8
!CURve 'sname' [xp1] [yp1] <[int]   [xp]   [yp] >
 CURVE 'curve' 0     0      145  145    0
!TABLe 'sname' < HEADer|NOHEADer|INDexed > 'fname' <output parameters> (output time)
 Table 'curve'   HEADER 'YK-100.dat' XP YP HSIGN TPS RTP TMM10 DIR &
 DSPR DEPTH SETUP
!QUANTITY XP hexp=99999
!
!-----------------------------------------------
COMPUTE STATIONARY
------------------------------------------------------------------
                 COMPUTATIONAL PART OF SWAN
------------------------------------------------------------------
```

```
One-dimensional mode of SWAN is activated
Gridresolution       : MXC             146 MYC              1
                     : MCGRD           147
                     : MSC              31 MDC             36
                     : MTC               1
                     : NSTATC            0 ITERMX          50
Propagation flags    : ITFRE             1 IREFR            1
Source term flags    : IBOT              1 ISURF            1
                     : IWCAP             1 IWIND            3
                     : ITRIAD            1 IQUAD            2
                     : IVEG              0 ITURBV           0
                     : IMUD              0
Spatial step         : DX       0.1000E+01 DY      0.1000E+01
Spectral bin         : df/f     0.1157E+00 DDIR    0.1000E+02
Physical constants   : GRAV     0.9810E+01 RHO     0.1025E+04
Wind input           : WSPEED   0.2510E+02 DIR     0.0000E+00
Tail parameters      : E(f)     0.4000E+01 E(k)    0.2500E+01
                     : A(f)     0.5000E+01 A(k)    0.3000E+01
Accuracy parameters  : DREL     0.1000E-01 NPNTS   0.9950E+02
                     : DHABS    0.0000E+00 CURVAT  0.5000E-02
                     : GRWMX    0.1000E+00
Drying/flooding      : LEVEL    0.0000E+00 DEPMIN  0.1000E-01
The Cartesian convention for wind and wave directions is used
Scheme for geographic propagation is SORDUP
Scheme geogr. space  : PROPSC            2 ICMAX            7
Scheme spectral space: CSS      0.5000E+00 CDD     0.5000E+00
Current is off
Quadruplets          : IQUAD             2
                     : LAMBDA   0.2500E+00 CNL4    0.3000E+08
                     : CSH1     0.5500E+01 CSH2    0.8330E+00
                     : CSH3    -0.1250E+01
Maximum Ursell nr for Snl4 :    0.1000E+02
Triads               : ITRIAD            1 TRFAC   0.8000E+00
                     : CUTFR    0.2500E+01 URCRI   0.2000E+00
Minimum Ursell nr for Snl3 :    0.1000E-01
JONSWAP (‘73)        : GAMMA    0.3800E-01
Vegetation is off
Turbulence is off
Fluid mud is off
W-cap Komen (‘84)    : EMPCOF (CDS2):   0.2360E-04
W-cap Komen (‘84)    : APM (STPM)   :   0.3020E-02
W-cap Komen (‘84)    : POWST        :   0.2000E+01
W-cap Komen (‘84)    : DELTA        :   0.1000E+01
W-cap Komen (‘84)    : POWK         :   0.1000E+01
Wind drag is fit
Snyder/Komen wind input
Battjes&Janssen (‘78): ALPHA    0.1000E+01 GAMMA   0.7300E+00
Set-up               : SUPCOR   0.0000E+00
Diffraction is off
Janssen (‘89,‘90)    : ALPHA    0.1000E-01 KAPPA   0.4100E+00
Janssen (‘89,‘90)    : RHOA     0.1280E+01 RHOW    0.1025E+04

1st and 2nd gen. wind: CF10     0.1880E+03 CF20    0.5900E+00
                     : CF30     0.1200E+00 CF40    0.2500E+03
                     : CF50     0.2300E-02 CF60   -0.2230E+00
                     : CF70     0.0000E+00 CF80   -0.5600E+00
                     : RHOAW    0.1249E-02 EDMLPM  0.3600E-02
                     : CDRAG    0.1230E-02 UMIN    0.1000E+01
                     : LIM_PM   0.1300E+00

 ---------------------------------------------------------------
 First guess by 2nd generation model flags for first iteration:
 ITER       1 GRWMX      0.1000E+23 ALFA       0.0000E+00
 IWIND      2 IWCAP      0 IQUAD      0
 ITRIAD     1 IBOT       1 ISURF      1
 IVEG       0 ITURBV     0 IMUD       0
 ---------------------------------------------------------------
iteration    1; sweep 1
iteration    1; sweep 2
iteration    1; sweep 3
iteration    1; sweep 4
not possible to compute, first iteration

 ---------------------------------------------------------------
 Options given by user are activated for proceeding calculation:
 ITER       2 GRWMX      0.1000E+00 ALFA       0.0000E+00
 IWIND      3 IWCAP      1 IQUAD      2
 ITRIAD     1 IBOT       1 ISURF      1
 IVEG       0 ITURBV     0 IMUD       0
 ---------------------------------------------------------------
iteration    2; sweep 1
iteration    2; sweep 2
iteration    2; sweep 3
iteration    2; sweep 4
accuracy OK in  75.70 % of wet grid points ( 99.50 % required)

iteration    3; sweep 1
iteration    3; sweep 2
iteration    3; sweep 3
```

```
iteration    3; sweep 4
accuracy OK in   0.70 % of wet grid points ( 99.50 % required)

iteration    4; sweep 1
iteration    4; sweep 2
iteration    4; sweep 3
iteration    4; sweep 4
accuracy OK in  61.12 % of wet grid points ( 99.50 % required)

iteration    5; sweep 1
iteration    5; sweep 2
iteration    5; sweep 3
iteration    5; sweep 4
accuracy OK in  66.67 % of wet grid points ( 99.50 % required)

iteration    6; sweep 1
iteration    6; sweep 2
iteration    6; sweep 3
iteration    6; sweep 4
accuracy OK in  98.62 % of wet grid points ( 99.50 % required)

iteration    7; sweep 1
iteration    7; sweep 2
iteration    7; sweep 3
iteration    7; sweep 4
accuracy OK in  99.31 % of wet grid points ( 99.50 % required)

iteration    8; sweep 1
iteration    8; sweep 2
iteration    8; sweep 3
iteration    8; sweep 4
accuracy OK in  99.31 % of wet grid points ( 99.50 % required)

iteration    9; sweep 1
iteration    9; sweep 2
iteration    9; sweep 3
iteration    9; sweep 4
accuracy OK in 100.00 % of wet grid points ( 99.50 % required)


STOP
```

% Run:1 Table:curve SWAN version:41.20A

Xp [m]	Yp [m]	Hsig [m]	TPsmoo [sec]	RTpeak [sec]	Tm_10 [sec]	Dir [degr]	Dspr [degr]	Depth [m]	Setup [m]
0.	0.	1.22902	11.0934	11.1572	10.1187	0.031	32.0340	7.5000	0.000000
1.	0.	1.22924	11.0935	11.1572	10.1135	0.032	32.0366	7.5000	-0.000000
2.	0.	1.22936	11.0935	11.1572	10.1082	0.032	32.0259	7.5000	-0.000000
3.	0.	1.22971	11.0936	11.1572	10.1034	0.032	32.0105	7.4900	-0.000009
4.	0.	1.22979	11.0937	11.1572	10.0982	0.032	31.9939	7.4900	-0.000008
5.	0.	1.23012	11.0937	11.1572	10.0933	0.032	31.9767	7.4800	-0.000017
6.	0.	1.23029	11.0938	11.1572	10.0882	0.032	31.9727	7.4800	-0.000017
7.	0.	1.23039	11.0938	11.1572	10.0831	0.032	31.9599	7.4800	-0.000017
8.	0.	1.23074	11.0939	11.1572	10.0783	0.032	31.9439	7.4700	-0.000026
9.	0.	1.23091	11.0939	11.1572	10.0733	0.032	31.9404	7.4700	-0.000026
10.	0.	1.23101	11.0940	11.1572	10.0682	0.032	31.9279	7.4700	-0.000026
11.	0.	1.23135	11.0941	11.1572	10.0635	0.033	31.9121	7.4600	-0.000034
12.	0.	1.23143	11.0941	11.1572	10.0584	0.033	31.8956	7.4600	-0.000034
13.	0.	1.23158	11.0942	11.1572	10.0537	0.033	31.8529	7.4500	-0.000042
14.	0.	1.23167	11.0942	11.1572	10.0492	0.033	31.7637	7.4299	-0.000059
15.	0.	1.23202	11.0943	11.1572	10.0452	0.033	31.6377	7.3899	-0.000092
16.	0.	1.23230	11.0945	11.1572	10.0411	0.033	31.5261	7.3499	-0.000123
17.	0.	1.23258	11.0946	11.1572	10.0369	0.033	31.4137	7.3098	-0.000155
18.	0.	1.23288	11.0947	11.1572	10.0326	0.033	31.3004	7.2698	-0.000187
19.	0.	1.23321	11.0948	11.1572	10.0281	0.033	31.1879	7.2298	-0.000220
20.	0.	1.23349	11.0949	11.1572	10.0234	0.033	31.0667	7.1897	-0.000253
21.	0.	1.23405	11.0950	11.1572	10.0190	0.033	30.9421	7.1397	-0.000297
22.	0.	1.23444	11.0952	11.1572	10.0141	0.033	30.8262	7.0997	-0.000332
23.	0.	1.23488	11.0953	11.1572	10.0090	0.033	30.7134	7.0596	-0.000368
24.	0.	1.23536	11.0954	11.1572	10.0037	0.033	30.6015	7.0196	-0.000405
25.	0.	1.23588	11.0955	11.1572	9.9984	0.033	30.4901	6.9796	-0.000443
26.	0.	1.23635	11.0957	11.1572	9.9928	0.034	30.3695	6.9395	-0.000482
27.	0.	1.23706	11.0958	11.1572	9.9875	0.034	30.2362	6.8895	-0.000532
28.	0.	1.23777	11.0960	11.1572	9.9819	0.034	30.0990	6.8394	-0.000583
29.	0.	1.23852	11.0962	11.1572	9.9761	0.034	29.9605	6.7894	-0.000635
30.	0.	1.23931	11.0963	11.1572	9.9700	0.034	29.8217	6.7393	-0.000689
31.	0.	1.24014	11.0965	11.1572	9.9637	0.034	29.6830	6.6893	-0.000745
32.	0.	1.24102	11.0967	11.1572	9.9572	0.034	29.5445	6.6392	-0.000802
33.	0.	1.24194	11.0969	11.1572	9.9504	0.034	29.4062	6.5891	-0.000860
34.	0.	1.24285	11.0970	11.1572	9.9433	0.034	29.2591	6.5391	-0.000920
35.	0.	1.24410	11.0973	11.1572	9.9363	0.034	29.1087	6.4790	-0.000994
36.	0.	1.24514	11.0975	11.1572	9.9286	0.034	28.9726	6.4289	-0.001056
37.	0.	1.24624	11.0977	11.1572	9.9205	0.034	28.8502	6.3789	-0.001119
38.	0.	1.24739	11.0979	11.1572	9.9122	0.034	28.7302	6.3288	-0.001182
39.	0.	1.24857	11.0981	11.1572	9.9035	0.034	28.6110	6.2788	-0.001248
40.	0.	1.24980	11.0983	11.1572	9.8943	0.034	28.4922	6.2287	-0.001314
41.	0.	1.25110	11.0985	11.1572	9.8842	0.034	28.3722	6.1786	-0.001382
42.	0.	1.25240	11.0988	11.1572	9.8736	0.034	28.2438	6.1285	-0.001452
43.	0.	1.25409	11.0990	11.1572	9.8626	0.034	28.1110	6.0685	-0.001539
44.	0.	1.25554	11.0993	11.1572	9.8508	0.034	27.9854	6.0184	-0.001612
45.	0.	1.25704	11.0995	11.1572	9.8386	0.034	27.8628	5.9683	-0.001688
46.	0.	1.25862	11.0998	11.1572	9.8254	0.034	27.7401	5.9182	-0.001765
47.	0.	1.26025	11.1001	11.1572	9.8118	0.034	27.6179	5.8682	-0.001844
48.	0.	1.26204	11.1004	11.1572	9.7979	0.034	27.5120	5.8181	-0.001925
49.	0.	1.26322	11.1006	11.1572	9.7826	0.034	27.4204	5.7880	-0.001975
50.	0.	1.26482	11.1009	11.1572	9.7676	0.034	27.3323	5.7480	-0.002043
51.	0.	1.26609	11.1011	11.1572	9.7517	0.034	27.2462	5.7179	-0.002095
52.	0.	1.26780	11.1014	11.1572	9.7356	0.034	27.1604	5.6778	-0.002165
53.	0.	1.26912	11.1017	11.1572	9.7186	0.034	27.0673	5.6478	-0.002219
54.	0.	1.27107	11.1019	11.1572	9.7024	0.034	26.9456	5.5977	-0.002310
55.	0.	1.27340	11.1023	11.1572	9.6860	0.034	26.8138	5.5376	-0.002421
56.	0.	1.27545	11.1026	11.1572	9.6685	0.033	26.6875	5.4875	-0.002517
57.	0.	1.27756	11.1029	11.1572	9.6505	0.033	26.5629	5.4374	-0.002615
58.	0.	1.27970	11.1032	11.1572	9.6317	0.034	26.4307	5.3873	-0.002716
59.	0.	1.28238	11.1036	11.1572	9.6119	0.034	26.2971	5.3272	-0.002840

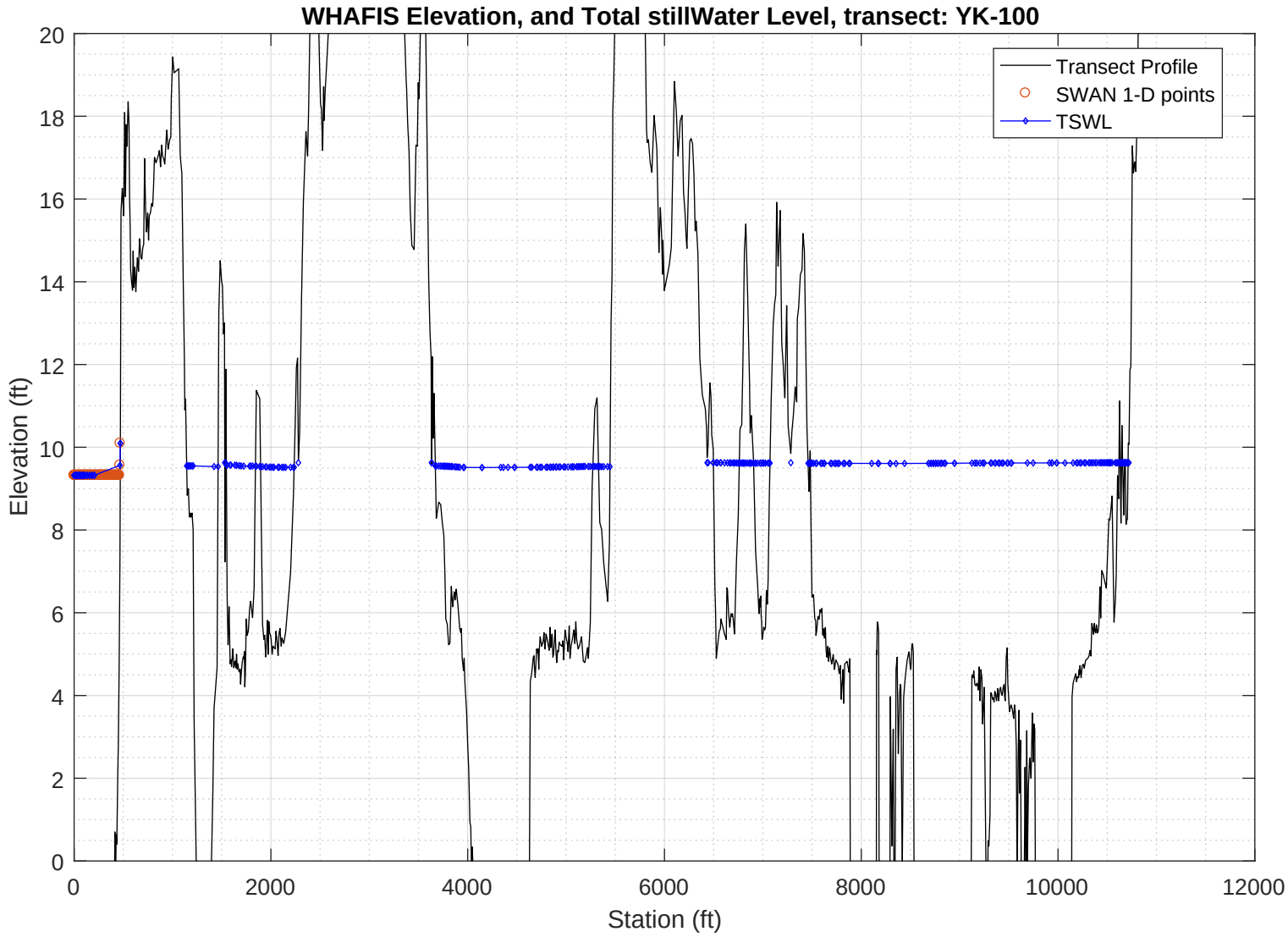
60.	0.	1.28478	11.1039	11.1572	9.5905	0.034	26.1718	5.2771	-0.002947
61.	0.	1.28732	11.1042	11.1572	9.5678	0.034	26.0491	5.2269	-0.003057
62.	0.	1.28996	11.1046	11.1572	9.5438	0.035	25.9191	5.1768	-0.003171
63.	0.	1.29316	11.1050	11.1572	9.5187	0.035	25.7865	5.1167	-0.003311
64.	0.	1.29614	11.1053	11.1572	9.4913	0.037	25.6636	5.0666	-0.003432
65.	0.	1.29928	11.1057	11.1572	9.4617	0.038	25.5380	5.0164	-0.003558
66.	0.	1.30310	11.1061	11.1572	9.4304	0.041	25.4215	4.9563	-0.003710
67.	0.	1.30675	11.1064	11.1572	9.3957	0.045	25.3241	4.9062	-0.003842
68.	0.	1.31051	11.1068	11.1572	9.3606	0.051	25.2389	4.8560	-0.003978
69.	0.	1.31397	11.1072	11.1572	9.3294	0.066	25.1619	4.8059	-0.004116
70.	0.	1.31802	11.1076	11.1572	9.2979	0.083	25.0965	4.7457	-0.004284
71.	0.	1.32177	11.1079	11.1572	9.2644	0.105	25.0532	4.6956	-0.004431
72.	0.	1.32540	11.1083	11.1572	9.2334	0.117	25.0210	4.6454	-0.004581
73.	0.	1.32924	11.1087	11.1572	9.1996	0.133	25.0014	4.5953	-0.004736
74.	0.	1.33374	11.1091	11.1572	9.1651	0.139	24.9874	4.5351	-0.004926
75.	0.	1.33766	11.1096	11.1572	9.1320	0.107	24.9545	4.4849	-0.005092
76.	0.	1.34153	11.1100	11.1572	9.1007	0.094	24.9113	4.4347	-0.005263
77.	0.	1.34489	11.1104	11.1572	9.0708	0.093	24.8774	4.3946	-0.005404
78.	0.	1.34731	11.1108	11.1572	9.0399	0.094	24.8659	4.3745	-0.005481
79.	0.	1.34955	11.1111	11.1572	9.0108	0.092	24.8382	4.3544	-0.005558
80.	0.	1.35264	11.1115	11.1572	8.9837	0.088	24.7732	4.3143	-0.005704
81.	0.	1.35668	11.1120	11.1572	8.9581	0.083	24.6765	4.2541	-0.005925
82.	0.	1.36074	11.1125	11.1572	8.9319	0.082	24.5657	4.1938	-0.006155
83.	0.	1.36490	11.1129	11.1572	8.9051	0.084	24.4566	4.1336	-0.006392
84.	0.	1.36883	11.1134	11.1572	8.8765	0.087	24.3867	4.0834	-0.006597
85.	0.	1.37083	11.1138	11.1572	8.8437	0.092	24.3738	4.0734	-0.006647
86.	0.	1.37238	11.1142	11.1572	8.8106	0.095	24.3839	4.0733	-0.006656
87.	0.	1.37393	11.1146	11.1572	8.7782	0.097	24.3922	4.0733	-0.006667
88.	0.	1.37602	11.1150	11.1572	8.7478	0.099	24.3954	4.0633	-0.006717
89.	0.	1.37752	11.1153	11.1572	8.7175	0.100	24.4047	4.0633	-0.006726
90.	0.	1.37891	11.1156	11.1572	8.6886	0.102	24.4078	4.0633	-0.006735
91.	0.	1.38078	11.1160	11.1572	8.6619	0.104	24.4047	4.0532	-0.006782
92.	0.	1.38209	11.1163	11.1572	8.6350	0.105	24.4094	4.0532	-0.006789
93.	0.	1.38334	11.1166	11.1572	8.6087	0.105	24.4082	4.0532	-0.006797
94.	0.	1.38510	11.1169	11.1572	8.5844	0.104	24.4007	4.0432	-0.006844
95.	0.	1.38629	11.1171	11.1572	8.5598	0.102	24.3992	4.0432	-0.006850
96.	0.	1.38745	11.1174	11.1572	8.5362	0.100	24.3955	4.0431	-0.006856
97.	0.	1.38852	11.1177	11.1572	8.5133	0.098	24.3841	4.0431	-0.006862
98.	0.	1.39008	11.1179	11.1572	8.4924	0.095	24.3664	4.0331	-0.006908
99.	0.	1.39110	11.1182	11.1572	8.4709	0.092	24.3562	4.0331	-0.006913
100.	0.	1.39204	11.1184	11.1572	8.4502	0.088	24.3393	4.0331	-0.006919
101.	0.	1.39346	11.1186	11.1572	8.4316	0.083	24.3137	4.0230	-0.006965
102.	0.	1.39430	11.1189	11.1572	8.4128	0.080	24.2896	4.0230	-0.006970
103.	0.	1.39496	11.1191	11.1572	8.3948	0.078	24.2413	4.0230	-0.006976
104.	0.	1.39701	11.1193	11.1572	8.3809	0.077	24.1524	3.9929	-0.007106
105.	0.	1.39956	11.1196	11.1572	8.3674	0.076	24.0449	3.9527	-0.007282
106.	0.	1.40210	11.1199	11.1572	8.3529	0.077	23.9224	3.9125	-0.007462
107.	0.	1.40523	11.1202	11.1572	8.3389	0.074	23.7945	3.8623	-0.007690
108.	0.	1.40784	11.1205	11.1572	8.3231	0.072	23.6706	3.8221	-0.007878
109.	0.	1.41041	11.1208	11.1572	8.3071	0.070	23.5368	3.7819	-0.008070
110.	0.	1.41354	11.1211	11.1572	8.2923	0.069	23.3954	3.7317	-0.008313
111.	0.	1.41612	11.1214	11.1572	8.2754	0.068	23.2580	3.6915	-0.008512
112.	0.	1.41876	11.1217	11.1572	8.2573	0.070	23.1117	3.6513	-0.008714
113.	0.	1.42206	11.1221	11.1572	8.2392	0.071	22.9586	3.6010	-0.008972
114.	0.	1.42482	11.1224	11.1572	8.2184	0.075	22.8167	3.5608	-0.009179
115.	0.	1.42755	11.1228	11.1572	8.1968	0.083	22.6725	3.5206	-0.009386
116.	0.	1.43098	11.1231	11.1572	8.1754	0.089	22.5289	3.4703	-0.009652
117.	0.	1.43316	11.1235	11.1572	8.1504	0.095	22.4065	3.4402	-0.009799
118.	0.	1.43528	11.1238	11.1572	8.1254	0.100	22.2905	3.4101	-0.009942
119.	0.	1.43738	11.1241	11.1572	8.0999	0.102	22.1776	3.3799	-0.010082
120.	0.	1.43937	11.1245	11.1572	8.0745	0.103	22.0655	3.3498	-0.010217
121.	0.	1.44115	11.1248	11.1572	8.0500	0.100	21.9507	3.3197	-0.010346
122.	0.	1.44242	11.1251	11.1572	8.0257	0.097	21.7738	3.2895	-0.010470
123.	0.	1.44827	11.1255	11.1572	8.0152	0.088	21.4774	3.1789	-0.011129
124.	0.	1.45425	11.1260	11.1572	8.0048	0.075	21.1134	3.0581	-0.011882
125.	0.	1.45967	11.1266	11.1572	7.9952	0.055	20.6106	2.9273	-0.012724
126.	0.	1.47292	11.1275	11.1572	8.0047	0.021	20.1207	2.6854	-0.014578

127.	0.	1.46484	11.1279	11.1572	7.9559	359.999	20.0772	2.7163	-0.013686
128.	0.	1.45312	11.1282	11.1572	7.8928	359.987	20.2030	2.8178	-0.012230
129.	0.	1.44671	11.1285	11.1572	7.8492	359.980	20.0852	2.8484	-0.011568
130.	0.	1.45366	11.1291	11.1572	7.8469	359.962	19.7861	2.6874	-0.012637
131.	0.	1.45024	11.1295	11.1572	7.8136	359.947	19.6615	2.6576	-0.012375
132.	0.	1.44114	11.1298	11.1572	7.7654	359.936	19.5199	2.6986	-0.011422
133.	0.	1.44325	11.1304	11.1572	7.7543	359.921	19.1144	2.5779	-0.012074
134.	0.	1.44787	11.1311	11.1572	7.7544	359.903	18.5480	2.3967	-0.013313
135.	0.	1.44853	11.1318	11.1572	7.7465	359.882	17.9663	2.2258	-0.014249
136.	0.	1.44306	11.1327	11.1572	7.7209	359.871	17.4080	2.0856	-0.014442
137.	0.	1.43128	11.1337	11.1572	7.6818	359.864	16.7534	1.9661	-0.013877
138.	0.	1.42495	11.1350	11.1572	7.6560	359.861	15.9221	1.7353	-0.014656
139.	0.	1.40718	11.1366	11.1572	7.6096	359.863	14.9659	1.5060	-0.014016
140.	0.	1.38571	11.1387	11.1572	7.5362	359.860	13.6939	1.2368	-0.013184
141.	0.	1.33975	11.1414	11.1572	7.5467	359.709	12.4350	0.9122	-0.007845
142.	0.	1.00101	11.2212	11.1572	8.1847	358.091	13.0019	0.6744	0.074437
143.	0.	0.38037	14.7994	15.4936	10.4005	358.732	17.0476	0.2364	0.236423
144.	0.	-9.00000	-9.0000	-9.0000	-9.0000	-999.000	-9.0000	-99.0000	-9.000000
145.	0.	-9.00000	-9.0000	-9.0000	-9.0000	-999.000	-9.0000	-99.0000	-9.000000

PART 3: WHAFIS

WHAFIS input: YK-100.dat
WHAFIS output: YK-100.out

PART 3 COMPLETE


WHAFIS Elevation, and Total stillWater Level, transect: YK-100
Transect Profile
SWAN 1-D points
TSWL
Elevation (ft)
Station (ft)
0
2
4
6
8
10
12
14
16
18
20
0
2000
4000
6000
8000
10000
12000

WAVE HEIGHT COMPUTATIONS FOR FLOOD INSURANCE STUDIES (WHAFIS VERSION 4.0G, 08_2007)
Executed on: Thu Apr 2 11:05:19 2020
Input file: C:\FEMA-TransectAnalysis\LOMR-TransectAnalysis-Kennebunkport\3_whafis\whafis4\YK-100.dat
Output file: C:\FEMA-TransectAnalysis\LOMR-TransectAnalysis-Kennebunkport\3_whafis\whafis4\YK-100.out

header

THIS IS A 100-YEAR CASE
THE FOLLOWING NON-DEFAULT WIND SPEEDS ARE BEING USED
WINDIF 56.14 WINDOF 56.14 WINDVH 60.00

PART1 INPUT

IE	0.000	-15.296	1.000	1.000	9.320	6.415	11.251	56.140	0.004	0.000
OF	1.000	-15.292	0.000	9.320	0.000	0.000	0.000	0.000	0.004	0.000
OF	2.000	-15.288	0.000	9.320	0.000	0.000	0.000	0.000	0.004	0.000
OF	13.000	-15.247	0.000	9.320	0.000	0.000	0.000	0.000	0.004	0.000
OF	14.000	-15.243	0.000	9.320	0.000	0.000	0.000	0.000	0.004	0.000
OF	25.000	-15.201	0.000	9.320	0.000	0.000	0.000	0.000	0.004	0.000
OF	26.000	-15.197	0.000	9.320	0.000	0.000	0.000	0.000	0.004	0.000
OF	37.000	-15.155	0.000	9.320	0.000	0.000	0.000	0.000	0.004	0.000
OF	38.000	-15.152	0.000	9.320	0.000	0.000	0.000	0.000	0.018	0.000
OF	49.000	-14.942	0.000	9.320	0.000	0.000	0.000	0.000	0.021	0.000
OF	50.000	-14.900	0.000	9.320	0.000	0.000	0.000	0.000	0.041	0.000
OF	61.000	-14.444	0.000	9.320	0.000	0.000	0.000	0.000	0.041	0.000
OF	62.000	-14.402	0.000	9.320	0.000	0.000	0.000	0.000	0.041	0.000
OF	73.000	-13.946	0.000	9.321	0.000	0.000	0.000	0.000	0.041	0.000
OF	74.000	-13.905	0.000	9.321	0.000	0.000	0.000	0.000	0.041	0.000
OF	85.000	-13.448	0.000	9.321	0.000	0.000	0.000	0.000	0.041	0.000
OF	86.000	-13.407	0.000	9.321	0.000	0.000	0.000	0.000	0.048	0.000
OF	97.000	-12.867	0.000	9.321	0.000	0.000	0.000	0.000	0.049	0.000
OF	98.000	-12.815	0.000	9.321	0.000	0.000	0.000	0.000	0.051	0.000
OF	109.000	-12.251	0.000	9.321	0.000	0.000	0.000	0.000	0.051	0.000
OF	110.000	-12.200	0.000	9.321	0.000	0.000	0.000	0.000	0.051	0.000
OF	133.000	-11.021	0.000	9.321	0.000	0.000	0.000	0.000	0.051	0.000
OF	134.000	-10.970	0.000	9.321	0.000	0.000	0.000	0.000	0.051	0.000
OF	157.000	-9.806	0.000	9.321	0.000	0.000	0.000	0.000	0.050	0.000
OF	158.000	-9.771	0.000	9.321	0.000	0.000	0.000	0.000	0.040	0.000
OF	181.000	-8.837	0.000	9.321	0.000	0.000	0.000	0.000	0.041	0.000
OF	182.000	-8.785	0.000	9.321	0.000	0.000	0.000	0.000	0.053	0.000
OF	205.000	-7.576	0.000	9.322	0.000	0.000	0.000	0.000	0.053	0.000
OF	206.000	-7.523	0.000	9.322	0.000	0.000	0.000	0.000	0.057	0.000
IF	465.900	7.361	0.000	9.564	0.000	0.000	0.000	0.000	0.064	0.000
IF	469.200	9.327	0.000	10.096	0.000	0.000	0.000	0.000	0.667	0.000
IF	470.000	10.096	0.000	10.096	0.000	0.000	0.000	0.000	0.961	0.000
AS	1144.200	9.549	0.000	9.549	0.000	0.000	0.000	0.000	-0.134	0.000
IF	1149.500	8.839	0.000	9.549	0.000	0.000	0.000	0.000	-0.032	0.000
IF	1161.500	8.999	0.000	9.549	0.000	0.000	0.000	0.000	-0.024	0.000
IF	1171.500	8.310	0.000	9.549	0.000	0.000	0.000	0.000	-0.027	0.000
IF	1183.000	8.409	0.000	9.549	0.000	0.000	0.000	0.000	0.000	0.000
IF	1189.500	8.310	0.000	9.549	0.000	0.000	0.000	0.000	-0.012	0.000
IF	1205.500	8.150	0.000	9.549	0.000	0.000	0.000	0.000	-0.015	0.000
IF	1209.500	8.015	0.000	9.549	0.000	0.000	0.000	0.000	-0.021	0.000
IF	1422.000	3.684	0.000	9.533	0.000	0.000	0.000	0.000	0.006	0.000
IF	1462.900	9.533	0.000	9.533	0.000	0.000	0.000	0.000	0.143	0.000
AS	1547.500	9.569	0.000	9.569	0.000	0.000	0.000	0.000	-0.421	0.000
IF	1555.000	6.407	0.000	9.569	0.000	0.000	0.000	0.000	-0.126	0.000
IF	1585.500	4.767	0.000	9.569	0.000	0.000	0.000	0.000	-0.041	0.000
IF	1593.000	4.865	0.000	9.569	0.000	0.000	0.000	0.000	0.001	0.000
IF	1634.500	4.833	0.000	9.567	0.000	0.000	0.000	0.000	0.002	0.000
IF	1651.000	4.997	0.000	9.564	0.000	0.000	0.000	0.000	-0.006	0.000
IF	1678.500	4.570	0.000	9.555	0.000	0.000	0.000	0.000	-0.011	0.000
IF	1697.500	4.505	0.000	9.549	0.000	0.000	0.000	0.000	0.007	0.000
IF	1724.000	4.898	0.000	9.543	0.000	0.000	0.000	0.000	0.019	0.000
IF	1784.000	6.112	0.000	9.544	0.000	0.000	0.000	0.000	0.020	0.000
IF	1794.000	6.276	0.000	9.546	0.000	0.000	0.000	0.000	-0.008	0.000
IF	1813.500	5.883	0.000	9.547	0.000	0.000	0.000	0.000	0.067	0.000
IF	1842.900	9.544	0.000	9.544	0.000	0.000	0.000	0.000	0.124	0.000
AS	1895.100	9.530	0.000	9.530	0.000	0.000	0.000	0.000	-0.191	0.000
IF	1915.000	5.719	0.000	9.530	0.000	0.000	0.000	0.000	-0.089	0.000
IF	1947.000	4.931	0.000	9.525	0.000	0.000	0.000	0.000	-0.010	0.000
IF	1956.500	5.292	0.000	9.524	0.000	0.000	0.000	0.000	0.015	0.000
IF	1986.000	5.522	0.000	9.519	0.000	0.000	0.000	0.000	0.001	0.000
IF	2002.500	5.358	0.000	9.518	0.000	0.000	0.000	0.000	-0.009	0.000
IF	2021.500	5.194	0.000	9.518	0.000	0.000	0.000	0.000	-0.007	0.000
IF	2030.500	5.161	0.000	9.518	0.000	0.000	0.000	0.000	-0.004	0.000
IF	2072.500	4.964	0.000	9.517	0.000	0.000	0.000	0.000	0.007	0.000
IF	2083.500	5.522	0.000	9.516	0.000	0.000	0.000	0.000	0.011	0.000
IF	2112.000	5.390	0.000	9.515	0.000	0.000	0.000	0.000	-0.005	0.000
IF	2131.000	5.259	0.000	9.515	0.000	0.000	0.000	0.000	0.004	0.000
IF	2149.500	5.528	0.000	9.514	0.000	0.000	0.000	0.000	0.025	0.000
IF	2200.000	6.975	0.000	9.514	0.000	0.000	0.000	0.000	0.042	0.000
IF	2229.000	8.839	0.000	9.514	0.000	0.000	0.000	0.000	0.071	0.000
IF	2236.000	9.514	0.000	9.514	0.000	0.000	0.000	0.000	0.097	0.000
AS	3671.200	9.547	0.000	9.547	0.000	0.000	0.000	0.000	-0.129	0.000
IF	3681.000	8.281	0.000	9.547	0.000	0.000	0.000	0.000	-0.025	0.000
IF	3706.000	8.675	0.000	9.547	0.000	0.000	0.000	0.000	0.007	0.000
IF	3725.500	8.612	0.000	9.546	0.000	0.000	0.000	0.000	-0.014	0.000
IF	3741.500	8.186	0.000	9.544	0.000	0.000	0.000	0.000	-0.023	0.000
IF	3758.000	7.854	0.000	9.543	0.000	0.000	0.000	0.000	-0.047	0.000
IF	3768.500	6.906	0.000	9.542	0.000	0.000	0.000	0.000	-0.103	0.000
IF	3777.500	5.850	0.000	9.541	0.000	0.000	0.000	0.000	-0.049	0.000
IF	3792.500	5.719	0.000	9.540	0.000	0.000	0.000	0.000	-0.022	0.000
IF	3806.000	5.226	0.000	9.538	0.000	0.000	0.000	0.000	-0.017	0.000
IF	3819.000	5.259	0.000	9.536	0.000	0.000	0.000	0.000	0.051	0.000
IF	3833.500	6.637	0.000	9.534	0.000	0.000	0.000	0.000	0.032	0.000
IF	3846.500	6.145	0.000	9.533	0.000	0.000	0.000	0.000	-0.009	0.000
IF	3871.500	6.309	0.000	9.528	0.000	0.000	0.000	0.000	0.012	0.000
IF	3883.000	6.571	0.000	9.525	0.000	0.000	0.000	0.000	-0.004	0.000
IF	3901.000	6.178	0.000	9.521	0.000	0.000	0.000	0.000	-0.026	0.000
IF	3919.000	5.620	0.000	9.517	0.000	0.000	0.000	0.000	-0.028	0.000
IF	3957.000	4.603	0.000	9.513	0.000	0.000	0.000	0.000	-0.016	0.000
IF	3964.000	4.898	0.000	9.513	0.000	0.000	0.000	0.000	-0.030	0.000
OF	4145.000	-1.017	0.000	9.509	0.000	0.000	0.000	0.000	-0.032	0.000
OF	4146.000	-1.015	0.000	9.509	0.000	0.000	0.000	0.000	-0.010	0.000
OF	4336.000	-2.984	0.000	9.512	0.000	0.000	0.000	0.000	-0.009	0.000

OF	4363.000	-2.980	0.000	9.513	0.000	0.000	0.000	0.000	0.005	0.000
OF	4410.000	-2.599	0.000	9.513	0.000	0.000	0.000	0.000	0.007	0.000
OF	4476.000	-2.136	0.000	9.514	0.000	0.000	0.000	0.000	0.007	0.000
OF	4477.000	-2.134	0.000	9.514	0.000	0.000	0.000	0.000	0.041	0.000
IF	4636.000	4.337	0.000	9.516	0.000	0.000	0.000	0.000	0.038	0.000
IF	4652.000	4.567	0.000	9.516	0.000	0.000	0.000	0.000	0.012	0.000
IF	4701.000	5.125	0.000	9.517	0.000	0.000	0.000	0.000	0.008	0.000
IF	4709.000	5.026	0.000	9.517	0.000	0.000	0.000	0.000	0.008	0.000
IF	4736.500	5.420	0.000	9.517	0.000	0.000	0.000	0.000	0.004	0.000
IF	4752.500	5.190	0.000	9.518	0.000	0.000	0.000	0.000	0.001	0.000
IF	4796.500	5.486	0.000	9.518	0.000	0.000	0.000	0.000	0.002	0.000
IF	4811.000	5.321	0.000	9.518	0.000	0.000	0.000	0.000	0.004	0.000
IF	4837.500	5.650	0.000	9.518	0.000	0.000	0.000	0.000	-0.005	0.000
IF	4844.500	5.157	0.000	9.519	0.000	0.000	0.000	0.000	-0.025	0.000
IF	4866.000	4.928	0.000	9.521	0.000	0.000	0.000	0.000	-0.006	0.000
IF	4873.000	4.993	0.000	9.521	0.000	0.000	0.000	0.000	0.005	0.000
IF	4897.000	5.092	0.000	9.523	0.000	0.000	0.000	0.000	-0.006	0.000
IF	4904.500	4.797	0.000	9.524	0.000	0.000	0.000	0.000	0.006	0.000
IF	4929.500	5.289	0.000	9.524	0.000	0.000	0.000	0.000	0.012	0.000
IF	4941.000	5.223	0.000	9.524	0.000	0.000	0.000	0.000	-0.009	0.000
IF	4975.500	4.862	0.000	9.524	0.000	0.000	0.000	0.000	0.007	0.000
IF	4989.500	5.584	0.000	9.524	0.000	0.000	0.000	0.000	0.004	0.000
IF	5020.000	5.059	0.000	9.525	0.000	0.000	0.000	0.000	-0.007	0.000
IF	5050.500	5.190	0.000	9.526	0.000	0.000	0.000	0.000	0.007	0.000
IF	5066.000	5.387	0.000	9.527	0.000	0.000	0.000	0.000	0.014	0.000
IF	5079.000	5.584	0.000	9.528	0.000	0.000	0.000	0.000	-0.001	0.000
IF	5107.500	5.354	0.000	9.530	0.000	0.000	0.000	0.000	-0.011	0.000
IF	5122.500	5.125	0.000	9.531	0.000	0.000	0.000	0.000	-0.004	0.000
IF	5139.000	5.223	0.000	9.533	0.000	0.000	0.000	0.000	0.009	0.000
IF	5157.000	5.420	0.000	9.534	0.000	0.000	0.000	0.000	-0.011	0.000
IF	5175.000	4.829	0.000	9.535	0.000	0.000	0.000	0.000	-0.019	0.000
IF	5190.500	4.797	0.000	9.536	0.000	0.000	0.000	0.000	0.001	0.000
IF	5226.000	4.895	0.000	9.536	0.000	0.000	0.000	0.000	0.017	0.000
IF	5246.000	5.748	0.000	9.536	0.000	0.000	0.000	0.000	0.100	0.000
IF	5272.200	9.536	0.000	9.536	0.000	0.000	0.000	0.000	0.145	0.000
AS	5329.900	9.535	0.000	9.535	0.000	0.000	0.000	0.000	-0.108	0.000
IF	5342.500	8.179	0.000	9.535	0.000	0.000	0.000	0.000	-0.048	0.000
IF	5361.500	8.012	0.000	9.531	0.000	0.000	0.000	0.000	-0.024	0.000
IF	5383.000	7.192	0.000	9.531	0.000	0.000	0.000	0.000	-0.029	0.000
IF	5422.500	6.276	0.000	9.531	0.000	0.000	0.000	0.000	0.037	0.000
IF	5446.200	9.531	0.000	9.531	0.000	0.000	0.000	0.000	0.137	0.000
AS	6497.100	9.626	0.000	9.626	0.000	0.000	0.000	0.000	-0.161	0.000
IF	6526.500	4.895	0.000	9.626	0.000	0.000	0.000	0.000	-0.106	0.000
IF	6539.000	5.190	0.000	9.626	0.000	0.000	0.000	0.000	0.017	0.000
IF	6568.500	5.617	0.000	9.625	0.000	0.000	0.000	0.000	0.019	0.000
IF	6573.000	5.850	0.000	9.625	0.000	0.000	0.000	0.000	-0.003	0.000
IF	6610.500	5.486	0.000	9.624	0.000	0.000	0.000	0.000	0.011	0.000
IF	6640.000	6.568	0.000	9.623	0.000	0.000	0.000	0.000	0.003	0.000
IF	6664.000	5.650	0.000	9.622	0.000	0.000	0.000	0.000	-0.016	0.000
IF	6676.000	5.978	0.000	9.621	0.000	0.000	0.000	0.000	0.006	0.000
IF	6698.500	5.846	0.000	9.620	0.000	0.000	0.000	0.000	-0.014	0.000
IF	6711.500	5.486	0.000	9.620	0.000	0.000	0.000	0.000	0.043	0.000
IF	6731.500	7.257	0.000	9.620	0.000	0.000	0.000	0.000	0.074	0.000
IF	6749.500	8.307	0.000	9.619	0.000	0.000	0.000	0.000	0.081	0.000
IF	6760.600	9.619	0.000	9.619	0.000	0.000	0.000	0.000	0.118	0.000
AS	6905.800	9.617	0.000	9.617	0.000	0.000	0.000	0.000	-0.105	0.000
IF	6926.000	7.490	0.000	9.617	0.000	0.000	0.000	0.000	-0.073	0.000
IF	6946.000	6.700	0.000	9.617	0.000	0.000	0.000	0.000	-0.029	0.000
IF	6972.000	6.142	0.000	9.617	0.000	0.000	0.000	0.000	-0.009	0.000
IF	6978.000	6.404	0.000	9.617	0.000	0.000	0.000	0.000	-0.028	0.000
IF	6997.500	5.420	0.000	9.617	0.000	0.000	0.000	0.000	-0.024	0.000
IF	7009.000	5.650	0.000	9.617	0.000	0.000	0.000	0.000	0.008	0.000
IF	7026.500	5.650	0.000	9.617	0.000	0.000	0.000	0.000	0.026	0.000
IF	7053.500	6.798	0.000	9.617	0.000	0.000	0.000	0.000	0.079	0.000
IF	7064.500	8.668	0.000	9.617	0.000	0.000	0.000	0.000	0.152	0.000
IF	7072.100	9.617	0.000	9.617	0.000	0.000	0.000	0.000	0.125	0.000
AS	7459.500	9.613	0.000	9.613	0.000	0.000	0.000	0.000	-0.075	0.000
IF	7468.500	8.934	0.000	9.613	0.000	0.000	0.000	0.000	0.000	0.000
IF	7477.200	9.613	0.000	9.613	0.000	0.000	0.000	0.000	0.078	0.000
AS	7482.400	9.613	0.000	9.613	0.000	0.000	0.000	0.000	-0.224	0.000
IF	7488.500	8.245	0.000	9.613	0.000	0.000	0.000	0.000	-0.195	0.000
IF	7499.000	6.371	0.000	9.613	0.000	0.000	0.000	0.000	-0.068	0.000
IF	7515.000	6.437	0.000	9.613	0.000	0.000	0.000	0.000	-0.022	0.000
IF	7540.000	5.453	0.000	9.613	0.000	0.000	0.000	0.000	-0.028	0.000
IF	7546.500	5.551	0.000	9.613	0.000	0.000	0.000	0.000	0.011	0.000
IF	7589.500	6.007	0.000	9.612	0.000	0.000	0.000	0.000	0.010	0.000
IF	7599.500	6.106	0.000	9.612	0.000	0.000	0.000	0.000	-0.013	0.000
IF	7619.000	5.614	0.000	9.612	0.000	0.000	0.000	0.000	-0.027	0.000
IF	7626.500	5.384	0.000	9.612	0.000	0.000	0.000	0.000	-0.010	0.000
IF	7689.000	4.892	0.000	9.610	0.000	0.000	0.000	0.000	-0.009	0.000
IF	7699.500	4.760	0.000	9.610	0.000	0.000	0.000	0.000	-0.007	0.000
IF	7728.000	4.629	0.000	9.610	0.000	0.000	0.000	0.000	0.002	0.000
IF	7741.000	4.859	0.000	9.610	0.000	0.000	0.000	0.000	0.004	0.000
IF	7762.000	4.760	0.000	9.610	0.000	0.000	0.000	0.000	-0.009	0.000
IF	7776.000	4.531	0.000	9.610	0.000	0.000	0.000	0.000	-0.016	0.000
IF	7820.000	3.809	0.000	9.610	0.000	0.000	0.000	0.000	0.004	0.000
IF	7832.000	4.760	0.000	9.610	0.000	0.000	0.000	0.000	0.014	0.000
IF	7875.000	4.564	0.000	9.610	0.000	0.000	0.000	0.000	0.002	0.000
IF	7884.500	4.892	0.000	9.610	0.000	0.000	0.000	0.000	-0.022	0.000
OF	8106.000	-0.591	0.000	9.609	0.000	0.000	0.000	0.000	0.003	0.000
IF	8170.500	5.712	0.000	9.609	0.000	0.000	0.000	0.000	0.086	0.000
IF	8177.000	5.515	0.000	9.609	0.000	0.000	0.000	0.000	-0.047	0.000
OF	8292.000	-0.033	0.000	9.608	0.000	0.000	0.000	0.000	-0.013	0.000
IF	8295.500	3.973	0.000	9.608	0.000	0.000	0.000	0.000	0.076	0.000
IF	8353.500	4.629	0.000	9.607	0.000	0.000	0.000	0.000	0.002	0.000
IF	8440.000	4.236	0.000	9.609	0.000	0.000	0.000	0.000	-0.032	0.000
OF	8685.000	-5.977	0.000	9.610	0.000	0.000	0.000	0.000	-0.041	0.000
OF	8686.000	-5.977	0.000	9.610	0.000	0.000	0.000	0.000	0.000	0.000
OF	8709.000	-5.974	0.000	9.611	0.000	0.000	0.000	0.000	0.000	0.000
OF	8710.000	-5.974	0.000	9.611	0.000	0.000	0.000	0.000	0.000	0.000
OF	8733.000	-5.972	0.000	9.611	0.000	0.000	0.000	0.000	0.000	0.000
OF	8734.000	-5.972	0.000	9.611	0.000	0.000	0.000	0.000	0.000	0.000

OF	8757.000	-5.969	0.000	9.612	0.000	0.000	0.000	0.000	0.000	0.000
OF	8758.000	-5.969	0.000	9.612	0.000	0.000	0.000	0.000	0.000	0.000
OF	8781.000	-5.965	0.000	9.612	0.000	0.000	0.000	0.000	0.000	0.000
OF	8782.000	-5.965	0.000	9.612	0.000	0.000	0.000	0.000	0.000	0.000
OF	8806.000	-5.964	0.000	9.613	0.000	0.000	0.000	0.000	0.013	0.000
OF	8818.000	-5.515	0.000	9.613	0.000	0.000	0.000	0.000	0.041	0.000
OF	8842.000	-4.486	0.000	9.613	0.000	0.000	0.000	0.000	0.043	0.000
OF	8854.000	-3.972	0.000	9.614	0.000	0.000	0.000	0.000	0.032	0.000
OF	8947.000	-1.105	0.000	9.614	0.000	0.000	0.000	0.000	0.031	0.000
OF	8949.000	-1.066	0.000	9.614	0.000	0.000	0.000	0.000	0.032	0.000
IF	9124.500	4.495	0.000	9.617	0.000	0.000	0.000	0.000	0.026	0.000
IF	9154.500	4.265	0.000	9.617	0.000	0.000	0.000	0.000	-0.004	0.000
IF	9173.500	4.298	0.000	9.618	0.000	0.000	0.000	0.000	-0.008	0.000
IF	9205.500	3.871	0.000	9.618	0.000	0.000	0.000	0.000	-0.016	0.000
IF	9233.500	3.314	0.000	9.618	0.000	0.000	0.000	0.000	0.007	0.000
IF	9249.500	4.200	0.000	9.618	0.000	0.000	0.000	0.000	0.009	0.000
IF	9316.000	4.068	0.000	9.619	0.000	0.000	0.000	0.000	-0.002	0.000
IF	9324.500	4.035	0.000	9.619	0.000	0.000	0.000	0.000	0.001	0.000
IF	9357.500	4.101	0.000	9.619	0.000	0.000	0.000	0.000	0.000	0.000
IF	9365.500	4.035	0.000	9.619	0.000	0.000	0.000	0.000	-0.006	0.000
IF	9395.500	3.871	0.000	9.618	0.000	0.000	0.000	0.000	0.002	0.000
IF	9407.000	4.134	0.000	9.618	0.000	0.000	0.000	0.000	0.004	0.000
IF	9432.000	4.003	0.000	9.617	0.000	0.000	0.000	0.000	0.002	0.000
IF	9443.000	4.200	0.000	9.618	0.000	0.000	0.000	0.000	0.022	0.000
IF	9483.500	5.151	0.000	9.618	0.000	0.000	0.000	0.000	0.002	0.000
IF	9489.500	4.298	0.000	9.618	0.000	0.000	0.000	0.000	-0.036	0.000
IF	9521.500	3.773	0.000	9.619	0.000	0.000	0.000	0.000	-0.014	0.000
IF	9528.000	3.740	0.000	9.619	0.000	0.000	0.000	0.000	-0.023	0.000
OF	9689.000	0.000	0.000	9.620	0.000	0.000	0.000	0.000	-0.006	0.000
IF	9747.500	2.395	0.000	9.620	0.000	0.000	0.000	0.000	-0.025	0.000
OF	9913.000	-5.594	0.000	9.622	0.000	0.000	0.000	0.000	-0.042	0.000
OF	9938.000	-5.672	0.000	9.621	0.000	0.000	0.000	0.000	-0.003	0.000
OF	9939.000	-5.672	0.000	9.621	0.000	0.000	0.000	0.000	0.000	0.000
OF	9986.000	-5.668	0.000	9.621	0.000	0.000	0.000	0.000	0.000	0.000
OF	9987.000	-5.668	0.000	9.621	0.000	0.000	0.000	0.000	0.046	0.000
OF	10071.000	-1.786	0.000	9.621	0.000	0.000	0.000	0.000	0.060	0.000
IF	10153.000	4.298	0.000	9.621	0.000	0.000	0.000	0.000	0.052	0.000
IF	10188.000	4.331	0.000	9.622	0.000	0.000	0.000	0.000	0.004	0.000
IF	10198.000	4.462	0.000	9.622	0.000	0.000	0.000	0.000	0.011	0.000
IF	10223.000	4.724	0.000	9.623	0.000	0.000	0.000	0.000	-0.001	0.000
IF	10234.000	4.429	0.000	9.623	0.000	0.000	0.000	0.000	-0.002	0.000
IF	10266.000	4.659	0.000	9.623	0.000	0.000	0.000	0.000	0.009	0.000
IF	10281.000	4.856	0.000	9.623	0.000	0.000	0.000	0.000	0.006	0.000
IF	10314.000	4.954	0.000	9.624	0.000	0.000	0.000	0.000	0.005	0.000
IF	10324.000	5.085	0.000	9.624	0.000	0.000	0.000	0.000	0.027	0.000
IF	10343.000	5.741	0.000	9.624	0.000	0.000	0.000	0.000	0.011	0.000
IF	10361.000	5.479	0.000	9.625	0.000	0.000	0.000	0.000	-0.006	0.000
IF	10383.000	5.512	0.000	9.625	0.000	0.000	0.000	0.000	0.008	0.000
IF	10390.000	5.709	0.000	9.625	0.000	0.000	0.000	0.000	0.006	0.000
IF	10415.000	5.709	0.000	9.626	0.000	0.000	0.000	0.000	0.004	0.000
IF	10433.000	5.873	0.000	9.626	0.000	0.000	0.000	0.000	0.045	0.000
IF	10444.000	7.021	0.000	9.626	0.000	0.000	0.000	0.000	0.040	0.000
IF	10459.000	6.923	0.000	9.626	0.000	0.000	0.000	0.000	-0.009	0.000
IF	10474.000	6.759	0.000	9.626	0.000	0.000	0.000	0.000	-0.011	0.000
IF	10490.000	6.595	0.000	9.626	0.000	0.000	0.000	0.000	0.024	0.000
IF	10505.000	7.513	0.000	9.626	0.000	0.000	0.000	0.000	0.064	0.000
IF	10516.000	8.268	0.000	9.626	0.000	0.000	0.000	0.000	0.036	0.000
IF	10525.000	8.235	0.000	9.626	0.000	0.000	0.000	0.000	0.009	0.000
IF	10535.000	8.432	0.000	9.626	0.000	0.000	0.000	0.000	0.024	0.000
IF	10549.000	8.822	0.000	9.626	0.000	0.000	0.000	0.000	-0.045	0.000
IF	10582.000	6.296	0.000	9.626	0.000	0.000	0.000	0.000	-0.046	0.000
IF	10591.000	6.886	0.000	9.626	0.000	0.000	0.000	0.000	0.131	0.000
IF	10605.000	9.314	0.000	9.626	0.000	0.000	0.000	0.000	0.098	0.000
IF	10619.000	9.626	0.000	9.626	0.000	0.000	0.000	0.000	0.022	0.000
AS	10632.000	9.626	0.000	9.626	0.000	0.000	0.000	0.000	-0.209	0.000
IF	10639.000	8.166	0.000	9.626	0.000	0.000	0.000	0.000	0.000	0.000
IF	10645.000	9.626	0.000	9.626	0.000	0.000	0.000	0.000	0.243	0.000
AS	10656.000	9.626	0.000	9.626	0.000	0.000	0.000	0.000	-0.115	0.000
IF	10667.000	8.363	0.000	9.626	0.000	0.000	0.000	0.000	-0.003	0.000
IF	10674.000	9.577	0.000	9.626	0.000	0.000	0.000	0.000	0.105	0.000
IF	10679.000	9.626	0.000	9.626	0.000	0.000	0.000	0.000	0.010	0.000
AS	10683.000	9.626	0.000	9.626	0.000	0.000	0.000	0.000	-0.187	0.000
IF	10691.000	8.133	0.000	9.626	0.000	0.000	0.000	0.000	-0.100	0.000
IF	10697.000	8.232	0.000	9.626	0.000	0.000	0.000	0.000	0.075	0.000
IF	10711.000	9.626	0.000	9.626	0.000	0.000	0.000	0.000	0.100	0.000
ET	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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	END STATION	END ELEVATION	FETCH LENGTH	SURGE ELEV 10-YEAR	SURGE ELEV 100-YEAR	INITIAL WAVE HEIGHT	INITIAL W. PERIOD		BOTTOM SLOPE	AVERAGE A-ZONES
IE	0.000	-15.296	1.000	1.000	9.320	6.415	11.251	56.140	0.004	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	1.000	-15.292	0.000	9.320	0.000	0.000	0.000	0.000	0.004	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	2.000	-15.288	0.000	9.320	0.000	0.000	0.000	0.000	0.004	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	13.000	-15.247	0.000	9.320	0.000	0.000	0.000	0.000	0.004	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	14.000	-15.243	0.000	9.320	0.000	0.000	0.000	0.000	0.004	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	25.000	-15.201	0.000	9.320	0.000	0.000	0.000	0.000	0.004	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	26.000	-15.197	0.000	9.320	0.000	0.000	0.000	0.000	0.004	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	37.000	-15.155	0.000	9.320	0.000	0.000	0.000	0.000	0.004	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE

	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
OF	38.000	-15.152	0.000	9.320	0.000	0.000	0.000	0.000	0.018	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
OF	49.000	-14.942	0.000	9.320	0.000	0.000	0.000	0.000	0.021	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
OF	50.000	-14.900	0.000	9.320	0.000	0.000	0.000	0.000	0.041	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
OF	61.000	-14.444	0.000	9.320	0.000	0.000	0.000	0.000	0.041	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
OF	62.000	-14.402	0.000	9.320	0.000	0.000	0.000	0.000	0.041	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
OF	73.000	-13.946	0.000	9.321	0.000	0.000	0.000	0.000	0.041	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
OF	74.000	-13.905	0.000	9.321	0.000	0.000	0.000	0.000	0.041	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
OF	85.000	-13.448	0.000	9.321	0.000	0.000	0.000	0.000	0.041	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
OF	86.000	-13.407	0.000	9.321	0.000	0.000	0.000	0.000	0.048	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
OF	97.000	-12.867	0.000	9.321	0.000	0.000	0.000	0.000	0.049	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
OF	98.000	-12.815	0.000	9.321	0.000	0.000	0.000	0.000	0.051	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
OF	109.000	-12.251	0.000	9.321	0.000	0.000	0.000	0.000	0.051	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
OF	110.000	-12.200	0.000	9.321	0.000	0.000	0.000	0.000	0.051	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
OF	133.000	-11.021	0.000	9.321	0.000	0.000	0.000	0.000	0.051	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
OF	134.000	-10.970	0.000	9.321	0.000	0.000	0.000	0.000	0.051	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
OF	157.000	-9.806	0.000	9.321	0.000	0.000	0.000	0.000	0.050	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
OF	158.000	-9.771	0.000	9.321	0.000	0.000	0.000	0.000	0.040	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
OF	181.000	-8.837	0.000	9.321	0.000	0.000	0.000	0.000	0.041	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
OF	182.000	-8.785	0.000	9.321	0.000	0.000	0.000	0.000	0.053	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
OF	205.000	-7.576	0.000	9.322	0.000	0.000	0.000	0.000	0.053	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
OF	206.000	-7.523	0.000	9.322	0.000	0.000	0.000	0.000	0.057	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	465.900	7.361	0.000	9.564	0.000	0.000	0.000	0.000	0.064	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	469.200	9.327	0.000	10.096	0.000	0.000	0.000	0.000	0.667	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	470.000	10.096	0.000	10.096	0.000	0.000	0.000	0.000	0.961	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
AS	1144.200	9.549	0.000	9.549	0.000	0.000	0.000	0.000	-0.134	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	1149.500	8.839	0.000	9.549	0.000	0.000	0.000	0.000	-0.032	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	1161.500	8.999	0.000	9.549	0.000	0.000	0.000	0.000	-0.024	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	1171.500	8.310	0.000	9.549	0.000	0.000	0.000	0.000	-0.027	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	1183.000	8.409	0.000	9.549	0.000	0.000	0.000	0.000	0.000	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	1189.500	8.310	0.000	9.549	0.000	0.000	0.000	0.000	-0.012	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	1205.500	8.150	0.000	9.549	0.000	0.000	0.000	0.000	-0.015	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	1209.500	8.015	0.000	9.549	0.000	0.000	0.000	0.000	-0.021	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	1422.000	3.684	0.000	9.533	0.000	0.000	0.000	0.000	0.006	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	1462.900	9.533	0.000	9.533	0.000	0.000	0.000	0.000	0.143	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE

	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
AS	1547.500	9.569	0.000	9.569	0.000	0.000	0.000	0.000	-0.421	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	1555.000	6.407	0.000	9.569	0.000	0.000	0.000	0.000	-0.126	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	1585.500	4.767	0.000	9.569	0.000	0.000	0.000	0.000	-0.041	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	1593.000	4.865	0.000	9.569	0.000	0.000	0.000	0.000	0.001	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	1634.500	4.833	0.000	9.567	0.000	0.000	0.000	0.000	0.002	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	1651.000	4.997	0.000	9.564	0.000	0.000	0.000	0.000	-0.006	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	1678.500	4.570	0.000	9.555	0.000	0.000	0.000	0.000	-0.011	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	1697.500	4.505	0.000	9.549	0.000	0.000	0.000	0.000	0.007	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	1724.000	4.898	0.000	9.543	0.000	0.000	0.000	0.000	0.019	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	1784.000	6.112	0.000	9.544	0.000	0.000	0.000	0.000	0.020	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	1794.000	6.276	0.000	9.546	0.000	0.000	0.000	0.000	-0.008	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	1813.500	5.883	0.000	9.547	0.000	0.000	0.000	0.000	0.067	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	1842.900	9.544	0.000	9.544	0.000	0.000	0.000	0.000	0.124	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
AS	1895.100	9.530	0.000	9.530	0.000	0.000	0.000	0.000	-0.191	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	1915.000	5.719	0.000	9.530	0.000	0.000	0.000	0.000	-0.089	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	1947.000	4.931	0.000	9.525	0.000	0.000	0.000	0.000	-0.010	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	1956.500	5.292	0.000	9.524	0.000	0.000	0.000	0.000	0.015	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	1986.000	5.522	0.000	9.519	0.000	0.000	0.000	0.000	0.001	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	2002.500	5.358	0.000	9.518	0.000	0.000	0.000	0.000	-0.009	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	2021.500	5.194	0.000	9.518	0.000	0.000	0.000	0.000	-0.007	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	2030.500	5.161	0.000	9.518	0.000	0.000	0.000	0.000	-0.004	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	2072.500	4.964	0.000	9.517	0.000	0.000	0.000	0.000	0.007	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	2083.500	5.522	0.000	9.516	0.000	0.000	0.000	0.000	0.011	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	2112.000	5.390	0.000	9.515	0.000	0.000	0.000	0.000	-0.005	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	2131.000	5.259	0.000	9.515	0.000	0.000	0.000	0.000	0.004	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	2149.500	5.528	0.000	9.514	0.000	0.000	0.000	0.000	0.025	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	2200.000	6.975	0.000	9.514	0.000	0.000	0.000	0.000	0.042	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	2229.000	8.839	0.000	9.514	0.000	0.000	0.000	0.000	0.071	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	2236.000	9.514	0.000	9.514	0.000	0.000	0.000	0.000	0.097	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
AS	3671.200	9.547	0.000	9.547	0.000	0.000	0.000	0.000	-0.129	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	3681.000	8.281	0.000	9.547	0.000	0.000	0.000	0.000	-0.025	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	3706.000	8.675	0.000	9.547	0.000	0.000	0.000	0.000	0.007	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	3725.500	8.612	0.000	9.546	0.000	0.000	0.000	0.000	-0.014	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	3741.500	8.186	0.000	9.544	0.000	0.000	0.000	0.000	-0.023	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE

	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	3758.000	7.854	0.000	9.543	0.000	0.000	0.000	0.000	-0.047	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	3768.500	6.906	0.000	9.542	0.000	0.000	0.000	0.000	-0.103	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	3777.500	5.850	0.000	9.541	0.000	0.000	0.000	0.000	-0.049	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	3792.500	5.719	0.000	9.540	0.000	0.000	0.000	0.000	-0.022	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	3806.000	5.226	0.000	9.538	0.000	0.000	0.000	0.000	-0.017	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	3819.000	5.259	0.000	9.536	0.000	0.000	0.000	0.000	0.051	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	3833.500	6.637	0.000	9.534	0.000	0.000	0.000	0.000	0.032	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	3846.500	6.145	0.000	9.533	0.000	0.000	0.000	0.000	-0.009	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	3871.500	6.309	0.000	9.528	0.000	0.000	0.000	0.000	0.012	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	3883.000	6.571	0.000	9.525	0.000	0.000	0.000	0.000	-0.004	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	3901.000	6.178	0.000	9.521	0.000	0.000	0.000	0.000	-0.026	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	3919.000	5.620	0.000	9.517	0.000	0.000	0.000	0.000	-0.028	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	3957.000	4.603	0.000	9.513	0.000	0.000	0.000	0.000	-0.016	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	3964.000	4.898	0.000	9.513	0.000	0.000	0.000	0.000	-0.030	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
OF	4145.000	-1.017	0.000	9.509	0.000	0.000	0.000	0.000	-0.032	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
OF	4146.000	-1.015	0.000	9.509	0.000	0.000	0.000	0.000	-0.010	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
OF	4336.000	-2.984	0.000	9.512	0.000	0.000	0.000	0.000	-0.009	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
OF	4363.000	-2.980	0.000	9.513	0.000	0.000	0.000	0.000	0.005	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
OF	4410.000	-2.599	0.000	9.513	0.000	0.000	0.000	0.000	0.007	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
OF	4476.000	-2.136	0.000	9.514	0.000	0.000	0.000	0.000	0.007	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
OF	4477.000	-2.134	0.000	9.514	0.000	0.000	0.000	0.000	0.041	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	4636.000	4.337	0.000	9.516	0.000	0.000	0.000	0.000	0.038	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	4652.000	4.567	0.000	9.516	0.000	0.000	0.000	0.000	0.012	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	4701.000	5.125	0.000	9.517	0.000	0.000	0.000	0.000	0.008	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	4709.000	5.026	0.000	9.517	0.000	0.000	0.000	0.000	0.008	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	4736.500	5.420	0.000	9.517	0.000	0.000	0.000	0.000	0.004	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	4752.500	5.190	0.000	9.518	0.000	0.000	0.000	0.000	0.001	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	4796.500	5.486	0.000	9.518	0.000	0.000	0.000	0.000	0.002	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	4811.000	5.321	0.000	9.518	0.000	0.000	0.000	0.000	0.004	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	4837.500	5.650	0.000	9.518	0.000	0.000	0.000	0.000	-0.005	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	4844.500	5.157	0.000	9.519	0.000	0.000	0.000	0.000	-0.025	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	4866.000	4.928	0.000	9.521	0.000	0.000	0.000	0.000	-0.006	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	4873.000	4.993	0.000	9.521	0.000	0.000	0.000	0.000	0.005	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	4897.000	5.092	0.000	9.523	0.000	0.000	0.000	0.000	-0.006	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE

	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	4904.500	4.797	0.000	9.524	0.000	0.000	0.000	0.000	0.006	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	4929.500	5.289	0.000	9.524	0.000	0.000	0.000	0.000	0.012	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	4941.000	5.223	0.000	9.524	0.000	0.000	0.000	0.000	-0.009	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	4975.500	4.862	0.000	9.524	0.000	0.000	0.000	0.000	0.007	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	4989.500	5.584	0.000	9.524	0.000	0.000	0.000	0.000	0.004	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	5020.000	5.059	0.000	9.525	0.000	0.000	0.000	0.000	-0.007	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	5050.500	5.190	0.000	9.526	0.000	0.000	0.000	0.000	0.007	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	5066.000	5.387	0.000	9.527	0.000	0.000	0.000	0.000	0.014	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	5079.000	5.584	0.000	9.528	0.000	0.000	0.000	0.000	-0.001	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	5107.500	5.354	0.000	9.530	0.000	0.000	0.000	0.000	-0.011	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	5122.500	5.125	0.000	9.531	0.000	0.000	0.000	0.000	-0.004	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	5139.000	5.223	0.000	9.533	0.000	0.000	0.000	0.000	0.009	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	5157.000	5.420	0.000	9.534	0.000	0.000	0.000	0.000	-0.011	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	5175.000	4.829	0.000	9.535	0.000	0.000	0.000	0.000	-0.019	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	5190.500	4.797	0.000	9.536	0.000	0.000	0.000	0.000	0.001	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	5226.000	4.895	0.000	9.536	0.000	0.000	0.000	0.000	0.017	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	5246.000	5.748	0.000	9.536	0.000	0.000	0.000	0.000	0.100	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	5272.200	9.536	0.000	9.536	0.000	0.000	0.000	0.000	0.145	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
AS	5329.900	9.535	0.000	9.535	0.000	0.000	0.000	0.000	-0.108	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	5342.500	8.179	0.000	9.535	0.000	0.000	0.000	0.000	-0.048	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	5361.500	8.012	0.000	9.531	0.000	0.000	0.000	0.000	-0.024	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	5383.000	7.192	0.000	9.531	0.000	0.000	0.000	0.000	-0.029	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	5422.500	6.276	0.000	9.531	0.000	0.000	0.000	0.000	0.037	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	5446.200	9.531	0.000	9.531	0.000	0.000	0.000	0.000	0.137	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
AS	6497.100	9.626	0.000	9.626	0.000	0.000	0.000	0.000	-0.161	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	6526.500	4.895	0.000	9.626	0.000	0.000	0.000	0.000	-0.106	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	6539.000	5.190	0.000	9.626	0.000	0.000	0.000	0.000	0.017	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	6568.500	5.617	0.000	9.625	0.000	0.000	0.000	0.000	0.019	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	6573.000	5.850	0.000	9.625	0.000	0.000	0.000	0.000	-0.003	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	6610.500	5.486	0.000	9.624	0.000	0.000	0.000	0.000	0.011	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	6640.000	6.568	0.000	9.623	0.000	0.000	0.000	0.000	0.003	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	6664.000	5.650	0.000	9.622	0.000	0.000	0.000	0.000	-0.016	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	6676.000	5.978	0.000	9.621	0.000	0.000	0.000	0.000	0.006	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	6698.500	5.846	0.000	9.620	0.000	0.000	0.000	0.000	-0.014	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE

	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	6711.500	5.486	0.000	9.620	0.000	0.000	0.000	0.000	0.043	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	6731.500	7.257	0.000	9.620	0.000	0.000	0.000	0.000	0.074	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	6749.500	8.307	0.000	9.619	0.000	0.000	0.000	0.000	0.081	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	6760.600	9.619	0.000	9.619	0.000	0.000	0.000	0.000	0.118	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
AS	6905.800	9.617	0.000	9.617	0.000	0.000	0.000	0.000	-0.105	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	6926.000	7.490	0.000	9.617	0.000	0.000	0.000	0.000	-0.073	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	6946.000	6.700	0.000	9.617	0.000	0.000	0.000	0.000	-0.029	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	6972.000	6.142	0.000	9.617	0.000	0.000	0.000	0.000	-0.009	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	6978.000	6.404	0.000	9.617	0.000	0.000	0.000	0.000	-0.028	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	6997.500	5.420	0.000	9.617	0.000	0.000	0.000	0.000	-0.024	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	7009.000	5.650	0.000	9.617	0.000	0.000	0.000	0.000	0.008	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	7026.500	5.650	0.000	9.617	0.000	0.000	0.000	0.000	0.026	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	7053.500	6.798	0.000	9.617	0.000	0.000	0.000	0.000	0.079	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	7064.500	8.668	0.000	9.617	0.000	0.000	0.000	0.000	0.152	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	7072.100	9.617	0.000	9.617	0.000	0.000	0.000	0.000	0.125	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
AS	7459.500	9.613	0.000	9.613	0.000	0.000	0.000	0.000	-0.075	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	7468.500	8.934	0.000	9.613	0.000	0.000	0.000	0.000	0.000	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	7477.200	9.613	0.000	9.613	0.000	0.000	0.000	0.000	0.078	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
AS	7482.400	9.613	0.000	9.613	0.000	0.000	0.000	0.000	-0.224	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	7488.500	8.245	0.000	9.613	0.000	0.000	0.000	0.000	-0.195	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	7499.000	6.371	0.000	9.613	0.000	0.000	0.000	0.000	-0.068	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	7515.000	6.437	0.000	9.613	0.000	0.000	0.000	0.000	-0.022	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	7540.000	5.453	0.000	9.613	0.000	0.000	0.000	0.000	-0.028	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	7546.500	5.551	0.000	9.613	0.000	0.000	0.000	0.000	0.011	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	7589.500	6.007	0.000	9.612	0.000	0.000	0.000	0.000	0.010	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	7599.500	6.106	0.000	9.612	0.000	0.000	0.000	0.000	-0.013	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	7619.000	5.614	0.000	9.612	0.000	0.000	0.000	0.000	-0.027	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	7626.500	5.384	0.000	9.612	0.000	0.000	0.000	0.000	-0.010	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	7689.000	4.892	0.000	9.610	0.000	0.000	0.000	0.000	-0.009	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	7699.500	4.760	0.000	9.610	0.000	0.000	0.000	0.000	-0.007	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	7728.000	4.629	0.000	9.610	0.000	0.000	0.000	0.000	0.002	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	7741.000	4.859	0.000	9.610	0.000	0.000	0.000	0.000	0.004	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	7762.000	4.760	0.000	9.610	0.000	0.000	0.000	0.000	-0.009	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	7776.000	4.531	0.000	9.610	0.000	0.000	0.000	0.000	-0.016	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE

	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	7820.000	3.809	0.000	9.610	0.000	0.000	0.000	0.000	0.004	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	7832.000	4.760	0.000	9.610	0.000	0.000	0.000	0.000	0.014	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	7875.000	4.564	0.000	9.610	0.000	0.000	0.000	0.000	0.002	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	7884.500	4.892	0.000	9.610	0.000	0.000	0.000	0.000	-0.022	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
OF	8106.000	-0.591	0.000	9.609	0.000	0.000	0.000	0.000	0.003	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	8170.500	5.712	0.000	9.609	0.000	0.000	0.000	0.000	0.086	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	8177.000	5.515	0.000	9.609	0.000	0.000	0.000	0.000	-0.047	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
OF	8292.000	-0.033	0.000	9.608	0.000	0.000	0.000	0.000	-0.013	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	8295.500	3.973	0.000	9.608	0.000	0.000	0.000	0.000	0.076	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	8353.500	4.629	0.000	9.607	0.000	0.000	0.000	0.000	0.002	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	8440.000	4.236	0.000	9.609	0.000	0.000	0.000	0.000	-0.032	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
OF	8685.000	-5.977	0.000	9.610	0.000	0.000	0.000	0.000	-0.041	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
OF	8686.000	-5.977	0.000	9.610	0.000	0.000	0.000	0.000	0.000	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
OF	8709.000	-5.974	0.000	9.611	0.000	0.000	0.000	0.000	0.000	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
OF	8710.000	-5.974	0.000	9.611	0.000	0.000	0.000	0.000	0.000	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
OF	8733.000	-5.972	0.000	9.611	0.000	0.000	0.000	0.000	0.000	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
OF	8734.000	-5.972	0.000	9.611	0.000	0.000	0.000	0.000	0.000	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
OF	8757.000	-5.969	0.000	9.612	0.000	0.000	0.000	0.000	0.000	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
OF	8758.000	-5.969	0.000	9.612	0.000	0.000	0.000	0.000	0.000	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
OF	8781.000	-5.965	0.000	9.612	0.000	0.000	0.000	0.000	0.000	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
OF	8782.000	-5.965	0.000	9.612	0.000	0.000	0.000	0.000	0.000	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
OF	8806.000	-5.964	0.000	9.613	0.000	0.000	0.000	0.000	0.013	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
OF	8818.000	-5.515	0.000	9.613	0.000	0.000	0.000	0.000	0.041	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
OF	8842.000	-4.486	0.000	9.613	0.000	0.000	0.000	0.000	0.043	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
OF	8854.000	-3.972	0.000	9.614	0.000	0.000	0.000	0.000	0.032	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
OF	8947.000	-1.105	0.000	9.614	0.000	0.000	0.000	0.000	0.031	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
OF	8949.000	-1.066	0.000	9.614	0.000	0.000	0.000	0.000	0.032	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	9124.500	4.495	0.000	9.617	0.000	0.000	0.000	0.000	0.026	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	9154.500	4.265	0.000	9.617	0.000	0.000	0.000	0.000	-0.004	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	9173.500	4.298	0.000	9.618	0.000	0.000	0.000	0.000	-0.008	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	9205.500	3.871	0.000	9.618	0.000	0.000	0.000	0.000	-0.016	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	9233.500	3.314	0.000	9.618	0.000	0.000	0.000	0.000	0.007	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	9249.500	4.200	0.000	9.618	0.000	0.000	0.000	0.000	0.009	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	9316.000	4.068	0.000	9.619	0.000	0.000	0.000	0.000	-0.002	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE

	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	9324.500	4.035	0.000	9.619	0.000	0.000	0.000	0.000	0.001	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	9357.500	4.101	0.000	9.619	0.000	0.000	0.000	0.000	0.000	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	9365.500	4.035	0.000	9.619	0.000	0.000	0.000	0.000	-0.006	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	9395.500	3.871	0.000	9.618	0.000	0.000	0.000	0.000	0.002	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	9407.000	4.134	0.000	9.618	0.000	0.000	0.000	0.000	0.004	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	9432.000	4.003	0.000	9.617	0.000	0.000	0.000	0.000	0.002	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	9443.000	4.200	0.000	9.618	0.000	0.000	0.000	0.000	0.022	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	9483.500	5.151	0.000	9.618	0.000	0.000	0.000	0.000	0.002	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	9489.500	4.298	0.000	9.618	0.000	0.000	0.000	0.000	-0.036	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	9521.500	3.773	0.000	9.619	0.000	0.000	0.000	0.000	-0.014	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	9528.000	3.740	0.000	9.619	0.000	0.000	0.000	0.000	-0.023	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
OF	9689.000	0.000	0.000	9.620	0.000	0.000	0.000	0.000	-0.006	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	9747.500	2.395	0.000	9.620	0.000	0.000	0.000	0.000	-0.025	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
OF	9913.000	-5.594	0.000	9.622	0.000	0.000	0.000	0.000	-0.042	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
OF	9938.000	-5.672	0.000	9.621	0.000	0.000	0.000	0.000	-0.003	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
OF	9939.000	-5.672	0.000	9.621	0.000	0.000	0.000	0.000	0.000	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
OF	9986.000	-5.668	0.000	9.621	0.000	0.000	0.000	0.000	0.000	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
OF	9987.000	-5.668	0.000	9.621	0.000	0.000	0.000	0.000	0.046	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
OF	10071.000	-1.786	0.000	9.621	0.000	0.000	0.000	0.000	0.060	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	10153.000	4.298	0.000	9.621	0.000	0.000	0.000	0.000	0.052	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	10188.000	4.331	0.000	9.622	0.000	0.000	0.000	0.000	0.004	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	10198.000	4.462	0.000	9.622	0.000	0.000	0.000	0.000	0.011	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	10223.000	4.724	0.000	9.623	0.000	0.000	0.000	0.000	-0.001	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	10234.000	4.429	0.000	9.623	0.000	0.000	0.000	0.000	-0.002	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	10266.000	4.659	0.000	9.623	0.000	0.000	0.000	0.000	0.009	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	10281.000	4.856	0.000	9.623	0.000	0.000	0.000	0.000	0.006	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	10314.000	4.954	0.000	9.624	0.000	0.000	0.000	0.000	0.005	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	10324.000	5.085	0.000	9.624	0.000	0.000	0.000	0.000	0.027	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	10343.000	5.741	0.000	9.624	0.000	0.000	0.000	0.000	0.011	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	10361.000	5.479	0.000	9.625	0.000	0.000	0.000	0.000	-0.006	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	10383.000	5.512	0.000	9.625	0.000	0.000	0.000	0.000	0.008	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	10390.000	5.709	0.000	9.625	0.000	0.000	0.000	0.000	0.006	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	10415.000	5.709	0.000	9.626	0.000	0.000	0.000	0.000	0.004	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	10433.000	5.873	0.000	9.626	0.000	0.000	0.000	0.000	0.045	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE

	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	10444.000	7.021	0.000	9.626	0.000	0.000	0.000	0.000	0.040	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	10459.000	6.923	0.000	9.626	0.000	0.000	0.000	0.000	-0.009	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	10474.000	6.759	0.000	9.626	0.000	0.000	0.000	0.000	-0.011	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	10490.000	6.595	0.000	9.626	0.000	0.000	0.000	0.000	0.024	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	10505.000	7.513	0.000	9.626	0.000	0.000	0.000	0.000	0.064	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	10516.000	8.268	0.000	9.626	0.000	0.000	0.000	0.000	0.036	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	10525.000	8.235	0.000	9.626	0.000	0.000	0.000	0.000	0.009	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	10535.000	8.432	0.000	9.626	0.000	0.000	0.000	0.000	0.024	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	10549.000	8.822	0.000	9.626	0.000	0.000	0.000	0.000	-0.045	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	10582.000	6.296	0.000	9.626	0.000	0.000	0.000	0.000	-0.046	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	10591.000	6.886	0.000	9.626	0.000	0.000	0.000	0.000	0.131	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	10605.000	9.314	0.000	9.626	0.000	0.000	0.000	0.000	0.098	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	10619.000	9.626	0.000	9.626	0.000	0.000	0.000	0.000	0.022	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
AS	10632.000	9.626	0.000	9.626	0.000	0.000	0.000	0.000	-0.209	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	10639.000	8.166	0.000	9.626	0.000	0.000	0.000	0.000	0.000	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	10645.000	9.626	0.000	9.626	0.000	0.000	0.000	0.000	0.243	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
AS	10656.000	9.626	0.000	9.626	0.000	0.000	0.000	0.000	-0.115	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	10667.000	8.363	0.000	9.626	0.000	0.000	0.000	0.000	-0.003	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	10674.000	9.577	0.000	9.626	0.000	0.000	0.000	0.000	0.105	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	10679.000	9.626	0.000	9.626	0.000	0.000	0.000	0.000	0.010	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
AS	10683.000	9.626	0.000	9.626	0.000	0.000	0.000	0.000	-0.187	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	10691.000	8.133	0.000	9.626	0.000	0.000	0.000	0.000	-0.100	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	10697.000	8.232	0.000	9.626	0.000	0.000	0.000	0.000	0.075	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	10711.000	9.626	0.000	9.626	0.000	0.000	0.000	0.000	0.100	0.000

----------END OF TRANSECT----------

NOTE:
SURGE ELEVATION INCLUDES CONTRIBUTIONS FROM ASTRONOMICAL AND STORM TIDES.

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PART2: CONTROLLING WAVE HEIGHTS, SPECTRAL PEAK WAVE PERIOD, AND WAVE CREST ELEVATIONS

	LOCATION	CONTROLLING WAVE HEIGHT	SPECTRAL PEAK WAVE PERIOD	WAVE CREST ELEVATION
IE	0.00	6.41	11.25	13.81
OF	1.00	6.42	11.25	13.81
OF	2.00	6.42	11.25	13.81
OF	13.00	6.42	11.25	13.82
OF	14.00	6.42	11.25	13.82
OF	25.00	6.43	11.25	13.82
OF	26.00	6.43	11.25	13.82
OF	37.00	6.44	11.25	13.82
OF	38.00	6.44	11.25	13.82
OF	49.00	6.46	11.25	13.84
OF	50.00	6.46	11.25	13.84
OF	61.00	6.50	11.25	13.87
OF	62.00	6.50	11.25	13.87
OF	73.00	6.55	11.25	13.90
OF	74.00	6.55	11.25	13.91
OF	85.00	6.59	11.25	13.94
OF	86.00	6.60	11.25	13.94
OF	97.00	6.65	11.25	13.98
OF	98.00	6.65	11.25	13.98
OF	109.00	6.71	11.25	14.02
OF	110.00	6.72	11.25	14.02
OF	133.00	6.85	11.25	14.11
OF	134.00	6.85	11.25	14.12

OF	157.00	6.99	11.25	14.22
OF	158.00	7.00	11.25	14.22
OF	181.00	7.12	11.25	14.31
OF	182.00	7.13	11.25	14.31
OF	205.00	7.31	11.25	14.44
OF	206.00	7.32	11.25	14.44
	309.96	7.45	11.25	14.63
	413.92	3.95	11.25	12.28
IF	465.90	1.71	11.25	10.76
IF	469.20	0.60	11.25	10.52
IF	470.00	0.01	11.25	10.10
AS	1144.20	0.00	0.00	9.55
IF	1149.50	0.05	0.25	9.58
IF	1161.50	0.10	0.37	9.62
IF	1171.50	0.13	0.42	9.64
IF	1183.00	0.17	0.48	9.67
IF	1189.50	0.18	0.50	9.68
IF	1205.50	0.22	0.55	9.71
IF	1209.50	0.23	0.57	9.71
	1315.75	0.44	0.78	9.85
IF	1422.00	0.61	0.91	9.96
IF	1462.90	0.01	0.96	9.54
AS	1547.50	0.00	0.00	9.57
IF	1555.00	0.06	0.28	9.61
IF	1585.50	0.16	0.47	9.68
IF	1593.00	0.18	0.50	9.70
IF	1634.50	0.28	0.62	9.77
IF	1651.00	0.32	0.66	9.79
IF	1678.50	0.37	0.71	9.82
IF	1697.50	0.41	0.75	9.83
IF	1724.00	0.45	0.79	9.86
IF	1784.00	0.55	0.87	9.93
IF	1794.00	0.57	0.88	9.94
IF	1813.50	0.59	0.90	9.96
IF	1842.90	0.01	0.93	9.55
AS	1895.10	0.00	0.00	9.53
IF	1915.00	0.11	0.38	9.60
IF	1947.00	0.20	0.52	9.67
IF	1956.50	0.22	0.55	9.68
IF	1986.00	0.29	0.63	9.72
IF	2002.50	0.33	0.67	9.75
IF	2021.50	0.36	0.70	9.77
IF	2030.50	0.38	0.72	9.78
IF	2072.50	0.45	0.79	9.84
IF	2083.50	0.47	0.80	9.85
IF	2112.00	0.52	0.84	9.88
IF	2131.00	0.55	0.87	9.90
IF	2149.50	0.58	0.89	9.92
IF	2200.00	0.65	0.94	9.97
IF	2229.00	0.42	0.97	9.81
IF	2236.00	0.01	0.98	9.52
AS	3671.20	0.00	0.00	9.55
IF	3681.00	0.07	0.30	9.59
IF	3706.00	0.15	0.46	9.66
IF	3725.50	0.21	0.53	9.69
IF	3741.50	0.25	0.58	9.72
IF	3758.00	0.28	0.62	9.74
IF	3768.50	0.30	0.65	9.76
IF	3777.50	0.32	0.66	9.77
IF	3792.50	0.35	0.69	9.79
IF	3806.00	0.38	0.72	9.80
IF	3819.00	0.40	0.74	9.82
IF	3833.50	0.43	0.76	9.83
IF	3846.50	0.45	0.78	9.85
IF	3871.50	0.49	0.82	9.87
IF	3883.00	0.51	0.84	9.88
IF	3901.00	0.54	0.86	9.90
IF	3919.00	0.57	0.88	9.91
IF	3957.00	0.62	0.92	9.95
IF	3964.00	0.63	0.93	9.96
	4090.70	0.81	1.05	10.07
OF	4145.00	0.87	1.09	10.12
OF	4146.00	0.87	1.09	10.12
	4279.00	1.03	1.19	10.23
OF	4336.00	1.09	1.22	10.28
OF	4363.00	1.12	1.24	10.30
OF	4410.00	1.17	1.27	10.33
OF	4476.00	1.24	1.30	10.38
OF	4477.00	1.24	1.30	10.38
	4588.30	1.35	1.36	10.46
IF	4636.00	1.39	1.38	10.49
IF	4652.00	1.40	1.39	10.50
IF	4701.00	1.43	1.41	10.52
IF	4709.00	1.44	1.42	10.52
IF	4736.50	1.44	1.43	10.53
IF	4752.50	1.47	1.44	10.54
IF	4796.50	1.48	1.45	10.56
IF	4811.00	1.50	1.46	10.57
IF	4837.50	1.50	1.47	10.57
IF	4844.50	1.52	1.47	10.59
IF	4866.00	1.55	1.48	10.61
IF	4873.00	1.55	1.49	10.61
IF	4897.00	1.57	1.50	10.62
IF	4904.50	1.59	1.50	10.63
IF	4929.50	1.59	1.51	10.64
IF	4941.00	1.60	1.51	10.64
IF	4975.50	1.64	1.53	10.67
IF	4989.50	1.60	1.53	10.65
IF	5020.00	1.65	1.54	10.68
IF	5050.50	1.67	1.55	10.70
IF	5066.00	1.67	1.56	10.69
IF	5079.00	1.65	1.56	10.68

IF	5107.50	1.70	1.57	10.72
IF	5122.50	1.72	1.58	10.74
IF	5139.00	1.73	1.59	10.74
IF	5157.00	1.71	1.59	10.73
IF	5175.00	1.77	1.60	10.78
IF	5190.50	1.79	1.60	10.79
IF	5226.00	1.81	1.62	10.80
IF	5246.00	1.72	1.62	10.74
IF	5272.20	0.01	1.63	9.54
AS	5329.90	0.00	0.00	9.53
IF	5342.50	0.08	0.33	9.59
IF	5361.50	0.14	0.44	9.63
IF	5383.00	0.20	0.53	9.67
IF	5422.50	0.30	0.63	9.74
IF	5446.20	0.01	0.68	9.54
AS	6497.10	0.00	0.00	9.63
IF	6526.50	0.14	0.43	9.72
IF	6539.00	0.17	0.49	9.75
IF	6568.50	0.25	0.58	9.80
IF	6573.00	0.26	0.59	9.81
IF	6610.50	0.34	0.68	9.86
IF	6640.00	0.39	0.73	9.90
IF	6664.00	0.44	0.77	9.93
IF	6676.00	0.46	0.79	9.94
IF	6698.50	0.49	0.82	9.97
IF	6711.50	0.52	0.84	9.98
IF	6731.50	0.55	0.86	10.00
IF	6749.50	0.54	0.89	9.99
IF	6760.60	0.01	0.90	9.62
AS	6905.80	0.00	0.00	9.62
IF	6926.00	0.11	0.38	9.69
IF	6946.00	0.17	0.48	9.74
IF	6972.00	0.24	0.57	9.78
IF	6978.00	0.25	0.58	9.79
IF	6997.50	0.29	0.63	9.82
IF	7009.00	0.32	0.66	9.84
IF	7026.50	0.35	0.69	9.86
IF	7053.50	0.40	0.74	9.90
IF	7064.50	0.39	0.76	9.89
IF	7072.10	0.01	0.77	9.62
AS	7459.50	0.00	0.00	9.61
IF	7468.50	0.06	0.30	9.66
IF	7477.20	0.01	0.37	9.62
AS	7482.40	0.00	0.00	9.61
IF	7488.50	0.05	0.26	9.65
IF	7499.00	0.10	0.36	9.68
IF	7515.00	0.15	0.45	9.72
IF	7540.00	0.22	0.54	9.76
IF	7546.50	0.23	0.56	9.77
IF	7589.50	0.33	0.67	9.84
IF	7599.50	0.35	0.69	9.85
IF	7619.00	0.38	0.72	9.88
IF	7626.50	0.40	0.74	9.89
IF	7689.00	0.50	0.83	9.96
IF	7699.50	0.52	0.84	9.97
IF	7728.00	0.56	0.88	10.01
IF	7741.00	0.58	0.89	10.02
IF	7762.00	0.62	0.92	10.04
IF	7776.00	0.64	0.93	10.05
IF	7820.00	0.70	0.98	10.10
IF	7832.00	0.71	0.99	10.11
IF	7875.00	0.77	1.03	10.15
IF	7884.50	0.78	1.03	10.16
	8039.55	0.97	1.15	10.29
OF	8106.00	1.05	1.20	10.34
IF	8170.50	1.11	1.24	10.38
IF	8177.00	1.12	1.24	10.39
OF	8292.00	1.25	1.30	10.48
IF	8295.50	1.25	1.31	10.48
IF	8353.50	1.30	1.34	10.52
IF	8440.00	1.38	1.38	10.58
	8611.50	1.55	1.46	10.70
OF	8685.00	1.62	1.49	10.74
OF	8686.00	1.62	1.49	10.74
OF	8709.00	1.64	1.50	10.76
OF	8710.00	1.64	1.50	10.76
OF	8733.00	1.66	1.51	10.77
OF	8734.00	1.66	1.51	10.77
OF	8757.00	1.68	1.52	10.79
OF	8758.00	1.68	1.52	10.79
OF	8781.00	1.70	1.53	10.80
OF	8782.00	1.70	1.53	10.81
OF	8806.00	1.73	1.54	10.82
OF	8818.00	1.74	1.54	10.83
OF	8842.00	1.76	1.55	10.84
OF	8854.00	1.77	1.55	10.85
OF	8947.00	1.85	1.59	10.91
OF	8949.00	1.85	1.59	10.91
	9071.85	1.93	1.63	10.97
IF	9124.50	1.90	1.65	10.95
IF	9154.50	1.93	1.66	10.97
IF	9173.50	1.94	1.66	10.98
IF	9205.50	1.98	1.67	11.00
IF	9233.50	2.01	1.68	11.02
IF	9249.50	1.99	1.69	11.01
IF	9316.00	2.04	1.71	11.05
IF	9324.50	2.04	1.71	11.05
IF	9357.50	2.06	1.72	11.06
IF	9365.50	2.07	1.72	11.07
IF	9395.50	2.09	1.73	11.08
IF	9407.00	2.09	1.74	11.08
IF	9432.00	2.11	1.74	11.09

IF	9443.00	2.11	1.75	11.09
IF	9483.50	2.02	1.76	11.03
IF	9489.50	2.11	1.76	11.10
IF	9521.50	2.15	1.77	11.13
IF	9528.00	2.16	1.77	11.13
	9640.70	2.28	1.80	11.22
OF	9689.00	2.32	1.81	11.24
IF	9747.50	2.32	1.83	11.24
	9863.35	2.42	1.86	11.32
OF	9913.00	2.45	1.87	11.34
OF	9938.00	2.46	1.88	11.35
OF	9939.00	2.46	1.88	11.35
OF	9986.00	2.49	1.89	11.37
OF	9987.00	2.49	1.89	11.37
OF	10071.00	2.54	1.91	11.40
IF	10153.00	2.38	1.93	11.29
IF	10188.00	2.39	1.94	11.30
IF	10198.00	2.39	1.94	11.29
IF	10223.00	2.38	1.95	11.29
IF	10234.00	2.40	1.95	11.30
IF	10266.00	2.40	1.96	11.30
IF	10281.00	2.37	1.96	11.28
IF	10314.00	2.35	1.97	11.27
IF	10324.00	2.33	1.97	11.25
IF	10343.00	2.15	1.97	11.13
IF	10361.00	2.16	1.98	11.14
IF	10383.00	2.17	1.98	11.14
IF	10390.00	2.16	1.98	11.14
IF	10415.00	2.17	1.99	11.15
IF	10433.00	2.12	1.99	11.11
IF	10444.00	1.65	2.00	10.78
IF	10459.00	1.65	2.00	10.78
IF	10474.00	1.66	2.00	10.79
IF	10490.00	1.70	2.01	10.81
IF	10505.00	1.40	2.01	10.61
IF	10516.00	0.96	2.01	10.30
IF	10525.00	0.96	2.01	10.30
IF	10535.00	0.85	2.01	10.22
IF	10549.00	0.59	2.02	10.04
IF	10582.00	0.60	2.03	10.04
IF	10591.00	0.63	2.03	10.06
IF	10605.00	0.24	2.03	9.79
IF	10619.00	0.01	2.03	9.63
AS	10632.00	0.00	0.00	9.63
IF	10639.00	0.05	0.27	9.66
IF	10645.00	0.01	0.33	9.63
AS	10656.00	0.00	0.00	9.63
IF	10667.00	0.07	0.32	9.68
IF	10674.00	0.03	0.37	9.65
IF	10679.00	0.01	0.40	9.63
AS	10683.00	0.00	0.00	9.63
IF	10691.00	0.06	0.28	9.67
IF	10697.00	0.09	0.34	9.69
IF	10711.00	0.01	0.43	9.63

PART3 LOCATION OF AREAS ABOVE 100-YEAR SURGE

BETWEEN	470.00	AND	1144.20
BETWEEN	1462.90	AND	1547.50
BETWEEN	1842.90	AND	1895.10
BETWEEN	2236.00	AND	3671.20
BETWEEN	5272.20	AND	5329.90
BETWEEN	5446.20	AND	6497.10
BETWEEN	6760.60	AND	6905.80
BETWEEN	7072.10	AND	7459.50
BETWEEN	7477.20	AND	7482.40
BETWEEN	10619.00	AND	10632.00
BETWEEN	10645.00	AND	10656.00
BETWEEN	10679.00	AND	10683.00

PART4 LOCATION OF SURGE CHANGES

STATION	10-YEAR SURGE	100-YEAR SURGE
73.00	1.00	9.32
205.00	1.00	9.32
465.90	1.00	9.56
469.20	1.00	10.10
1144.20	1.00	9.55
1422.00	1.00	9.53
1547.50	1.00	9.57
1634.50	1.00	9.57
1651.00	1.00	9.56
1678.50	1.00	9.56
1697.50	1.00	9.55
1724.00	1.00	9.54
1784.00	1.00	9.54
1794.00	1.00	9.55
1813.50	1.00	9.55
1842.90	1.00	9.54
1895.10	1.00	9.53
1947.00	1.00	9.52
1956.50	1.00	9.52
1986.00	1.00	9.52
2002.50	1.00	9.52
2072.50	1.00	9.52
2083.50	1.00	9.52
2112.00	1.00	9.52
2149.50	1.00	9.51
3671.20	1.00	9.55
3725.50	1.00	9.55
3741.50	1.00	9.54
3758.00	1.00	9.54
3768.50	1.00	9.54
3777.50	1.00	9.54
3792.50	1.00	9.54
3806.00	1.00	9.54

3819.00	1.00	9.54
3833.50	1.00	9.53
3846.50	1.00	9.53
3871.50	1.00	9.53
3883.00	1.00	9.52
3901.00	1.00	9.52
3919.00	1.00	9.52
3957.00	1.00	9.51
4145.00	1.00	9.51
4336.00	1.00	9.51
4363.00	1.00	9.51
4476.00	1.00	9.51
4636.00	1.00	9.52
4701.00	1.00	9.52
4752.50	1.00	9.52
4844.50	1.00	9.52
4866.00	1.00	9.52
4897.00	1.00	9.52
4904.50	1.00	9.52
5020.00	1.00	9.52
5050.50	1.00	9.53
5066.00	1.00	9.53
5079.00	1.00	9.53
5107.50	1.00	9.53
5122.50	1.00	9.53
5139.00	1.00	9.53
5157.00	1.00	9.53
5175.00	1.00	9.53
5190.50	1.00	9.54
5329.90	1.00	9.53
5361.50	1.00	9.53
6497.10	1.00	9.63
6568.50	1.00	9.62
6610.50	1.00	9.62
6640.00	1.00	9.62
6664.00	1.00	9.62
6676.00	1.00	9.62
6698.50	1.00	9.62
6749.50	1.00	9.62
6905.80	1.00	9.62
7459.50	1.00	9.61
7589.50	1.00	9.61
7689.00	1.00	9.61
8106.00	1.00	9.61
8292.00	1.00	9.61
8295.50	1.00	9.61
8353.50	1.00	9.61
8440.00	1.00	9.61
8685.00	1.00	9.61
8709.00	1.00	9.61
8757.00	1.00	9.61
8806.00	1.00	9.61
8854.00	1.00	9.61
9124.50	1.00	9.62
9173.50	1.00	9.62
9316.00	1.00	9.62
9395.50	1.00	9.62
9432.00	1.00	9.62
9443.00	1.00	9.62
9521.50	1.00	9.62
9689.00	1.00	9.62
9913.00	1.00	9.62
9938.00	1.00	9.62
10188.00	1.00	9.62
10223.00	1.00	9.62
10314.00	1.00	9.62
10361.00	1.00	9.62
10415.00	1.00	9.63

PART5 LOCATION OF V ZONES

STATION OF GUTTER	LOCATION OF ZONE
436.00	WINDWARD

PART6 NUMBERED A ZONES AND V ZONES

STATION OF GUTTER	ELEVATION	ZONE DESIGNATION		FHF
0.00	13.81	V23	EL=14	130
62.00	13.87	V23	EL=14	130
73.00	13.90	V23	EL=14	130
182.00	14.31	V23	EL=14	130
205.00	14.44	V23	EL=14	130
206.00	14.44	V23	EL=14	130
237.59	14.50	V23	EL=15	130
315.74	14.50	V23	EL=14	130
360.02	13.50	V23	EL=13	130
404.30	12.50	V23	EL=12	130
436.00	11.64	A19	EL=12	95
440.65	11.50	A19	EL=11	95
465.90	10.76	A19	EL=11	95
469.20	10.52	A19	EL=11	95
469.23	10.50			

		A19	EL=10	95
470.00	10.10			
1144.20	9.55			
		A19	EL=10	95
1209.50	9.71			
		A19	EL=10	95
1422.00	9.96			
		A19	EL=10	95
1462.90	9.54			
1547.50	9.57			
		A19	EL=10	95
1593.00	9.70			
		A19	EL=10	95
1634.50	9.77			
		A19	EL=10	95
1651.00	9.79			
		A19	EL=10	95
1678.50	9.82			
		A19	EL=10	95
1697.50	9.83			
		A19	EL=10	95
1724.00	9.86			
		A19	EL=10	95
1784.00	9.93			
		A19	EL=10	95
1794.00	9.94			
		A19	EL=10	95
1813.50	9.96			
		A19	EL=10	95
1842.90	9.55			
1895.10	9.53			
		A19	EL=10	95
1915.00	9.60			
		A19	EL=10	95
1947.00	9.67			
		A19	EL=10	95
1956.50	9.68			
		A19	EL=10	95
1986.00	9.72			
		A19	EL=10	95
2002.50	9.75			
		A19	EL=10	95
2030.50	9.78			
		A19	EL=10	95
2072.50	9.84			
		A19	EL=10	95
2083.50	9.85			
		A19	EL=10	95
2112.00	9.88			
		A19	EL=10	95
2131.00	9.90			
		A19	EL=10	95
2149.50	9.92			
		A19	EL=10	95
2236.00	9.52			
3671.20	9.55			
		A19	EL=10	95
3706.00	9.66			
		A19	EL=10	95
3725.50	9.69			
		A19	EL=10	95
3741.50	9.72			
		A19	EL=10	95
3758.00	9.74			
		A19	EL=10	95
3768.50	9.76			
		A19	EL=10	95
3777.50	9.77			
		A19	EL=10	95
3792.50	9.79			
		A19	EL=10	95
3806.00	9.80			
		A19	EL=10	95
3819.00	9.82			
		A19	EL=10	95
3833.50	9.83			
		A19	EL=10	95
3846.50	9.85			
		A19	EL=10	95
3871.50	9.87			
		A19	EL=10	95
3883.00	9.88			
		A19	EL=10	95
3901.00	9.90			
		A19	EL=10	95
3919.00	9.91			
		A19	EL=10	95
3957.00	9.95			
		A19	EL=10	95
3964.00	9.96			
		A19	EL=10	95
4145.00	10.12			
		A19	EL=10	95
4146.00	10.12			
		A19	EL=10	95
4336.00	10.28			
		A19	EL=10	95
4363.00	10.30			
		A19	EL=10	95
4410.00	10.33			
		A19	EL=10	95
4476.00	10.38			

		A19	EL=10	95
4477.00	10.38			
		A19	EL=10	95
4636.00	10.49			
		A19	EL=10	95
4652.00	10.50			
		A19	EL=10	95
4659.14	10.50			
		A19	EL=11	95
4701.00	10.52			
		A19	EL=11	95
4736.50	10.53			
		A19	EL=11	95
4752.50	10.54			
		A19	EL=11	95
4837.50	10.57			
		A19	EL=11	95
4844.50	10.59			
		A19	EL=11	95
4866.00	10.61			
		A19	EL=11	95
4873.00	10.61			
		A19	EL=11	95
4897.00	10.62			
		A19	EL=11	95
4904.50	10.63			
		A19	EL=11	95
4989.50	10.65			
		A19	EL=11	95
5020.00	10.68			
		A19	EL=11	95
5050.50	10.70			
		A19	EL=11	95
5066.00	10.69			
		A19	EL=11	95
5079.00	10.68			
		A19	EL=11	95
5107.50	10.72			
		A19	EL=11	95
5122.50	10.74			
		A19	EL=11	95
5139.00	10.74			
		A19	EL=11	95
5157.00	10.73			
		A19	EL=11	95
5175.00	10.78			
		A19	EL=11	95
5190.50	10.79			
		A19	EL=11	95
5251.23	10.50			
		A19	EL=10	95
5272.20	9.54			
5329.90	9.53			
		A19	EL=10	95
5342.50	9.59			
		A19	EL=10	95
5361.50	9.63			
		A19	EL=10	95
5446.20	9.54			
6497.10	9.63			
		A19	EL=10	95
6539.00	9.75			
		A19	EL=10	95
6568.50	9.80			
		A19	EL=10	95
6573.00	9.81			
		A19	EL=10	95
6610.50	9.86			
		A19	EL=10	95
6640.00	9.90			
		A19	EL=10	95
6664.00	9.93			
		A19	EL=10	95
6676.00	9.94			
		A19	EL=10	95
6698.50	9.97			
		A19	EL=10	95
6731.50	10.00			
		A19	EL=10	95
6749.50	9.99			
		A19	EL=10	95
6760.60	9.62			
6905.80	9.62			
		A19	EL=10	95
7072.10	9.62			
7459.50	9.61			
		A19	EL=10	95
7477.20	9.62			
7482.40	9.61			
		A19	EL=10	95
7546.50	9.77			
		A19	EL=10	95
7589.50	9.84			
		A19	EL=10	95
7626.50	9.89			
		A19	EL=10	95
7689.00	9.96			
		A19	EL=10	95
7884.50	10.16			
		A19	EL=10	95
8106.00	10.34			
		A19	EL=10	95

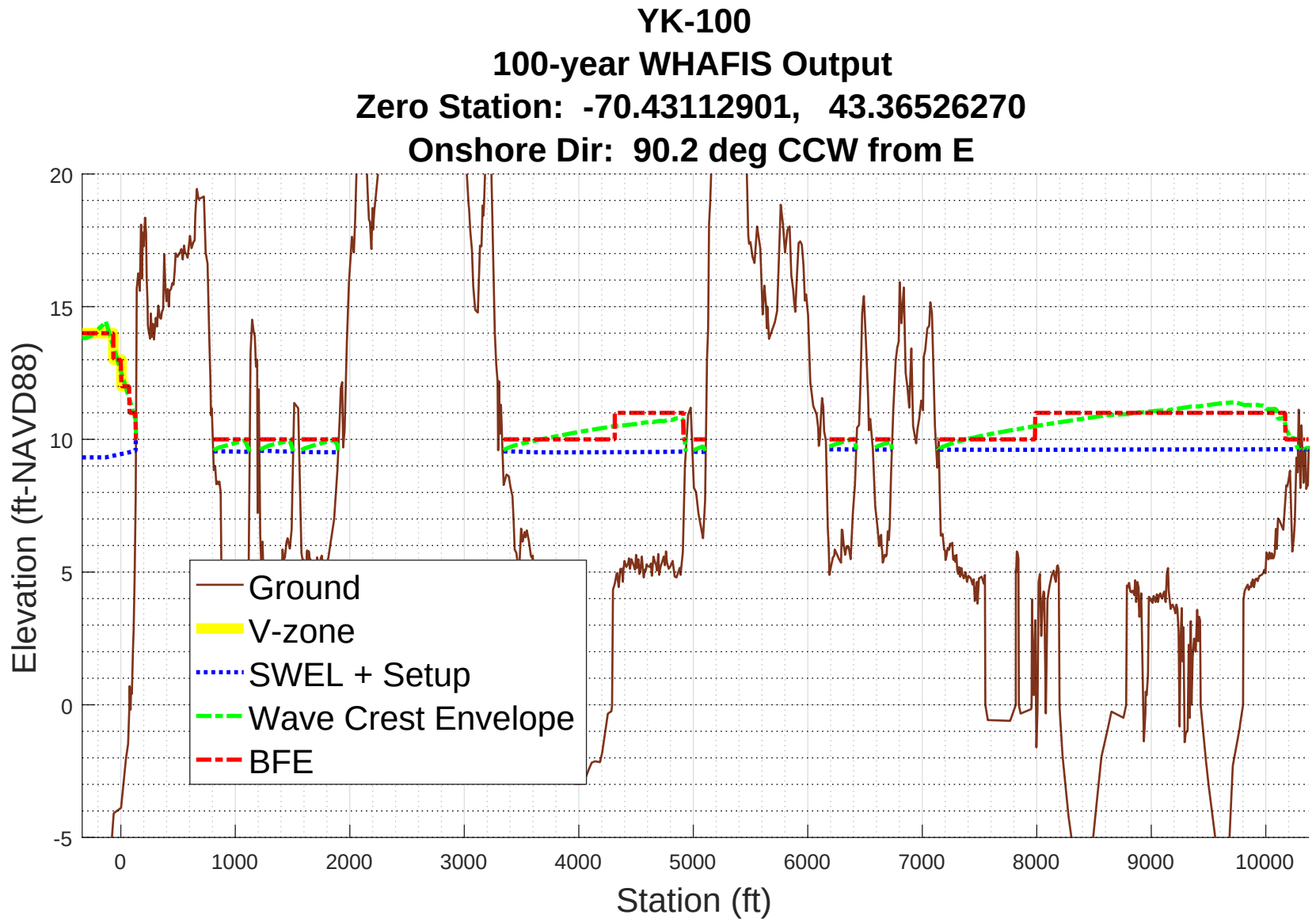
8177.00	10.39				
		A19	EL=10		95
8292.00	10.48				
		A19	EL=10		95
8295.50	10.48				
		A19	EL=10		95
8326.53	10.50				
		A19	EL=11		95
8353.50	10.52				
		A19	EL=11		95
8440.00	10.58				
		A19	EL=11		95
8685.00	10.74				
		A19	EL=11		95
8686.00	10.74				
		A19	EL=11		95
8709.00	10.76				
		A19	EL=11		95
8734.00	10.77				
		A19	EL=11		95
8757.00	10.79				
		A19	EL=11		95
8782.00	10.81				
		A19	EL=11		95
8806.00	10.82				
		A19	EL=11		95
8842.00	10.84				
		A19	EL=11		95
8854.00	10.85				
		A19	EL=11		95
8949.00	10.91				
		A19	EL=11		95
9124.50	10.95				
		A19	EL=11		95
9154.50	10.97				
		A19	EL=11		95
9173.50	10.98				
		A19	EL=11		95
9249.50	11.01				
		A19	EL=11		95
9316.00	11.05				
		A19	EL=11		95
9365.50	11.07				
		A19	EL=11		95
9395.50	11.08				
		A19	EL=11		95
9407.00	11.08				
		A19	EL=11		95
9432.00	11.09				
		A19	EL=11		95
9443.00	11.09				
		A19	EL=11		95
9489.50	11.10				
		A19	EL=11		95
9521.50	11.13				
		A19	EL=11		95
9528.00	11.13				
		A19	EL=11		95
9689.00	11.24				
		A19	EL=11		95
9747.50	11.24				
		A19	EL=11		95
9913.00	11.34				
		A19	EL=11		95
9938.00	11.35				
		A19	EL=11		95
10153.00	11.29				
		A19	EL=11		95
10188.00	11.30				
		A19	EL=11		95
10198.00	11.29				
		A19	EL=11		95
10223.00	11.29				
		A19	EL=11		95
10281.00	11.28				
		A19	EL=11		95
10314.00	11.27				
		A19	EL=11		95
10343.00	11.13				
		A19	EL=11		95
10361.00	11.14				
		A19	EL=11		95
10390.00	11.14				
		A19	EL=11		95
10415.00	11.15				
		A19	EL=11		95
10508.76	10.50				
		A19	EL=10		95
10619.00	9.63				
10632.00	9.63				
		A19	EL=10		95
10645.00	9.63				
10656.00	9.63				
		A19	EL=10		95
10679.00	9.63				
10683.00	9.63				
		A19	EL=10		95
10711.00	9.63				

ZONE TERMINATED AT END OF TRANSECT

PART 7 POSTSCRIPT NOTES

PS# 1 START(384044.0247,4802269.5454)
PS# 2 END(384031.5958,4805855.5198)

-1.000000e+00


YK-100
100-year WHAFIS Output
Zero Station: -70.43112901, 43.36526270
Onshore Dir: 90.2 deg CCW from E
Elevation (ft-NAVD88)
Station (ft)
Ground
V-zone
SWEL + Setup
Wave Crest Envelope
BFE
20
15
10
5
0
-5
0
1000
2000
3000
4000
5000
6000
7000
8000
9000
10000

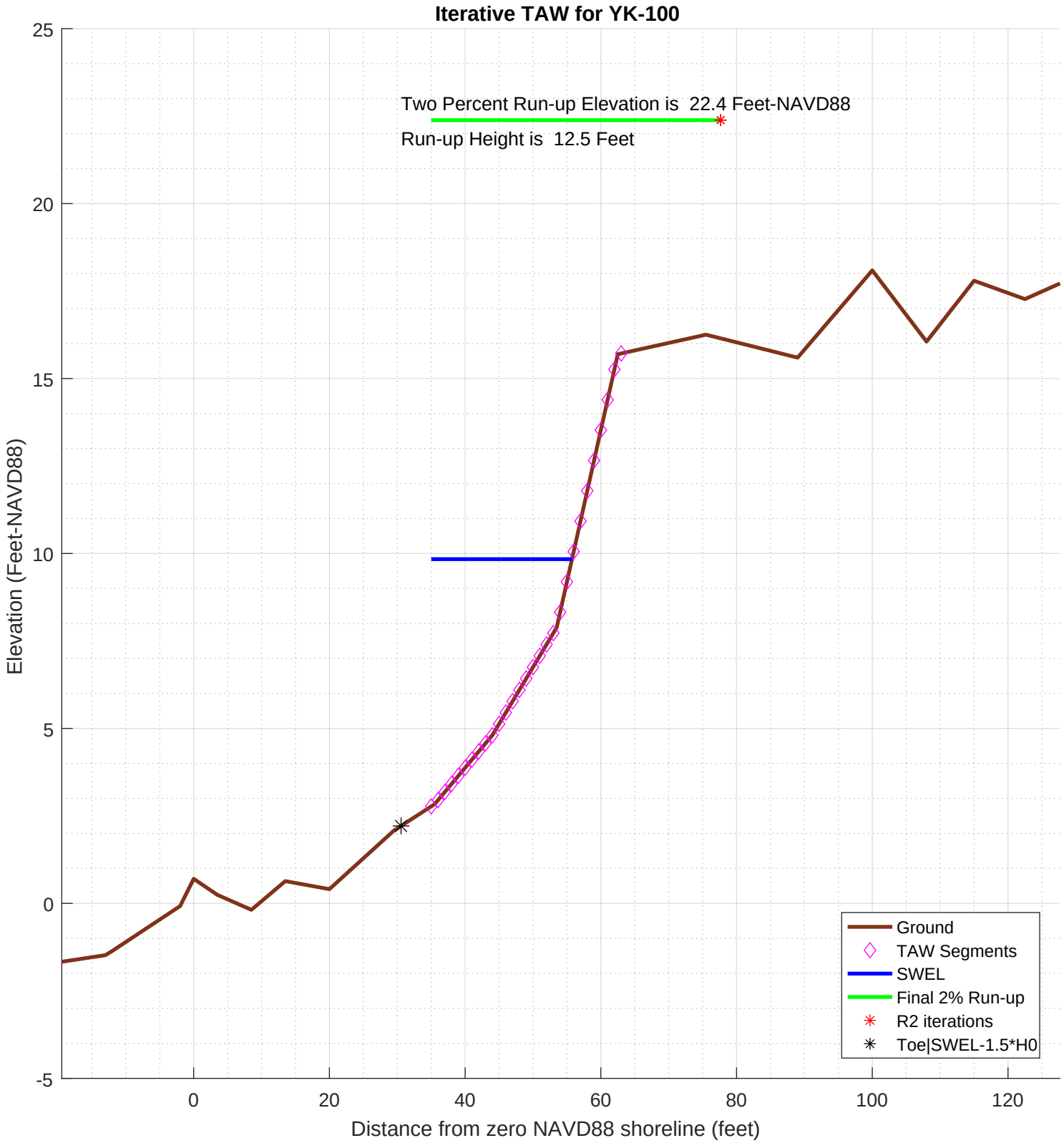
```
_____________________________________________________________
PART 4: TAW

Input Paramters:
    TWL- 9.32 feet
    HS-  4.7158 feet
    PER- 11.1241 seconds
    TOE- x: -24 , z: -1.803 feet
    TOP- x: 62.5 , z: 15.6955 feet
    GBERM-   1
    GGROUGH- 0.75
    GBETA-   1
    GPERM-   1

RUNNING TAW:
...
MATLAB DIARY: /4_taw/logfiles/YK-100-DIARY.txt

CHECKING VALIDITY:
...
TAW method is valid!
Using TAW runup to detemine runup elevation
TAW 2% runup: 22.383 feet

PART 4 COMPLETE_____________________________________________
```


Iterative TAW for YK-100
Two Percent Run-up Elevation is 22.4 Feet-NAVD88
Run-up Height is 12.5 Feet
Elevation (Feet-NAVD88)
Distance from zero NAVD88 shoreline (feet)
25
20
15
10
5
0
-5
0
20
40
60
80
100
120
Ground
TAW Segments
SWEL
Final 2% Run-up
R2 iterations
Toe|SWEL-1.5*H0

```
diary on         % begin recording

% FEMA appeal for The Town of Kennebunkport, York county, Maine
% TRANSECT ID: YK-100
% calculation by SJH, Ransom Consulting, Inc. 02-Apr-2020
% 100-year wave runup using TAW methodology
% including berm and weighted average with foreshore if necessary
%
% chk nld 20200220
%
% This script assumes that the incident wave conditions provided
% as input in the configuration section below are the
% appropriate values located at the end of the foreshore
% or toe of the slope on which the run-up is being calculated
% the script does not attempt to apply a depth limit or any other
% transformation to the incident wave conditions other than
% conversion of the peak wave period to the spectral mean wave
% as recommended in the references below
%
% references:
%
% Van der Meer, J.W., 2002. Technical Report Wave Run-up and
% Wave Overtopping at Dikes. TAW Technical Advisory Committee on
% Flood Defence, The Netherlands.
%
% FEMA. 2007,  Atlantic Ocean and Gulf of Mexico Coastal Guidelines Update
%
%
%

%-------------------------------------------------------------------------
% CONFIG
%-------------------------------------------------------------------------
fname='inpfiles/YK-100sta_ele_include.csv';   % file with station, elevation, include
                                        % third colunm is 0 for excluded points
imgname='logfiles/YK-100-runup';
SWEL=9.32;  % 100-yr still water level including wave setup.
H0=4.7158;    % significant wave height at toe of structure
Tp=11.1241;    % peak period, 1/fma,
T0=Tp/1.1;

gamma_berm=1;   % this may get changed automatically below
gamma_rough=0.75;
gamma_beta=1;
gamma_perm=1;

setupAtToe=-0.033077;
maxSetup=0.77566;   % only used in case of berm/shallow foreshore weighted average

plotTitle='Iterative TAW for YK-100'

plotTitle =

Iterative TAW for YK-100



% END CONFIG
%------------------------------

SWEL=SWEL+setupAtToe

SWEL =

                  9.286923

SWEL_fore=SWEL+maxSetup

SWEL_fore =

                 10.062583



% FIND WAVELENGTH USING DEEPWATER DISPERSION RELATION
% using English units
L0=32.15/(2*pi)*T0^2

L0 =

          523.293701125151


% Find Hb (Munk, 1949)
%Hb=H0/(3.3*(H0/L0)^(1/3))
%Db=-Hb/.78+SWEL;  % depth at breaking

% The toe elevation here is only used to determine the average
% structure slope, it is not used to depth limit the wave height.
% Any depth limiting or other modification of the wave height
```

```
% to make it consitent with TAW guidance should be performed
% prior to the input of the significant wave height given above.
Ztoe=SWEL-1.5*H0

Ztoe =

                  2.213223


% read the transect
[sta,dep,inc] = textread(fname,'%n%n%n%*[^\n]','delimiter',',','headerlines',0);

% remove unselected points
k=find(inc==0);
sta(k)=[];
dep(k)=[];

sta_org=sta;  % used for plotting purposes
dep_org=dep;


% initial guess at maximum run-up elevation to estimate slope
Z2=SWEL+1.5*H0

Z2 =

                 16.360623


% determine station at the max runup and -1.5*H0 (i.e. the toe)
top_sta=-999;
toe_sta=-999;
for kk=1:length(sta)-1
    if ((Z2 > dep(kk)) & (Z2 <= dep(kk+1)))    % here is the intersection of z2 with profile
       top_sta=interp1(dep(kk:kk+1),sta(kk:kk+1),Z2)
    end
    if  ((Ztoe > dep(kk)) & (Ztoe <= dep(kk+1)))    % here is the intersection of Ztoe with profile
       toe_sta=interp1(dep(kk:kk+1),sta(kk:kk+1),Ztoe)
    end
end

toe_sta =

          30.5588791883339

% check to make sure we got them, if not extend the end slopes outward
S=diff(dep)./diff(sta);
if toe_sta==-999
   dy=dep(1)-Ztoe;
   toe_sta=sta(1)-dy/S(1)
end
if top_sta==-999
   dy=Z2-dep(end);
   top_sta=sta(end)+dy/S(end)
end

top_sta =

          64.4137981025852


% just so the reader can tell the values aren't -999 anymore
top_sta

top_sta =

          64.4137981025852

toe_sta

toe_sta =

          30.5588791883339




% check for case where the toe of slope is below SWL-1.5*H0
% in this case interpolate setup from the setupAtToe(really setup as first station), and the max setup
% also un-include points seaward of SWL-1.5*H0
if Ztoe > dep(1)
   dd=SWEL_fore-dep;
   k=find(dd<0,1); % k is index of first land point
   staAtSWL=interp1(dep(k-1:k),sta(k-1:k),SWEL_fore);
   dsta=staAtSWL-sta(1);
   dsetup=maxSetup-setupAtToe;
   dsetdsta=dsetup/dsta;
   setup=setupAtToe+dsetdsta*(toe_sta-sta(1));
   sprintf('-!!- Location of SWEL-1.5*H0 is %4.1f ft landward of toe of slope',dsta)
   sprintf('-!!- Setup is interpolated between setup at toe of slope and max setup')
```

```
   sprintf('-!!-       setup is adjusted to %4.2f feet',setup)
   SWEL=SWEL-setupAtToe+setup;
   sprintf('-!!-       SWEL is adjusted to %4.2f feet',SWEL)
   k=find(dep < SWEL-1.5*H0)
   sta(k)=[];
   dep(k)=[];
else
   sprintf('-!!- The User has selected a starting point that is %4.2f feet above the elevation of SWEL-1.5H0\n',dep(1
   sprintf('-!!- This may be reasonable for some cases.  However the user may want to consider:\n')
   sprintf('-!!-   1) Selecting a starting point that is at or below %4.2f feet elevation, or\n', Ztoe)
   sprintf('-!!-   2) Reducing the incident wave height to a depth limited condition.\n')
end

ans =

-!!- Location of SWEL-1.5*H0 is 80.0 ft landward of toe of slope


ans =

-!!- Setup is interpolated between setup at toe of slope and max setup


ans =

-!!-       setup is adjusted to 0.52 feet


ans =

-!!-       SWEL is adjusted to 9.84 feet


k =

     1
     2
     3
     4
     5
     6
     7
     8
     9
    10
    11
    12
    13
    14
    15
    16
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    41
    42
    43
    44
    45
    46
    47
    48
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    50
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    52
    53
    54
    55
```

```
    56
    57
    58
    59
```

```
% now iterate converge on a runup elevation
tol=0.01;  % convergence criteria
R2del=999;
R2_new=3*H0; %initial guess
R2=R2_new;
iter=0;
R2_all=[];
topStaAll=[];
Berm_Segs=[];
TAW_ALWAYS_VALID=1;
while(abs(R2del) > tol && iter <= 25)
    iter=iter+1;
    sprintf ('!----------------- STARTING ITERATION %d -----------------!',iter)
    % elevation of toe of slope
    Ztoe
    % station of toe slope (relative to 0-NAVD88 shoreline
    toe_sta
    % station of top of slope/extent of 2% run-up
    top_sta
    % elevation of top of slope/extent of 2% run-up
    Z2
    % incident significant wave height
    H0
    % incident spectral peak wave period
    Tp
    % incident spectral mean wave period
    T0

    R2=R2_new
    Z2=R2+SWEL
    % determine slope for this iteration
    top_sta=-999;
    for kk=1:length(sta)-1
       if ((Z2 > dep(kk)) & (Z2 <= dep(kk+1)))    % here is the intersection of z2 with profile
          top_sta=interp1(dep(kk:kk+1),sta(kk:kk+1),Z2)
          break;
       end
    end
    if top_sta==-999
       dy=Z2-dep(end);
       top_sta=sta(end)+dy/S(end)
    end

    % get the length of the slope (not accounting for berm)
    Lslope=top_sta-toe_sta

    % loop over profile segments to determine berm factor
    % re-calculate influence of depth of berm based on this run-up elevation
    % check for berm, berm width, berm height
    berm_width=0;
    rdh_sum=0;
    Berm_Segs=[];
    Berm_Heights=[];
    for kk=1:length(sta)-1
       ddep=dep(kk+1)-dep(kk);
       dsta=sta(kk+1)-sta(kk);
       s=ddep/dsta;
       if  (s < 1/15)     % count it as a berm if slope is flatter than 1:15 (see TAW manual)
          sprintf ('Berm Factor Calculation: Iteration %d, Profile Segment: %d',iter,kk)
          berm_width=berm_width+dsta;   % tally the width of all berm segments
          % compute the rdh for this segment and weight it by the segment length
          dh=SWEL-(dep(kk)+dep(kk+1))/2
          if  dh < 0
              chi=R2;
          else
              chi=2* H0;
          end
          if (dh <= R2 & dh >=-2*H0)
             rdh=(0.5-0.5*cos(3.14159*dh/chi)) ;
          else
             rdh=1;
          end
          rdh_sum=rdh_sum + rdh * dsta
          Berm_Segs=[Berm_Segs, kk];
          Berm_Heights=[Berm_Heights, (dep(kk)+dep(kk+1))/2];
       end
       if dep(kk) >= Z2  % jump out of loop if we reached limit of run-up for this iteration
          break
       end
    end
    sprintf ('!------- End Berm Factor Calculation, Iter: %d ---------!',iter)
    berm_width
```

```
rB=berm_width/Lslope
if (berm_width > 0)
   rdh_mean=rdh_sum/berm_width
else
   rdh_mean=1
end
gamma_berm=1- rB * (1-rdh_mean)
if gamma_berm > 1
   gamma_berm=1
end
if gamma_berm < 0.6
   gamma_berm =0.6
end
% Iribarren number
slope=(Z2-Ztoe)/(Lslope-berm_width)
Irb=(slope/(sqrt(H0/L0)))
% runup height
gamma_berm
gamma_perm
gamma_beta
gamma_rough
gamma=gamma_berm*gamma_perm*gamma_beta*gamma_rough

% check validity
TAW_VALID=1;
if (Irb*gamma_berm < 0.5 | Irb*gamma_berm > 10 )
   sprintf('!!! - - Iribaren number: %6.2f is outside the valid range (0.5-10), TAW NOT VALID - - !!!\n', Irb*gam
   TAW_VALID=0;
else
   sprintf('!!! - - Iribaren number: %6.2f is in the valid range (0.5-10), TAW RECOMMENDED - - !!!\n', Irb*gamma_
end
islope=1/slope;
if (slope < 1/8 | slope > 1)
   sprintf('!!! - - slope: 1:%3.1f V:H is outside the valid range (1:8 - 1:1), TAW NOT VALID - - !!!\n', islope)
   TAW_VALID=0;
else
   sprintf('!!! - - slope: 1:%3.1f V:H is in the valid range (1:8 - 1:1), TAW RECOMMENDED - - !!!\n', islope)
end
if TAW_VALID == 0
   TAW_ALWAYS_VALID=0;
end

if (Irb*gamma_berm < 1.8)
   R2_new=gamma*H0*1.77*Irb
else
   R2_new=gamma*H0*(4.3-(1.6/sqrt(Irb)))
end
% check to see if we need to evaluate a shallow foreshore
if berm_width > 0.25 * L0;
   disp ('!   Berm_width is greater than 1/4 wave length')
   disp ('!   Runup will be weighted average with foreshore calculation assuming depth limited wave height on ber
   % do the foreshore calculation
   fore_H0=0.78*(SWEL_fore-min(Berm_Heights))
   % get upper slope
   fore_toe_sta=-999;
   fore_toe_dep=-999;
   for kk=length(dep)-1:-1:1
      ddep=dep(kk+1)-dep(kk);
      dsta=sta(kk+1)-sta(kk);
      s=ddep/dsta;
      if s < 1/15
         break
      end
      fore_toe_sta=sta(kk);
      fore_toe_dep=dep(kk);
      upper_slope=(Z2-fore_toe_dep)/(top_sta-fore_toe_sta)
   end
   fore_Irb=upper_slope/(sqrt(fore_H0/L0));
   fore_gamma=gamma_perm*gamma_beta*gamma_rough;
   if (fore_Irb < 1.8)
      fore_R2=fore_gamma*fore_H0*1.77*fore_Irb;
   else
      fore_R2=fore_gamma*fore_H0*(4.3-(1.6/sqrt(fore_Irb)));
   end
   if berm_width >= L0
      R2_new=fore_R2
      disp ('berm is wider than one wavelength, use full shallow foreshore solution');
   else
      w2=(berm_width-0.25*L0)/(0.75*L0)
      w1=1-w2
      R2_new=w2*fore_R2 + w1*R2_new
   end
end % end berm width check
% convergence criterion
R2del=abs(R2-R2_new)
R2_all(iter)=R2_new;
% get the new top station (for plot purposes)
Z2=R2_new+SWEL
top_sta=-999;
for kk=1:length(sta)-1
```

```
       if ((Z2 > dep(kk)) & (Z2 <= dep(kk+1)))    % here is the intersection of z2 with profile
          top_sta=interp1(dep(kk:kk+1),sta(kk:kk+1),Z2)
          break;
       end
    end
    if top_sta==-999
       dy=Z2-dep(end);
       top_sta=sta(end)+dy/S(end);
    end
    topStaAll(iter)=top_sta;
end
ans =
!----------------- STARTING ITERATION 1 -----------------!
Ztoe =
                2.213223
toe_sta =
          30.5588791883339
top_sta =
          64.4137981025852
Z2 =
               16.360623
H0 =
                  4.7158
Tp =
                 11.1241
T0 =
          10.1128181818182
R2 =
                 14.1474
Z2 =
          23.9858191012972
top_sta =
          81.1632310556093
Lslope =
          50.6043518672754
ans =
!------- End Berm Factor Calculation, Iter: 1 ---------!
berm_width =
     0
rB =
     0
rdh_mean =
     1
gamma_berm =
     1
slope =
         0.430251456602035
Irb =
          4.53228711208791
gamma_berm =
     1
gamma_perm =
     1
gamma_beta =
     1
gamma_rough =
                     0.75
gamma =
                     0.75
ans =
!!! - - Iribaren number:   4.53 is in the valid range (0.5-10), TAW RECOMMENDED - - !!!
ans =
!!! - - slope: 1:2.3 V:H is in the valid range (1:8 - 1:1), TAW RECOMMENDED - - !!!
R2_new =
          12.5503145933231
R2del =
          1.59708540667685
Z2 =
          22.3887336946203
ans =
!----------------- STARTING ITERATION 2 -----------------!
Ztoe =
                2.213223
toe_sta =
          30.5588791883339
top_sta =
          77.6550884997954
Z2 =
          22.3887336946203
H0 =
                  4.7158
Tp =
                 11.1241
T0 =
          10.1128181818182
R2 =
          12.5503145933231
Z2 =
          22.3887336946203
top_sta =
```

```
          77.6550884997954
Lslope =
          47.0962093114615
ans =
!------- End Berm Factor Calculation, Iter: 2 ---------!
berm_width =
     0
rB =
     0
rdh_mean =
     1
gamma_berm =
     1
slope =
         0.428389269318759
Irb =
          4.51267075217842
gamma_berm =
     1
gamma_perm =
     1
gamma_beta =
     1
gamma_rough =
                       0.75
gamma =
                       0.75
ans =
!!! - - Iribaren number:   4.51 is in the valid range (0.5-10), TAW RECOMMENDED - - !!!
ans =
!!! - - slope: 1:2.3 V:H is in the valid range (1:8 - 1:1), TAW RECOMMENDED - - !!!
R2_new =
           12.544543454813
R2del =
       0.00577113851014843
Z2 =
          22.3829625561102
% final 2% runup elevation
Z2=R2_new+SWEL
Z2 =
          22.3829625561102
diary off
-1.000000e+00
```

_____
PART 5: RUNUP2

for transect: YK-100

Station locations shifted by: -1.80 feet from their
original location to set the shoreline to
elevation 0 for RUNUP2 input

_____RUNUP2 INPUT CONVERSIONS_____
for transect: YK-100

Incident significant wave height: 4.01 feet

Peak wave period: 11.25 seconds

Mean wave height: 2.51 feet

Local Depth below SWEL: 24.62 feet

Mean wave height deshoaled using Hunt approximation for
celerity assuming constant wave energy flux.
References: R.G. Dean and R.A. Dalrymple. 2000. Water

Wave Mechanics for Engineers and Scientists. World
Scientific Publishing Company, River Edge New Jersy

USACE (1985), Direct Methods for Calculating Wavelength, CETN-1-17
US Army Engineer Waterways Experiment Station Coastel Engineering
Research Center, Vicksburg, MS

also see Coastal Engineering Manual Part II-3
for discussion of shoaling coefficient

Depth, D = 24.62
Period, T = 9.56
Waveheight, H = 2.51
Deep water wavelength, L0 (ft)
L0 = g*T*T/twopi
L0 = 32.17*9.56*9.56/6.28 = 468.32
Deep water wave celerity, C0 (ft/s)
C0 = L0/T
C0 = 468.32/9.56 = 48.97
Angular frequency, sigma (rad/s)
sigma = twopi/T
sigma = 6.28/9.56 = 0.66
Hunts (1979) approximation for Celerity C1H (ft/s) at Depth D (ft)
y = sigma.*sigma.*D./g
y = 0.66*0.66*24.62/32.17 = 0.33
C1H = sqrt(g.*D./(y+1./(1 + 0.6522.*y + 0.4622.*y.^2 + 0.0864.*y.^4 +0.0675.*y.^5)))
C1H = 26.60
Shoaling Coefficient KsH
KsH = sqrt(C0/C1H)
KsH = sqrt(48.97/26.60) = 1.36
Deepwater Wave Height H0_H (ft)
H0_H = H/KsH
H0_H = 2.51/1.36 = 1.85

Deepwater mean wave height: 1.85 feet

_____END RUNUP2 CONVERSIONS_____

_____RUNUP2 RESULTS_____
for transect: YK-100

RUNUP2 SWEL:
9.32

RUNUP2 deepwater mean wave heights:
-9999.00

RUNUP2 mean wave periods:
-9999.00

RUNUP2 runup above SWEL:
-9999.00

RUNUP2 Mean runup height above SWEL: -9999.00 feet

RUNUP2 2-percent runup height above SWEL: -9999.00 feet

RUNUP2 2-percent runup elevation: -9999.00 feet-NAVD88

RUNUP2 Messages:
RUNUP2 Failed

_____END RUNUP2 RESULTS_____

_____ACES BEACH RUNUP_____

Incident significant wave height: 4.01 feet

Significant wave height is mean wave height divided by 0.626
Reference: D.2.8.1.2.1 Atlanic and Gulf of Mexico G&S Feb. 2007

Deepwater significant wave height: 2.95 feet

Peak wave period: 11.25 seconds

Average beach Slope: 1:15.37 (H:V)

ACES IRREGULAR WAVE RUNUP ON BEACHES

Reference:
Leenknecht, David A., Andre Szuwaiski, and Ann Sherlock. 1992.
"Automated Coastal Engineering System Technical Reference",
Coastal Engineering Research Center, Department of the Army
Waterways Experiments Station, Corps of Eniggneers, 3909 Halls
Ferry Road, Vicksburg, Mississippi 39180-6199.

INPUTS:

```
Acceleration Due to Gravity,        g  =   32.174
Deepwater Significant Wave height,  Hs =     2.95
Wave Period,                        T  =    11.25
Beach Slope,                        S  =    0.065
```

EQUATIONS:

```
Runup,           R   = Hs * a * Irb^b
Iribarren,       Irb = S/sqrt(Hs/L0)
Wavelength,      L0  = g * T^2 / 2 / pi
```

COEFFICIENTS:
(Mase, H. 1989, "Random Wave Runup Height on Gentle Slopes,"
j. Waterway, Port, Coastal and Ocean Engineering Division,
ASCE, Vol 115, No. 5, pp 649-661.)

```
               [Rmax,  R2%, R-1/3, R-1/10, R-mean]
           a = [2.32, 1.86,  1.70,   1.38,   0.88]
           b = [0.77, 0.71,  0.71,   0.70,   0.69]
```

RESULTS:

```
       RUNUP = [ 6.7,  5.4,   4.9,    4.0,    2.5]
```

ACES RUNUP CALCULATED USING 'Aces_Beach_Runup.m'

ACES Beach 2-percent runup height above SWEL: 5.35 feet

ACES Beach 2-percent runup elevation: 14.67 feet-NAVD88

ACES BEACH RUNUP is valid

_____END ACES BEACH RESULTS_____

PART 5 COMPLETE_____

```
  FEMA                                                  sjh           job 2
  RUNUP2 transect: YK-100                                               1
1.00
  -15.30 -412.2 0.8
  -15.11 -367.2 0.8
  -13.28 -323.2 0.8
  -9.84 -256.2 0.8
  -9.15 -237.2 0.8
  -5.16 -161.2 0.8
  -4.94 -151.2 0.8
  -4.09 -136.2 0.8
  -3.89 -73.2  0.8
  -3.87 -72.2  0.8
  -2.01 -29.2  0.8
  -1.48 -11.2  0.8
  -0.08 -0.2   0.8
  0.70  1.8    0.8
  0.70  21.8   0.8
  2.08  31.3   0.8
  2.83  37.3   0.8
  4.80  45.8   0.8
  7.89  55.3   0.8
1 15.70 64.3   0.8
 9.3   1.76  9.09
 9.3   1.76  9.56
 9.3   1.76  10.04
 9.3   1.85  9.09
 9.3   1.85  9.56
 9.3   1.85  10.04
 9.3   1.94  9.09
 9.3   1.94  9.56
 9.3   1.94  10.04
```

****

CROSS SECTION PROFILE

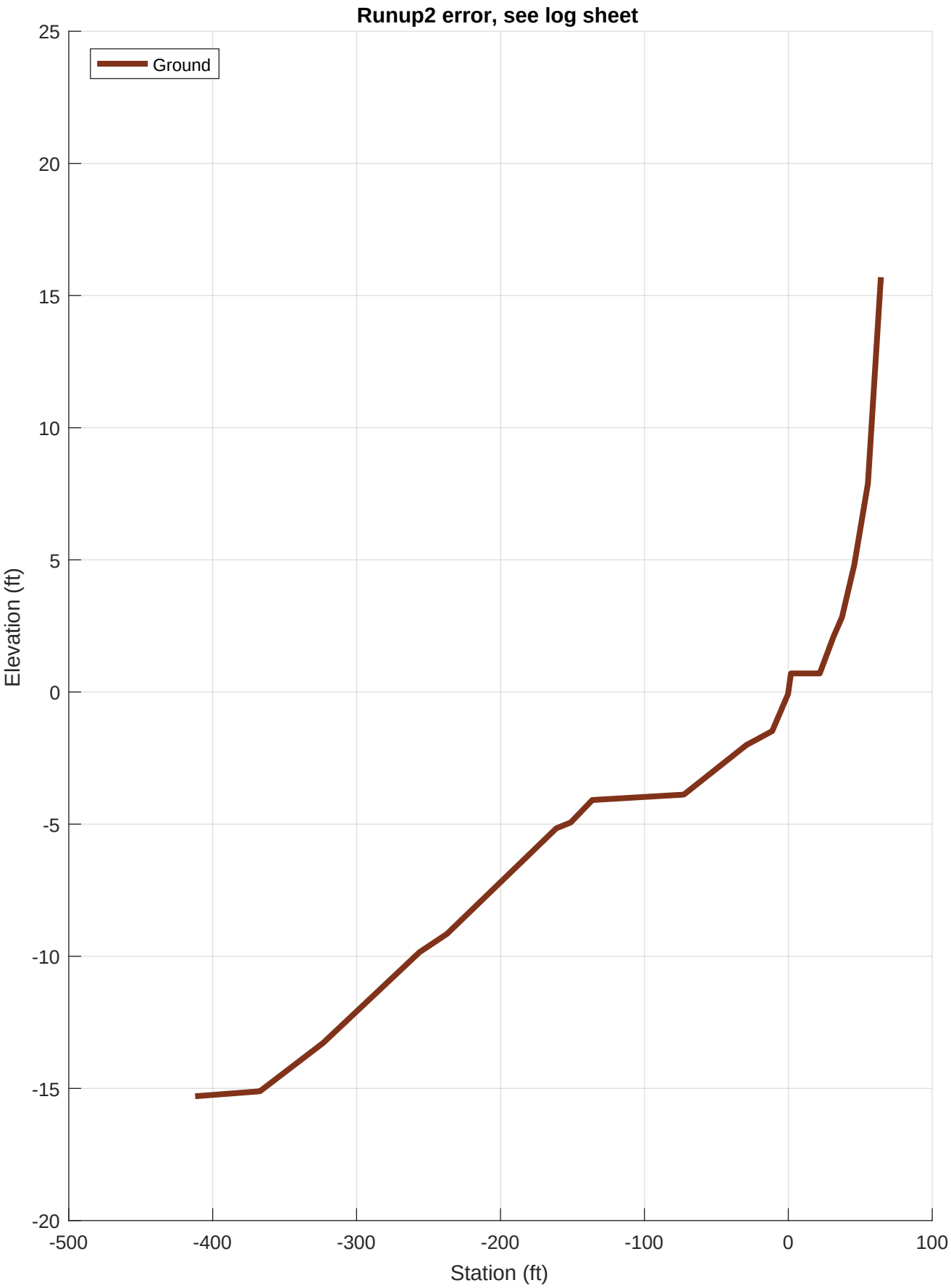
	LENGTH	ELEV.	SLOPE	ROUGHNESS
1	-412.0	-15.3		
2	-367.0	-15.1	.00	.80
3	-323.0	-13.2	23.16	.80
4	-256.2	-9.8	19.88	.80
5	-237.2	-9.1	27.54	.80
6	-161.2	-5.2	19.05	.80
7	-151.2	-4.9	45.45	.80
8	-136.2	-4.1	17.65	.80
9	-73.2	-3.9	315.00	.80
10	-72.2	-3.9	50.00	.80
11	-29.2	-2.0	23.12	.80
12	-11.2	-1.5	33.96	.80
13	-.2	-.1	7.86	.80
14	1.8	.7	2.56	.80
15	21.8	.7	FLAT	.80
16	31.3	2.1	6.88	.80
17	37.3	2.8	8.00	.80
18	45.8	4.8	4.31	.80
19	55.3	7.9	3.07	.80
20	64.3	15.7	1.15	.80

LAST SLOPE 1.00 LAST ROUGHNESS .80

****

OUTPUT TABLE

INPUT PARAMETERS			RUNUP RESULTS			
WATER LEVEL ABOVE DATUM (FT.)	DEEP WATER WAVE HEIGHT (FT.)	WAVE PERIOD (SEC.)	BREAKING SLOPE NUMBER	RUNUP SLOPE NUMBER	RUNUP ABOVE WATER LEVEL (FT.)	BREAKER DEPTH (FT.)


Runup2 error, see log sheet
Ground
25
20
15
10
5
0
-5
-10
-15
-20
Elevation (ft)
-500
-400
-300
-200
-100
0
100
Station (ft)