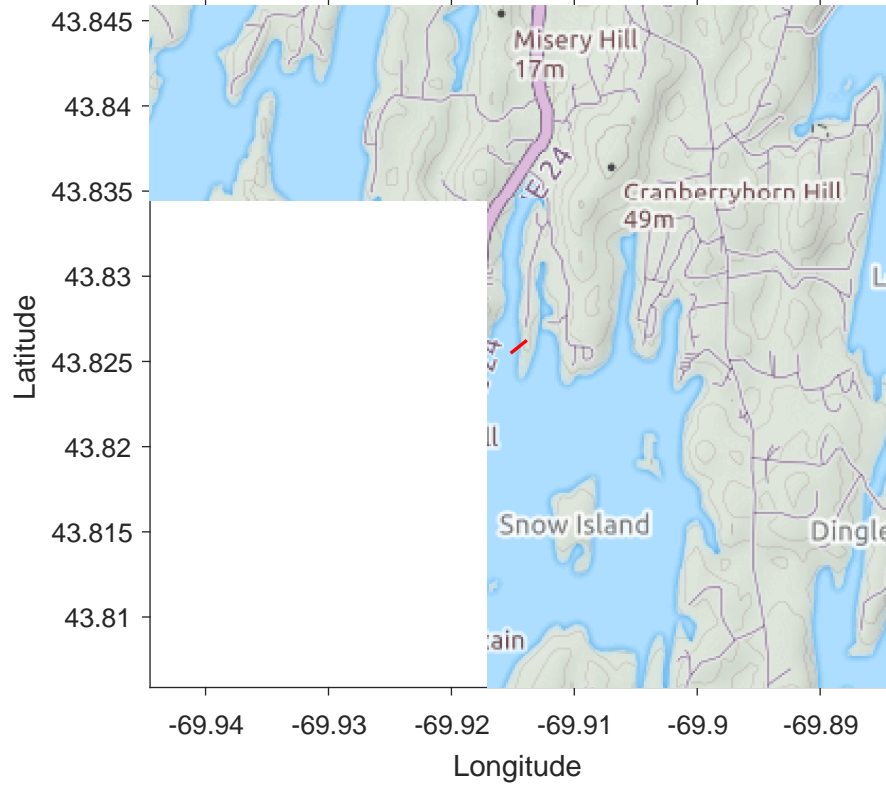
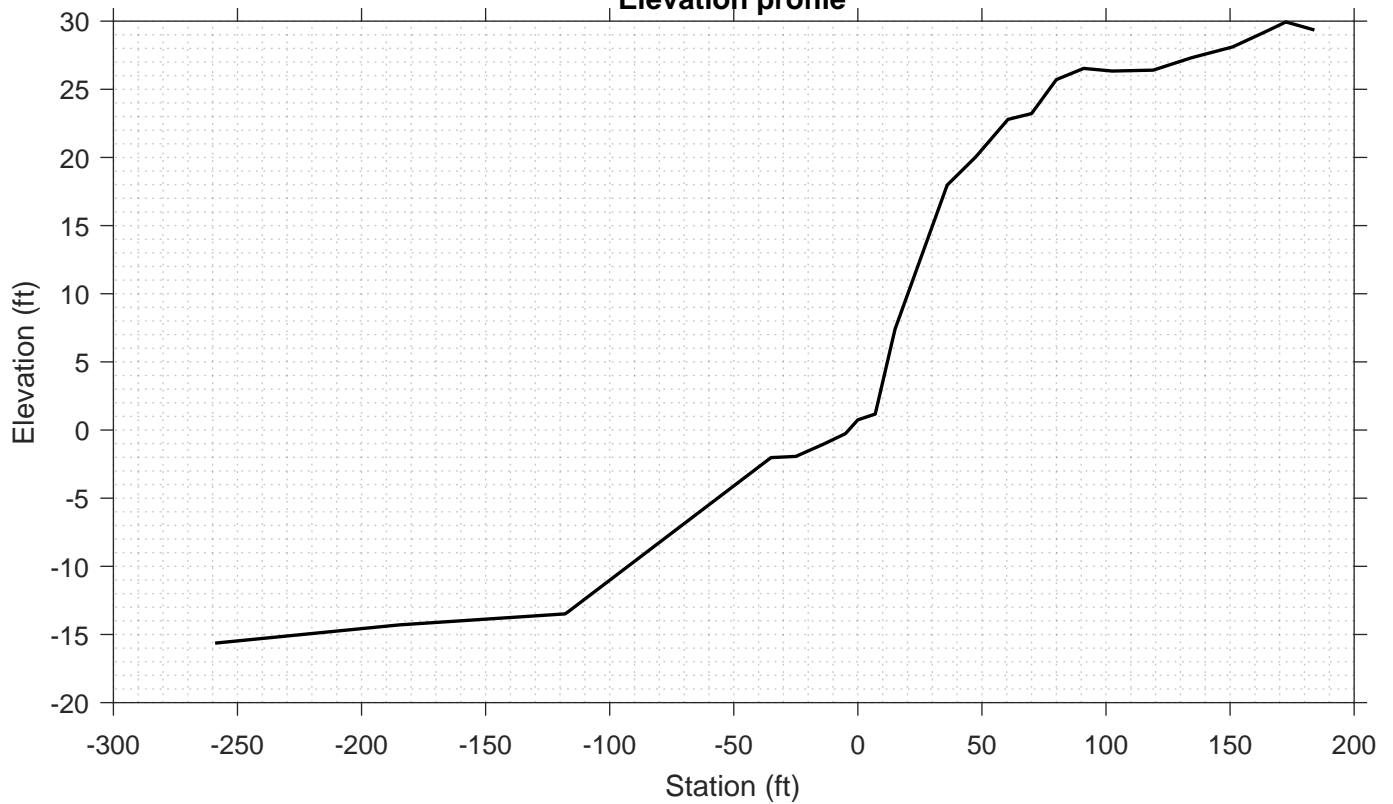


Transect Number: CM-150-2



Elevation profile



DATA LOG FOR TRANSECT ID: CM-150-2

PART 1: USER INPUT

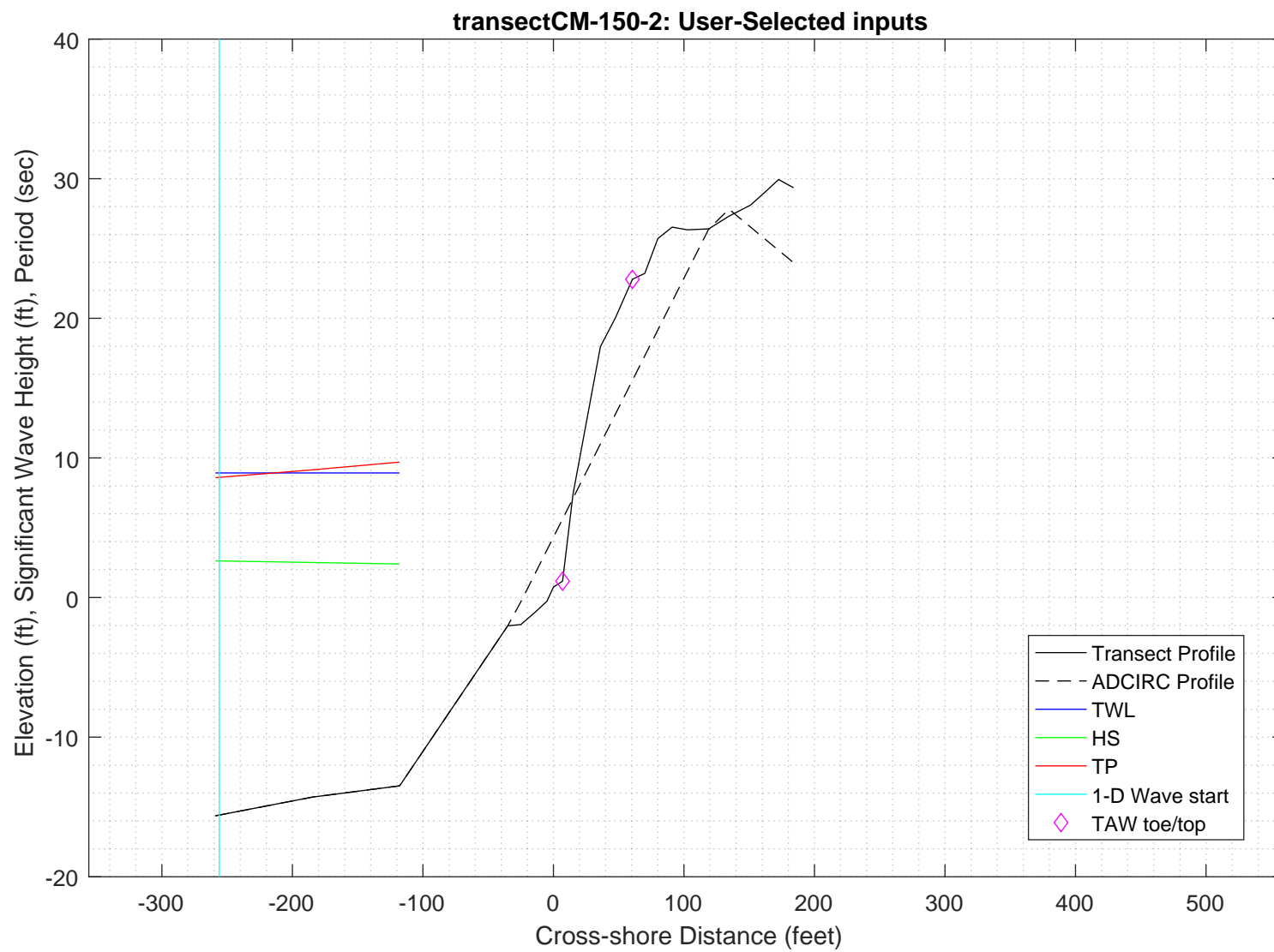
SWAN 1-D / WHAFIS input

station: -256 ft
LON: -69.9152 deg E
LAT: 43.8255 deg N
Bottom ELEV: -15.5802 ft-NAVD88
TWL: 8.9231 ft-NAVD88
HS: 2.6223 ft
TP: 8.6079 sec
Wave Direction bin: 45 deg CCW from East (90 deg sector)
Transect Direction: 29.8692 deg CCW from East

TAW/RUNUP input

toe sta: 7 ft
toe elev: 1.1713 ft-NAVD88
top sta: 60.5 ft
top elev: 22.792 ft-NAVD88
Wave and water level conditions at toe to be calculated in SWAN 1-D

PART 1 COMPLETE



PART 2: SWAN 1-D

swan input grid name: 2_swan/gridfiles/CM-150-2zmeters_xmeters.grd
swan file name: 2_swan/swanfiles/CM-150-2.swn
swan output name: 2_swan/swanfiles/CM-150-2.dat

Boundary Conditions:

TWL- 2.7198 meters
HS- 0.79927 meters
PER- 8.6079 seconds

Batch File: 2_swan/swanfiles/runswan.dat

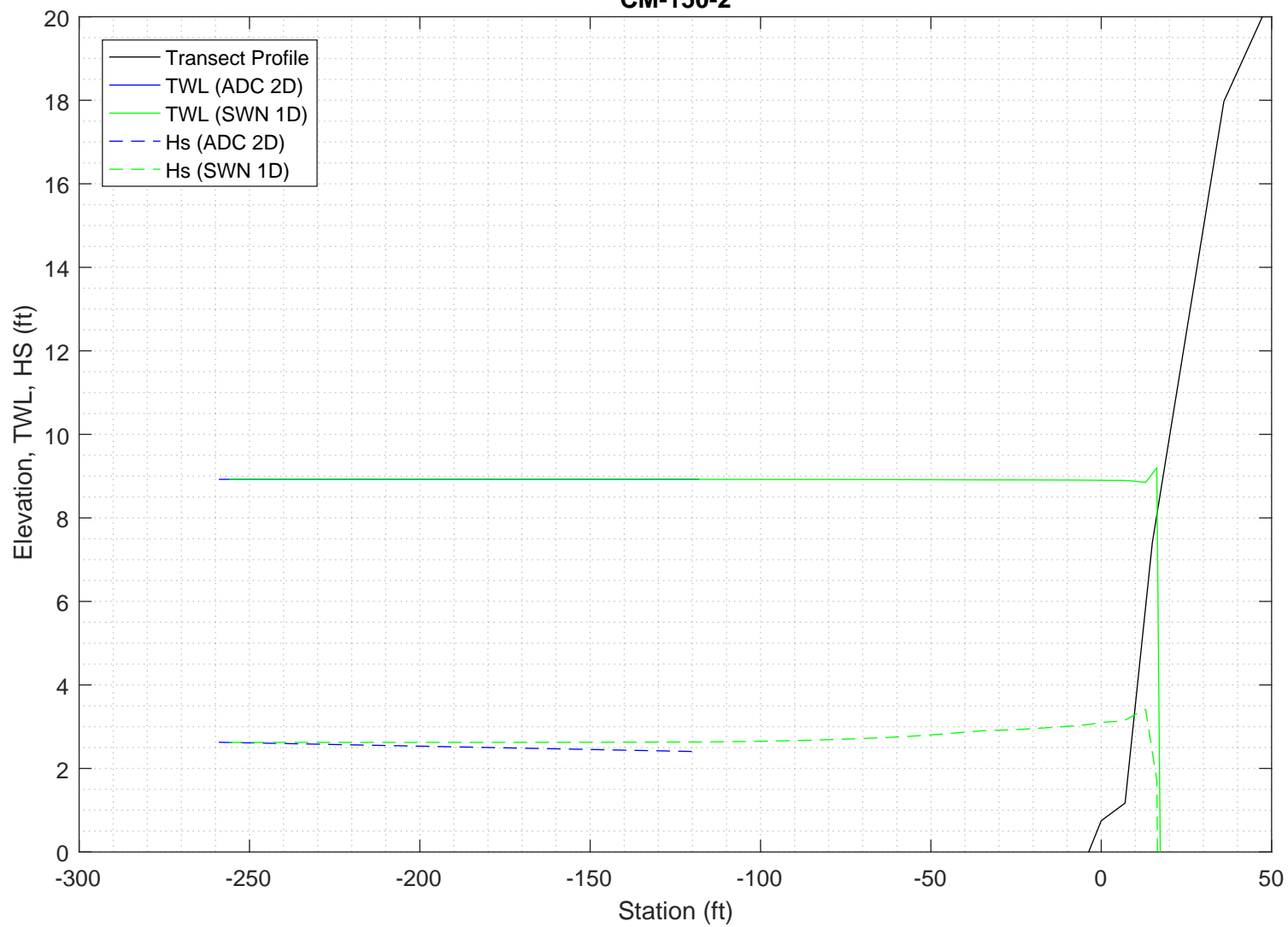
SWAN maximum additional wave setup: 0.27652 feet

SWAN output at toe:

SETUP- -0.025892 feet
HS- 3.1328 feet
PER- 8.6753 seconds

PART 2 COMPLETE

2-D ADCIRC+SWAN and SWAN 1-D results, Transect:
CM-150-2



Execution started at 20200220.141951

```

-----
                        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      89      0.  89      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      89      0      1      1
!READinp BOTtom [fac] 'fname1' [idla] [nhedf] [FREe|FORmat[form]|UNFormatted]
READ    BOTTOM    -1. '../gridfiles/CM-150-2zmeters_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    0.79927      8.6079      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] [edmlpm] [cdrag] [umin] [cfpm]
!-- GEN2 [cf10] [cf20] [cf30] [cf40] [cf50] [cf60] [edmlpm] [cdrag] [umin] [cfpm]
      GEN3 KOMEN
!   whitecapping ( on by default)
!-- WCApping KOMen [cds2] [stpm] [powst] [delta] [powk]
      WCAP KOM
!   quadruplet wave interactions
!-- QUADrupl [iquad] [lambda] [Cnl4] [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' [xpl] [yp1] <[int] [xp] [yp] >
      CURVE 'curve' 0      0      89 89      0
!TABLE 'sname' < HEADER|NOHEAdER|INDEXed > 'fname' <output parameters> (output time)
      Table 'curve' HEADER 'CM-150-2.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          90 MYC          1
                   : MCGRD         91
                   : 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 EDMLEPM    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 96.43 % 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 1.20 % 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 96.43 % 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 98.81 % 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 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_l0 [sec]	Dir [degr]	Dspr [degr]	Depth [m]	Setup [m]
0.	0.	0.80005	8.6288	8.9638	7.7647	0.014	31.6791	7.4700	0.000000
1.	0.	0.80000	8.6289	8.9638	7.7645	0.014	31.6066	7.4500	-0.000007
2.	0.	0.79996	8.6290	8.9638	7.7642	0.014	31.5345	7.4300	-0.000013
3.	0.	0.79998	8.6290	8.9638	7.7640	0.014	31.4747	7.4100	-0.000020
4.	0.	0.79990	8.6290	8.9638	7.7635	0.014	31.4194	7.4000	-0.000024
5.	0.	0.79989	8.6291	8.9638	7.7633	0.015	31.3542	7.3800	-0.000030
6.	0.	0.79988	8.6292	8.9638	7.7631	0.015	31.2862	7.3600	-0.000037
7.	0.	0.79986	8.6292	8.9638	7.7628	0.015	31.2236	7.3400	-0.000044
8.	0.	0.79990	8.6293	8.9638	7.7627	0.015	31.1779	7.3199	-0.000051
9.	0.	0.79984	8.6293	8.9638	7.7621	0.015	31.1363	7.3099	-0.000054
10.	0.	0.79986	8.6294	8.9638	7.7619	0.015	31.0871	7.2899	-0.000060
11.	0.	0.79986	8.6294	8.9638	7.7617	0.015	31.0357	7.2699	-0.000067
12.	0.	0.79986	8.6295	8.9638	7.7614	0.015	30.9833	7.2499	-0.000074
13.	0.	0.79992	8.6296	8.9638	7.7612	0.015	30.9397	7.2299	-0.000080
14.	0.	0.79987	8.6296	8.9638	7.7607	0.015	30.8990	7.2199	-0.000084
15.	0.	0.79990	8.6296	8.9638	7.7605	0.015	30.8504	7.1999	-0.000090
16.	0.	0.79993	8.6297	8.9638	7.7602	0.015	30.7992	7.1799	-0.000097
17.	0.	0.79995	8.6298	8.9638	7.7600	0.015	30.7471	7.1599	-0.000104
18.	0.	0.80002	8.6298	8.9638	7.7597	0.015	30.7035	7.1399	-0.000111
19.	0.	0.79998	8.6299	8.9638	7.7592	0.015	30.6629	7.1299	-0.000115
20.	0.	0.80003	8.6299	8.9638	7.7590	0.015	30.6143	7.1099	-0.000122
21.	0.	0.80007	8.6300	8.9638	7.7587	0.015	30.5632	7.0899	-0.000129
22.	0.	0.80016	8.6301	8.9638	7.7585	0.015	30.5199	7.0699	-0.000137
23.	0.	0.80018	8.6301	8.9638	7.7579	0.015	30.4880	7.0599	-0.000141
24.	0.	0.80022	8.6301	8.9638	7.7574	0.015	30.4600	7.0499	-0.000144
25.	0.	0.80027	8.6302	8.9638	7.7569	0.015	30.4332	7.0399	-0.000148
26.	0.	0.80028	8.6302	8.9638	7.7563	0.016	30.3981	7.0298	-0.000152
27.	0.	0.80041	8.6303	8.9638	7.7561	0.016	30.3602	7.0098	-0.000160
28.	0.	0.80045	8.6303	8.9638	7.7555	0.016	30.3301	6.9998	-0.000164
29.	0.	0.80050	8.6303	8.9638	7.7549	0.016	30.3026	6.9898	-0.000168
30.	0.	0.80052	8.6303	8.9638	7.7543	0.016	30.2673	6.9798	-0.000172
31.	0.	0.80066	8.6304	8.9638	7.7539	0.016	30.2291	6.9598	-0.000180
32.	0.	0.80075	8.6304	8.9638	7.7526	0.016	30.1975	6.9498	-0.000184
33.	0.	0.80088	8.6305	8.9638	7.7508	0.016	30.1677	6.9398	-0.000188
34.	0.	0.80106	8.6305	8.9638	7.7484	0.016	30.1378	6.9298	-0.000193
35.	0.	0.80119	8.6305	8.9638	7.7458	0.016	30.0994	6.9198	-0.000197
36.	0.	0.80146	8.6306	8.9638	7.7434	0.016	30.0578	6.8998	-0.000205</

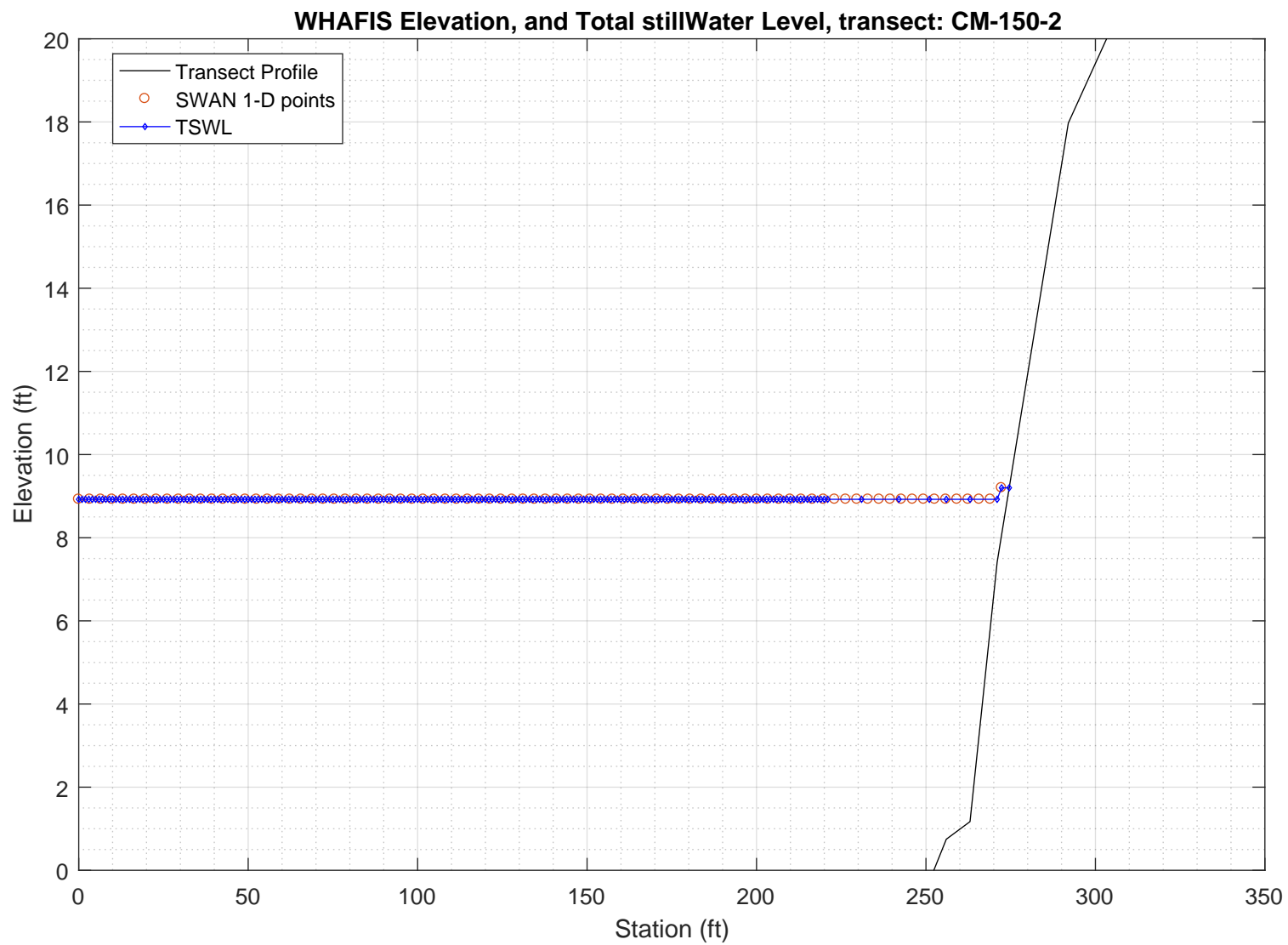
60.	0.	0.84042	8.6427	8.9638	7.6243	0.017	23.7876	4.3579	-0.002083
61.	0.	0.84503	8.6436	8.9638	7.6060	0.017	23.4756	4.2177	-0.002275
62.	0.	0.85007	8.6445	8.9638	7.5843	0.018	23.1617	4.0775	-0.002485
63.	0.	0.85563	8.6454	8.9638	7.5584	0.020	22.8493	3.9373	-0.002715
64.	0.	0.86175	8.6465	8.9638	7.5280	0.024	22.5422	3.7970	-0.002967
65.	0.	0.86839	8.6477	8.9638	7.4940	0.032	22.2456	3.6568	-0.003245
66.	0.	0.87526	8.6489	8.9638	7.4613	0.055	21.9773	3.5164	-0.003550
67.	0.	0.88231	8.6503	8.9638	7.4269	0.078	21.8033	3.3861	-0.003862
68.	0.	0.88686	8.6515	8.9638	7.3869	0.089	21.7815	3.3260	-0.004023
69.	0.	0.88926	8.6524	8.9638	7.3465	0.099	21.8672	3.3159	-0.004060
70.	0.	0.89167	8.6532	8.9638	7.3065	0.098	21.9578	3.3059	-0.004098
71.	0.	0.89569	8.6543	8.9638	7.2703	0.094	21.9881	3.2558	-0.004242
72.	0.	0.90089	8.6556	8.9638	7.2383	0.087	21.9510	3.1755	-0.004473
73.	0.	0.90590	8.6570	8.9638	7.2091	0.089	21.8304	3.0953	-0.004719
74.	0.	0.91103	8.6586	8.9638	7.1781	0.096	21.6832	3.0150	-0.004981
75.	0.	0.91675	8.6604	8.9638	7.1469	0.093	21.5154	2.9247	-0.005294
76.	0.	0.92258	8.6624	8.9638	7.1123	0.090	21.2957	2.8344	-0.005633
77.	0.	0.93133	8.6650	8.9638	7.0770	0.084	20.9306	2.6938	-0.006209
78.	0.	0.94493	8.6685	8.9638	7.0363	0.088	20.5434	2.4928	-0.007160
79.	0.	0.95115	8.6718	8.9638	6.9725	0.097	20.3128	2.4225	-0.007542
80.	0.	0.95488	8.6753	8.9638	6.9060	0.100	19.5697	2.3621	-0.007892
81.	0.	1.00009	8.6864	8.9638	6.8824	0.037	17.2610	1.6971	-0.012898
82.	0.	1.04159	8.7136	8.9638	6.7436	359.896	13.7271	0.9074	-0.022559
83.	0.	0.52120	8.8999	8.9638	7.2010	356.029	16.3258	0.3443	0.084284
84.	0.	-9.00000	-9.0000	-9.0000	-9.0000	-999.000	-9.0000	-99.0000	-9.000000
85.	0.	-9.00000	-9.0000	-9.0000	-9.0000	-999.000	-9.0000	-99.0000	-9.000000
86.	0.	-9.00000	-9.0000	-9.0000	-9.0000	-999.000	-9.0000	-99.0000	-9.000000
87.	0.	-9.00000	-9.0000	-9.0000	-9.0000	-999.000	-9.0000	-99.0000	-9.000000
88.	0.	-9.00000	-9.0000	-9.0000	-9.0000	-999.000	-9.0000	-99.0000	-9.000000
89.	0.	-9.00000	-9.0000	-9.0000	-9.0000	-999.000	-9.0000	-99.0000	-9.000000

PART 3: WHAFIS

WHAFIS input: CM-150-2.dat

WHAFIS output: CM-150-2.out

PART 3 COMPLETE



WAVE HEIGHT COMPUTATIONS FOR FLOOD INSURANCE STUDIES (WHAFIS VERSION 4.0G, 08_2007)

Executed on: Thu Feb 20 14:57:37 2020

Input file: C:\FEMA-TransectAnalysis\LOMR-TransectAnalysis-Harpswell\3_whafis\whafis4\CM-150-2.dat

Output file: C:\FEMA-TransectAnalysis\LOMR-TransectAnalysis-Harpswell\3_whafis\whafis4\CM-150-2.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	-15.580	1.000	1.000	8.923	4.196	8.608	56.140	0.018	0.000
OF	1.000	-15.562	0.000	8.923	0.000	0.000	0.000	0.000	0.018	0.000
OF	2.000	-15.544	0.000	8.923	0.000	0.000	0.000	0.000	0.018	0.000
OF	3.000	-15.526	0.000	8.923	0.000	0.000	0.000	0.000	0.018	0.000
OF	4.000	-15.508	0.000	8.923	0.000	0.000	0.000	0.000	0.018	0.000
OF	5.000	-15.490	0.000	8.923	0.000	0.000	0.000	0.000	0.018	0.000
OF	6.000	-15.472	0.000	8.923	0.000	0.000	0.000	0.000	0.018	0.000
OF	7.000	-15.454	0.000	8.923	0.000	0.000	0.000	0.000	0.019	0.000
OF	8.000	-15.435	0.000	8.923	0.000	0.000	0.000	0.000	0.019	0.000
OF	9.000	-15.417	0.000	8.923	0.000	0.000	0.000	0.000	0.018	0.000
OF	10.000	-15.399	0.000	8.923	0.000	0.000	0.000	0.000	0.018	0.000
OF	11.000	-15.381	0.000	8.923	0.000	0.000	0.000	0.000	0.018	0.000
OF	12.000	-15.363	0.000	8.923	0.000	0.000	0.000	0.000	0.018	0.000
OF	13.000	-15.345	0.000	8.923	0.000	0.000	0.000	0.000	0.018	0.000
OF	14.000	-15.327	0.000	8.923	0.000	0.000	0.000	0.000	0.018	0.000
OF	15.000	-15.309	0.000	8.923	0.000	0.000	0.000	0.000	0.018	0.000
OF	16.000	-15.291	0.000	8.923	0.000	0.000	0.000	0.000	0.018	0.000
OF	17.000	-15.273	0.000	8.923	0.000	0.000	0.000	0.000	0.018	0.000
OF	18.000	-15.255	0.000	8.923	0.000	0.000	0.000	0.000	0.018	0.000
OF	19.000	-15.237	0.000	8.923	0.000	0.000	0.000	0.000	0.018	0.000
OF	20.000	-15.219	0.000	8.923	0.000	0.000	0.000	0.000	0.018	0.000
OF	21.000	-15.201	0.000	8.923	0.000	0.000	0.000	0.000	0.018	0.000
OF	22.000	-15.183	0.000	8.923	0.000	0.000	0.000	0.000	0.018	0.000
OF	23.000	-15.165	0.000	8.923	0.000	0.000	0.000	0.000	0.018	0.000
OF	24.000	-15.147	0.000	8.923	0.000	0.000	0.000	0.000	0.018	0.000
OF	25.000	-15.129	0.000	8.923	0.000	0.000	0.000	0.000	0.018	0.000
OF	26.000	-15.111	0.000	8.923	0.000	0.000	0.000	0.000	0.018	0.000
OF	27.000	-15.093	0.000	8.923	0.000	0.000	0.000	0.000	0.018	0.000
OF	28.000	-15.075	0.000	8.923	0.000	0.000	0.000	0.000	0.018	0.000
OF	29.000	-15.057	0.000	8.923	0.000	0.000	0.000	0.000	0.018	0.000
OF	30.000	-15.039	0.000	8.923	0.000	0.000	0.000	0.000	0.018	0.000
OF	31.000	-15.021	0.000	8.923	0.000	0.000	0.000	0.000	0.018	0.000
OF	32.000	-15.003	0.000	8.923	0.000	0.000	0.000	0.000	0.018	0.000
OF	33.000	-14.985	0.000	8.923	0.000	0.000	0.000	0.000	0.018	0.000
OF	34.000	-14.967	0.000	8.923	0.000	0.000	0.000	0.000	0.018	0.000
OF	35.000	-14.949	0.000	8.923	0.000	0.000	0.000	0.000	0.018	0.000
OF	36.000	-14.931	0.000	8.923	0.000	0.000	0.000	0.000	0.018	0.000
OF	37.000	-14.913	0.000	8.923	0.000	0.000	0.000	0.000	0.018	0.000
OF	38.000	-14.895	0.000	8.923	0.000	0.000	0.000	0.000	0.018	0.000
OF	39.000	-14.877	0.000	8.923	0.000	0.000	0.000	0.000	0.018	0.000
OF	40.000	-14.859	0.000	8.923	0.000	0.000	0.000	0.000	0.018	0.000
OF	41.000	-14.841	0.000	8.923	0.000	0.000	0.000	0.000	0.018	0.000
OF	42.000	-14.823	0.000	8.923	0.000	0.000	0.000	0.000	0.018	0.000
OF	43.000	-14.805	0.000	8.923	0.000	0.000	0.000	0.000	0.018	0.000
OF	44.000	-14.787	0.000	8.923	0.000	0.000	0.000	0.000	0.019	0.000
OF	45.000	-14.768	0.000	8.923	0.000	0.000	0.000	0.000	0.019	0.000
OF	46.000	-14.750	0.000	8.923	0.000	0.000	0.000	0.000	0.018	0.000
OF	47.000	-14.732	0.000	8.923	0.000	0.000	0.000	0.000	0.018	0.000
OF	48.000	-14.714	0.000	8.923	0.000	0.000	0.000	0.000	0.018	0.000
OF	49.000	-14.696	0.000	8.923	0.000	0.000	0.000	0.000	0.018	0.000
OF	50.000	-14.678	0.000	8.923	0.000	0.000	0.000	0.000	0.018	0.000
OF	51.000	-14.660	0.000	8.923	0.000	0.000	0.000	0.000	0.018	0.000
OF	52.000	-14.642	0.000	8.923	0.000	0.000	0.000	0.000	0.018	0.000
OF	53.000	-14.624	0.000	8.923	0.000	0.000	0.000	0.000	0.018	0.000
OF	54.000	-14.606	0.000	8.923	0.000	0.000	0.000	0.000	0.018	0.000
OF	55.000	-14.588	0.000	8.923	0.000	0.000	0.000	0.000	0.018	0.000
OF	56.000	-14.570	0.000	8.923	0.000	0.000	0.000	0.000	0.018	0.000
OF	57.000	-14.552	0.000	8.923	0.000	0.000	0.000	0.000	0.018	0.000
OF	58.000	-14.534	0.000	8.923	0.000	0.000	0.000	0.000	0.018	0.000
OF	59.000	-14.516	0.000	8.923	0.000	0.000	0.000	0.000	0.018	0.000
OF	60.000	-14.498	0.000	8.923	0.000	0.000	0.000	0.000	0.018	0.000
OF	61.000	-14.480	0.000	8.923	0.000	0.000	0.000	0.000	0.018	0.000
OF	62.000	-14.462	0.000	8.923	0.000	0.000	0.000	0.000	0.018	0.000
OF	63.000	-14.444	0.000	8.923	0.000	0.000	0.000	0.000	0.018	0.000
OF	64.000	-14.426	0.000	8.923	0.000	0.000	0.000	0.000	0.018	0.000
OF	65.000	-14.408	0.000	8.923	0.000	0.000	0.000	0.000	0.018	0.000
OF	66.000	-14.390	0.000	8.923	0.000	0.000	0.000	0.000	0.018	0.000
OF	67.000	-14.372	0.000	8.923	0.000	0.000	0.000	0.000	0.018	0.000
OF	68.000	-14.354	0.000	8.923	0.000	0.000	0.000	0.000	0.018	0.000
OF	69.000	-14.336	0.000	8.923	0.000	0.000	0.000	0.000	0.018	0.000
OF	70.000	-14.318	0.000	8.923	0.000	0.000	0.000	0.000	0.018	0.000
OF	71.000	-14.300	0.000	8.923	0.000	0.000	0.000	0.000	0.016	0.000
OF	72.000	-14.286	0.000	8.923	0.000	0.000	0.000	0.000	0.013	0.000
OF	73.000	-14.274	0.000	8.923	0.000	0.000	0.000	0.000	0.012	0.000
OF	74.000	-14.262	0.000	8.923	0.000	0.000	0.000	0.000	0.012	0.000
OF	75.000	-14.250	0.000	8.923	0.000	0.000	0.000	0.000	0.012	0.000
OF	76.000	-14.238	0.000	8.923	0.000	0.000	0.000	0.000	0.012	0.000
OF	77.000	-14.226	0.000	8.923	0.000	0.000	0.000	0.000	0.012	0.000
OF	78.000	-14.214	0.000	8.923	0.000	0.000	0.000	0.000	0.012	0.000
OF	79.000	-14.202	0.000	8.923	0.000	0.000	0.000	0.000	0.013	0.000
OF	80.000	-14.189	0.000	8.923	0.000	0.000	0.000	0.000	0.013	0.000
OF	81.000	-14.177	0.000	8.923	0.000	0.000	0.000	0.000	0.012	0.000
OF	82.000	-14.165	0.000	8.923	0.000	0.000	0.000	0.000	0.012	0.000
OF	83.000	-14.153	0.000	8.923	0.000	0.000	0.000	0.000	0.012	0.000
OF	84.000	-14.141	0.000	8.923	0.000	0.000	0.000	0.000	0.012	0.000
OF	85.000	-14.129	0.000	8.923	0.000	0.000	0.000	0.000	0.012	0.000
OF	86.000	-14.117	0.000	8.923	0.000	0.000	0.000	0.000	0.012	0.000
OF	87.000	-14.105	0.000	8.923	0.000	0.000	0.000	0.000	0.012	0.000
OF	88.000	-14.093	0.000	8.923	0.000	0.000	0.000	0.000	0.012	0.000
OF	89.000	-14.081	0.000	8.923	0.000	0.000	0.000	0.000	0.012	0.000
OF	90.000	-14.069	0.000	8.923	0.000	0.000	0.000	0.000	0.012	0.000
OF	91.000	-14.057	0.000	8.923	0.000	0.000	0.000	0.000	0.012	0.000
OF	92.000	-14.045	0.000	8.923	0.000	0.000	0.000	0.000	0.013	0.000

OF	93.000	-14.032	0.000	8.923	0.000	0.000	0.000	0.000	0.013	0.000
OF	94.000	-14.020	0.000	8.923	0.000	0.000	0.000	0.000	0.012	0.000
OF	95.000	-14.008	0.000	8.923	0.000	0.000	0.000	0.000	0.012	0.000
OF	96.000	-13.996	0.000	8.923	0.000	0.000	0.000	0.000	0.012	0.000
OF	97.000	-13.984	0.000	8.923	0.000	0.000	0.000	0.000	0.012	0.000
OF	98.000	-13.972	0.000	8.923	0.000	0.000	0.000	0.000	0.012	0.000
OF	99.000	-13.960	0.000	8.923	0.000	0.000	0.000	0.000	0.012	0.000
OF	100.000	-13.948	0.000	8.923	0.000	0.000	0.000	0.000	0.012	0.000
OF	101.000	-13.936	0.000	8.923	0.000	0.000	0.000	0.000	0.012	0.000
OF	102.000	-13.924	0.000	8.923	0.000	0.000	0.000	0.000	0.012	0.000
OF	103.000	-13.912	0.000	8.923	0.000	0.000	0.000	0.000	0.012	0.000
OF	104.000	-13.900	0.000	8.923	0.000	0.000	0.000	0.000	0.012	0.000
OF	105.000	-13.888	0.000	8.923	0.000	0.000	0.000	0.000	0.013	0.000
OF	106.000	-13.875	0.000	8.923	0.000	0.000	0.000	0.000	0.013	0.000
OF	107.000	-13.863	0.000	8.923	0.000	0.000	0.000	0.000	0.012	0.000
OF	108.000	-13.851	0.000	8.923	0.000	0.000	0.000	0.000	0.012	0.000
OF	109.000	-13.839	0.000	8.923	0.000	0.000	0.000	0.000	0.012	0.000
OF	110.000	-13.827	0.000	8.923	0.000	0.000	0.000	0.000	0.012	0.000
OF	111.000	-13.815	0.000	8.923	0.000	0.000	0.000	0.000	0.012	0.000
OF	112.000	-13.803	0.000	8.923	0.000	0.000	0.000	0.000	0.012	0.000
OF	113.000	-13.791	0.000	8.923	0.000	0.000	0.000	0.000	0.012	0.000
OF	114.000	-13.779	0.000	8.923	0.000	0.000	0.000	0.000	0.012	0.000
OF	115.000	-13.767	0.000	8.923	0.000	0.000	0.000	0.000	0.012	0.000
OF	116.000	-13.755	0.000	8.923	0.000	0.000	0.000	0.000	0.012	0.000
OF	117.000	-13.743	0.000	8.923	0.000	0.000	0.000	0.000	0.012	0.000
OF	118.000	-13.731	0.000	8.923	0.000	0.000	0.000	0.000	0.013	0.000
OF	119.000	-13.718	0.000	8.923	0.000	0.000	0.000	0.000	0.013	0.000
OF	120.000	-13.706	0.000	8.923	0.000	0.000	0.000	0.000	0.012	0.000
OF	121.000	-13.694	0.000	8.923	0.000	0.000	0.000	0.000	0.012	0.000
OF	122.000	-13.682	0.000	8.923	0.000	0.000	0.000	0.000	0.012	0.000
OF	123.000	-13.670	0.000	8.923	0.000	0.000	0.000	0.000	0.012	0.000
OF	124.000	-13.658	0.000	8.923	0.000	0.000	0.000	0.000	0.012	0.000
OF	125.000	-13.646	0.000	8.923	0.000	0.000	0.000	0.000	0.012	0.000
OF	126.000	-13.634	0.000	8.923	0.000	0.000	0.000	0.000	0.012	0.000
OF	127.000	-13.622	0.000	8.923	0.000	0.000	0.000	0.000	0.012	0.000
OF	128.000	-13.610	0.000	8.923	0.000	0.000	0.000	0.000	0.012	0.000
OF	129.000	-13.598	0.000	8.923	0.000	0.000	0.000	0.000	0.012	0.000
OF	130.000	-13.586	0.000	8.923	0.000	0.000	0.000	0.000	0.012	0.000
OF	131.000	-13.574	0.000	8.923	0.000	0.000	0.000	0.000	0.013	0.000
OF	132.000	-13.561	0.000	8.923	0.000	0.000	0.000	0.000	0.013	0.000
OF	133.000	-13.549	0.000	8.923	0.000	0.000	0.000	0.000	0.012	0.000
OF	134.000	-13.537	0.000	8.923	0.000	0.000	0.000	0.000	0.012	0.000
OF	135.000	-13.525	0.000	8.923	0.000	0.000	0.000	0.000	0.012	0.000
OF	136.000	-13.513	0.000	8.923	0.000	0.000	0.000	0.000	0.012	0.000
OF	137.000	-13.501	0.000	8.923	0.000	0.000	0.000	0.000	0.012	0.000
OF	138.000	-13.489	0.000	8.923	0.000	0.000	0.000	0.000	0.065	0.000
OF	139.000	-13.370	0.000	8.923	0.000	0.000	0.000	0.000	0.128	0.000
OF	140.000	-13.232	0.000	8.923	0.000	0.000	0.000	0.000	0.138	0.000
OF	141.000	-13.094	0.000	8.923	0.000	0.000	0.000	0.000	0.139	0.000
OF	142.000	-12.955	0.000	8.923	0.000	0.000	0.000	0.000	0.139	0.000
OF	143.000	-12.817	0.000	8.923	0.000	0.000	0.000	0.000	0.139	0.000
OF	144.000	-12.678	0.000	8.923	0.000	0.000	0.000	0.000	0.139	0.000
OF	145.000	-12.540	0.000	8.923	0.000	0.000	0.000	0.000	0.138	0.000
OF	146.000	-12.402	0.000	8.923	0.000	0.000	0.000	0.000	0.139	0.000
OF	147.000	-12.263	0.000	8.923	0.000	0.000	0.000	0.000	0.139	0.000
OF	148.000	-12.125	0.000	8.923	0.000	0.000	0.000	0.000	0.139	0.000
OF	149.000	-11.986	0.000	8.923	0.000	0.000	0.000	0.000	0.139	0.000
OF	150.000	-11.848	0.000	8.923	0.000	0.000	0.000	0.000	0.139	0.000
OF	151.000	-11.709	0.000	8.923	0.000	0.000	0.000	0.000	0.139	0.000
OF	152.000	-11.571	0.000	8.923	0.000	0.000	0.000	0.000	0.138	0.000
OF	153.000	-11.433	0.000	8.923	0.000	0.000	0.000	0.000	0.139	0.000
OF	154.000	-11.294	0.000	8.923	0.000	0.000	0.000	0.000	0.139	0.000
OF	155.000	-11.156	0.000	8.923	0.000	0.000	0.000	0.000	0.138	0.000
OF	156.000	-11.018	0.000	8.923	0.000	0.000	0.000	0.000	0.138	0.000
OF	157.000	-10.880	0.000	8.923	0.000	0.000	0.000	0.000	0.139	0.000
OF	158.000	-10.741	0.000	8.923	0.000	0.000	0.000	0.000	0.139	0.000
OF	159.000	-10.603	0.000	8.923	0.000	0.000	0.000	0.000	0.139	0.000
OF	160.000	-10.464	0.000	8.923	0.000	0.000	0.000	0.000	0.139	0.000
OF	161.000	-10.326	0.000	8.923	0.000	0.000	0.000	0.000	0.139	0.000
OF	162.000	-10.187	0.000	8.923	0.000	0.000	0.000	0.000	0.139	0.000
OF	163.000	-10.049	0.000	8.923	0.000	0.000	0.000	0.000	0.138	0.000
OF	164.000	-9.911	0.000	8.923	0.000	0.000	0.000	0.000	0.138	0.000
OF	165.000	-9.773	0.000	8.923	0.000	0.000	0.000	0.000	0.138	0.000
OF	166.000	-9.634	0.000	8.923	0.000	0.000	0.000	0.000	0.138	0.000
OF	167.000	-9.496	0.000	8.923	0.000	0.000	0.000	0.000	0.138	0.000
OF	168.000	-9.358	0.000	8.923	0.000	0.000	0.000	0.000	0.138	0.000
OF	169.000	-9.219	0.000	8.923	0.000	0.000	0.000	0.000	0.138	0.000
OF	170.000	-9.081	0.000	8.923	0.000	0.000	0.000	0.000	0.138	0.000
OF	171.000	-8.942	0.000	8.923	0.000	0.000	0.000	0.000	0.138	0.000
OF	172.000	-8.804	0.000	8.923	0.000	0.000	0.000	0.000	0.138	0.000
OF	173.000	-8.665	0.000	8.923	0.000	0.000	0.000	0.000	0.138	0.000
OF	174.000	-8.527	0.000	8.923	0.000	0.000	0.000	0.000	0.138	0.000
OF	175.000	-8.389	0.000	8.923	0.000	0.000	0.000	0.000	0.138	0.000
OF	176.000	-8.251	0.000	8.923	0.000	0.000	0.000	0.000	0.138	0.000
OF	177.000	-8.112	0.000	8.923	0.000	0.000	0.000	0.000	0.138	0.000
OF	178.000	-7.974	0.000	8.923	0.000	0.000	0.000	0.000	0.138	0.000
OF	179.000	-7.835	0.000	8.923	0.000	0.000	0.000	0.000	0.138	0.000
OF	180.000	-7.697	0.000	8.923	0.000	0.000	0.000	0.000	0.138	0.000
OF	181.000	-7.559	0.000	8.923	0.000	0.000	0.000	0.000	0.138	0.000
OF	182.000	-7.420	0.000	8.923	0.000	0.000	0.000	0.000	0.138	0.000
OF	183.000	-7.282	0.000	8.923	0.000	0.000	0.000	0.000	0.138	0.000
OF	184.000	-7.143	0.000	8.923	0.000	0.000	0.000	0.000	0.139	0.000
OF	185.000	-7.005	0.000	8.923	0.000	0.000	0.000	0.000	0.138	0.000
OF	186.000	-6.867	0.000	8.923	0.000	0.000	0.000	0.000	0.138	0.000
OF	187.000	-6.728	0.000	8.923	0.000	0.000	0.000	0.000	0.138	0.000
OF	188.000	-6.590	0.000	8.923	0.000	0.000	0.000	0.000	0.138	0.000
OF	189.000	-6.451	0.000	8.923	0.000	0.000	0.000	0.000	0.138	0.000
OF	190.000	-6.313	0.000	8.923	0.000	0.000	0.000	0.000	0.138	0.000
OF	191.000	-6.175	0.000	8.923	0.000	0.000	0.000	0.000	0.138	0.000
OF	192.000	-6.036	0.000	8.923	0.000	0.000	0.000	0.000	0.138	0.000
OF	193.000	-5.898	0.000	8.923	0.000	0.000	0.000	0.000	0.138	0.000
OF	194.000	-5.760	0.000	8.923	0.000	0.000	0.000	0.000	0.139	0.000

OF	195.000	-5.621	0.000	8.923	0.000	0.000	0.000	0.000	0.138	0.000
OF	196.000	-5.483	0.000	8.923	0.000	0.000	0.000	0.000	0.138	0.000
OF	197.000	-5.345	0.000	8.923	0.000	0.000	0.000	0.000	0.138	0.000
OF	198.000	-5.206	0.000	8.923	0.000	0.000	0.000	0.000	0.138	0.000
OF	199.000	-5.068	0.000	8.923	0.000	0.000	0.000	0.000	0.138	0.000
OF	200.000	-4.930	0.000	8.923	0.000	0.000	0.000	0.000	0.138	0.000
OF	201.000	-4.791	0.000	8.923	0.000	0.000	0.000	0.000	0.138	0.000
OF	202.000	-4.653	0.000	8.923	0.000	0.000	0.000	0.000	0.138	0.000
OF	203.000	-4.514	0.000	8.923	0.000	0.000	0.000	0.000	0.138	0.000
OF	204.000	-4.376	0.000	8.923	0.000	0.000	0.000	0.000	0.138	0.000
OF	205.000	-4.238	0.000	8.923	0.000	0.000	0.000	0.000	0.138	0.000
OF	206.000	-4.099	0.000	8.923	0.000	0.000	0.000	0.000	0.138	0.000
OF	207.000	-3.961	0.000	8.923	0.000	0.000	0.000	0.000	0.138	0.000
OF	208.000	-3.822	0.000	8.923	0.000	0.000	0.000	0.000	0.138	0.000
OF	209.000	-3.684	0.000	8.923	0.000	0.000	0.000	0.000	0.138	0.000
OF	210.000	-3.546	0.000	8.923	0.000	0.000	0.000	0.000	0.138	0.000
OF	211.000	-3.407	0.000	8.923	0.000	0.000	0.000	0.000	0.139	0.000
OF	212.000	-3.269	0.000	8.923	0.000	0.000	0.000	0.000	0.138	0.000
OF	213.000	-3.130	0.000	8.923	0.000	0.000	0.000	0.000	0.138	0.000
OF	214.000	-2.992	0.000	8.923	0.000	0.000	0.000	0.000	0.139	0.000
OF	215.000	-2.853	0.000	8.923	0.000	0.000	0.000	0.000	0.138	0.000
OF	216.000	-2.715	0.000	8.923	0.000	0.000	0.000	0.000	0.138	0.000
OF	217.000	-2.577	0.000	8.923	0.000	0.000	0.000	0.000	0.138	0.000
OF	218.000	-2.438	0.000	8.923	0.000	0.000	0.000	0.000	0.138	0.000
OF	219.000	-2.300	0.000	8.923	0.000	0.000	0.000	0.000	0.138	0.000
OF	220.000	-2.162	0.000	8.923	0.000	0.000	0.000	0.000	0.138	0.000
OF	221.000	-2.023	0.000	8.923	0.000	0.000	0.000	0.000	0.021	0.000
OF	231.000	-1.936	0.000	8.923	0.000	0.000	0.000	0.000	0.046	0.000
OF	242.000	-1.050	0.000	8.923	0.000	0.000	0.000	0.000	0.083	0.000
OF	251.000	-0.266	0.000	8.923	0.000	0.000	0.000	0.000	0.128	0.000
IF	256.000	0.748	0.000	8.923	0.000	0.000	0.000	0.000	0.120	0.000
IF	263.000	1.171	0.000	8.923	0.000	0.000	0.000	0.000	0.444	0.000
IF	271.000	7.408	0.000	8.923	0.000	0.000	0.000	0.000	0.741	0.000
IF	272.300	8.067	0.000	9.200	0.000	0.000	0.000	0.000	0.498	0.000
IF	274.600	9.200	0.000	9.200	0.000	0.000	0.000	0.000	0.493	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 10-YEAR	ELEV 100-YEAR	SURGE WAVE	INITIAL HEIGHT	INITIAL W. PERIOD		BOTTOM SLOPE	AVERAGE A-ZONES
IE	0.000	-15.580	1.000	1.000	8.923		4.196	8.608	56.140	0.018	0.000
	END	END	NEW SURGE	NEW SURGE						BOTTOM	AVERAGE
OF	1.000	-15.562	0.000	8.923	0.000	0.000	0.000	0.000	0.000	0.018	0.000
	END	END	NEW SURGE	NEW SURGE						BOTTOM	AVERAGE
OF	2.000	-15.544	0.000	8.923	0.000	0.000	0.000	0.000	0.000	0.018	0.000
	END	END	NEW SURGE	NEW SURGE						BOTTOM	AVERAGE
OF	3.000	-15.526	0.000	8.923	0.000	0.000	0.000	0.000	0.000	0.018	0.000
	END	END	NEW SURGE	NEW SURGE						BOTTOM	AVERAGE
OF	4.000	-15.508	0.000	8.923	0.000	0.000	0.000	0.000	0.000	0.018	0.000
	END	END	NEW SURGE	NEW SURGE						BOTTOM	AVERAGE
OF	5.000	-15.490	0.000	8.923	0.000	0.000	0.000	0.000	0.000	0.018	0.000
	END	END	NEW SURGE	NEW SURGE						BOTTOM	AVERAGE
OF	6.000	-15.472	0.000	8.923	0.000	0.000	0.000	0.000	0.000	0.018	0.000
	END	END	NEW SURGE	NEW SURGE						BOTTOM	AVERAGE
OF	7.000	-15.454	0.000	8.923	0.000	0.000	0.000	0.000	0.000	0.019	0.000
	END	END	NEW SURGE	NEW SURGE						BOTTOM	AVERAGE
OF	8.000	-15.435	0.000	8.923	0.000	0.000	0.000	0.000	0.000	0.019	0.000
	END	END	NEW SURGE	NEW SURGE						BOTTOM	AVERAGE
OF	9.000	-15.417	0.000	8.923	0.000	0.000	0.000	0.000	0.000	0.018	0.000
	END	END	NEW SURGE	NEW SURGE						BOTTOM	AVERAGE
OF	10.000	-15.399	0.000	8.923	0.000	0.000	0.000	0.000	0.000	0.018	0.000
	END	END	NEW SURGE	NEW SURGE						BOTTOM	AVERAGE
OF	11.000	-15.381	0.000	8.923	0.000	0.000	0.000	0.000	0.000	0.018	0.000
	END	END	NEW SURGE	NEW SURGE						BOTTOM	AVERAGE
OF	12.000	-15.363	0.000	8.923	0.000	0.000	0.000	0.000	0.000	0.018	0.000
	END	END	NEW SURGE	NEW SURGE						BOTTOM	AVERAGE
OF	13.000	-15.345	0.000	8.923	0.000	0.000	0.000	0.000	0.000	0.018	0.000
	END	END	NEW SURGE	NEW SURGE						BOTTOM	AVERAGE
OF	14.000	-15.327	0.000	8.923	0.000	0.000	0.000	0.000	0.000	0.018	0.000
	END	END	NEW SURGE	NEW SURGE						BOTTOM	AVERAGE
OF	15.000	-15.309	0.000	8.923	0.000	0.000	0.000	0.000	0.000	0.018	0.000
	END	END	NEW SURGE	NEW SURGE						BOTTOM	AVERAGE
OF	16.000	-15.291	0.000	8.923	0.000	0.000	0.000	0.000	0.000	0.018	0.000
	END	END	NEW SURGE	NEW SURGE						BOTTOM	AVERAGE
OF	17.000	-15.273	0.000	8.923	0.000	0.000	0.000	0.000	0.000	0.018	0.000
	END	END	NEW SURGE	NEW SURGE						BOTTOM	AVERAGE
OF	18.000	-15.255	0.000	8.923	0.000	0.000	0.000	0.000	0.000	0.018	0.000
	END	END	NEW SURGE	NEW SURGE						BOTTOM	AVERAGE
OF	19.000	-15.237	0.000	8.923	0.000	0.000	0.000	0.000	0.000	0.018	0.000
	END	END	NEW SURGE	NEW SURGE						BOTTOM	AVERAGE
OF	20.000	-15.219	0.000	8.923	0.000	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

[illegible]

[illegible]

OF	89.000	-14.081	0.000	8.923	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
OF	90.000	-14.069	0.000	8.923	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
OF	91.000	-14.057	0.000	8.923	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
OF	92.000	-14.045	0.000	8.923	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	93.000	-14.032	0.000	8.923	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	94.000	-14.020	0.000	8.923	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
OF	95.000	-14.008	0.000	8.923	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
OF	96.000	-13.996	0.000	8.923	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
OF	97.000	-13.984	0.000	8.923	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
OF	98.000	-13.972	0.000	8.923	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
OF	99.000	-13.960	0.000	8.923	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
OF	100.000	-13.948	0.000	8.923	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
OF	101.000	-13.936	0.000	8.923	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
OF	102.000	-13.924	0.000	8.923	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
OF	103.000	-13.912	0.000	8.923	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
OF	104.000	-13.900	0.000	8.923	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
OF	105.000	-13.888	0.000	8.923	0.000	0.000	0.000	0.000	0.013	0.000
	END	END	NEW SURGE</							

OF	157.000	-10.880	0.000	8.923	0.000	0.000	0.000	0.000	0.139	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
OF	158.000	-10.741	0.000	8.923	0.000	0.000	0.000	0.000	0.139	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
OF	159.000	-10.603	0.000	8.923	0.000	0.000	0.000	0.000	0.139	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
OF	160.000	-10.464	0.000	8.923	0.000	0.000	0.000	0.000	0.139	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
OF	161.000	-10.326	0.000	8.923	0.000	0.000	0.000	0.000	0.139	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
OF	162.000	-10.187	0.000	8.923	0.000	0.000	0.000	0.000	0.139	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
OF	163.000	-10.049	0.000	8.923	0.000	0.000	0.000	0.000	0.138	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
OF	164.000	-9.911	0.000	8.923	0.000	0.000	0.000	0.000	0.138	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
OF	165.000	-9.773	0.000	8.923	0.000	0.000	0.000	0.000	0.138	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
OF	166.000	-9.634	0.000	8.923	0.000	0.000	0.000	0.000	0.138	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
OF	167.000	-9.496	0.000	8.923	0.000	0.000	0.000	0.000	0.138	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
OF	168.000	-9.358	0.000	8.923	0.000	0.000	0.000	0.000	0.138	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
OF	169.000	-9.219	0.000	8.923	0.000	0.000	0.000	0.000	0.138	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
OF	170.000	-9.081	0.000	8.923	0.000	0.000	0.000	0.000	0.138	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
OF	171.000	-8.942	0.000	8.923	0.000	0.000	0.000	0.000	0.138	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
OF	172.000	-8.804	0.000	8.923	0.000	0.000	0.000	0.000	0.138	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
OF	173.000	-8.665	0.000	8.923	0.000	0.000	0.000	0.000	0.138	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
OF	174.000	-8.527	0.000	8.923	0.000	0.000	0.000	0.000	0.138	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
OF	175.000	-8.389	0.000	8.923	0.000	0.000	0.000	0.000	0.138	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
OF	176.000	-8.251	0.000	8.923	0.000	0.000	0.000	0.000	0.138	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
OF	177.000	-8.112	0.000	8.923	0.000	0.000	0.000	0.000	0.138	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
OF	178.000	-7.974	0.000	8.923	0.000	0.000	0.000	0.000	0.138	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
OF	179.000	-7.835	0.000	8.923	0.000	0.000	0.000	0.000	0.138	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
OF	180.000	-7.697	0.000	8.923	0.000	0.000	0.000	0.000	0.138	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
OF	181.000	-7.559	0.000	8.923	0.000	0.000	0.000	0.000	0.138	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
OF	182.000	-7.420	0.000	8.923	0.000	0.000	0.000	0.000	0.138	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
OF	183.000	-7.282	0.000	8.923	0.000	0.000	0.000	0.000	0.138	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
OF	184.000	-7.143	0.000	8.923	0.000	0.000	0.000	0.000	0.139	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
OF	185.000	-7.005	0.000	8.923	0.000	0.000	0.000	0.000	0.138	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
OF	186.000	-6.867	0.000	8.923	0.000	0.000	0.000	0.000	0.138	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
OF	187.000	-6.728	0.000	8.923	0.000	0.000	0.000	0.000	0.138	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
OF	188.000	-6.590	0.000	8.923	0.000	0.000	0.000	0.000	0.138	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
OF	189.000	-6.451	0.000	8.923	0.000	0.000	0.000	0.000	0.138	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
OF	190.000	-6.313	0.000	8.923	0.000	0.000	0.000	0.000	0.138	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES

OF	191.000	-6.175	0.000	8.923	0.000	0.000	0.000	0.000	0.138	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
OF	192.000	-6.036	0.000	8.923	0.000	0.000	0.000	0.000	0.138	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
OF	193.000	-5.898	0.000	8.923	0.000	0.000	0.000	0.000	0.138	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
OF	194.000	-5.760	0.000	8.923	0.000	0.000	0.000	0.000	0.139	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
OF	195.000	-5.621	0.000	8.923	0.000	0.000	0.000	0.000	0.138	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
OF	196.000	-5.483	0.000	8.923	0.000	0.000	0.000	0.000	0.138	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
OF	197.000	-5.345	0.000	8.923	0.000	0.000	0.000	0.000	0.138	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
OF	198.000	-5.206	0.000	8.923	0.000	0.000	0.000	0.000	0.138	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
OF	199.000	-5.068	0.000	8.923	0.000	0.000	0.000	0.000	0.138	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
OF	200.000	-4.930	0.000	8.923	0.000	0.000	0.000	0.000	0.138	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
OF	201.000	-4.791	0.000	8.923	0.000	0.000	0.000	0.000	0.138	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
OF	202.000	-4.653	0.000	8.923	0.000	0.000	0.000	0.000	0.138	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
OF	203.000	-4.514	0.000	8.923	0.000	0.000	0.000	0.000	0.138	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
OF	204.000	-4.376	0.000	8.923	0.000	0.000	0.000	0.000	0.138	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
OF	205.000	-4.238	0.000	8.923	0.000	0.000	0.000	0.000	0.138	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
OF	206.000	-4.099	0.000	8.923	0.000	0.000	0.000	0.000	0.138	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
OF	207.000	-3.961	0.000	8.923	0.000	0.000	0.000	0.000	0.138	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
OF	208.000	-3.822	0.000	8.923	0.000	0.000	0.000	0.000	0.138	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
OF	209.000	-3.684	0.000	8.923	0.000	0.000	0.000	0.000	0.138	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
OF	210.000	-3.546	0.000	8.923	0.000	0.000	0.000	0.000	0.138	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
OF	211.000	-3.407	0.000	8.923	0.000	0.000	0.000	0.000	0.139	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
OF	212.000	-3.269	0.000	8.923	0.000	0.000	0.000	0.000	0.138	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
OF	213.000	-3.130	0.000	8.923	0.000	0.000	0.000	0.000	0.138	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
OF	214.000	-2.992	0.000	8.923	0.000	0.000	0.000	0.000	0.139	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
OF	215.000	-2.853	0.000	8.923	0.000	0.000	0.000	0.000	0.138	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
OF	216.000	-2.715	0.000	8.923	0.000	0.000	0.000	0.000	0.138	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
OF	217.000	-2.577	0.000	8.923	0.000	0.000	0.000	0.000	0.138	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
OF	218.000	-2.438	0.000	8.923	0.000	0.000	0.000	0.000	0.138	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
OF	219.000	-2.300	0.000	8.923	0.000	0.000	0.000	0.000	0.138	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
OF	220.000	-2.162	0.000	8.923	0.000	0.000	0.000	0.000	0.138	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
OF	221.000	-2.023	0.000	8.923	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	231.000	-1.936	0.000	8.923	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	242.000	-1.050	0.000	8.923	0.000	0.000	0.000	0.000	0.083	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
OF	251.000	-0.266	0.000	8.923	0.000	0.000	0.000	0.000	0.128	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES

IF	256.000	0.748	0.000	8.923	0.000	0.000	0.000	0.000	0.120	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	263.000	1.171	0.000	8.923	0.000	0.000	0.000	0.000	0.444	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	271.000	7.408	0.000	8.923	0.000	0.000	0.000	0.000	0.741	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	272.300	8.067	0.000	9.200	0.000	0.000	0.000	0.000	0.498	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	274.600	9.200	0.000	9.200	0.000	0.000	0.000	0.000	0.493	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	4.20	8.61	11.86
OF	1.00	4.20	8.61	11.86
OF	2.00	4.20	8.61	11.86
OF	3.00	4.20	8.61	11.86
OF	4.00	4.20	8.61	11.86
OF	5.00	4.20	8.61	11.86
OF	6.00	4.20	8.61	11.86
OF	7.00	4.20	8.61	11.87
OF	8.00	4.20	8.61	11.87
OF	9.00	4.21	8.61	11.87
OF	10.00	4.21	8.61	11.87
OF	11.00	4.21	8.61	11.87
OF	12.00	4.21	8.61	11.87
OF	13.00	4.21	8.61	11.87
OF	14.00	4.21	8.61	11.87
OF	15.00	4.21	8.61	11.87
OF	16.00	4.21	8.61	11.87
OF	17.00	4.21	8.61	11.87
OF	18.00	4.22	8.61	11.87
OF	19.00	4.22	8.61	11.87
OF	20.00	4.22	8.61	11.88
OF	21.00	4.22	8.61	11.88
OF	22.00	4.22	8.61	11.88
OF	23.00	4.22	8.61	11.88
OF	24.00	4.22	8.61	11.88
OF	25.00	4.22	8.61	11.88
OF	26.00	4.22	8.61	11.88
OF	27.00	4.23	8.61	11.88
OF	28.00	4.23	8.61	11.88
OF	29.00	4.23	8.61	11.88
OF	30.00	4.23	8.61	11.88
OF	31.00	4.23	8.61	11.88
OF	32.00	4.23	8.61	11.89
OF	33.00	4.23	8.61	11.89
OF	34.00	4.23	8.61	11.89
OF	35.00	4.23	8.61	11.89
OF	36.00	4.24	8.61	11.89
OF	37.00	4.24	8.61	11.89
OF	38.00	4.24	8.61	11.89
OF	39.00	4.24	8.61	11.89
OF	40.00	4.24	8.61	11.89
OF	41.00	4.24	8.61	11.89
OF	42.00	4.24	8.61	11.89
OF	43.00	4.24	8.61	11.89
OF	44.00	4.25	8.61	11.89
OF	45.00	4.25	8.61	11.90
OF	46.00	4.25	8.61	11.90
OF	47.00	4.25	8.61	11.90
OF	48.00	4.25	8.61	11.90
OF	49.00	4.25	8.61	11.90
OF	50.00	4.25	8.61	11.90
OF	51.00	4.25	8.61	11.90
OF	52.00	4.25	8.61	11.90
OF	53.00	4.26	8.61	11.90
OF	54.00	4.26	8.61	11.90
OF	55.00	4.26	8.61	11.90
OF	56.00	4.26	8.61	11.90
OF	57.00	4.26	8.61	11.91
OF	58.00	4.26	8.61	11.91
OF	59.00	4.26	8.61	11.91
OF	60.00	4.26	8.61	11.91
OF	61.00	4.26	8.61	11.91
OF	62.00	4.27	8.61	11.91
OF	63.00	4.27	8.61	11.91
OF	64.00	4.27	8.61	11.91
OF	65.00	4.27	8.61	11.91
OF	66.00	4.27	8.61	11.91
OF	67.00	4.27	8.61	11.91
OF	68.00	4.27	8.61	11.91
OF	69.00	4.27	8.61	11.91
OF	70.00	4.28	8.61	11.92
OF	71.00	4.28	8.61	11.92
OF	72.00	4.28	8.61	11.92
OF	73.00	4.28	8.61	11.92
OF	74.00	4.28	8.61	11.92
OF	75.00	4.28	8.61	11.92
OF	76.00	4.28	8.61	11.92
OF	77.00	4.28	8.61	11.92
OF	78.00	4.28	8.61	11.92
OF	79.00	4.28	8.61	11.92
OF	80.00	4.28	8.61	11.92

OF	81.00	4.29	8.61	11.92
OF	82.00	4.29	8.61	11.92
OF	83.00	4.29	8.61	11.92
OF	84.00	4.29	8.61	11.92
OF	85.00	4.29	8.61	11.93
OF	86.00	4.29	8.61	11.93
OF	87.00	4.29	8.61	11.93
OF	88.00	4.29	8.61	11.93
OF	89.00	4.29	8.61	11.93
OF	90.00	4.29	8.61	11.93
OF	91.00	4.29	8.61	11.93
OF	92.00	4.30	8.61	11.93
OF	93.00	4.30	8.61	11.93
OF	94.00	4.30	8.61	11.93
OF	95.00	4.30	8.61	11.93
OF	96.00	4.30	8.61	11.93
OF	97.00	4.30	8.61	11.93
OF	98.00	4.30	8.61	11.93
OF	99.00	4.30	8.61	11.93
OF	100.00	4.30	8.61	11.93
OF	101.00	4.30	8.61	11.94
OF	102.00	4.30	8.61	11.94
OF	103.00	4.31	8.61	11.94
OF	104.00	4.31	8.61	11.94
OF	105.00	4.31	8.61	11.94
OF	106.00	4.31	8.61	11.94
OF	107.00	4.31	8.61	11.94
OF	108.00	4.31	8.61	11.94
OF	109.00	4.31	8.61	11.94
OF	110.00	4.31	8.61	11.94
OF	111.00	4.31	8.61	11.94
OF	112.00	4.31	8.61	11.94
OF	113.00	4.31	8.61	11.94
OF	114.00	4.32	8.61	11.94
OF	115.00	4.32	8.61	11.94
OF	116.00	4.32	8.61	11.95
OF	117.00	4.32	8.61	11.95
OF	118.00	4.32	8.61	11.95
OF	119.00	4.32	8.61	11.95
OF	120.00	4.32	8.61	11.95
OF	121.00	4.32	8.61	11.95
OF	122.00	4.32	8.61	11.95
OF	123.00	4.32	8.61	11.95
OF	124.00	4.32	8.61	11.95
OF	125.00	4.33	8.61	11.95
OF	126.00	4.33	8.61	11.95
OF	127.00	4.33	8.61	11.95
OF	128.00	4.33	8.61	11.95
OF	129.00	4.33	8.61	11.95
OF	130.00	4.33	8.61	11.95
OF	131.00	4.33	8.61	11.96
OF	132.00	4.33	8.61	11.96
OF	133.00	4.33	8.61	11.96
OF	134.00	4.33	8.61	11.96
OF	135.00	4.34	8.61	11.96
OF	136.00	4.34	8.61	11.96
OF	137.00	4.34	8.61	11.96
OF	138.00	4.34	8.61	11.96
OF	139.00	4.34	8.61	11.96
OF	140.00	4.35	8.61	11.97
OF	141.00	4.36	8.61	11.97
OF	142.00	4.37	8.61	11.98
OF	143.00	4.37	8.61	11.98
OF	144.00	4.38	8.61	11.99
OF	145.00	4.39	8.61	11.99
OF	146.00	4.39	8.61	12.00
OF	147.00	4.40	8.61	12.00
OF	148.00	4.41	8.61	12.01
OF	149.00	4.42	8.61	12.02
OF	150.00	4.43	8.61	12.02
OF	151.00	4.43	8.61	12.03
OF	152.00	4.44	8.61	12.03
OF	153.00	4.45	8.61	12.04
OF	154.00	4.46	8.61	12.04
OF	155.00	4.47	8.61	12.05
OF	156.00	4.47	8.61	12.06
OF	157.00	4.48	8.61	12.06
OF	158.00	4.49	8.61	12.07
OF	159.00	4.50	8.61	12.07
OF	160.00	4.51	8.61	12.08
OF	161.00	4.52	8.61	12.09
OF	162.00	4.53	8.61	12.09
OF	163.00	4.54	8.61	12.10
OF	164.00	4.55	8.61	12.10
OF	165.00	4.55	8.61	12.11
OF	166.00	4.56	8.61	12.12
OF	167.00	4.57	8.61	12.12
OF	168.00	4.58	8.61	12.13
OF	169.00	4.59	8.61	12.14
OF	170.00	4.60	8.61	12.15
OF	171.00	4.61	8.61	12.15
OF	172.00	4.62	8.61	12.16
OF	173.00	4.63	8.61	12.17
OF	174.00	4.65	8.61	12.17
OF	175.00	4.66	8.61	12.18
OF	176.00	4.67	8.61	12.19
OF	177.00	4.68	8.61	12.20
OF	178.00	4.69	8.61	12.21
OF	179.00	4.70	8.61	12.21
OF	180.00	4.71	8.61	12.22
OF	181.00	4.72	8.61	12.23
OF	182.00	4.74	8.61	12.24

OF	183.00	4.75	8.61	12.25
OF	184.00	4.76	8.61	12.25
OF	185.00	4.77	8.61	12.26
OF	186.00	4.78	8.61	12.27
OF	187.00	4.80	8.61	12.28
OF	188.00	4.81	8.61	12.29
OF	189.00	4.82	8.61	12.30
OF	190.00	4.84	8.61	12.31
OF	191.00	4.85	8.61	12.32
OF	192.00	4.86	8.61	12.33
OF	193.00	4.88	8.61	12.34
OF	194.00	4.89	8.61	12.35
OF	195.00	4.91	8.61	12.36
OF	196.00	4.92	8.61	12.37
OF	197.00	4.93	8.61	12.38
OF	198.00	4.95	8.61	12.39
OF	199.00	4.97	8.61	12.40
OF	200.00	4.98	8.61	12.41
OF	201.00	5.00	8.61	12.42
OF	202.00	5.01	8.61	12.43
OF	203.00	5.03	8.61	12.44
OF	204.00	5.05	8.61	12.45
OF	205.00	5.06	8.61	12.47
OF	206.00	5.08	8.61	12.48
OF	207.00	5.10	8.61	12.49
OF	208.00	5.12	8.61	12.50
OF	209.00	5.13	8.61	12.52
OF	210.00	5.15	8.61	12.53
OF	211.00	5.17	8.61	12.54
OF	212.00	5.19	8.61	12.56
OF	213.00	5.21	8.61	12.57
OF	214.00	5.23	8.61	12.58
OF	215.00	5.25	8.61	12.60
OF	216.00	5.27	8.61	12.61
OF	217.00	5.29	8.61	12.63
OF	218.00	5.31	8.61	12.64
OF	219.00	5.34	8.61	12.66
OF	220.00	5.36	8.61	12.67
OF	221.00	5.38	8.61	12.69
OF	231.00	5.40	8.61	12.70
OF	242.00	5.56	8.61	12.82
OF	251.00	5.54	8.61	12.80
IF	256.00	5.40	8.61	12.70
IF	263.00	5.33	8.61	12.65
IF	271.00	1.17	8.61	9.75
IF	272.30	0.88	8.61	9.82
IF	274.60	0.01	8.61	9.21

PART3 LOCATION OF AREAS ABOVE 100-YEAR SURGE
NO AREAS ABOVE 100-YEAR SURGE IN THIS TRANSECT

PART4 LOCATION OF SURGE CHANGES

STATION	10-YEAR SURGE	100-YEAR SURGE
272.30	1.00	9.20

PART5 LOCATION OF V ZONES

STATION OF GUTTER	LOCATION OF ZONE
267.49	WINDWARD

PART6 NUMBERED A ZONES AND V ZONES

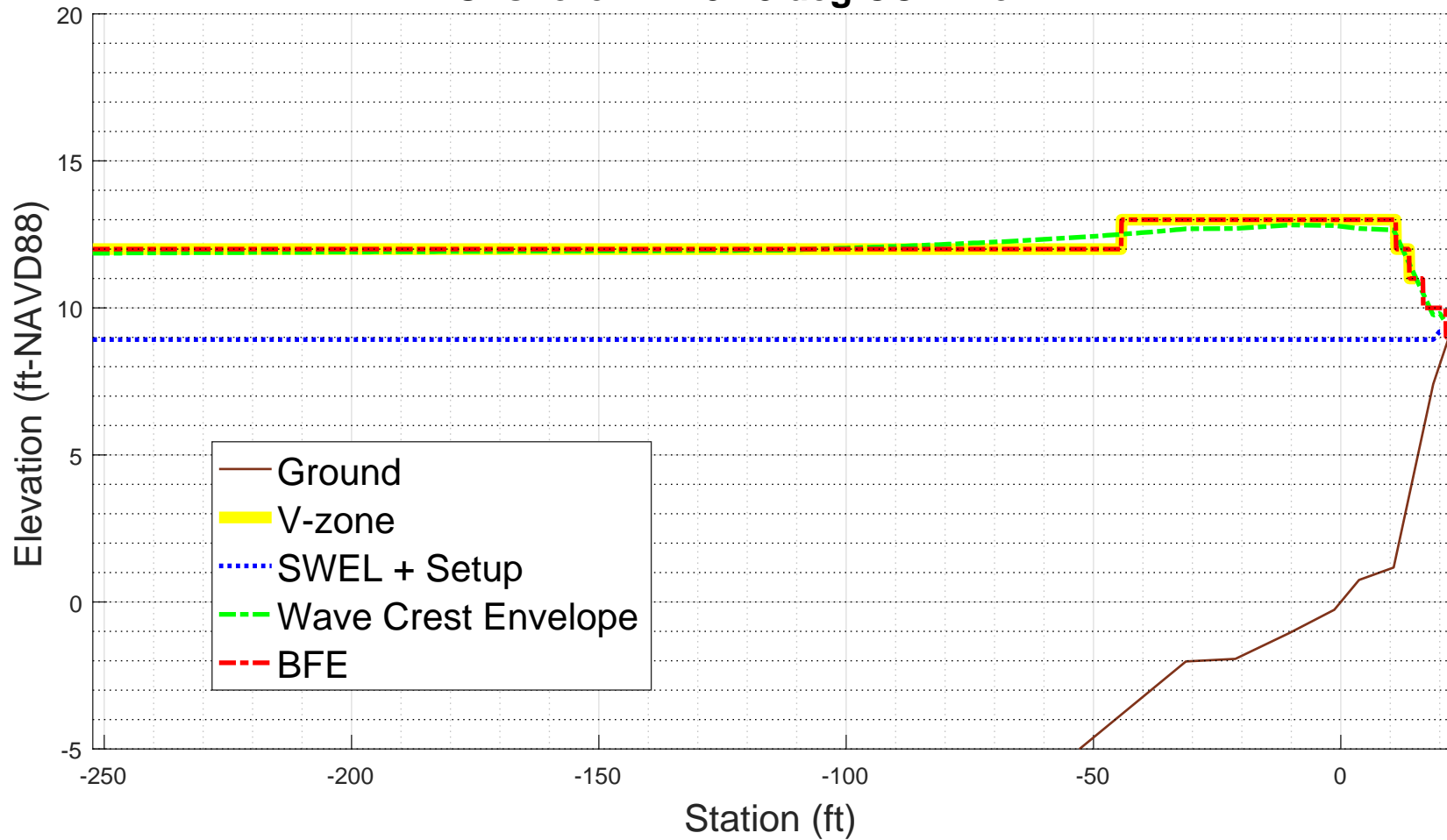
STATION OF GUTTER	ELEVATION	ZONE DESIGNATION	FHF
0.00	11.86		
		V22 EL=12	120
207.70	12.50	V22 EL=13	120
263.42	12.50	V22 EL=12	120
266.17	11.50	V22 EL=11	120
267.49	11.02	A18 EL=11	90
268.92	10.50	A18 EL=10	90
271.00	9.75	A18 EL=10	90
272.30	9.82	A18 EL=10	90
273.49	9.50	A18 EL= 9	90
274.60	9.21		

ZONE TERMINATED AT END OF TRANSECT
PART 7 POSTSCRIPT NOTES

PS# 1 START(426412.3464,4852897.8463)
PS# 2 END(426490.8704,4852958.7349)

-1.000000e+00

CM-150-2
100-year WHAFIS Output
Zero Station: -69.91441905, 43.82592199
Onshore Dir: 37.8 deg CCW from E



PART 5: RUNUP2

for transect: CM-150-2

Station locations shifted by: -3.69 feet from their
original location to set the shoreline to
elevation 0 for RUNUP2 input

RUNUP2 INPUT CONVERSIONS

for transect: CM-150-2

Incident significant wave height: 2.62 feet

Peak wave period: 8.61 seconds

Mean wave height: 1.64 feet

Local Depth below SWEL: 24.50 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 Jersey

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

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

Depth, $D = 24.50$

Period, $T = 7.32$

Waveheight, $H = 1.64$

Deep water wavelength, $L0$ (ft)

$L0 = g \cdot T^2 / 2\pi$

$L0 = 32.17 \cdot 7.32^2 / 6.28 = 274.13$

Deep water wave celerity, $C0$ (ft/s)

$C0 = L0 / T$

$C0 = 274.13 / 7.32 = 37.47$

Angular frequency, σ (rad/s)

$\sigma = 2\pi / T$

$\sigma = 6.28 / 7.32 = 0.86$

Hunts (1979) approximation for Celerity $C1H$ (ft/s) at Depth D (ft)

$y = \sigma \cdot \sigma \cdot D / g$

$y = 0.86 \cdot 0.86 \cdot 24.50 / 32.17 = 0.56$

$C1H = \sqrt{g \cdot D / (y + 1. / (1 + 0.6522 \cdot y + 0.4622 \cdot y^2 + 0.0864 \cdot y^4 + 0.0675 \cdot y^5))}$

$C1H = 25.45$

Shoaling Coefficient KsH

$KsH = \sqrt{C0 / C1H}$

$KsH = \sqrt{37.47 / 25.45} = 1.21$

Deepwater Wave Height $H0_H$ (ft)

$H0_H = H / KsH$

$H0_H = 1.64 / 1.21 = 1.35$

Deepwater mean wave height: 1.35 feet

END RUNUP2 CONVERSIONS

RUNUP2 RESULTS

for transect: CM-150-2

RUNUP2 SWEL:

8.92

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: 2.62 feet

Significant wave height deshoaled using Hunt equation

Deepwater significant wave height: 1.89 feet

Peak wave period: 8.61 seconds

Average beach Slope: 1:8.25 (H:V)

ACES RUNUP CALCULATED USING 'Aces_Beach_Runup.m'

ACES Beach 2-percent runup height above SWEL: 5.17 feet

ACES Beach 2-percent runup elevation: 14.09 feet-NAVD88

ACES BEACH RUNUP is valid

_____END ACES BEACH RESULTS_____

PART 5 COMPLETE_____

FEMA
RUNUP2 transect: CM-150-2

sjh

job 2
1

5.00
-15.58 -252.3 1.0
-14.30 -181.3 1.0
-14.29 -180.3 1.0
-13.49 -114.3 1.0
-13.37 -113.3 1.0
-10.88 -95.3 1.0
-8.39 -77.3 1.0
-8.25 -76.3 1.0
-5.34 -55.3 1.0
-2.44 -34.3 1.0
-2.02 -31.3 1.0
-1.94 -21.3 1.0
-1.05 -10.3 1.0
-0.27 -1.3 1.0
0.75 3.7 1.0
1.17 10.7 1.0
7.41 18.7 1.0
17.97 39.7 1.0
20.04 51.2 1.0
1 22.79 64.2 1.0
8.9 1.29 6.95
8.9 1.29 7.32
8.9 1.29 7.68
8.9 1.35 6.95
8.9 1.35 7.32
8.9 1.35 7.68
8.9 1.42 6.95
8.9 1.42 7.32
8.9 1.42 7.68

CLIENT- FEMA
PROJECT-RUNUP2 transect: CM-150-2

** WAVE RUNUP-VERSION 2.0 **

ENGINEERED BY sjh

JOB job 2
RUN 1 PAGE 1

CROSS SECTION PROFILE

	LENGTH	ELEV.	SLOPE	ROUGHNESS
1	-252.0	-15.5		
2	-181.0	-14.3	.00	1.00
3	-180.0	-14.2	10.00	1.00
4	-114.0	-13.4	82.50	1.00
5	-113.0	-13.3	10.00	1.00
6	-95.3	-10.8	7.08	1.00
7	-77.3	-8.4	7.47	1.00
8	-76.3	-8.2	7.14	1.00
9	-55.3	-5.3	7.22	1.00
10	-34.3	-2.4	7.24	1.00
11	-31.3	-2.0	7.14	1.00
12	-21.3	-1.9	125.00	1.00
13	-10.3	-1.0	12.36	1.00
14	-1.3	-.3	11.54	1.00
15	3.7	.8	4.90	1.00
16	10.7	1.2	16.67	1.00
17	18.7	7.4	1.28	1.00
18	39.7	18.0	1.99	1.00
19	51.2	20.0	5.56	1.00
20	64.2	22.8	4.73	1.00
	LAST SLOPE	5.00	LAST ROUGHNESS	1.00

CLIENT- FEMA
PROJECT-RUNUP2 transect: CM-150-2

** WAVE RUNUP-VERSION 2.0 **

ENGINEERED BY sjh

JOB job 2
RUN 1 PAGE 2

OUTPUT TABLE

INPUT PARAMETERS

WATER LEVEL ABOVE DATUM (FT.)	DEEP WATER WAVE HEIGHT (FT.)	WAVE PERIOD (SEC.)
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RUNUP RESULTS

BREAKING SLOPE NUMBER	RUNUP SLOPE NUMBER	RUNUP ABOVE WATER LEVEL (FT.)	BREAKER DEPTH (FT.)
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Runup2 error, see log sheet

