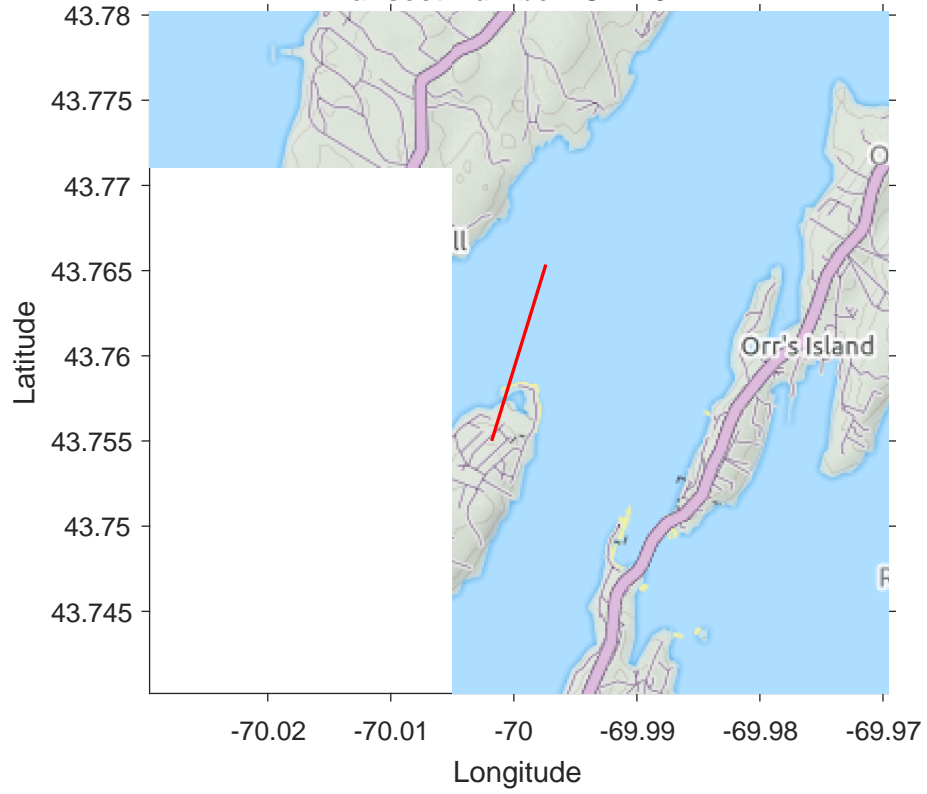
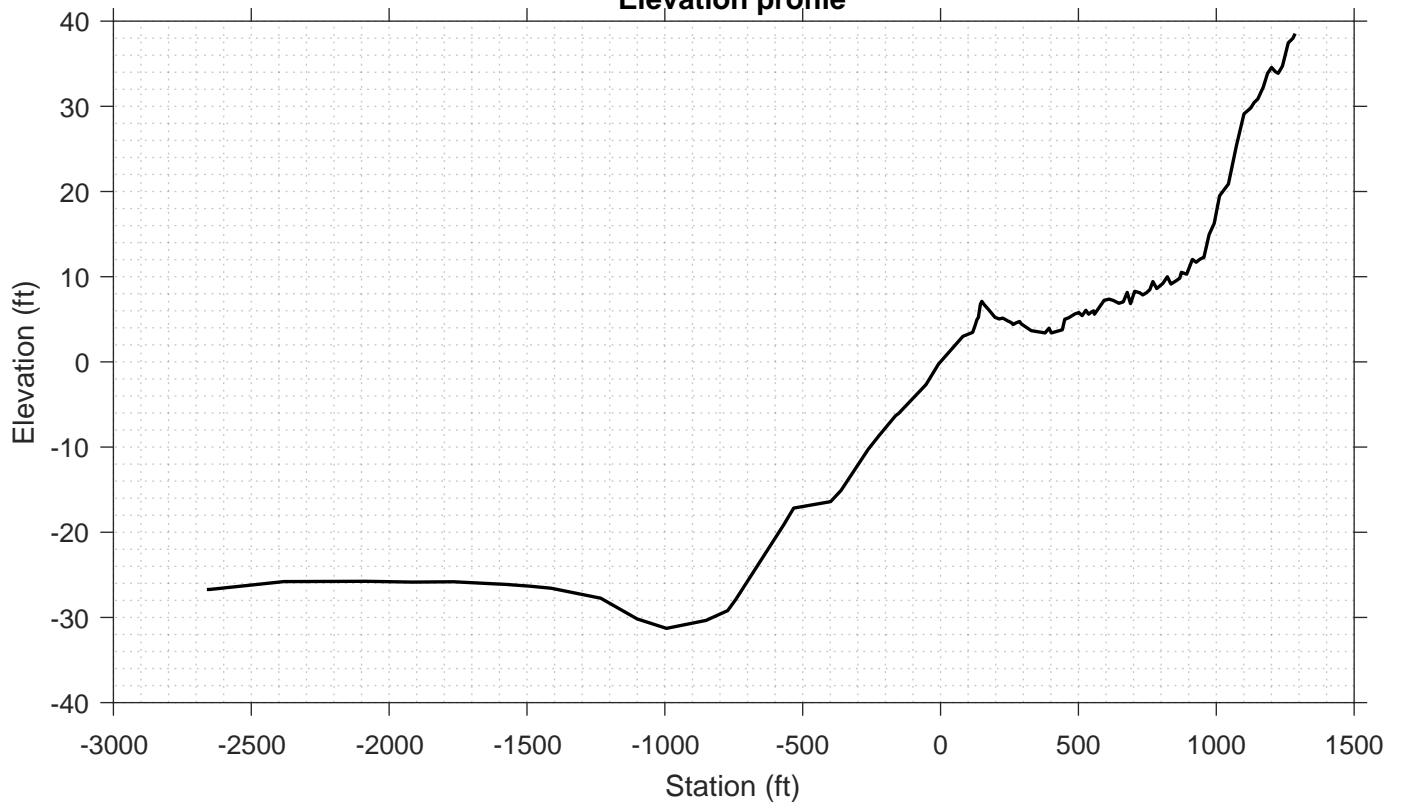


Transect Number: CM-131-1



Elevation profile



DATA LOG FOR TRANSECT ID: CM-131-1

PART 1: USER INPUT

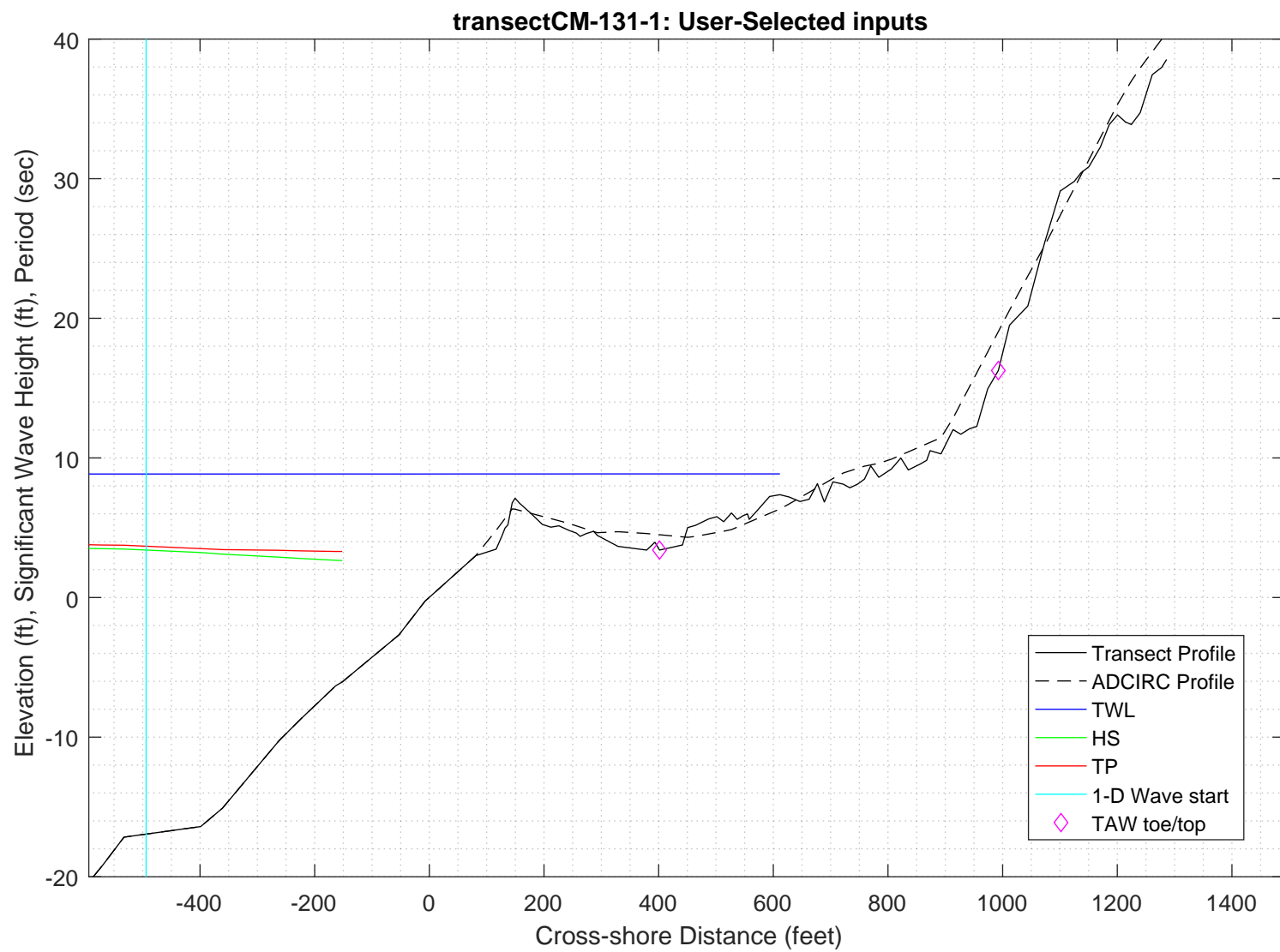
SWAN 1-D / WHAFIS input

station: -494 ft
LON: -69.9998 deg E
LAT: 43.7597 deg N
Bottom ELEV: -16.9442 ft-NAVD88
TWL: 8.8473 ft-NAVD88
HS: 3.4004 ft
TP: 3.6759 sec
Wave Direction bin: 225 deg CCW from East (90 deg sector)
Transect Direction: 246.9794 deg CCW from East

TAW/RUNUP input

toe sta: 401.5 ft
toe elev: 3.399 ft-NAVD88
top sta: 992.5 ft
top elev: 16.2598 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-131-1zmeters_xmeters.grd
swan file name: 2_swan/swanfiles/CM-131-1.swn
swan output name: 2_swan/swanfiles/CM-131-1.dat

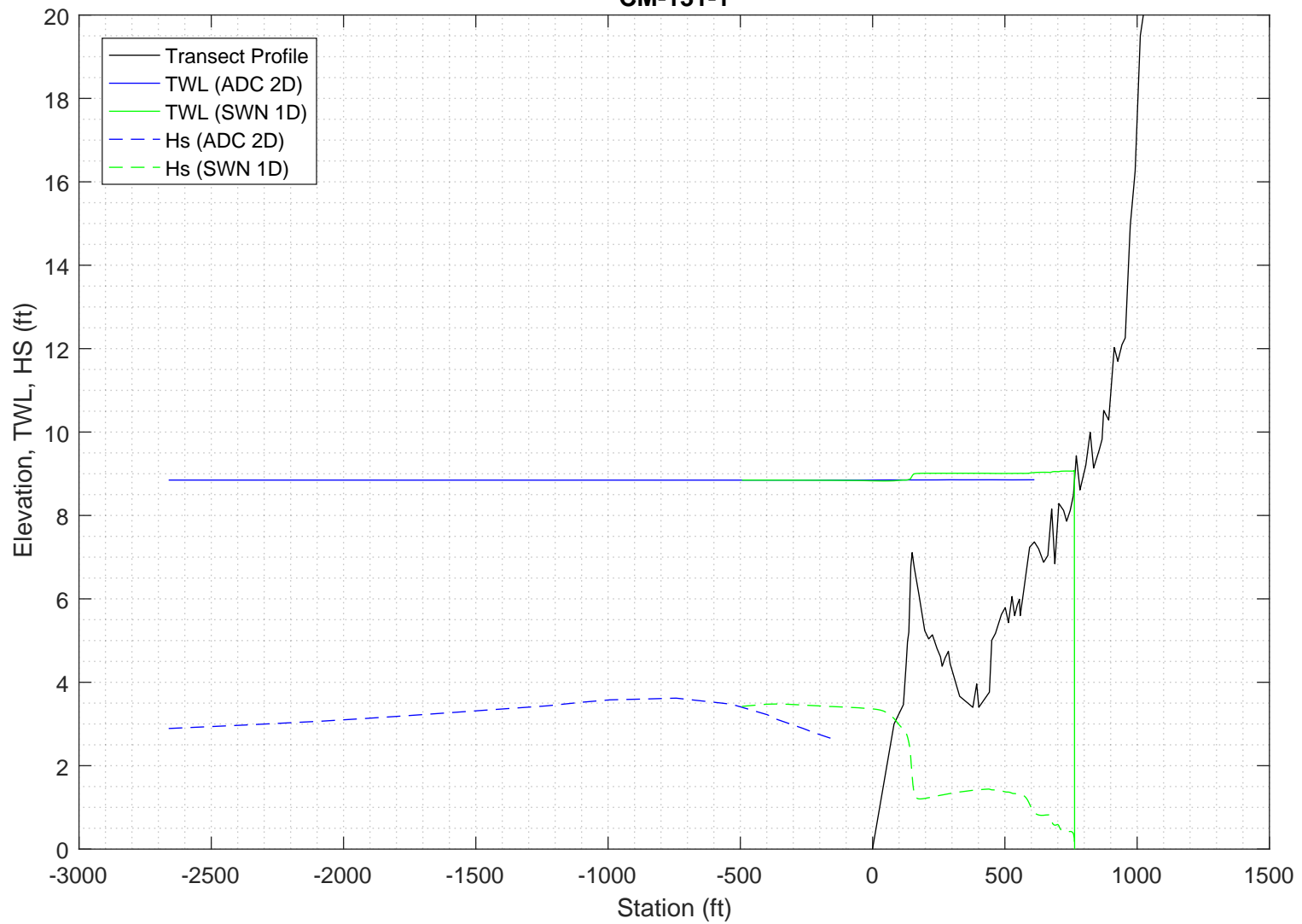
Boundary Conditions:
TWL- 2.6967 meters
HS- 1.0365 meters
PER- 3.6759 seconds

Batch File: 2_swan/swanfiles/runswan.dat

SWAN maximum additional wave setup: 0.2308 feet
SWAN output at toe:
SETUP- 0.1644 feet
HS- 1.4239 feet
PER- 3.7042 seconds

PART 2 COMPLETE

2-D ADCIRC+SWAN and SWAN 1-D results, Transect:
CM-131-1



Execution started at 20200220.141926

```

-----
                        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      385      0.  385      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      385      0      1      1
!READinp BOTtom [fac] 'fname1' [idla] [nhedf] [FREe|FORmat[form]|UNFormatted]
READ    BOTTOM    -1. '../gridfiles/CM-131-1zmeters_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    1.0365      3.6759      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] [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' [xpl] [yp1] <[int] [xp] [yp] >
CURVE 'curve' 0 0 385 385 0
!TABLE 'sname' < HEADER|NOHEAdER|INDEXed > 'fname' <output parameters> (output time)
Table 'curve' HEADER 'CM-131-1.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          386 MYC          1
                   : MCGRD         387
                   : 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 13.03 % 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  0.27 % 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  6.25 % 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 55.47 % 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 99.22 % 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 99.48 % 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 99.74 % 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.	1.04291	3.6739	3.7345	3.3153	0.000	31.5180	7.8600	0.000000
1.	0.	1.04356	3.6738	3.7345	3.3142	0.000	31.5261	7.8600	-0.000003
2.	0.	1.04411	3.6738	3.7345	3.3131	0.000	31.5324	7.8500	-0.000008
3.	0.	1.04466	3.6737	3.7345	3.3120	0.000	31.5399	7.8400	-0.000013
4.	0.	1.04530	3.6737	3.7345	3.3109	0.000	31.5479	7.8400	-0.000016
5.	0.	1.04586	3.6736	3.7345	3.3099	0.000	31.5560	7.8300	-0.000021
6.	0.	1.04649	3.6736	3.7345	3.3089	0.000	31.5641	7.8300	-0.000025
7.	0.	1.04703	3.6736	3.7345	3.3078	0.000	31.5723	7.8200	-0.000029
8.	0.	1.04766	3.6735	3.7345	3.3068	0.000	31.5805	7.8200	-0.000033
9.	0.	1.04819	3.6735	3.7345	3.3058	0.000	31.5870	7.8100	-0.000038
10.	0.	1.04872	3.6734	3.7345	3.3048	0.000	31.5947	7.8000	-0.000042
11.	0.	1.04934	3.6734	3.7345	3.3038	0.000	31.6028	7.8000	-0.000046
12.	0.	1.04987	3.6734	3.7345	3.3028	0.000	31.6110	7.7899	-0.000051
13.	0.	1.05048	3.6733	3.7345	3.3019	0.000	31.6193	7.7899	-0.000054
14.	0.	1.05100	3.6733	3.7345	3.3010	0.000	31.6276	7.7799	-0.000059
15.	0.	1.05160	3.6733	3.7345	3.3001	0.000	31.6360	7.7799	-0.000062
16.	0.	1.05211	3.6732	3.7345	3.2991	0.000	31.6425	7.7699	-0.000067
17.	0.	1.05262	3.6732	3.7345	3.2982	0.000	31.6503	7.7599	-0.000072
18.	0.	1.05321	3.6731	3.7345	3.2973	0.000	31.6584	7.7599	-0.000075
19.	0.	1.05372	3.6731	3.7345	3.2964	0.000	31.6667	7.7499	-0.000080
20.	0.	1.05431	3.6731	3.7345	3.2956	0.000	31.6750	7.7499	-0.000083
21.	0.	1.05481	3.6730	3.7345	3.2947	0.000	31.6832	7.7399	-0.000088
22.	0.	1.05539	3.6730	3.7345	3.2939	0.000	31.6915	7.7399	-0.000091
23.	0.	1.05589	3.6729	3.7345	3.2931	0.000	31.6998	7.7299	-0.000096
24.	0.	1.05646	3.6729	3.7345	3.2923	0.000	31.7080	7.7299	-0.000099
25.	0.	1.05694	3.6729	3.7345	3.2915	0.000	31.7145	7.7199	-0.000104
26.	0.	1.05742	3.6728	3.7345	3.2906	0.000	31.7221	7.7099	-0.000109
27.	0.	1.05799	3.6728	3.7345	3.2899	0.000	31.7300	7.7099	-0.000112
28.	0.	1.05846	3.6728	3.7345	3.2891	0.000	31.7381	7.6999	-0.000117
29.	0.	1.05899	3.6727	3.7345	3.2883	0.000	31.7407	7.6999	-0.000120
30.	0.	1.05913	3.6726	3.7345	3.2873	0.001	31.7364	7.6599	-0.000129
31.	0.	1.05933	3.6725	3.7345	3.2862	0.001	31.7294	7.6299	-0.000137
32.	0.	1.05943	3.6724	3.7345	3.2852	0.001	31.7216	7.5899	-0.000147
33.	0.	1.05961	3.6724	3.7345	3.2841	0.001	31.7134	7.5598	-0.000155
34.	0.	1.05970	3.6723	3.7345	3.2831	0.001	31.7055	7.5198	-0.000165
35.	0.	1.05987	3.6722	3.7345	3.2821	0.001	31.6972	7.4898	-0.000173
36.	0.	1.05994	3.6721	3.7345	3.2810	0.001	31.6896	7.4498	-0.0

60.	0.	1.05625	3.6701	3.7345	3.2564	0.005	31.2974	6.3395	-0.000517
61.	0.	1.05592	3.6700	3.7345	3.2554	0.005	31.2752	6.2895	-0.000536
62.	0.	1.05571	3.6700	3.7345	3.2546	0.005	31.2530	6.2494	-0.000552
63.	0.	1.05535	3.6699	3.7345	3.2537	0.005	31.2282	6.1994	-0.000572
64.	0.	1.05498	3.6699	3.7345	3.2528	0.006	31.2019	6.1494	-0.000592
65.	0.	1.05460	3.6698	3.7345	3.2519	0.006	31.1747	6.0994	-0.000613
66.	0.	1.05421	3.6698	3.7345	3.2510	0.006	31.1466	6.0494	-0.000634
67.	0.	1.05380	3.6698	3.7345	3.2502	0.006	31.1177	5.9993	-0.000656
68.	0.	1.05338	3.6697	3.7345	3.2493	0.006	31.0881	5.9493	-0.000678
69.	0.	1.05295	3.6697	3.7345	3.2485	0.006	31.0576	5.8993	-0.000700
70.	0.	1.05253	3.6697	3.7345	3.2477	0.006	31.0290	5.8493	-0.000723
71.	0.	1.05226	3.6697	3.7345	3.2470	0.006	31.0034	5.8093	-0.000743
72.	0.	1.05198	3.6697	3.7345	3.2463	0.006	30.9785	5.7692	-0.000763
73.	0.	1.05168	3.6697	3.7345	3.2456	0.006	30.9508	5.7292	-0.000784
74.	0.	1.05125	3.6697	3.7345	3.2448	0.006	30.9219	5.6792	-0.000809
75.	0.	1.05096	3.6697	3.7345	3.2441	0.007	30.8948	5.6392	-0.000831
76.	0.	1.05066	3.6697	3.7345	3.2434	0.007	30.8678	5.5991	-0.000853
77.	0.	1.05036	3.6697	3.7345	3.2428	0.007	30.8405	5.5591	-0.000875
78.	0.	1.05006	3.6697	3.7345	3.2421	0.007	30.8127	5.5191	-0.000898
79.	0.	1.04975	3.6697	3.7345	3.2415	0.007	30.7844	5.4791	-0.000921
80.	0.	1.04945	3.6697	3.7345	3.2408	0.007	30.7561	5.4391	-0.000945
81.	0.	1.04914	3.6698	3.7345	3.2402	0.007	30.7276	5.3990	-0.000969
82.	0.	1.04883	3.6698	3.7345	3.2395	0.007	30.6984	5.3590	-0.000994
83.	0.	1.04852	3.6698	3.7345	3.2389	0.007	30.6688	5.3190	-0.001019
84.	0.	1.04819	3.6699	3.7345	3.2382	0.006	30.6385	5.2790	-0.001045
85.	0.	1.04785	3.6699	3.7345	3.2376	0.006	30.6075	5.2389	-0.001071
86.	0.	1.04751	3.6699	3.7345	3.2370	0.005	30.5758	5.1989	-0.001098
87.	0.	1.04717	3.6700	3.7345	3.2364	0.005	30.5434	5.1589	-0.001125
88.	0.	1.04681	3.6700	3.7345	3.2358	0.005	30.5102	5.1188	-0.001153
89.	0.	1.04646	3.6701	3.7345	3.2353	0.005	30.4762	5.0788	-0.001182
90.	0.	1.04611	3.6701	3.7345	3.2348	0.004	30.4452	5.0388	-0.001211
91.	0.	1.04590	3.6702	3.7345	3.2343	0.004	30.4145	5.0088	-0.001234
92.	0.	1.04554	3.6702	3.7345	3.2338	0.004	30.3801	4.9687	-0.001265
93.	0.	1.04516	3.6703	3.7345	3.2333	0.004	30.3437	4.9287	-0.001296
94.	0.	1.04477	3.6704	3.7345	3.2329	0.004	30.3062	4.8887	-0.001327
95.	0.	1.04439	3.6704	3.7345	3.2325	0.004	30.2690	4.8486	-0.001360
96.	0.	1.04402	3.6705	3.7345	3.2321	0.004	30.2331	4.8086	-0.001393
97.	0.	1.04364	3.6706	3.7345	3.2317	0.004	30.1963	4.7686	-0.001427
98.	0.	1.04324	3.6707	3.7345	3.2314	0.004	30.1588	4.7285	-0.001461
99.	0.	1.04283	3.6708	3.7345	3.2310	0.004	30.1203	4.6885	-0.001496
100.	0.	1.04244	3.6709	3.7345	3.2307	0.004	30.0850	4.6485	-0.001532
101.	0.	1.04221	3.6709	3.7345	3.2305	0.005	30.0537	4.6184	-0.001561
102.	0.	1.04203	3.6710	3.7345	3.2302	0.006	30.0274	4.5884	-0.001590
103.	0.	1.04201	3.6710	3.7345	3.2300	0.006	30.0067	4.5684	-0.001612
104.	0.	1.04192	3.6711	3.7345	3.2298	0.007	29.9797	4.5484	-0.001634
105.	0.	1.04156	3.6712	3.7345	3.2296	0.007	29.9462	4.5083	-0.001673
106.	0.	1.04132	3.6712	3.7345	3.2294	0.008	29.9145	4.4783	-0.001704
107.	0.	1.04106	3.6713	3.7345	3.2292	0.009	29.8786	4.4483	-0.001736
108.	0.	1.04069	3.6714	3.7345	3.2290	0.010	29.8408	4.4082	-0.001777
109.	0.	1.04045	3.6715	3.7345	3.2288	0.012	29.8012	4.3782	-0.001810
110.	0.	1.04010	3.6716	3.7345	3.2285	0.014	29.7609	4.3381	-0.001854
111.	0.	1.03987	3.6717	3.7345	3.2283	0.016	29.7249	4.3081	-0.001889
112.	0.	1.03962	3.6717	3.7345	3.2281	0.018	29.6854	4.2781	-0.001924
113.	0.	1.03925	3.6719	3.7345	3.2280	0.020	29.6441	4.2380	-0.001970
114.	0.	1.03899	3.6720	3.7345	3.2278	0.022	29.6016	4.2080	-0.002007
115.	0.	1.03862	3.6721	3.7345	3.2277	0.023	29.5577	4.1679	-0.002055
116.	0.	1.03837	3.6722	3.7345	3.2276	0.024	29.5179	4.1379	-0.002093
117.	0.	1.03810	3.6723	3.7345	3.2275	0.025	29.4754	4.1079	-0.002132
118.	0.	1.03773	3.6724	3.7345	3.2275	0.027	29.4315	4.0678	-0.002183
119.	0.	1.03745	3.6725	3.7345	3.2274	0.028	29.3864	4.0378	-0.002223
120.	0.	1.03708	3.6726	3.7345	3.2274	0.029	29.3400	3.9977	-0.002276
121.	0.	1.03680	3.6727	3.7345	3.2274	0.030	29.2931	3.9677	-0.002319
122.	0.	1.03643	3.6729	3.7345	3.2275	0.031	29.2451	3.9276	-0.002374
123.	0.	1.03617	3.6730	3.7345	3.2275	0.032	29.2015	3.8976	-0.002419
124.	0.	1.03590	3.6731	3.7345	3.2276	0.033	29.1535	3.8675	-0.002464
125.	0.	1.03555	3.6732	3.7345	3.2277	0.036	29.1029	3.8275	-0.002524
126.	0.	1.03527	3.6733	3.7345	3.2278	0.037	29.0509	3.7974	-0.002571

127.	0.	1.03491	3.6735	3.7345	3.2280	0.039	28.9974	3.7574	-0.002634
128.	0.	1.03467	3.6736	3.7345	3.2281	0.040	28.9490	3.7273	-0.002683
129.	0.	1.03440	3.6737	3.7345	3.2282	0.042	28.8957	3.6973	-0.002734
130.	0.	1.03405	3.6739	3.7345	3.2285	0.044	28.8396	3.6572	-0.002801
131.	0.	1.03378	3.6740	3.7345	3.2287	0.046	28.7828	3.6271	-0.002855
132.	0.	1.03343	3.6742	3.7345	3.2291	0.048	28.7249	3.5871	-0.002925
133.	0.	1.03319	3.6743	3.7345	3.2293	0.050	28.6723	3.5570	-0.002981
134.	0.	1.03290	3.6744	3.7345	3.2296	0.052	28.6081	3.5270	-0.003038
135.	0.	1.03240	3.6746	3.7345	3.2301	0.055	28.5249	3.4769	-0.003131
136.	0.	1.03185	3.6749	3.7345	3.2306	0.057	28.4274	3.4268	-0.003228
137.	0.	1.03124	3.6751	3.7345	3.2313	0.061	28.3224	3.3667	-0.003348
138.	0.	1.03072	3.6754	3.7345	3.2319	0.064	28.2220	3.3165	-0.003453
139.	0.	1.03023	3.6756	3.7345	3.2326	0.068	28.1213	3.2664	-0.003562
140.	0.	1.02971	3.6758	3.7345	3.2333	0.072	28.0114	3.2163	-0.003676
141.	0.	1.02916	3.6761	3.7345	3.2343	0.076	27.8947	3.1562	-0.003816
142.	0.	1.02868	3.6764	3.7345	3.2351	0.081	27.7879	3.1061	-0.003938
143.	0.	1.02818	3.6766	3.7345	3.2360	0.085	27.6720	3.0559	-0.004065
144.	0.	1.02766	3.6770	3.7345	3.2372	0.091	27.5485	2.9958	-0.004222
145.	0.	1.02718	3.6772	3.7345	3.2382	0.097	27.4288	2.9456	-0.004360
146.	0.	1.02666	3.6775	3.7345	3.2393	0.103	27.2986	2.8955	-0.004502
147.	0.	1.02613	3.6778	3.7345	3.2406	0.110	27.1591	2.8353	-0.004679
148.	0.	1.02563	3.6781	3.7345	3.2417	0.117	27.0316	2.7852	-0.004831
149.	0.	1.02512	3.6783	3.7345	3.2425	0.124	26.9144	2.7450	-0.004954
150.	0.	1.02462	3.6785	3.7345	3.2433	0.132	26.8061	2.7049	-0.005079
151.	0.	1.02405	3.6787	3.7345	3.2437	0.140	26.7004	2.6748	-0.005172
152.	0.	1.02345	3.6789	3.7345	3.2443	0.150	26.5819	2.6347	-0.005299
153.	0.	1.02281	3.6791	3.7345	3.2447	0.161	26.4694	2.5946	-0.005426
154.	0.	1.02201	3.6793	3.7345	3.2447	0.170	26.3567	2.5645	-0.005514
155.	0.	1.02118	3.6795	3.7345	3.2447	0.181	26.2286	2.5244	-0.005639
156.	0.	1.02027	3.6797	3.7345	3.2444	0.193	26.1011	2.4842	-0.005761
157.	0.	1.01915	3.6799	3.7345	3.2435	0.204	25.9730	2.4542	-0.005837
158.	0.	1.01796	3.6801	3.7345	3.2424	0.217	25.8278	2.4140	-0.005951
159.	0.	1.01661	3.6803	3.7345	3.2408	0.231	25.6730	2.3739	-0.006058
160.	0.	1.01510	3.6805	3.7345	3.2386	0.245	25.5204	2.3338	-0.006155
161.	0.	1.01328	3.6807	3.7345	3.2354	0.259	25.3684	2.3038	-0.006195
162.	0.	1.01135	3.6809	3.7345	3.2318	0.275	25.1984	2.2637	-0.006270
163.	0.	1.00911	3.6811	3.7345	3.2275	0.293	25.0320	2.2237	-0.006325
164.	0.	1.00634	3.6813	3.7345	3.2223	0.312	24.8708	2.1937	-0.006307
165.	0.	1.00336	3.6815	3.7345	3.2167	0.341	24.6924	2.1537	-0.006321
166.	0.	0.99989	3.6818	3.7345	3.2106	0.373	24.5197	2.1137	-0.006305
167.	0.	0.99574	3.6819	3.7345	3.2035	0.404	24.3545	2.0838	-0.006201
168.	0.	0.99133	3.6821	3.7345	3.1957	0.446	24.1743	2.0439	-0.006124
169.	0.	0.98669	3.6819	3.7345	3.1867	0.505	23.9968	2.0040	-0.006023
170.	0.	0.98173	3.6815	3.7345	3.1762	0.574	23.8203	1.9742	-0.005844
171.	0.	0.97717	3.6813	3.7345	3.1655	0.677	23.6223	1.9343	-0.005735
172.	0.	0.97230	3.6809	3.7345	3.1532	0.790	23.4276	1.8944	-0.005592
173.	0.	0.96696	3.6800	3.7345	3.1392	0.911	23.2420	1.8646	-0.005354
174.	0.	0.96179	3.6793	3.7345	3.1251	1.059	23.0357	1.8248	-0.005179
175.	0.	0.95614	3.6788	3.7345	3.1107	1.230	22.8473	1.7850	-0.004964
176.	0.	0.94906	3.6782	3.7345	3.0949	1.391	22.7213	1.7655	-0.004528
177.	0.	0.94114	3.6777	3.7345	3.0797	1.551	22.6463	1.7560	-0.003983
178.	0.	0.93290	3.6773	3.7345	3.0661	1.714	22.5827	1.7466	-0.003434
179.	0.	0.92498	3.6769	3.7345	3.0538	1.892	22.5146	1.7270	-0.002970
180.	0.	0.91697	3.6766	3.7345	3.0405	2.074	22.4626	1.7176	-0.002436
181.	0.	0.90922	3.6763	3.7345	3.0274	2.264	22.4057	1.7081	-0.001924
182.	0.	0.90224	3.6763	3.7345	3.0149	2.471	22.3296	1.6885	-0.001519
183.	0.	0.89519	3.6763	3.7345	3.0016	2.681	22.2704	1.6790	-0.001046
184.	0.	0.88820	3.6764	3.7345	2.9887	2.890	22.2079	1.6694	-0.000585
185.	0.	0.88160	3.6766	3.7345	2.9771	3.107	22.1383	1.6498	-0.000210
186.	0.	0.87444	3.6768	3.7345	2.9641	3.296	21.9863	1.6402	0.000239
187.	0.	0.86915	3.6778	3.7345	2.9582	3.552	21.6330	1.5501	0.000055
188.	0.	0.86133	3.6791	3.7345	2.9466	3.823	21.2015	1.4600	0.000049
189.	0.	0.85033	3.6807	3.7345	2.9273	4.106	20.7083	1.3703	0.000309
190.	0.	0.83565	3.6828	3.7345	2.9001	4.412	20.1599	1.2708	0.000844
191.	0.	0.81556	3.6854	3.7345	2.8637	4.742	19.6767	1.1719	0.001949
192.	0.	0.78855	3.6875	3.7345	2.8185	4.996	19.2450	1.1343	0.004251
193.	0.	0.76022	3.6912	3.7345	2.7829	5.261	18.3857	0.9755	0.005539

194.	0.	0.71707	3.6960	3.7345	2.7257	5.668	17.3148	0.7683	0.008295
195.	0.	0.62479	3.7019	3.7345	2.7009	5.399	16.7717	0.6286	0.018604
196.	0.	0.54778	3.7058	3.7345	2.5818	5.925	16.8646	0.5695	0.029493
197.	0.	0.47154	3.7082	3.7345	2.5352	6.293	18.1906	0.6091	0.039115
198.	0.	0.42411	3.7095	3.7345	2.5165	6.646	19.9555	0.6540	0.043976
199.	0.	0.39742	3.7099	3.7345	2.5056	6.945	21.5805	0.7064	0.046413
200.	0.	0.38311	3.7101	3.7345	2.5031	7.180	22.8238	0.7376	0.047576
201.	0.	0.37491	3.7099	3.7345	2.4958	7.416	23.8477	0.7783	0.048315
202.	0.	0.37037	3.7097	3.7345	2.4866	7.625	24.6164	0.8188	0.048787
203.	0.	0.36804	3.7094	3.7345	2.4790	7.805	25.2202	0.8491	0.049069
204.	0.	0.36693	3.7091	3.7345	2.4668	7.970	25.8109	0.8893	0.049322
205.	0.	0.36654	3.7088	3.7345	2.4547	8.154	26.2414	0.9295	0.049521
206.	0.	0.36665	3.7085	3.7345	2.4425	8.336	26.5872	0.9697	0.049684
207.	0.	0.36710	3.7082	3.7345	2.4302	8.512	26.8692	1.0098	0.049822
208.	0.	0.36777	3.7078	3.7345	2.4181	8.681	27.0978	1.0499	0.049940
209.	0.	0.36861	3.7076	3.7345	2.4062	8.843	27.2831	1.0900	0.050043
210.	0.	0.36956	3.7073	3.7345	2.3939	8.997	27.4054	1.1301	0.050134
211.	0.	0.37067	3.7071	3.7345	2.3853	9.121	27.4862	1.1502	0.050168
212.	0.	0.37179	3.7070	3.7345	2.3766	9.230	27.5577	1.1702	0.050199
213.	0.	0.37300	3.7070	3.7345	2.3696	9.330	27.6165	1.1802	0.050205
214.	0.	0.37426	3.7069	3.7345	2.3623	9.432	27.6897	1.1902	0.050210
215.	0.	0.37531	3.7068	3.7345	2.3542	9.502	27.7256	1.2102	0.050235
216.	0.	0.37648	3.7068	3.7345	2.3510	9.549	27.7529	1.2002	0.050195
217.	0.	0.37772	3.7068	3.7345	2.3454	9.579	27.8029	1.2002	0.050175
218.	0.	0.37899	3.7068	3.7345	2.3414	9.601	27.8355	1.1901	0.050132
219.	0.	0.38044	3.7068	3.7345	2.3377	9.561	28.0195	1.1801	0.050088
220.	0.	0.38165	3.7067	3.7345	2.3311	9.577	28.0988	1.1901	0.050091
221.	0.	0.38291	3.7066	3.7345	2.3227	9.602	28.1748	1.2101	0.050117
222.	0.	0.38420	3.7064	3.7345	2.3144	9.617	28.2484	1.2301	0.050142
223.	0.	0.38557	3.7063	3.7345	2.3058	9.611	28.3278	1.2502	0.050165
224.	0.	0.38698	3.7062	3.7345	2.2969	9.592	28.3865	1.2702	0.050187
225.	0.	0.38845	3.7061	3.7345	2.2895	9.563	28.4471	1.2802	0.050188
226.	0.	0.38984	3.7060	3.7345	2.2811	9.548	28.5057	1.3002	0.050207
227.	0.	0.39108	3.7059	3.7345	2.2754	9.557	28.5559	1.3102	0.050208
228.	0.	0.39230	3.7059	3.7345	2.2689	9.582	28.6169	1.3302	0.050227
229.	0.	0.39353	3.7060	3.7345	2.2628	9.621	28.6802	1.3502	0.050245
230.	0.	0.39475	3.7058	3.7345	2.2553	9.655	28.7323	1.3803	0.050278
231.	0.	0.39585	3.7057	3.7345	2.2479	9.666	28.7200	1.4103	0.050309
232.	0.	0.39692	3.7057	3.7345	2.2468	9.658	28.7287	1.3903	0.050261
233.	0.	0.39811	3.7058	3.7345	2.2466	9.652	28.8274	1.3702	0.050208
234.	0.	0.39940	3.7058	3.7345	2.2460	9.613	28.9939	1.3502	0.050153
235.	0.	0.40056	3.7058	3.7345	2.2443	9.613	29.0786	1.3401	0.050115
236.	0.	0.40169	3.7058	3.7345	2.2426	9.608	29.1456	1.3301	0.050077
237.	0.	0.40284	3.7058	3.7345	2.2424	9.606	29.2276	1.3100	0.050019
238.	0.	0.40416	3.7058	3.7345	2.2393	9.572	29.4188	1.3100	0.050000
239.	0.	0.40533	3.7056	3.7345	2.2312	9.585	29.5122	1.3501	0.050057
240.	0.	0.40649	3.7054	3.7345	2.2234	9.589	29.5621	1.3901	0.050110
241.	0.	0.40755	3.7053	3.7345	2.2176	9.608	29.5832	1.4201	0.050142
242.	0.	0.40858	3.7052	3.7345	2.2132	9.626	29.6024	1.4402	0.050158
243.	0.	0.40964	3.7051	3.7345	2.2088	9.656	29.6263	1.4602	0.050172
244.	0.	0.41073	3.7050	3.7345	2.2042	9.696	29.6478	1.4802	0.050186
245.	0.	0.41181	3.7050	3.7345	2.1995	9.729	29.6635	1.5002	0.050199
246.	0.	0.41279	3.7049	3.7345	2.1956	9.739	29.6708	1.5202	0.050212
247.	0.	0.41374	3.7048	3.7345	2.1909	9.739	29.6570	1.5502	0.050237
248.	0.	0.41463	3.7047	3.7345	2.1872	9.730	29.6279	1.5702	0.050249
249.	0.	0.41555	3.7047	3.7345	2.1835	9.721	29.6091	1.5903	0.050260
250.	0.	0.41646	3.7046	3.7345	2.1800	9.708	29.5864	1.6103	0.050270
251.	0.	0.41736	3.7046	3.7345	2.1764	9.688	29.5570	1.6303	0.050279
252.	0.	0.41818	3.7046	3.7345	2.1739	9.670	29.5297	1.6403	0.050277
253.	0.	0.41899	3.7046	3.7345	2.1726	9.663	29.5369	1.6403	0.050265
254.	0.	0.41981	3.7045	3.7345	2.1706	9.656	29.5416	1.6503	0.050263
255.	0.	0.42057	3.7045	3.7345	2.1696	9.649	29.5435	1.6503	0.050251
256.	0.	0.42140	3.7045	3.7345	2.1676	9.647	29.5464	1.6602	0.050249
257.	0.	0.42219	3.7045	3.7345	2.1664	9.648	29.5493	1.6602	0.050236
258.	0.	0.42303	3.7044	3.7345	2.1644	9.651	29.5541	1.6702	0.050234
259.	0.	0.42384	3.7044	3.7345	2.1632	9.658	29.5594	1.6702	0.050222
260.	0.	0.42468	3.7044	3.7345	2.1613	9.665	29.5663	1.6802	0.050220

261.	0.	0.42553	3.7044	3.7345	2.1598	9.658	29.5856	1.6802	0.050208
262.	0.	0.42642	3.7043	3.7345	2.1575	9.640	29.6105	1.6902	0.050206
263.	0.	0.42722	3.7043	3.7345	2.1560	9.620	29.6387	1.6902	0.050195
264.	0.	0.42804	3.7043	3.7345	2.1540	9.591	29.6715	1.7002	0.050194
265.	0.	0.42882	3.7043	3.7345	2.1529	9.557	29.7183	1.7002	0.050184
266.	0.	0.42959	3.7042	3.7345	2.1506	9.506	29.7310	1.7102	0.050182
267.	0.	0.42993	3.7044	3.7345	2.1509	9.426	29.6656	1.6801	0.050142
268.	0.	0.43016	3.7046	3.7345	2.1527	9.366	29.6095	1.6401	0.050088
269.	0.	0.43044	3.7047	3.7345	2.1552	9.322	29.5773	1.6000	0.050030
270.	0.	0.43086	3.7049	3.7345	2.1584	9.313	29.6116	1.5600	0.049968
271.	0.	0.43183	3.7048	3.7345	2.1576	9.365	29.7504	1.5700	0.049969
272.	0.	0.43313	3.7044	3.7345	2.1518	9.440	29.8705	1.6400	0.050043
273.	0.	0.43401	3.7042	3.7345	2.1453	9.446	29.7873	1.7101	0.050109
274.	0.	0.43427	3.7043	3.7345	2.1446	9.410	29.6781	1.7001	0.050092
275.	0.	0.43471	3.7044	3.7345	2.1445	9.382	29.6543	1.6901	0.050073
276.	0.	0.43513	3.7045	3.7345	2.1443	9.337	29.6079	1.6801	0.050052
277.	0.	0.43556	3.7045	3.7345	2.1442	9.286	29.5537	1.6700	0.050030
278.	0.	0.43605	3.7046	3.7345	2.1441	9.239	29.5268	1.6600	0.050008
279.	0.	0.43665	3.7046	3.7345	2.1434	9.191	29.5112	1.6600	0.049997
280.	0.	0.43710	3.7046	3.7345	2.1433	9.137	29.4708	1.6500	0.049974
281.	0.	0.43749	3.7047	3.7345	2.1433	9.078	29.4245	1.6400	0.049952
282.	0.	0.43786	3.7047	3.7345	2.1435	9.023	29.3745	1.6299	0.049930
283.	0.	0.43821	3.7048	3.7345	2.1436	8.970	29.3238	1.6199	0.049908
284.	0.	0.43856	3.7049	3.7345	2.1438	8.918	29.2741	1.6099	0.049886
285.	0.	0.43828	3.7050	3.7345	2.1428	8.762	28.9616	1.5999	0.049863
286.	0.	0.43646	3.7058	3.7345	2.1512	8.463	28.3218	1.4797	0.049691
287.	0.	0.43437	3.7066	3.7345	2.1647	8.131	27.6155	1.3394	0.049440
288.	0.	0.43300	3.7073	3.7345	2.1802	7.914	27.1344	1.2192	0.049162
289.	0.	0.43271	3.7074	3.7345	2.1818	7.843	26.9795	1.2091	0.049128
290.	0.	0.43252	3.7074	3.7345	2.1838	7.800	26.8886	1.1991	0.049095
291.	0.	0.43230	3.7075	3.7345	2.1874	7.762	26.8174	1.1790	0.049036
292.	0.	0.43203	3.7076	3.7345	2.1898	7.725	26.7585	1.1690	0.049006
293.	0.	0.43160	3.7077	3.7345	2.1938	7.678	26.6716	1.1489	0.048949
294.	0.	0.43105	3.7078	3.7345	2.1981	7.625	26.5768	1.1289	0.048892
295.	0.	0.43035	3.7079	3.7345	2.2026	7.570	26.4781	1.1088	0.048839
296.	0.	0.42945	3.7080	3.7345	2.2075	7.513	26.3787	1.0888	0.048789
297.	0.	0.42834	3.7082	3.7345	2.2128	7.456	26.2792	1.0687	0.048745
298.	0.	0.42700	3.7083	3.7345	2.2183	7.397	26.1783	1.0487	0.048707
299.	0.	0.42550	3.7084	3.7345	2.2241	7.349	26.1033	1.0287	0.048676
300.	0.	0.42393	3.7085	3.7345	2.2279	7.313	26.0734	1.0187	0.048688
301.	0.	0.42232	3.7086	3.7345	2.2316	7.286	26.0564	1.0087	0.048704
302.	0.	0.42066	3.7087	3.7345	2.2350	7.266	26.0429	0.9987	0.048724
303.	0.	0.41900	3.7087	3.7345	2.2384	7.265	26.0733	0.9887	0.048749
304.	0.	0.41767	3.7087	3.7345	2.2377	7.344	26.2668	0.9989	0.048853
305.	0.	0.41694	3.7085	3.7345	2.2324	7.473	26.5863	1.0290	0.049015
306.	0.	0.41683	3.7084	3.7345	2.2267	7.610	26.9155	1.0592	0.049150
307.	0.	0.41664	3.7082	3.7345	2.2205	7.641	26.9858	1.0893	0.049263
308.	0.	0.41579	3.7084	3.7345	2.2279	7.539	26.7178	1.0491	0.049143
309.	0.	0.41422	3.7087	3.7345	2.2389	7.398	26.3504	0.9990	0.048992
310.	0.	0.41188	3.7090	3.7345	2.2496	7.252	25.9521	0.9589	0.048892
311.	0.	0.40905	3.7093	3.7345	2.2639	7.193	25.7307	0.9088	0.048779
312.	0.	0.40692	3.7091	3.7345	2.2575	7.343	26.0492	0.9390	0.049025
313.	0.	0.40613	3.7089	3.7345	2.2478	7.577	26.5571	0.9793	0.049262
314.	0.	0.40581	3.7087	3.7345	2.2362	7.740	26.8775	1.0295	0.049484
315.	0.	0.40534	3.7087	3.7345	2.2374	7.743	26.8290	1.0195	0.049468
316.	0.	0.40449	3.7088	3.7345	2.2413	7.682	26.6556	0.9994	0.049418
317.	0.	0.40320	3.7090	3.7345	2.2483	7.601	26.4199	0.9693	0.049339
318.	0.	0.40154	3.7091	3.7345	2.2536	7.536	26.2092	0.9493	0.049311
319.	0.	0.39991	3.7092	3.7345	2.2590	7.546	26.1657	0.9293	0.049296
320.	0.	0.39919	3.7090	3.7345	2.2514	7.742	26.5972	0.9595	0.049483
321.	0.	0.39869	3.7087	3.7345	2.2371	7.851	26.8051	1.0197	0.049738
322.	0.	0.39781	3.7090	3.7345	2.2447	7.724	26.4447	0.9796	0.049612
323.	0.	0.39595	3.7092	3.7345	2.2570	7.528	25.9234	0.9295	0.049459
324.	0.	0.39306	3.7095	3.7345	2.2694	7.316	25.3574	0.8894	0.049370
325.	0.	0.38924	3.7098	3.7345	2.2860	7.123	24.7573	0.8393	0.049269
326.	0.	0.38418	3.7100	3.7345	2.3010	6.967	24.1551	0.7993	0.049274
327.	0.	0.37768	3.7103	3.7345	2.3201	6.836	23.4949	0.7493	0.049308

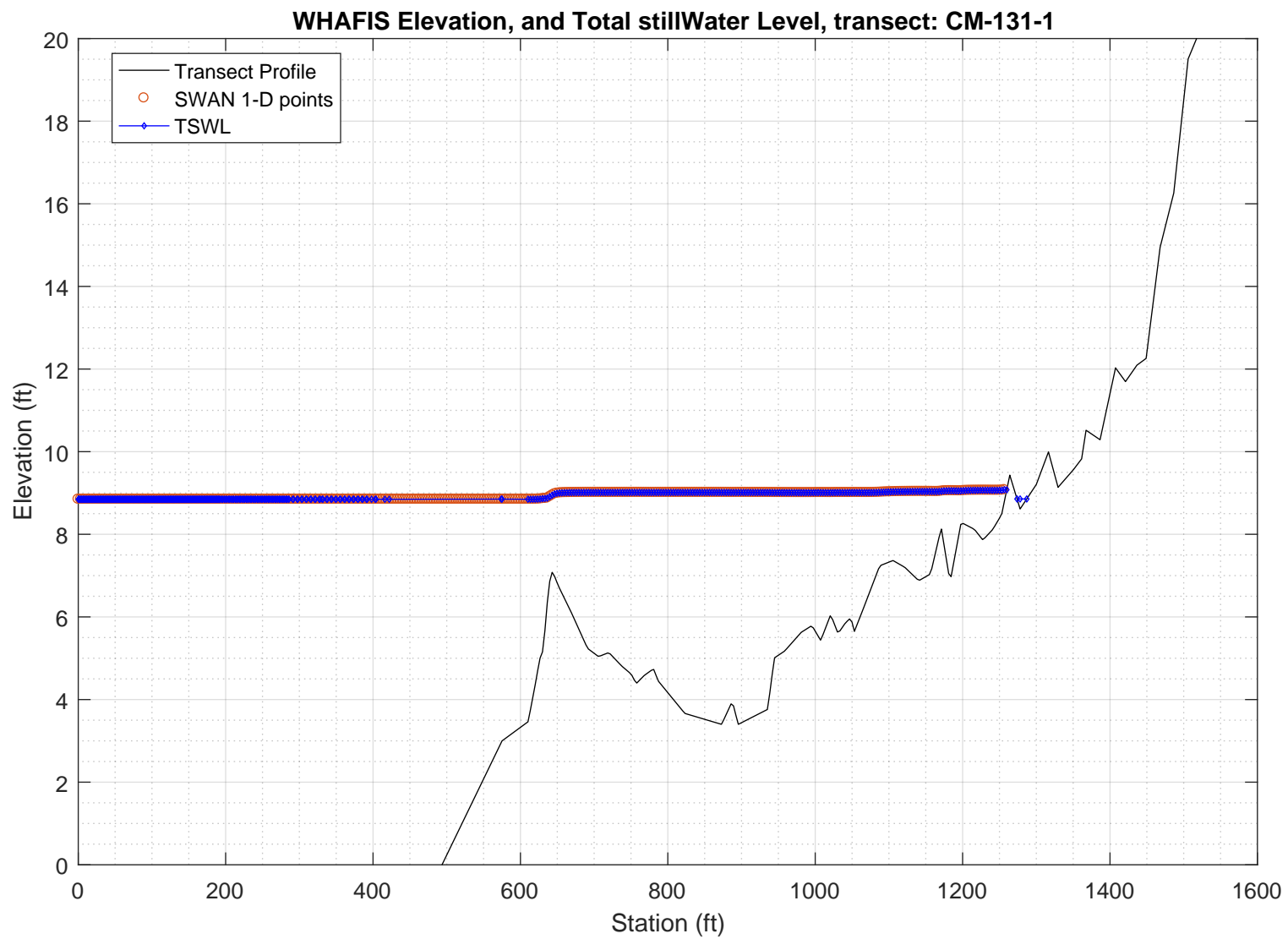
328.	0.	0.36946	3.7106	3.7345	2.3400	6.768	22.8507	0.6995	0.049459
329.	0.	0.35966	3.7107	3.7345	2.3563	6.778	22.2340	0.6598	0.049797
330.	0.	0.34813	3.7108	3.7345	2.3766	6.799	21.5452	0.6102	0.050226
331.	0.	0.33455	3.7108	3.7345	2.3969	6.877	20.9303	0.5609	0.050868
332.	0.	0.32046	3.7106	3.7345	2.4012	7.214	20.6939	0.5418	0.051831
333.	0.	0.30690	3.7104	3.7345	2.4081	7.431	20.4609	0.5328	0.052767
334.	0.	0.29517	3.7102	3.7345	2.4158	7.612	20.2779	0.5236	0.053552
335.	0.	0.28474	3.7100	3.7345	2.4215	7.665	20.0828	0.5243	0.054270
336.	0.	0.27625	3.7099	3.7345	2.4302	7.639	19.8209	0.5148	0.054788
337.	0.	0.26882	3.7099	3.7345	2.4372	7.651	19.6687	0.5052	0.055245
338.	0.	0.26217	3.7097	3.7345	2.4342	7.786	19.8166	0.5157	0.055748
339.	0.	0.25725	3.7096	3.7345	2.4294	7.961	20.0759	0.5261	0.056124
340.	0.	0.25366	3.7094	3.7345	2.4233	8.152	20.3841	0.5364	0.056407
341.	0.	0.25102	3.7092	3.7345	2.4162	8.346	20.7065	0.5466	0.056626
342.	0.	0.24923	3.7091	3.7345	2.4074	8.568	21.0899	0.5568	0.056797
343.	0.	0.24780	3.7088	3.7345	2.3943	8.834	21.5656	0.5770	0.056982
344.	0.	0.24700	3.7086	3.7345	2.3807	9.085	22.0086	0.5971	0.057127
345.	0.	0.24659	3.7084	3.7345	2.3669	9.277	22.3318	0.6172	0.057241
346.	0.	0.24679	3.7082	3.7345	2.3562	9.431	22.5824	0.6273	0.057295
347.	0.	0.24689	3.7080	3.7345	2.3417	9.580	22.8254	0.6474	0.057380
348.	0.	0.24727	3.7079	3.7345	2.3305	9.607	22.8256	0.6574	0.057413
349.	0.	0.24820	3.7079	3.7345	2.3252	9.552	22.6780	0.6474	0.057364
350.	0.	0.24894	3.7079	3.7345	2.3210	9.485	22.4914	0.6373	0.057317
351.	0.	0.24948	3.7078	3.7345	2.3178	9.413	22.2884	0.6273	0.057273
352.	0.	0.24960	3.7078	3.7345	2.3163	9.199	21.8202	0.6172	0.057232
353.	0.	0.25006	3.7080	3.7345	2.3315	8.738	20.8690	0.5670	0.057014
354.	0.	0.24908	3.7082	3.7345	2.3605	8.159	19.6401	0.4967	0.056735
355.	0.	0.24372	3.7087	3.7345	2.3986	7.576	18.2554	0.4167	0.056652
356.	0.	0.22957	3.7095	3.7345	2.4431	7.093	17.1203	0.3373	0.057327
357.	0.	0.20779	3.7107	3.7345	2.4705	7.266	17.4148	0.2792	0.059164
358.	0.	0.18697	3.7104	3.7345	2.4132	8.713	20.5129	0.3915	0.061470
359.	0.	0.17920	3.7097	3.7345	2.3580	10.146	22.8819	0.5023	0.062268
360.	0.	0.17562	3.7091	3.7345	2.3099	10.828	23.5802	0.6126	0.062644
361.	0.	0.17426	3.7091	3.7345	2.3009	10.312	22.1525	0.6327	0.062702
362.	0.	0.17593	3.7098	3.7345	2.3384	9.364	20.2991	0.5324	0.062441
363.	0.	0.17835	3.7103	3.7345	2.3750	8.351	18.3495	0.4421	0.062081
364.	0.	0.18000	3.7108	3.7345	2.4197	7.346	16.2849	0.3416	0.061612
365.	0.	0.17282	3.7118	3.7345	2.4600	6.773	14.7760	0.2518	0.061809
366.	0.	0.15748	3.7125	3.7345	2.4595	6.717	14.2446	0.2432	0.063246
367.	0.	0.14536	3.7130	3.7345	2.4453	6.932	14.3721	0.2544	0.064371
368.	0.	0.13789	3.7133	3.7345	2.4299	7.238	14.7910	0.2650	0.065012
369.	0.	0.13339	3.7134	3.7345	2.4144	7.557	15.3089	0.2754	0.065385
370.	0.	0.13063	3.7134	3.7345	2.3996	7.861	15.8265	0.2856	0.065615
371.	0.	0.12894	3.7132	3.7345	2.3852	8.201	16.4279	0.2958	0.065768
372.	0.	0.12743	3.7130	3.7345	2.3665	8.597	17.1397	0.3159	0.065922
373.	0.	0.12653	3.7127	3.7345	2.3481	9.030	17.8949	0.3360	0.066034
374.	0.	0.12529	3.7124	3.7345	2.3271	9.202	18.0628	0.3662	0.066156
375.	0.	0.12641	3.7125	3.7345	2.3295	9.051	17.6861	0.3461	0.066073
376.	0.	0.12698	3.7125	3.7345	2.3276	8.835	17.2195	0.3360	0.066027
377.	0.	0.12792	3.7125	3.7345	2.3305	8.553	16.6385	0.3159	0.065936
378.	0.	0.12851	3.7126	3.7345	2.3335	8.227	15.9939	0.2959	0.065855
379.	0.	0.12873	3.7127	3.7345	2.3419	7.843	15.2053	0.2658	0.065761
380.	0.	0.12687	3.7128	3.7345	2.3501	7.477	14.4153	0.2358	0.065809
381.	0.	0.12187	3.7126	3.7345	2.3562	7.084	13.5183	0.2061	0.066123
382.	0.	0.11226	3.7126	3.7345	2.3675	6.406	12.1651	0.1669	0.066866
383.	0.	0.07773	3.7309	3.7345	2.6110	6.190	14.3629	0.0903	0.070349
384.	0.	-9.00000	-9.0000	-9.0000	-9.0000	-999.000	-9.0000	-99.0000	-9.000000
385.	0.	-9.00000	-9.0000	-9.0000	-9.0000	-999.000	-9.0000	-99.0000	-9.000000

PART 3: WHAFIS

WHAFIS input: CM-131-1.dat

WHAFIS output: CM-131-1.out

PART 3 COMPLETE



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

Executed on: Thu Feb 20 14:57:36 2020

Input file: C:\FEMA-TransectAnalysis\LOMR-TransectAnalysis-Harpswell\3_whafis\whafis4\CM-131-1.dat

Output file: C:\FEMA-TransectAnalysis\LOMR-TransectAnalysis-Harpswell\3_whafis\whafis4\CM-131-1.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	-16.944	1.000	1.000	8.847	5.441	3.676	56.140	0.006	0.000
OF	1.000	-16.938	0.000	8.847	0.000	0.000	0.000	0.000	0.006	0.000
OF	2.000	-16.932	0.000	8.847	0.000	0.000	0.000	0.000	0.005	0.000
OF	3.000	-16.927	0.000	8.847	0.000	0.000	0.000	0.000	0.005	0.000
OF	4.000	-16.921	0.000	8.847	0.000	0.000	0.000	0.000	0.006	0.000
OF	5.000	-16.915	0.000	8.847	0.000	0.000	0.000	0.000	0.005	0.000
OF	6.000	-16.910	0.000	8.847	0.000	0.000	0.000	0.000	0.005	0.000
OF	7.000	-16.904	0.000	8.847	0.000	0.000	0.000	0.000	0.006	0.000
OF	8.000	-16.898	0.000	8.847	0.000	0.000	0.000	0.000	0.005	0.000
OF	9.000	-16.893	0.000	8.847	0.000	0.000	0.000	0.000	0.005	0.000
OF	10.000	-16.887	0.000	8.847	0.000	0.000	0.000	0.000	0.006	0.000
OF	11.000	-16.881	0.000	8.847	0.000	0.000	0.000	0.000	0.005	0.000
OF	12.000	-16.876	0.000	8.847	0.000	0.000	0.000	0.000	0.005	0.000
OF	13.000	-16.870	0.000	8.847	0.000	0.000	0.000	0.000	0.006	0.000
OF	14.000	-16.864	0.000	8.847	0.000	0.000	0.000	0.000	0.005	0.000
OF	15.000	-16.859	0.000	8.847	0.000	0.000	0.000	0.000	0.005	0.000
OF	16.000	-16.853	0.000	8.847	0.000	0.000	0.000	0.000	0.006	0.000
OF	17.000	-16.847	0.000	8.847	0.000	0.000	0.000	0.000	0.005	0.000
OF	18.000	-16.842	0.000	8.847	0.000	0.000	0.000	0.000	0.005	0.000
OF	19.000	-16.836	0.000	8.847	0.000	0.000	0.000	0.000	0.006	0.000
OF	20.000	-16.830	0.000	8.847	0.000	0.000	0.000	0.000	0.005	0.000
OF	21.000	-16.825	0.000	8.847	0.000	0.000	0.000	0.000	0.005	0.000
OF	22.000	-16.819	0.000	8.847	0.000	0.000	0.000	0.000	0.006	0.000
OF	23.000	-16.813	0.000	8.847	0.000	0.000	0.000	0.000	0.005	0.000
OF	24.000	-16.808	0.000	8.847	0.000	0.000	0.000	0.000	0.005	0.000
OF	25.000	-16.802	0.000	8.847	0.000	0.000	0.000	0.000	0.006	0.000
OF	26.000	-16.796	0.000	8.847	0.000	0.000	0.000	0.000	0.005	0.000
OF	27.000	-16.791	0.000	8.847	0.000	0.000	0.000	0.000	0.005	0.000
OF	28.000	-16.785	0.000	8.847	0.000	0.000	0.000	0.000	0.006	0.000
OF	29.000	-16.779	0.000	8.847	0.000	0.000	0.000	0.000	0.005	0.000
OF	30.000	-16.774	0.000	8.847	0.000	0.000	0.000	0.000	0.005	0.000
OF	31.000	-16.768	0.000	8.847	0.000	0.000	0.000	0.000	0.006	0.000
OF	32.000	-16.762	0.000	8.847	0.000	0.000	0.000	0.000	0.005	0.000
OF	33.000	-16.757	0.000	8.847	0.000	0.000	0.000	0.000	0.005	0.000
OF	34.000	-16.751	0.000	8.847	0.000	0.000	0.000	0.000	0.006	0.000
OF	35.000	-16.745	0.000	8.847	0.000	0.000	0.000	0.000	0.005	0.000
OF	36.000	-16.740	0.000	8.847	0.000	0.000	0.000	0.000	0.005	0.000
OF	37.000	-16.734	0.000	8.847	0.000	0.000	0.000	0.000	0.006	0.000
OF	38.000	-16.728	0.000	8.847	0.000	0.000	0.000	0.000	0.005	0.000
OF	39.000	-16.723	0.000	8.847	0.000	0.000	0.000	0.000	0.005	0.000
OF	40.000	-16.717	0.000	8.847	0.000	0.000	0.000	0.000	0.006	0.000
OF	41.000	-16.711	0.000	8.847	0.000	0.000	0.000	0.000	0.005	0.000
OF	42.000	-16.706	0.000	8.847	0.000	0.000	0.000	0.000	0.005	0.000
OF	43.000	-16.700	0.000	8.847	0.000	0.000	0.000	0.000	0.006	0.000
OF	44.000	-16.694	0.000	8.847	0.000	0.000	0.000	0.000	0.005	0.000
OF	45.000	-16.689	0.000	8.847	0.000	0.000	0.000	0.000	0.005	0.000
OF	46.000	-16.683	0.000	8.847	0.000	0.000	0.000	0.000	0.006	0.000
OF	47.000	-16.677	0.000	8.847	0.000	0.000	0.000	0.000	0.005	0.000
OF	48.000	-16.672	0.000	8.847	0.000	0.000	0.000	0.000	0.005	0.000
OF	49.000	-16.666	0.000	8.847	0.000	0.000	0.000	0.000	0.006	0.000
OF	50.000	-16.660	0.000	8.847	0.000	0.000	0.000	0.000	0.005	0.000
OF	51.000	-16.655	0.000	8.847	0.000	0.000	0.000	0.000	0.005	0.000
OF	52.000	-16.649	0.000	8.847	0.000	0.000	0.000	0.000	0.006	0.000
OF	53.000	-16.643	0.000	8.847	0.000	0.000	0.000	0.000	0.006	0.000
OF	54.000	-16.637	0.000	8.847	0.000	0.000	0.000	0.000	0.005	0.000
OF	55.000	-16.632	0.000	8.847	0.000	0.000	0.000	0.000	0.005	0.000
OF	56.000	-16.626	0.000	8.847	0.000	0.000	0.000	0.000	0.005	0.000
OF	57.000	-16.621	0.000	8.847	0.000	0.000	0.000	0.000	0.005	0.000
OF	58.000	-16.615	0.000	8.847	0.000	0.000	0.000	0.000	0.006	0.000
OF	59.000	-16.609	0.000	8.847	0.000	0.000	0.000	0.000	0.005	0.000
OF	60.000	-16.604	0.000	8.847	0.000	0.000	0.000	0.000	0.005	0.000
OF	61.000	-16.598	0.000	8.847	0.000	0.000	0.000	0.000	0.006	0.000
OF	62.000	-16.592	0.000	8.847	0.000	0.000	0.000	0.000	0.006	0.000
OF	63.000	-16.586	0.000	8.847	0.000	0.000	0.000	0.000	0.005	0.000
OF	64.000	-16.581	0.000	8.847	0.000	0.000	0.000	0.000	0.005	0.000
OF	65.000	-16.575	0.000	8.847	0.000	0.000	0.000	0.000	0.006	0.000
OF	66.000	-16.569	0.000	8.847	0.000	0.000	0.000	0.000	0.005	0.000
OF	67.000	-16.564	0.000	8.847	0.000	0.000	0.000	0.000	0.005	0.000
OF	68.000	-16.558	0.000	8.847	0.000	0.000	0.000	0.000	0.006	0.000
OF	69.000	-16.552	0.000	8.847	0.000	0.000	0.000	0.000	0.005	0.000
OF	70.000	-16.547	0.000	8.847	0.000	0.000	0.000	0.000	0.005	0.000
OF	71.000	-16.541	0.000	8.847	0.000	0.000	0.000	0.000	0.006	0.000
OF	72.000	-16.535	0.000	8.847	0.000	0.000	0.000	0.000	0.005	0.000
OF	73.000	-16.530	0.000	8.847	0.000	0.000	0.000	0.000	0.005	0.000
OF	74.000	-16.524	0.000	8.847	0.000	0.000	0.000	0.000	0.006	0.000
OF	75.000	-16.518	0.000	8.847	0.000	0.000	0.000	0.000	0.005	0.000
OF	76.000	-16.513	0.000	8.847	0.000	0.000	0.000	0.000	0.005	0.000
OF	77.000	-16.507	0.000	8.847	0.000	0.000	0.000	0.000	0.006	0.000
OF	78.000	-16.501	0.000	8.847	0.000	0.000	0.000	0.000	0.005	0.000
OF	79.000	-16.496	0.000	8.847	0.000	0.000	0.000	0.000	0.005	0.000
OF	80.000	-16.490	0.000	8.847	0.000	0.000	0.000	0.000	0.006	0.000
OF	81.000	-16.484	0.000	8.847	0.000	0.000	0.000	0.000	0.005	0.000
OF	82.000	-16.479	0.000	8.847	0.000	0.000	0.000	0.000	0.005	0.000
OF	83.000	-16.473	0.000	8.847	0.000	0.000	0.000	0.000	0.006	0.000
OF	84.000	-16.467	0.000	8.847	0.000	0.000	0.000	0.000	0.005	0.000
OF	85.000	-16.462	0.000	8.847	0.000	0.000	0.000	0.000	0.005	0.000
OF	86.000	-16.456	0.000	8.847	0.000	0.000	0.000	0.000	0.006	0.000
OF	87.000	-16.450	0.000	8.847	0.000	0.000	0.000	0.000	0.005	0.000
OF	88.000	-16.445	0.000	8.847	0.000	0.000	0.000	0.000	0.005	0.000
OF	89.000	-16.439	0.000	8.847	0.000	0.000	0.000	0.000	0.006	0.000
OF	90.000	-16.433	0.000	8.847	0.000	0.000	0.000	0.000	0.005	0.000
OF	91.000	-16.428	0.000	8.847	0.000	0.000	0.000	0.000	0.005	0.000
OF	92.000	-16.422	0.000	8.847	0.000	0.000	0.000	0.000	0.006	0.000

OF	93.000	-16.416	0.000	8.847	0.000	0.000	0.000	0.000	0.005	0.000
OF	94.000	-16.411	0.000	8.847	0.000	0.000	0.000	0.000	0.005	0.000
OF	95.000	-16.405	0.000	8.847	0.000	0.000	0.000	0.000	0.019	0.000
OF	96.000	-16.374	0.000	8.847	0.000	0.000	0.000	0.000	0.033	0.000
OF	97.000	-16.339	0.000	8.847	0.000	0.000	0.000	0.000	0.034	0.000
OF	98.000	-16.305	0.000	8.847	0.000	0.000	0.000	0.000	0.034	0.000
OF	99.000	-16.270	0.000	8.847	0.000	0.000	0.000	0.000	0.035	0.000
OF	100.000	-16.235	0.000	8.847	0.000	0.000	0.000	0.000	0.034	0.000
OF	101.000	-16.201	0.000	8.847	0.000	0.000	0.000	0.000	0.034	0.000
OF	102.000	-16.166	0.000	8.847	0.000	0.000	0.000	0.000	0.035	0.000
OF	103.000	-16.131	0.000	8.847	0.000	0.000	0.000	0.000	0.034	0.000
OF	104.000	-16.097	0.000	8.847	0.000	0.000	0.000	0.000	0.034	0.000
OF	105.000	-16.062	0.000	8.847	0.000	0.000	0.000	0.000	0.034	0.000
OF	106.000	-16.028	0.000	8.847	0.000	0.000	0.000	0.000	0.034	0.000
OF	107.000	-15.993	0.000	8.847	0.000	0.000	0.000	0.000	0.035	0.000
OF	108.000	-15.958	0.000	8.847	0.000	0.000	0.000	0.000	0.034	0.000
OF	109.000	-15.924	0.000	8.847	0.000	0.000	0.000	0.000	0.034	0.000
OF	110.000	-15.889	0.000	8.847	0.000	0.000	0.000	0.000	0.035	0.000
OF	111.000	-15.854	0.000	8.847	0.000	0.000	0.000	0.000	0.034	0.000
OF	112.000	-15.820	0.000	8.847	0.000	0.000	0.000	0.000	0.034	0.000
OF	113.000	-15.785	0.000	8.847	0.000	0.000	0.000	0.000	0.035	0.000
OF	114.000	-15.750	0.000	8.847	0.000	0.000	0.000	0.000	0.034	0.000
OF	115.000	-15.716	0.000	8.847	0.000	0.000	0.000	0.000	0.034	0.000
OF	116.000	-15.681	0.000	8.847	0.000	0.000	0.000	0.000	0.035	0.000
OF	117.000	-15.646	0.000	8.847	0.000	0.000	0.000	0.000	0.034	0.000
OF	118.000	-15.612	0.000	8.847	0.000	0.000	0.000	0.000	0.034	0.000
OF	119.000	-15.577	0.000	8.847	0.000	0.000	0.000	0.000	0.035	0.000
OF	120.000	-15.542	0.000	8.847	0.000	0.000	0.000	0.000	0.034	0.000
OF	121.000	-15.508	0.000	8.847	0.000	0.000	0.000	0.000	0.034	0.000
OF	122.000	-15.473	0.000	8.847	0.000	0.000	0.000	0.000	0.035	0.000
OF	123.000	-15.438	0.000	8.847	0.000	0.000	0.000	0.000	0.034	0.000
OF	124.000	-15.404	0.000	8.847	0.000	0.000	0.000	0.000	0.034	0.000
OF	125.000	-15.369	0.000	8.847	0.000	0.000	0.000	0.000	0.035	0.000
OF	126.000	-15.334	0.000	8.847	0.000	0.000	0.000	0.000	0.034	0.000
OF	127.000	-15.300	0.000	8.847	0.000	0.000	0.000	0.000	0.034	0.000
OF	128.000	-15.265	0.000	8.847	0.000	0.000	0.000	0.000	0.034	0.000
OF	129.000	-15.231	0.000	8.847	0.000	0.000	0.000	0.000	0.034	0.000
OF	130.000	-15.196	0.000	8.847	0.000	0.000	0.000	0.000	0.035	0.000
OF	131.000	-15.161	0.000	8.847	0.000	0.000	0.000	0.000	0.034	0.000
OF	132.000	-15.127	0.000	8.847	0.000	0.000	0.000	0.000	0.034	0.000
OF	133.000	-15.092	0.000	8.847	0.000	0.000	0.000	0.000	0.042	0.000
OF	134.000	-15.043	0.000	8.847	0.000	0.000	0.000	0.000	0.049	0.000
OF	135.000	-14.994	0.000	8.847	0.000	0.000	0.000	0.000	0.049	0.000
OF	136.000	-14.945	0.000	8.847	0.000	0.000	0.000	0.000	0.049	0.000
OF	137.000	-14.896	0.000	8.847	0.000	0.000	0.000	0.000	0.049	0.000
OF	138.000	-14.847	0.000	8.847	0.000	0.000	0.000	0.000	0.049	0.000
OF	139.000	-14.798	0.000	8.847	0.000	0.000	0.000	0.000	0.049	0.000
OF	140.000	-14.749	0.000	8.847	0.000	0.000	0.000	0.000	0.049	0.000
OF	141.000	-14.700	0.000	8.847	0.000	0.000	0.000	0.000	0.049	0.000
OF	142.000	-14.651	0.000	8.847	0.000	0.000	0.000	0.000	0.049	0.000
OF	143.000	-14.603	0.000	8.847	0.000	0.000	0.000	0.000	0.049	0.000
OF	144.000	-14.554	0.000	8.847	0.000	0.000	0.000	0.000	0.049	0.000
OF	145.000	-14.504	0.000	8.847	0.000	0.000	0.000	0.000	0.049	0.000
OF	146.000	-14.455	0.000	8.847	0.000	0.000	0.000	0.000	0.049	0.000
OF	147.000	-14.407	0.000	8.847	0.000	0.000	0.000	0.000	0.049	0.000
OF	148.000	-14.358	0.000	8.847	0.000	0.000	0.000	0.000	0.049	0.000
OF	149.000	-14.308	0.000	8.847	0.000	0.000	0.000	0.000	0.049	0.000
OF	150.000	-14.260	0.000	8.848	0.000	0.000	0.000	0.000	0.049	0.000
OF	151.000	-14.211	0.000	8.848	0.000	0.000	0.000	0.000	0.049	0.000
OF	152.000	-14.162	0.000	8.848	0.000	0.000	0.000	0.000	0.049	0.000
OF	153.000	-14.113	0.000	8.848	0.000	0.000	0.000	0.000	0.049	0.000
OF	154.000	-14.064	0.000	8.848	0.000	0.000	0.000	0.000	0.049	0.000
OF	155.000	-14.015	0.000	8.848	0.000	0.000	0.000	0.000	0.049	0.000
OF	156.000	-13.966	0.000	8.848	0.000	0.000	0.000	0.000	0.049	0.000
OF	157.000	-13.917	0.000	8.848	0.000	0.000	0.000	0.000	0.049	0.000
OF	158.000	-13.868	0.000	8.848	0.000	0.000	0.000	0.000	0.049	0.000
OF	159.000	-13.819	0.000	8.848	0.000	0.000	0.000	0.000	0.049	0.000
OF	160.000	-13.770	0.000	8.848	0.000	0.000	0.000	0.000	0.049	0.000
OF	161.000	-13.721	0.000	8.848	0.000	0.000	0.000	0.000	0.049	0.000
OF	162.000	-13.672	0.000	8.848	0.000	0.000	0.000	0.000	0.049	0.000
OF	163.000	-13.623	0.000	8.848	0.000	0.000	0.000	0.000	0.049	0.000
OF	164.000	-13.574	0.000	8.848	0.000	0.000	0.000	0.000	0.049	0.000
OF	165.000	-13.525	0.000	8.848	0.000	0.000	0.000	0.000	0.049	0.000
OF	166.000	-13.476	0.000	8.848	0.000	0.000	0.000	0.000	0.049	0.000
OF	167.000	-13.427	0.000	8.848	0.000	0.000	0.000	0.000	0.049	0.000
OF	168.000	-13.378	0.000	8.848	0.000	0.000	0.000	0.000	0.049	0.000
OF	169.000	-13.329	0.000	8.848	0.000	0.000	0.000	0.000	0.049	0.000
OF	170.000	-13.280	0.000	8.848	0.000	0.000	0.000	0.000	0.049	0.000
OF	171.000	-13.231	0.000	8.848	0.000	0.000	0.000	0.000	0.049	0.000
OF	172.000	-13.182	0.000	8.848	0.000	0.000	0.000	0.000	0.049	0.000
OF	173.000	-13.133	0.000	8.848	0.000	0.000	0.000	0.000	0.049	0.000
OF	174.000	-13.084	0.000	8.848	0.000	0.000	0.000	0.000	0.049	0.000
OF	175.000	-13.035	0.000	8.848	0.000	0.000	0.000	0.000	0.049	0.000
OF	176.000	-12.986	0.000	8.848	0.000	0.000	0.000	0.000	0.049	0.000
OF	177.000	-12.937	0.000	8.848	0.000	0.000	0.000	0.000	0.049	0.000
OF	178.000	-12.888	0.000	8.848	0.000	0.000	0.000	0.000	0.049	0.000
OF	179.000	-12.839	0.000	8.848	0.000	0.000	0.000	0.000	0.049	0.000
OF	180.000	-12.790	0.000	8.848	0.000	0.000	0.000	0.000	0.049	0.000
OF	181.000	-12.741	0.000	8.848	0.000	0.000	0.000	0.000	0.049	0.000
OF	182.000	-12.692	0.000	8.848	0.000	0.000	0.000	0.000	0.049	0.000
OF	183.000	-12.643	0.000	8.848	0.000	0.000	0.000	0.000	0.049	0.000
OF	184.000	-12.594	0.000	8.848	0.000	0.000	0.000	0.000	0.049	0.000
OF	185.000	-12.545	0.000	8.848	0.000	0.000	0.000	0.000	0.049	0.000
OF	186.000	-12.496	0.000	8.848	0.000	0.000	0.000	0.000	0.049	0.000
OF	187.000	-12.447	0.000	8.848	0.000	0.000	0.000	0.000	0.049	0.000
OF	188.000	-12.398	0.000	8.848	0.000	0.000	0.000	0.000	0.049	0.000
OF	189.000	-12.349	0.000	8.848	0.000	0.000	0.000	0.000	0.049	0.000
OF	190.000	-12.300	0.000	8.848	0.000	0.000	0.000	0.000	0.049	0.000
OF	191.000	-12.251	0.000	8.848	0.000	0.000	0.000	0.000	0.049	0.000
OF	192.000	-12.202	0.000	8.848	0.000	0.000	0.000	0.000	0.049	0.000
OF	193.000	-12.153	0.000	8.848	0.000	0.000	0.000	0.000	0.049	0.000
OF	195.000	-12.055	0.000	8.848	0.000	0.000	0.000	0.000	0.049	0.000

OF	196.000	-12.006	0.000	8.848	0.000	0.000	0.000	0.000	0.049	0.000
OF	198.000	-11.908	0.000	8.848	0.000	0.000	0.000	0.000	0.049	0.000
OF	199.000	-11.859	0.000	8.848	0.000	0.000	0.000	0.000	0.049	0.000
OF	201.000	-11.761	0.000	8.848	0.000	0.000	0.000	0.000	0.049	0.000
OF	202.000	-11.712	0.000	8.848	0.000	0.000	0.000	0.000	0.049	0.000
OF	204.000	-11.614	0.000	8.848	0.000	0.000	0.000	0.000	0.049	0.000
OF	205.000	-11.565	0.000	8.848	0.000	0.000	0.000	0.000	0.049	0.000
OF	207.000	-11.467	0.000	8.848	0.000	0.000	0.000	0.000	0.049	0.000
OF	208.000	-11.418	0.000	8.848	0.000	0.000	0.000	0.000	0.049	0.000
OF	210.000	-11.320	0.000	8.848	0.000	0.000	0.000	0.000	0.049	0.000
OF	211.000	-11.271	0.000	8.848	0.000	0.000	0.000	0.000	0.049	0.000
OF	213.000	-11.173	0.000	8.848	0.000	0.000	0.000	0.000	0.049	0.000
OF	214.000	-11.124	0.000	8.848	0.000	0.000	0.000	0.000	0.049	0.000
OF	216.000	-11.027	0.000	8.849	0.000	0.000	0.000	0.000	0.049	0.000
OF	217.000	-10.977	0.000	8.849	0.000	0.000	0.000	0.000	0.049	0.000
OF	219.000	-10.879	0.000	8.849	0.000	0.000	0.000	0.000	0.049	0.000
OF	220.000	-10.831	0.000	8.849	0.000	0.000	0.000	0.000	0.049	0.000
OF	222.000	-10.733	0.000	8.849	0.000	0.000	0.000	0.000	0.049	0.000
OF	223.000	-10.684	0.000	8.849	0.000	0.000	0.000	0.000	0.049	0.000
OF	225.000	-10.586	0.000	8.849	0.000	0.000	0.000	0.000	0.049	0.000
OF	226.000	-10.537	0.000	8.849	0.000	0.000	0.000	0.000	0.049	0.000
OF	228.000	-10.438	0.000	8.849	0.000	0.000	0.000	0.000	0.049	0.000
OF	229.000	-10.390	0.000	8.849	0.000	0.000	0.000	0.000	0.049	0.000
OF	231.000	-10.292	0.000	8.849	0.000	0.000	0.000	0.000	0.048	0.000
OF	232.000	-10.245	0.000	8.849	0.000	0.000	0.000	0.000	0.043	0.000
OF	234.000	-10.163	0.000	8.849	0.000	0.000	0.000	0.000	0.041	0.000
OF	235.000	-10.122	0.000	8.849	0.000	0.000	0.000	0.000	0.041	0.000
OF	237.000	-10.040	0.000	8.849	0.000	0.000	0.000	0.000	0.041	0.000
OF	238.000	-10.000	0.000	8.849	0.000	0.000	0.000	0.000	0.041	0.000
OF	240.000	-9.918	0.000	8.849	0.000	0.000	0.000	0.000	0.041	0.000
OF	241.000	-9.877	0.000	8.849	0.000	0.000	0.000	0.000	0.041	0.000
OF	243.000	-9.795	0.000	8.849	0.000	0.000	0.000	0.000	0.041	0.000
OF	244.000	-9.754	0.000	8.849	0.000	0.000	0.000	0.000	0.041	0.000
OF	246.000	-9.672	0.000	8.849	0.000	0.000	0.000	0.000	0.041	0.000
OF	247.000	-9.631	0.000	8.849	0.000	0.000	0.000	0.000	0.041	0.000
OF	249.000	-9.549	0.000	8.849	0.000	0.000	0.000	0.000	0.041	0.000
OF	250.000	-9.508	0							

IF	574.000	2.962	0.000	8.852	0.000	0.000	0.000	0.000	0.041	0.000
IF	575.000	2.999	0.000	8.852	0.000	0.000	0.000	0.000	0.014	0.000
IF	610.200	3.461	0.000	8.848	0.000	0.000	0.000	0.000	0.019	0.000
IF	613.500	3.747	0.000	8.847	0.000	0.000	0.000	0.000	0.090	0.000
IF	616.800	4.055	0.000	8.847	0.000	0.000	0.000	0.000	0.093	0.000
IF	620.100	4.362	0.000	8.848	0.000	0.000	0.000	0.000	0.097	0.000
IF	623.400	4.696	0.000	8.850	0.000	0.000	0.000	0.000	0.099	0.000
IF	626.600	5.003	0.000	8.854	0.000	0.000	0.000	0.000	0.070	0.000
IF	629.900	5.154	0.000	8.861	0.000	0.000	0.000	0.000	0.100	0.000
IF	633.200	5.666	0.000	8.866	0.000	0.000	0.000	0.000	0.182	0.000
IF	636.500	6.354	0.000	8.875	0.000	0.000	0.000	0.000	0.181	0.000
IF	639.800	6.862	0.000	8.908	0.000	0.000	0.000	0.000	0.112	0.000
IF	643.000	7.079	0.000	8.944	0.000	0.000	0.000	0.000	0.019	0.000
IF	646.300	6.982	0.000	8.976	0.000	0.000	0.000	0.000	-0.037	0.000
IF	649.600	6.834	0.000	8.992	0.000	0.000	0.000	0.000	-0.043	0.000
IF	652.900	6.698	0.000	9.000	0.000	0.000	0.000	0.000	-0.039	0.000
IF	656.200	6.578	0.000	9.003	0.000	0.000	0.000	0.000	-0.037	0.000
IF	659.400	6.457	0.000	9.006	0.000	0.000	0.000	0.000	-0.037	0.000
IF	662.700	6.337	0.000	9.007	0.000	0.000	0.000	0.000	-0.036	0.000
IF	666.000	6.217	0.000	9.008	0.000	0.000	0.000	0.000	-0.036	0.000
IF	669.300	6.097	0.000	9.009	0.000	0.000	0.000	0.000	-0.038	0.000
IF	672.600	5.968	0.000	9.010	0.000	0.000	0.000	0.000	-0.039	0.000
IF	675.900	5.838	0.000	9.010	0.000	0.000	0.000	0.000	-0.040	0.000
IF	679.100	5.708	0.000	9.011	0.000	0.000	0.000	0.000	-0.040	0.000
IF	682.400	5.579	0.000	9.011	0.000	0.000	0.000	0.000	-0.039	0.000
IF	685.700	5.449	0.000	9.012	0.000	0.000	0.000	0.000	-0.039	0.000
IF	689.000	5.319	0.000	9.012	0.000	0.000	0.000	0.000	-0.034	0.000
IF	692.300	5.223	0.000	9.012	0.000	0.000	0.000	0.000	-0.022	0.000
IF	695.500	5.179	0.000	9.012	0.000	0.000	0.000	0.000	-0.014	0.000
IF	698.800	5.135	0.000	9.012	0.000	0.000	0.000	0.000	-0.013	0.000
IF	702.100	5.091	0.000	9.012	0.000	0.000	0.000	0.000	-0.013	0.000
IF	705.400	5.048	0.000	9.012	0.000	0.000	0.000	0.000	-0.005	0.000
IF	708.700	5.058	0.000	9.012	0.000	0.000	0.000	0.000	0.005	0.000
IF	711.900	5.081	0.000	9.012	0.000	0.000	0.000	0.000	0.007	0.000
IF	715.200	5.104	0.000	9.012	0.000	0.000	0.000	0.000	0.007	0.000
IF	718.500	5.127	0.000	9.012	0.000	0.000	0.000	0.000	0.000	0.000
IF	721.800	5.104	0.000	9.012	0.000	0.000	0.000	0.000	-0.013	0.000
IF	725.100	5.043	0.000	9.012	0.000	0.000	0.000	0.000	-0.019	0.000
IF	728.300	4.981	0.000	9.012	0.000	0.000	0.000	0.000	-0.019	0.000
IF	731.600	4.920	0.000	9.012	0.000	0.000	0.000	0.000	-0.019	0.000
IF	734.900	4.858	0.000	9.012	0.000	0.000	0.000	0.000	-0.018	0.000
IF	738.200	4.799	0.000	9.012	0.000	0.000	0.000	0.000	-0.016	0.000
IF	741.500	4.750	0.000	9.012	0.000	0.000	0.000	0.000	-0.015	0.000
IF	744.700	4.700	0.000	9.012	0.000	0.000	0.000	0.000	-0.015	0.000
IF	748.000	4.650	0.000	9.012	0.000	0.000	0.000	0.000	-0.018	0.000
IF	751.300	4.584	0.000	9.012	0.000	0.000	0.000	0.000	-0.028	0.000
IF	754.600	4.468	0.000	9.012	0.000	0.000	0.000	0.000	-0.028	0.000
IF	757.900	4.399	0.000	9.012	0.000	0.000	0.000	0.000	-0.001	0.000
IF	761.200	4.459	0.000	9.012	0.000	0.000	0.000	0.000	0.018	0.000
IF	764.400	4.518	0.000	9.012	0.000	0.000	0.000	0.000	0.018	0.000
IF	767.700	4.578	0.000	9.012	0.000	0.000	0.000	0.000	0.016	0.000
IF	771.000	4.622	0.000	9.012	0.000	0.000	0.000	0.000	0.013	0.000
IF	774.300	4.664	0.000	9.012	0.000	0.000	0.000	0.000	0.013	0.000
IF	777.600	4.706	0.000	9.011	0.000	0.000	0.000	0.000	0.010	0.000
IF	780.800	4.729	0.000	9.011	0.000	0.000	0.000	0.000	-0.020	0.000
IF	784.100	4.580	0.000	9.012	0.000	0.000	0.000	0.000	-0.044	0.000
IF	787.400	4.440	0.000	9.012	0.000	0.000	0.000	0.000	-0.032	0.000
IF	790.700	4.369	0.000	9.012	0.000	0.000	0.000	0.000	-0.022	0.000
IF	794.000	4.297	0.000	9.012	0.000	0.000	0.000	0.000	-0.022	0.000
IF	797.200	4.226	0.000	9.012	0.000	0.000	0.000	0.000	-0.022	0.000
IF	800.500	4.154	0.000	9.012	0.000	0.000	0.000	0.000	-0.022	0.000
IF	803.800	4.083	0.000	9.012	0.000	0.000	0.000	0.000	-0.022	0.000
IF	807.100	4.011	0.000	9.012	0.000	0.000	0.000	0.000	-0.022	0.000
IF	810.400	3.940	0.000	9.012	0.000	0.000	0.000	0.000	-0.022	0.000
IF	813.600	3.868	0.000	9.012	0.000	0.000	0.000	0.000	-0.022	0.000
IF	816.900	3.797	0.000	9.012	0.000	0.000	0.000	0.000	-0.022	0.000
IF	820.200	3.726	0.000	9.012	0.000	0.000	0.000	0.000	-0.020	0.000
IF	823.500	3.662	0.000	9.012	0.000	0.000	0.000	0.000	-0.012	0.000
IF	826.800	3.645	0.000	9.012	0.000	0.000	0.000	0.000	-0.005	0.000
IF	830.100	3.627	0.000	9.012	0.000	0.000	0.000	0.000	-0.005	0.000
IF	833.300	3.610	0.000	9.012	0.000	0.000	0.000	0.000	-0.005	0.000
IF	836.600	3.592	0.000	9.012	0.000	0.000	0.000	0.000	-0.005	0.000
IF	839.900	3.575	0.000	9.012	0.000	0.000	0.000	0.000	-0.005	0.000
IF	843.200	3.557	0.000	9.012	0.000	0.000	0.000	0.000	-0.005	0.000
IF	846.500	3.540	0.000	9.012	0.000	0.000	0.000	0.000	-0.005	0.000
IF	849.700	3.523	0.000	9.012	0.000	0.000	0.000	0.000	-0.005	0.000
IF	853.000	3.505	0.000	9.012	0.000	0.000	0.000	0.000	-0.005	0.000
IF	856.300	3.488	0.000	9.012	0.000	0.000	0.000	0.000	-0.005	0.000
IF	859.600	3.470	0.000	9.012	0.000	0.000	0.000	0.000	-0.005	0.000
IF	862.900	3.453	0.000	9.012	0.000	0.000	0.000	0.000	-0.005	0.000
IF	866.100	3.435	0.000	9.012	0.000	0.000	0.000	0.000	-0.005	0.000
IF	869.400	3.418	0.000	9.012	0.000	0.000	0.000	0.000	-0.005	0.000
IF	872.700	3.401	0.000	9.012	0.000	0.000	0.000	0.000	0.015	0.000
IF	876.000	3.514	0.000	9.012	0.000	0.000	0.000	0.000	0.036	0.000
IF	879.300	3.641	0.000	9.012	0.000	0.000	0.000	0.000	0.039	0.000
IF	882.500	3.768	0.000	9.011	0.000	0.000	0.000	0.000	0.039	0.000
IF	885.800	3.895	0.000	9.011	0.000	0.000	0.000	0.000	0.012	0.000
IF	889.100	3.847	0.000	9.011	0.000	0.000	0.000	0.000	-0.042	0.000
IF	892.400	3.617	0.000	9.012	0.000	0.000	0.000	0.000	-0.068	0.000
IF	895.700	3.401	0.000	9.012	0.000	0.000	0.000	0.000	-0.029	0.000
IF	898.900	3.430	0.000	9.012	0.000	0.000	0.000	0.000	0.009	0.000
IF	902.200	3.460	0.000	9.012	0.000	0.000	0.000	0.000	0.009	0.000
IF	905.500	3.490	0.000	9.012	0.000	0.000	0.000	0.000	0.009	0.000
IF	908.800	3.520	0.000	9.011	0.000	0.000	0.000	0.000	0.009	0.000
IF	912.100	3.550	0.000	9.011	0.000	0.000	0.000	0.000	0.009	0.000
IF	915.400	3.580	0.000	9.011	0.000	0.000	0.000	0.000	0.009	0.000
IF	918.600	3.610	0.000	9.011	0.000	0.000	0.000	0.000	0.009	0.000
IF	921.900	3.639	0.000	9.011	0.000	0.000	0.000	0.000	0.009	0.000
IF	925.200	3.669	0.000	9.011	0.000	0.000	0.000	0.000	0.009	0.000
IF	928.500	3.699	0.000	9.011	0.000	0.000	0.000	0.000	0.009	0.000
IF	931.800	3.729	0.000	9.011	0.000	0.000	0.000	0.000	0.009	0.000
IF	935.000	3.759	0.000	9.011	0.000	0.000	0.000	0.000	0.065	0.000

IF	938.300	4.153	0.000	9.010	0.000	0.000	0.000	0.000	0.128	0.000
IF	941.600	4.606	0.000	9.009	0.000	0.000	0.000	0.000	0.130	0.000
IF	944.900	5.011	0.000	9.009	0.000	0.000	0.000	0.000	0.067	0.000
IF	948.200	5.050	0.000	9.009	0.000	0.000	0.000	0.000	0.012	0.000
IF	951.400	5.089	0.000	9.008	0.000	0.000	0.000	0.000	0.012	0.000
IF	954.700	5.129	0.000	9.008	0.000	0.000	0.000	0.000	0.012	0.000
IF	958.000	5.168	0.000	9.008	0.000	0.000	0.000	0.000	0.015	0.000
IF	961.300	5.230	0.000	9.008	0.000	0.000	0.000	0.000	0.019	0.000
IF	964.600	5.296	0.000	9.008	0.000	0.000	0.000	0.000	0.020	0.000
IF	967.800	5.362	0.000	9.007	0.000	0.000	0.000	0.000	0.020	0.000
IF	971.100	5.428	0.000	9.007	0.000	0.000	0.000	0.000	0.020	0.000
IF	974.400	5.494	0.000	9.007	0.000	0.000	0.000	0.000	0.020	0.000
IF	977.700	5.560	0.000	9.007	0.000	0.000	0.000	0.000	0.020	0.000
IF	981.000	5.626	0.000	9.007	0.000	0.000	0.000	0.000	0.016	0.000
IF	984.200	5.663	0.000	9.007	0.000	0.000	0.000	0.000	0.012	0.000
IF	987.500	5.701	0.000	9.007	0.000	0.000	0.000	0.000	0.011	0.000
IF	990.800	5.738	0.000	9.007	0.000	0.000	0.000	0.000	0.011	0.000
IF	994.100	5.775	0.000	9.007	0.000	0.000	0.000	0.000	-0.001	0.000
IF	997.400	5.734	0.000	9.008	0.000	0.000	0.000	0.000	-0.021	0.000
IF	1000.700	5.636	0.000	9.008	0.000	0.000	0.000	0.000	-0.030	0.000
IF	1003.900	5.537	0.000	9.009	0.000	0.000	0.000	0.000	-0.030	0.000
IF	1007.200	5.438	0.000	9.009	0.000	0.000	0.000	0.000	0.005	0.000
IF	1010.500	5.569	0.000	9.009	0.000	0.000	0.000	0.000	0.043	0.000
IF	1013.800	5.721	0.000	9.008	0.000	0.000	0.000	0.000	0.046	0.000
IF	1017.100	5.873	0.000	9.008	0.000	0.000	0.000	0.000	0.047	0.000
IF	1020.300	6.026	0.000	9.007	0.000	0.000	0.000	0.000	0.010	0.000
IF	1023.600	5.936	0.000	9.008	0.000	0.000	0.000	0.000	-0.036	0.000
IF	1026.900	5.785	0.000	9.009	0.000	0.000	0.000	0.000	-0.046	0.000
IF	1030.200	5.635	0.000	9.010	0.000	0.000	0.000	0.000	-0.019	0.000
IF	1033.500	5.661	0.000	9.010	0.000	0.000	0.000	0.000	0.017	0.000
IF	1036.700	5.746	0.000	9.009	0.000	0.000	0.000	0.000	0.026	0.000
IF	1040.000	5.831	0.000	9.009	0.000	0.000	0.000	0.000	0.023	0.000
IF	1043.300	5.895	0.000	9.009	0.000	0.000	0.000	0.000	0.018	0.000
IF	1046.600	5.950	0.000	9.009	0.000	0.000	0.000	0.000	-0.003	0.000
IF	1049.900	5.877	0.000	9.010	0.000	0.000	0.000	0.000	-0.046	0.000
IF	1053.100	5.649	0.000	9.010	0.000	0.000	0.000	0.000	-0.012	0.000
IF	1056.400	5.798	0.000	9.010	0.000	0.000	0.000	0.000	0.045	0.000
IF	1059.700	5.947	0.000	9.010	0.000	0.000	0.000	0.000	0.045	0.000
IF	1063.000	6.096	0.000	9.009	0.000	0.000	0.000	0.000	0.045	0.000
IF	1066.300	6.247	0.000	9.009	0.000	0.000	0.000	0.000	0.046	0.000
IF	1069.600	6.400	0.000	9.009	0.000	0.000	0.000	0.000	0.047	0.000
IF	1072.800	6.553	0.000	9.009	0.000	0.000	0.000	0.000	0.047	0.000
IF	1076.100	6.706	0.000	9.010	0.000	0.000	0.000	0.000	0.046	0.000
IF	1079.400	6.859	0.000	9.011	0.000	0.000	0.000	0.000	0.046	0.000
IF	1082.700	7.012	0.000	9.012	0.000	0.000	0.000	0.000	0.046	0.000
IF	1086.000	7.166	0.000	9.014	0.000	0.000	0.000	0.000	0.036	0.000
IF	1089.200	7.250	0.000	9.017	0.000	0.000	0.000	0.000	0.017	0.000
IF	1092.500	7.273	0.000	9.020	0.000	0.000	0.000	0.000	0.007	0.000
IF	1095.800	7.297	0.000	9.023	0.000	0.000	0.000	0.000	0.007	0.000
IF	1099.100	7.320	0.000	9.025	0.000	0.000	0.000	0.000	0.007	0.000
IF	1102.400	7.343	0.000	9.027	0.000	0.000	0.000	0.000	0.007	0.000
IF	1105.600	7.364	0.000	9.029	0.000	0.000	0.000	0.000	-0.002	0.000
IF	1108.900	7.330	0.000	9.030	0.000	0.000	0.000	0.000	-0.010	0.000
IF	1112.200	7.297	0.000	9.031	0.000	0.000	0.000	0.000	-0.010	0.000
IF	1115.500	7.263	0.000	9.032	0.000	0.000	0.000	0.000	-0.010	0.000
IF	1118.800	7.229	0.000	9.033	0.000	0.000	0.000	0.000	-0.011	0.000
IF	1122.000	7.192	0.000	9.034	0.000	0.000	0.000	0.000	-0.014	0.000
IF	1125.300	7.136	0.000	9.034	0.000	0.000	0.000	0.000	-0.017	0.000
IF	1128.600	7.080	0.000	9.035	0.000	0.000	0.000	0.000	-0.017	0.000
IF	1131.900	7.024	0.000	9.035	0.000	0.000	0.000	0.000	-0.017	0.000
IF	1135.200	6.968	0.000	9.035	0.000	0.000	0.000	0.000	-0.017	0.000
IF	1138.400	6.912	0.000	9.036	0.000	0.000	0.000	0.000	-0.012	0.000
IF	1141.700	6.889	0.000	9.036	0.000	0.000	0.000	0.000	0.002	0.000
IF	1145.000	6.923	0.000	9.035	0.000	0.000	0.000	0.000	0.010	0.000
IF	1148.300	6.957	0.000	9.035	0.000	0.000	0.000	0.000	0.010	0.000
IF	1151.600	6.990	0.000	9.035	0.000	0.000	0.000	0.000	0.010	0.000
IF	1154.900	7.024	0.000	9.035	0.000	0.000	0.000	0.000	0.027	0.000
IF	1158.100	7.166	0.000	9.034	0.000	0.000	0.000	0.000	0.061	0.000
IF	1161.400	7.419	0.000	9.033	0.000	0.000	0.000	0.000	0.076	0.000
IF	1164.700	7.671	0.000	9.033	0.000	0.000	0.000	0.000	0.076	0.000
IF	1168.000	7.924	0.000	9.035	0.000	0.000	0.000	0.000	0.069	0.000
IF	1171.300	8.128	0.000	9.041	0.000	0.000	0.000	0.000	-0.024	0.000
IF	1174.500	7.768	0.000	9.049	0.000	0.000	0.000	0.000	-0.111	0.000
IF	1177.800	7.409	0.000	9.052	0.000	0.000	0.000	0.000	-0.109	0.000
IF	1181.100	7.049	0.000	9.053	0.000	0.000	0.000	0.000	-0.066	0.000
IF	1184.400	6.974	0.000	9.053	0.000	0.000	0.000	0.000	0.037	0.000
IF	1187.700	7.290	0.000	9.052	0.000	0.000	0.000	0.000	0.097	0.000
IF	1190.900	7.607	0.000	9.051	0.000	0.000	0.000	0.000	0.097	0.000
IF	1194.200	7.923	0.000	9.049	0.000	0.000	0.000	0.000	0.096	0.000
IF	1197.500	8.240	0.000	9.050	0.000	0.000	0.000	0.000	0.051	0.000
IF	1200.800	8.262	0.000	9.055	0.000	0.000	0.000	0.000	-0.001	0.000
IF	1204.100	8.231	0.000	9.059	0.000	0.000	0.000	0.000	-0.009	0.000
IF	1207.300	8.200	0.000	9.061	0.000	0.000	0.000	0.000	-0.009	0.000
IF	1210.600	8.170	0.000	9.062	0.000	0.000	0.000	0.000	-0.009	0.000
IF	1213.900	8.139	0.000	9.063	0.000	0.000	0.000	0.000	-0.012	0.000
IF	1217.200	8.093	0.000	9.063	0.000	0.000	0.000	0.000	-0.018	0.000
IF	1220.500	8.019	0.000	9.064	0.000	0.000	0.000	0.000	-0.022	0.000
IF	1223.800	7.945	0.000	9.064	0.000	0.000	0.000	0.000	-0.023	0.000
IF	1227.000	7.871	0.000	9.064	0.000	0.000	0.000	0.000	-0.005	0.000
IF	1230.300	7.915	0.000	9.064	0.000	0.000	0.000	0.000	0.016	0.000
IF	1233.600	7.978	0.000	9.064	0.000	0.000	0.000	0.000	0.019	0.000
IF	1236.900	8.041	0.000	9.064	0.000	0.000	0.000	0.000	0.019	0.000
IF	1240.200	8.104	0.000	9.063	0.000	0.000	0.000	0.000	0.023	0.000
IF	1243.400	8.193	0.000	9.063	0.000	0.000	0.000	0.000	0.029	0.000
IF	1246.700	8.292	0.000	9.063	0.000	0.000	0.000	0.000	0.030	0.000
IF	1250.000	8.391	0.000	9.064	0.000	0.000	0.000	0.000	0.032	0.000
IF	1253.300	8.505	0.000	9.067	0.000	0.000	0.000	0.000	0.060	0.000
IF	1256.600	8.789	0.000	9.078	0.000	0.000	0.000	0.000	0.087	0.000
IF	1259.900	9.078	0.000	9.078	0.000	0.000	0.000	0.000	0.088	0.000
AS	1273.900	8.855	0.000	8.855	0.000	0.000	0.000	0.000	-0.059	0.000
IF	1278.000	8.612	0.000	8.855	0.000	0.000	0.000	0.000	0.000	0.000
IF	1287.000	8.855	0.000	8.855	0.000	0.000	0.000	0.000	0.027	0.000

[illegible]

OF	STATION	ELEVATION	10-YEAR	100-YEAR						SLOPE	A-ZONES
	67.000	-16.564	0.000	8.847	0.000	0.000	0.000	0.000	0.005	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
OF	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
	68.000	-16.558	0.000	8.847	0.000	0.000	0.000	0.000	0.006	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
OF	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
	69.000	-16.552	0.000	8.847	0.000	0.000	0.000	0.000	0.005	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
OF	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
	70.000	-16.547	0.000	8.847	0.000	0.000	0.000	0.000	0.005	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
OF	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
	71.000	-16.541	0.000	8.847	0.000	0.000	0.000	0.000	0.006	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
OF	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
	72.000	-16.535	0.000	8.847	0.000	0.000	0.000	0.000	0.005	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
OF	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
	73.000	-16.530	0.000	8.847	0.000	0.000	0.000	0.000	0.005	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
OF	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
	74.000	-16.524	0.000	8.847	0.000	0.000	0.000	0.000	0.006	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
OF	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
	75.000	-16.518	0.000	8.847	0.000	0.000	0.000	0.000	0.005	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
OF	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
	76.000	-16.513	0.000	8.847	0.000	0.000	0.000	0.000	0.005	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
OF	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
	77.000	-16.507	0.000	8.847	0.000	0.000	0.000	0.000	0.006	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
OF	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
	78.000	-16.501	0.000	8.847	0.000	0.000	0.000	0.000	0.005	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
OF	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
	79.000	-16.496	0.000	8.847	0.000	0.000	0.000	0.000	0.005	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
OF	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
	80.000	-16.490	0.000	8.847	0.000	0.000	0.000	0.000	0.006	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
OF	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
	81.000	-16.484	0.000	8.847	0.000	0.000	0.000	0.000	0.005	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
OF	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
	82.000	-16.479	0.000	8.847	0.000	0.000	0.000	0.000	0.005	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
OF	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
	83.000	-16.473	0.000	8.847	0.000	0.000	0.000	0.000	0.006	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
OF	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
	84.000	-16.467	0.000	8.847	0.000	0.000	0.000	0.000	0.005	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
OF	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
	85.000	-16.462	0.000	8.847	0.000	0.000	0.000	0.000	0.005	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
OF	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
	86.000	-16.456	0.000	8.847	0.000	0.000	0.000	0.000	0.006	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
OF	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
	87.000	-16.450	0.000	8.847	0.000	0.000	0.000	0.000	0.005	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
OF	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
	88.000	-16.445	0.000	8.847	0.000	0.000	0.000	0.000	0.005	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
OF	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
	89.000	-16.439	0.000	8.847	0.000	0.000	0.000	0.000	0.006	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
OF	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
	90.000	-16.433	0.000	8.847	0.000	0.000	0.000	0.000	0.005	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
OF	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
	91.000	-16.428	0.000	8.847	0.000	0.000	0.000	0.000	0.005	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
OF	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
	92.000	-16.422	0.000	8.847	0.000	0.000	0.000	0.000	0.006	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
OF	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
	93.000	-16.416	0.000	8.847	0.000	0.000	0.000	0.000	0.005	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
OF	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
	94.000	-16.411	0.000	8.847	0.000	0.000	0.000	0.000	0.005	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
OF	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
	95.000	-16.405	0.000	8.847	0.000	0.000	0.000	0.000	0.019	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
OF	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
	96.000	-16.374	0.000	8.847	0.000	0.000	0.000	0.000	0.033	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
OF	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
	97.000	-16.339	0.000	8.847	0.000	0.000	0.000	0.000	0.034	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
OF	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
	98.000	-16.305	0.000	8.847	0.000	0.000	0.000	0.000	0.034	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
OF	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
	99.000	-16.270	0.000	8.847	0.000	0.000	0.000	0.000	0.035	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
OF	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
	100.000	-16.235	0.000	8.847	0.000	0.000	0.000	0.000	0.034	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	

	STATION	ELEVATION	10-YEAR	100-YEAR						SLOPE	A-ZONES
OF	101.000	-16.201	0.000	8.847	0.000	0.000	0.000	0.000	0.000	0.034	0.000
	END	END	NEW SURGE	NEW SURGE						BOTTOM	AVERAGE
OF	STATION	ELEVATION	10-YEAR	100-YEAR						SLOPE	A-ZONES
	102.000	-16.166	0.000	8.847	0.000	0.000	0.000	0.000	0.000	0.035	0.000
	END	END	NEW SURGE	NEW SURGE						BOTTOM	AVERAGE
OF	STATION	ELEVATION	10-YEAR	100-YEAR						SLOPE	A-ZONES
	103.000	-16.131	0.000	8.847	0.000	0.000	0.000	0.000	0.000	0.034	0.000
	END	END	NEW SURGE	NEW SURGE						BOTTOM	AVERAGE
OF	STATION	ELEVATION	10-YEAR	100-YEAR						SLOPE	A-ZONES
	104.000	-16.097	0.000	8.847	0.000	0.000	0.000	0.000	0.000	0.034	0.000
	END	END	NEW SURGE	NEW SURGE						BOTTOM	AVERAGE
OF	STATION	ELEVATION	10-YEAR	100-YEAR						SLOPE	A-ZONES
	105.000	-16.062	0.000	8.847	0.000	0.000	0.000	0.000	0.000	0.034	0.000
	END	END	NEW SURGE	NEW SURGE						BOTTOM	AVERAGE
OF	STATION	ELEVATION	10-YEAR	100-YEAR						SLOPE	A-ZONES
	106.000	-16.028	0.000	8.847	0.000	0.000	0.000	0.000	0.000	0.034	0.000
	END	END	NEW SURGE	NEW SURGE						BOTTOM	AVERAGE
OF	STATION	ELEVATION	10-YEAR	100-YEAR						SLOPE	A-ZONES
	107.000	-15.993	0.000	8.847	0.000	0.000	0.000	0.000	0.000	0.035	0.000
	END	END	NEW SURGE	NEW SURGE						BOTTOM	AVERAGE
OF	STATION	ELEVATION	10-YEAR	100-YEAR						SLOPE	A-ZONES
	108.000	-15.958	0.000	8.847	0.000	0.000	0.000	0.000	0.000	0.034	0.000
	END	END	NEW SURGE	NEW SURGE						BOTTOM	AVERAGE
OF	STATION	ELEVATION	10-YEAR	100-YEAR						SLOPE	A-ZONES
	109.000	-15.924	0.000	8.847	0.000	0.000	0.000	0.000	0.000	0.034	0.000
	END	END	NEW SURGE	NEW SURGE						BOTTOM	AVERAGE
OF	STATION	ELEVATION	10-YEAR	100-YEAR						SLOPE	A-ZONES
	110.000	-15.889	0.000	8.847	0.000	0.000	0.000	0.000	0.000	0.035	0.000
	END	END	NEW SURGE	NEW SURGE						BOTTOM	AVERAGE
OF	STATION	ELEVATION	10-YEAR	100-YEAR						SLOPE	A-ZONES
	111.000	-15.854	0.000	8.847	0.000	0.000	0.000	0.000	0.000	0.034	0.000
	END	END	NEW SURGE	NEW SURGE						BOTTOM	AVERAGE
OF	STATION	ELEVATION	10-YEAR	100-YEAR						SLOPE	A-ZONES
	112.000	-15.820	0.000	8.847	0.000	0.000	0.000	0.000	0.000	0.034	0.000
	END	END	NEW SURGE	NEW SURGE						BOTTOM	AVERAGE
OF	STATION	ELEVATION	10-YEAR	100-YEAR						SLOPE	A-ZONES
	113.000	-15.785	0.000	8.847	0.000	0.000	0.000	0.000	0.000	0.035	0.000
	END	END	NEW SURGE	NEW SURGE						BOTTOM	AVERAGE
OF	STATION	ELEVATION	10-YEAR	100-YEAR						SLOPE	A-ZONES
	114.000	-15.750	0.000	8.847	0.000	0.000	0.000	0.000	0.000	0.034	0.000
	END	END	NEW SURGE	NEW SURGE						BOTTOM	AVERAGE
OF	STATION	ELEVATION	10-YEAR	100-YEAR						SLOPE	A-ZONES
	115.000	-15.716	0.000	8.847	0.000	0.000	0.000	0.000	0.000	0.034	0.000
	END	END	NEW SURGE	NEW SURGE						BOTTOM	AVERAGE
OF	STATION	ELEVATION	10-YEAR	100-YEAR						SLOPE	A-ZONES
	116.000	-15.681	0.000	8.847	0.000	0.000	0.000	0.000	0.000	0.035	0.000
	END	END	NEW SURGE	NEW SURGE						BOTTOM	AVERAGE
OF	STATION	ELEVATION	10-YEAR	100-YEAR						SLOPE	A-ZONES
	117.000	-15.646	0.000	8.847	0.000	0.000	0.000	0.000	0.000	0.034	0.000
	END	END	NEW SURGE	NEW SURGE						BOTTOM	AVERAGE
OF	STATION	ELEVATION	10-YEAR	100-YEAR						SLOPE	A-ZONES
	118.000	-15.612	0.000	8.847	0.000	0.000	0.000	0.000	0.000	0.034	0.000
	END	END	NEW SURGE	NEW SURGE						BOTTOM	AVERAGE
OF	STATION	ELEVATION	10-YEAR	100-YEAR						SLOPE	A-ZONES
	119.000	-15.577	0.000	8.847	0.000	0.000	0.000	0.000	0.000	0.035	0.000
	END	END	NEW SURGE	NEW SURGE						BOTTOM	AVERAGE
OF	STATION	ELEVATION	10-YEAR	100-YEAR						SLOPE	A-ZONES
	120.000	-15.542	0.000	8.847	0.000	0.000	0.000	0.000	0.000	0.034	0.000
	END	END	NEW SURGE	NEW SURGE						BOTTOM	AVERAGE
OF	STATION	ELEVATION	10-YEAR	100-YEAR						SLOPE	A-ZONES
	121.000	-15.508	0.000	8.847	0.000	0.000	0.000	0.000	0.000	0.034	0.000
	END	END	NEW SURGE	NEW SURGE						BOTTOM	AVERAGE
OF	STATION	ELEVATION	10-YEAR	100-YEAR						SLOPE	A-ZONES
	122.000	-15.473	0.000	8.847	0.000	0.000	0.000	0.000	0.000	0.035	0.000
	END	END	NEW SURGE	NEW SURGE						BOTTOM	AVERAGE
OF	STATION	ELEVATION	10-YEAR	100-YEAR						SLOPE	A-ZONES
	123.000	-15.438	0.000	8.847	0.000	0.000	0.000	0.000	0.000	0.034	0.000
	END	END	NEW SURGE	NEW SURGE						BOTTOM	AVERAGE
OF	STATION	ELEVATION	10-YEAR	100-YEAR						SLOPE	A-ZONES
	124.000	-15.404	0.000	8.847	0.000	0.000	0.000	0.000	0.000	0.034	0.000
	END	END	NEW SURGE	NEW SURGE						BOTTOM	AVERAGE
OF	STATION	ELEVATION	10-YEAR	100-YEAR						SLOPE	A-ZONES
	125.000	-15.369	0.000	8.847	0.000	0.000	0.000	0.000	0.000	0.035	0.000
	END	END	NEW SURGE	NEW SURGE						BOTTOM	AVERAGE
OF	STATION	ELEVATION	10-YEAR	100-YEAR						SLOPE	A-ZONES
	126.000	-15.334	0.000	8.847	0.000	0.000	0.000	0.000	0.000	0.034	0.000
	END	END	NEW SURGE	NEW SURGE						BOTTOM	AVERAGE
OF	STATION	ELEVATION	10-YEAR	100-YEAR						SLOPE	A-ZONES
	127.000	-15.300	0.000	8.847	0.000	0.000	0.000	0.000	0.000	0.034	0.000
	END	END	NEW SURGE	NEW SURGE						BOTTOM	AVERAGE
OF	STATION	ELEVATION	10-YEAR	100-YEAR						SLOPE	A-ZONES
	128.000	-15.265	0.000	8.847	0.000	0.000	0.000	0.000	0.000	0.034	0.000
	END	END	NEW SURGE	NEW SURGE						BOTTOM	AVERAGE
OF	STATION	ELEVATION	10-YEAR	100-YEAR						SLOPE	A-ZONES
	129.000	-15.231	0.000	8.847	0.000	0.000	0.000	0.000	0.000	0.034	0.000
	END	END	NEW SURGE	NEW SURGE						BOTTOM	AVERAGE
OF	STATION	ELEVATION	10-YEAR	100-YEAR						SLOPE	A-ZONES
	130.000	-15.196	0.000	8.847	0.000	0.000	0.000	0.000	0.000	0.035	0.000
	END	END	NEW SURGE	NEW SURGE						BOTTOM	AVERAGE
OF	STATION	ELEVATION	10-YEAR	100-YEAR						SLOPE	A-ZONES
	131.000	-15.161	0.000	8.847	0.000	0.000	0.000	0.000	0.000	0.034	0.000
	END	END	NEW SURGE	NEW SURGE						BOTTOM	AVERAGE
OF	STATION	ELEVATION	10-YEAR	100-YEAR						SLOPE	A-ZONES
	132.000	-15.127	0.000	8.847	0.000	0.000	0.000	0.000	0.000	0.034	0.000
	END	END	NEW SURGE	NEW SURGE						BOTTOM	AVERAGE
OF	STATION	ELEVATION	10-YEAR	100-YEAR						SLOPE	A-ZONES
	133.000	-15.092	0.000	8.847	0.000	0.000	0.000	0.000	0.000	0.042	0.000
	END	END	NEW SURGE	NEW SURGE						BOTTOM	AVERAGE
OF	STATION	ELEVATION	10-YEAR	100-YEAR						SLOPE	A-ZONES
	134.000	-15.043	0.000	8.847	0.000	0.000	0.000	0.000	0.000	0.049	0.000
	END	END	NEW SURGE	NEW SURGE						BOTTOM	AVERAGE

[illegible]

	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
OF	169.000	-13.329	0.000	8.848	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	170.000	-13.280	0.000	8.848	0.000	0.000	0.000	0.000	0.049	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
OF	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
	171.000	-13.231	0.000	8.848	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	172.000	-13.182	0.000	8.848	0.000	0.000	0.000	0.000	0.049	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
OF	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
	173.000	-13.133	0.000	8.848	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	174.000	-13.084	0.000	8.848	0.000	0.000	0.000	0.000	0.049	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
OF	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
	175.000	-13.035	0.000	8.848	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	176.000	-12.986	0.000	8.848	0.000	0.000	0.000	0.000	0.049	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
OF	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
	177.000	-12.937	0.000	8.848	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	178.000	-12.888	0.000	8.848	0.000	0.000	0.000	0.000	0.049	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
OF	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
	179.000	-12.839	0.000	8.848	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	180.000	-12.790	0.000	8.848	0.000	0.000	0.000	0.000	0.049	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
OF	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
	181.000	-12.741	0.000	8.848	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	182.000	-12.692	0.000	8.848	0.000	0.000	0.000	0.000	0.049	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
OF	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
	183.000	-12.643	0.000	8.848	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	184.000	-12.594	0.000	8.848	0.000	0.000	0.000	0.000	0.049	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
OF	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
	185.000	-12.545	0.000	8.848	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	186.000	-12.496	0.000	8.848	0.000	0.000	0.000	0.000	0.049	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
OF	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
	187.000	-12.447	0.000	8.848	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	188.000	-12.398	0.000	8.848	0.000	0.000	0.000	0.000	0.049	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
OF	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
	189.000	-12.349	0.000	8.848	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	190.000	-12.300	0.000	8.848	0.000	0.000	0.000	0.000	0.049	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
OF	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
	191.000	-12.251	0.000	8.848	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	192.000	-12.202	0.000	8.848	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	193.000	-12.153	0.000	8.848	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	195.000	-12.055	0.000	8.848	0.000	0.000	0.000	0.000	0.049	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
OF	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
	196.000	-12.006	0.000	8.848	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	198.000	-11.908	0.000	8.848	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	199.000	-11.859	0.000	8.848	0.000	0.000	0.000	0.000	0.049	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
OF	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
	201.000	-11.761	0.000	8.848	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	202.000	-11.712	0.000	8.848	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	204.000	-11.614	0.000	8.848	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	205.000	-11.565	0.000	8.848	0.000	0.000	0.000	0.000	0.049	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
OF	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
	207.000	-11.467	0.000	8.848	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	208.000	-11.418	0.000	8.848	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	210.000	-11.320	0.000	8.848	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	211.000	-11.271	0.000	8.848	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	213.000	-11.173	0.000	8.848	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	214.000	-11.124	0.000	8.848	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	216.000	-11.027	0.000	8.849	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	217.000	-10.977	0.000	8.849	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	219.000	-10.879	0.000	8.849	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	220.000	-10.831	0.000	8.849	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	222.000	-10.733	0.000	8.849	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	223.000	-10.684	0.000	8.849	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	225.000	-10.586	0.000	8.849	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	226.000	-10.537	0.000	8.849	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	228.000	-10.438	0.000	8.849	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	229.000	-10.390	0.000	8.849	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	231.000	-10.292	0.000	8.849	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	232.000	-10.245	0.000	8.849	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	234.000	-10.163	0.000	8.849	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	235.000	-10.122	0.000	8.849	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	237.000	-10.040	0.000	8.849	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	238.000	-10.000	0.000	8.849	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	240.000	-9.918	0.000	8.849	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	241.000	-9.877	0.000	8.849	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	243.000	-9.795	0.000	8.849	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	244.000	-9.754	0.000	8.849	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	246.000	-9.672	0.000	8.849	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	247.000	-9.631	0.000	8.849	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	249.000	-9.549	0.000	8.849	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	250.000	-9.508	0.000	8.849	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	252.000	-9.427	0.000	8.849	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	253.000	-9.386	0.000	8.849	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	255.000	-9.304	0.000	8.849	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	256.000	-9.263	0.000	8.849	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	258.000	-9.181	0.000	8.849	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	332.000	-6.290	0.000	8.849	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	
OF	337.000	-6.169	0.000	8.849	0.000	0.000	0.000	0.000	0.024	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
OF	338.000	-6.144	0.000	8.849	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	
OF	343.000	-6.014	0.000	8.849	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	
OF	344.000	-5.980	0.000	8.849	0.000	0.000	0.000	0.000	0.034	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
OF	349.000	-5.810	0.000	8.849	0.000	0.000	0.000	0.000	0.034	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
OF	350.000	-5.776	0.000	8.849	0.000	0.000	0.000	0.000	0.034	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
OF	355.000	-5.605	0.000	8.849	0.000	0.000	0.000	0.000	0.034	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
OF	356.000	-5.571	0.000	8.849	0.000	0.000	0.000	0.000	0.034	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
OF	361.000	-5.401	0.000	8.849	0.000	0.000	0.000	0.000	0.034	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
OF	362.000	-5.367	0.000	8.849	0.000	0.000	0.000	0.000	0.034	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
OF	367.000	-5.196	0.000	8.849	0.000	0.000	0.000	0.000	0.034	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
OF	368.000	-5.162	0.000	8.849	0.000	0.000	0.000	0.000	0.034	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
OF	373.000	-4.992	0.000	8.849	0.000	0.000	0.000	0.000	0.034	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
OF	374.000	-4.958	0.000	8.849	0.000	0.000	0.000	0.000	0.034	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
OF	379.000	-4.787	0.000	8.849	0.000	0.000	0.000	0.000	0.034	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
OF	380.000	-4.753	0.000	8.849	0.000	0.000	0.000	0.000	0.034	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
OF	385.000	-4.583	0.000	8.849	0.000	0.000	0.000	0.000	0.034	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
OF	386.000	-4.549	0.000	8.849	0.000	0.000	0.000	0.000	0.034	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
OF	391.000	-4.378	0.000	8.849	0.000	0.000	0.000	0.000	0.034	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
OF	392.000	-4.344	0.000	8.849	0.000	0.000	0.000	0.000	0.034	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
OF	398.000	-4.140	0.000	8.849	0.000	0.000	0.000	0.000	0.034	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
OF	403.000	-3.969	0.000	8.848	0.000	0.000	0.000	0.000	0.034	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
OF	404.000	-3.935	0.000	8.848	0.000	0.000	0.000	0.000	0.034	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
OF	416.000	-3.526	0.000	8.848	0.000	0.000	0.000	0.000	0.034	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
OF	422.000	-3.322	0.000	8.848	0.000	0.000	0.000	0.000	0.041	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
IF	574.000	2.962	0.000	8.852	0.000	0.000	0.000	0.000	0.041	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
IF	575.000	2.999	0.000	8.852	0.000	0.000	0.000	0.000	0.014	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
IF	610.200	3.461	0.000	8.848	0.000	0.000	0.000	0.000	0.019	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
IF	613.500	3.747	0.000	8.847	0.000	0.000	0.000	0.000	0.090	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
IF	616.800	4.055	0.000	8.847	0.000	0.000	0.000	0.000	0.093	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
IF	620.100	4.362	0.000	8.848	0.000	0.000	0.000	0.000	0.097	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
IF	623.400	4.696	0.000	8.850	0.000	0.000	0.000	0.000	0.099	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
IF	626.600	5.003	0.000	8.854	0.000	0.000	0.000	0.000	0.070	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	

	STATION	ELEVATION	10-YEAR	100-YEAR						SLOPE	A-ZONES
IF	629.900	5.154	0.000	8.861	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	633.200	5.666	0.000	8.866	0.000	0.000	0.000	0.000	0.182	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
IF	636.500	6.354	0.000	8.875	0.000	0.000	0.000	0.000	0.181	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
IF	639.800	6.862	0.000	8.908	0.000	0.000	0.000	0.000	0.112	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
IF	643.000	7.079	0.000	8.944	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	646.300	6.982	0.000	8.976	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	649.600	6.834	0.000	8.992	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	652.900	6.698	0.000	9.000	0.000	0.000	0.000	0.000	-0.039	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
IF	656.200	6.578	0.000	9.003	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	659.400	6.457	0.000	9.006	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	662.700	6.337	0.000	9.007	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	666.000	6.217	0.000	9.008	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	669.300	6.097	0.000	9.009	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	672.600	5.968	0.000	9.010	0.000	0.000	0.000	0.000	-0.039	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
IF	675.900	5.838	0.000	9.010	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	679.100	5.708	0.000	9.011	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	682.400	5.579	0.000	9.011	0.000	0.000	0.000	0.000	-0.039	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
IF	685.700	5.449	0.000	9.012	0.000	0.000	0.000	0.000	-0.039	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
IF	689.000	5.319	0.000	9.012	0.000	0.000	0.000	0.000	-0.034	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
IF	692.300	5.223	0.000	9.012	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	695.500	5.179	0.000	9.012	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	698.800	5.135	0.000	9.012	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	702.100	5.091	0.000	9.012	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	705.400	5.048	0.000	9.012	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	708.700	5.058	0.000	9.012	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	711.900	5.081	0.000	9.012	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	715.200	5.104	0.000	9.012	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	718.500	5.127	0.000	9.012	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	721.800	5.104	0.000	9.012	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	725.100	5.043	0.000	9.012	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	728.300	4.981	0.000	9.012	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	731.600	4.920	0.000	9.012	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	734.900	4.858	0.000	9.012	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	
IF	738.200	4.799	0.000	9.012	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	741.500	4.750	0.000	9.012	0.000	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	744.700	4.700	0.000	9.012	0.000	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	748.000	4.650	0.000	9.012	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
IF	751.300	4.584	0.000	9.012	0.000	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	754.600	4.468	0.000	9.012	0.000	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	757.900	4.399	0.000	9.012	0.000	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	761.200	4.459	0.000	9.012	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
IF	764.400	4.518	0.000	9.012	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
IF	767.700	4.578	0.000	9.012	0.000	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	771.000	4.622	0.000	9.012	0.000	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	774.300	4.664	0.000	9.012	0.000	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	777.600	4.706	0.000	9.011	0.000	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	780.800	4.729	0.000	9.011	0.000	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	784.100	4.580	0.000	9.012	0.000	0.000	0.000	0.000	0.000	-0.044	0.000
	END	END	NEW SURGE	NEW SURGE						BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR						SLOPE	A-ZONES
IF	787.400	4.440	0.000	9.012	0.000	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	790.700	4.369	0.000	9.012	0.000	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	794.000	4.297	0.000	9.012	0.000	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	797.200	4.226	0.000	9.012	0.000	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	800.500	4.154	0.000	9.012	0.000	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	803.800	4.083	0.000	9.012	0.000	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	807.100	4.011	0.000	9.012	0.000	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	810.400	3.940	0.000	9.012	0.000	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	813.600	3.868	0.000	9.012	0.000	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	816.900	3.797	0.000	9.012	0.000	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	820.200	3.726	0.000	9.012	0.000	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	823.500	3.662	0.000	9.012	0.000	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	826.800	3.645	0.000	9.012	0.000	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	830.100	3.627	0.000	9.012	0.000	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	833.300	3.610	0.000	9.012	0.000	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	836.600	3.592	0.000	9.012	0.000	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	839.900	3.575	0.000	9.012	0.000	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	843.200	3.557	0.000	9.012	0.000	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	846.500	3.540	0.000	9.012	0.000	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	849.700	3.523	0.000	9.012	0.000	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	853.000	3.505	0.000	9.012	0.000	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	856.300	3.488	0.000	9.012	0.000	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	859.600	3.470	0.000	9.012	0.000	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	862.900	3.453	0.000	9.012	0.000	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	866.100	3.435	0.000	9.012	0.000	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	869.400	3.418	0.000	9.012	0.000	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	872.700	3.401	0.000	9.012	0.000	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	876.000	3.514	0.000	9.012	0.000	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	879.300	3.641	0.000	9.012	0.000	0.000	0.000	0.000	0.000	0.039	0.000
	END	END	NEW SURGE	NEW SURGE						BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR						SLOPE	A-ZONES
IF	882.500	3.768	0.000	9.011	0.000	0.000	0.000	0.000	0.000	0.039	0.000
	END	END	NEW SURGE	NEW SURGE						BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR						SLOPE	A-ZONES
IF	885.800	3.895	0.000	9.011	0.000	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	889.100	3.847	0.000	9.011	0.000	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	892.400	3.617	0.000	9.012	0.000	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	895.700	3.401	0.000	9.012	0.000	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	898.900	3.430	0.000	9.012	0.000	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	902.200	3.460	0.000	9.012	0.000	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	905.500	3.490	0.000	9.012	0.000	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	908.800	3.520	0.000	9.011	0.000	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	912.100	3.550	0.000	9.011	0.000	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	915.400	3.580	0.000	9.011	0.000	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	918.600	3.610	0.000	9.011	0.000	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	921.900	3.639	0.000	9.011	0.000	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	925.200	3.669	0.000	9.011	0.000	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	928.500	3.699	0.000	9.011	0.000	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	931.800	3.729	0.000	9.011	0.000	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	935.000	3.759	0.000	9.011	0.000	0.000	0.000	0.000	0.000	0.065	0.000
	END	END	NEW SURGE	NEW SURGE						BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR						SLOPE	A-ZONES
IF	938.300	4.153	0.000	9.010	0.000	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	941.600	4.606	0.000	9.009	0.000	0.000	0.000	0.000	0.000	0.130	0.000
	END	END	NEW SURGE	NEW SURGE						BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR						SLOPE	A-ZONES
IF	944.900	5.011	0.000	9.009	0.000	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	948.200	5.050	0.000	9.009	0.000	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	951.400	5.089	0.000	9.008	0.000	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	954.700	5.129	0.000	9.008	0.000	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	958.000	5.168	0.000	9.008	0.000	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	961.300	5.230	0.000	9.008	0.000	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	964.600	5.296	0.000	9.008	0.000	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	967.800	5.362	0.000	9.007	0.000	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	971.100	5.428	0.000	9.007	0.000	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	974.400	5.494	0.000	9.007	0.000	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	977.700	5.560	0.000	9.007	0.000	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	981.000	5.626	0.000	9.007	0.000	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	984.200	5.663	0.000	9.007	0.000	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	987.500	5.701	0.000	9.007	0.000	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	990.800	5.738	0.000	9.007	0.000	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	994.100	5.775	0.000	9.007	0.000	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	997.400	5.734	0.000	9.008	0.000	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	1000.700	5.636	0.000	9.008	0.000	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
IF	1003.900	5.537	0.000	9.009	0.000	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
IF	1007.200	5.438	0.000	9.009	0.000	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	1010.500	5.569	0.000	9.009	0.000	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	1013.800	5.721	0.000	9.008	0.000	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	1017.100	5.873	0.000	9.008	0.000	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	1020.300	6.026	0.000	9.007	0.000	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	1023.600	5.936	0.000	9.008	0.000	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	1026.900	5.785	0.000	9.009	0.000	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	1030.200	5.635	0.000	9.010	0.000	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	1033.500	5.661	0.000	9.010	0.000	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	1036.700	5.746	0.000	9.009	0.000	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	1040.000	5.831	0.000	9.009	0.000	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	1043.300	5.895	0.000	9.009	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
IF	1046.600	5.950	0.000	9.009	0.000	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	1049.900	5.877	0.000	9.010	0.000	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	1053.100	5.649	0.000	9.010	0.000	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	1056.400	5.798	0.000	9.010	0.000	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	1059.700	5.947	0.000	9.010	0.000	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	1063.000	6.096	0.000	9.009	0.000	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	1066.300	6.247	0.000	9.009	0.000	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	1069.600	6.400	0.000	9.009	0.000	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	1072.800	6.553	0.000	9.009	0.000	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	1076.100	6.706	0.000	9.010	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	1079.400	6.859	0.000	9.011	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	1082.700	7.012	0.000	9.012	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	1086.000	7.166	0.000	9.014	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	1089.200	7.250	0.000	9.017	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	1092.500	7.273	0.000	9.020	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	1095.800	7.297	0.000	9.023	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	1099.100	7.320	0.000	9.025	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	1102.400	7.343	0.000	9.027	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	1105.600	7.364	0.000	9.029	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	1108.900	7.330	0.000	9.030	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	1112.200	7.297	0.000	9.031	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	1115.500	7.263	0.000	9.032	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	1118.800	7.229	0.000	9.033	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	1122.000	7.192	0.000	9.034	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	1125.300	7.136	0.000	9.034	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	1128.600	7.080	0.000	9.035	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	1131.900	7.024	0.000	9.035	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	1135.200	6.968	0.000	9.035	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	1138.400	6.912	0.000	9.036	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	1141.700	6.889	0.000	9.036	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	1145.000	6.923	0.000	9.035	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	1148.300	6.957	0.000	9.035	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	1151.600	6.990	0.000	9.035	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	1154.900	7.024	0.000	9.035	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	1158.100	7.166	0.000	9.034	0.000	0.000	0.000	0.000	0.061	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	1161.400	7.419	0.000	9.033	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	1164.700	7.671	0.000	9.033	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	1168.000	7.924	0.000	9.035	0.000	0.000	0.000	0.000	0.069	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	1171.300	8.128	0.000	9.041	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	1174.500	7.768	0.000	9.049	0.000	0.000	0.000	0.000	-0.111	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	1177.800	7.409	0.000	9.052	0.000	0.000	0.000	0.000	-0.109	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	1181.100	7.049	0.000	9.053	0.000	0.000	0.000	0.000	-0.066	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
IF	1184.400	6.974	0.000	9.053	0.000	0.000	0.000	0.000	0.037	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE

IF	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
	1187.700	7.290	0.000	9.052	0.000	0.000	0.000	0.000	0.097	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
IF	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
	1190.900	7.607	0.000	9.051	0.000	0.000	0.000	0.000	0.097	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
IF	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
	1194.200	7.923	0.000	9.049	0.000	0.000	0.000	0.000	0.096	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
IF	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
	1197.500	8.240	0.000	9.050	0.000	0.000	0.000	0.000	0.051	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
IF	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
	1200.800	8.262	0.000	9.055	0.000	0.000	0.000	0.000	-0.001	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
IF	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
	1204.100	8.231	0.000	9.059	0.000	0.000	0.000	0.000	-0.009	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
IF	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
	1207.300	8.200	0.000	9.061	0.000	0.000	0.000	0.000	-0.009	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
IF	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
	1210.600	8.170	0.000	9.062	0.000	0.000	0.000	0.000	-0.009	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
IF	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
	1213.900	8.139	0.000	9.063	0.000	0.000	0.000	0.000	-0.012	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
IF	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
	1217.200	8.093	0.000	9.063	0.000	0.000	0.000	0.000	-0.018	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
IF	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
	1220.500	8.019	0.000	9.064	0.000	0.000	0.000	0.000	-0.022	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
IF	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
	1223.800	7.945	0.000	9.064	0.000	0.000	0.000	0.000	-0.023	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
IF	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
	1227.000	7.871	0.000	9.064	0.000	0.000	0.000	0.000	-0.005	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
IF	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
	1230.300	7.915	0.000	9.064	0.000	0.000	0.000	0.000	0.016	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
IF	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
	1233.600	7.978	0.000	9.064	0.000	0.000	0.000	0.000	0.019	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
IF	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
	1236.900	8.041	0.000	9.064	0.000	0.000	0.000	0.000	0.019	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
IF	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
	1240.200	8.104	0.000	9.063	0.000	0.000	0.000	0.000	0.023	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
IF	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
	1243.400	8.193	0.000	9.063	0.000	0.000	0.000	0.000	0.029	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
IF	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
	1246.700	8.292	0.000	9.063	0.000	0.000	0.000	0.000	0.030	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
IF	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
	1250.000	8.391	0.000	9.064	0.000	0.000	0.000	0.000	0.032	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
IF	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
	1253.300	8.505	0.000	9.067	0.000	0.000	0.000	0.000	0.060	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
IF	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
	1256.600	8.789	0.000	9.078	0.000	0.000	0.000	0.000	0.087	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
IF	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
	1259.900	9.078	0.000	9.078	0.000	0.000	0.000	0.000	0.088	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
AS	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
	1273.900	8.855	0.000	8.855	0.000	0.000	0.000	0.000	-0.059	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
IF	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
	1278.000	8.612	0.000	8.855	0.000	0.000	0.000	0.000	0.000	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
IF	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
	1287.000	8.855	0.000	8.855	0.000	0.000	0.000	0.000	0.027	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	5.44	3.68
OF	1.00	5.44	3.68
OF	2.00	5.44	3.68
OF	3.00	5.44	3.68
OF	4.00	5.44	3.68
OF	5.00	5.44	3.68
OF	6.00	5.44	3.68
OF	7.00	5.44	3.68
OF	8.00	5.44	3.68
OF	9.00	5.44	3.68
OF	10.00	5.44	3.68
OF	11.00	5.44	3.68
OF	12.00	5.44	3.68
OF	13.00	5.44	3.68
OF	14.00	5.44	3.68
OF	15.00	5.44	3.68
OF	16.00	5.44	3.68

OF	17.00	5.44	3.68	12.66
OF	18.00	5.44	3.68	12.66
OF	19.00	5.44	3.68	12.66
OF	20.00	5.44	3.68	12.66
OF	21.00	5.44	3.68	12.66
OF	22.00	5.44	3.68	12.66
OF	23.00	5.44	3.68	12.66
OF	24.00	5.44	3.68	12.66
OF	25.00	5.44	3.68	12.66
OF	26.00	5.44	3.68	12.66
OF	27.00	5.44	3.68	12.66
OF	28.00	5.44	3.68	12.66
OF	29.00	5.44	3.68	12.66
OF	30.00	5.44	3.68	12.66
OF	31.00	5.44	3.68	12.66
OF	32.00	5.44	3.68	12.66
OF	33.00	5.44	3.68	12.66
OF	34.00	5.45	3.68	12.66
OF	35.00	5.45	3.68	12.66
OF	36.00	5.45	3.68	12.66
OF	37.00	5.45	3.68	12.66
OF	38.00	5.45	3.68	12.66
OF	39.00	5.45	3.68	12.66
OF	40.00	5.45	3.68	12.66
OF	41.00	5.45	3.68	12.66
OF	42.00	5.45	3.68	12.66
OF	43.00	5.45	3.68	12.66
OF	44.00	5.45	3.68	12.66
OF	45.00	5.45	3.68	12.66
OF	46.00	5.45	3.68	12.66
OF	47.00	5.45	3.68	12.66
OF	48.00	5.45	3.68	12.66
OF	49.00	5.45	3.68	12.66
OF	50.00	5.45	3.68	12.66
OF	51.00	5.45	3.68	12.66
OF	52.00	5.45	3.68	12.66
OF	53.00	5.45	3.68	12.66
OF	54.00	5.45	3.68	12.66
OF	55.00	5.45	3.68	12.66
OF	56.00	5.45	3.68	12.66
OF	57.00	5.45	3.68	12.66
OF	58.00	5.45	3.68	12.66
OF	59.00	5.45	3.68	12.66
OF	60.00	5.45	3.68	12.66
OF	61.00	5.45	3.68	12.66
OF	62.00	5.45	3.68	12.66
OF	63.00	5.45	3.68	12.66
OF	64.00	5.45	3.68	12.66
OF	65.00	5.45	3.68	12.66
OF	66.00	5.45	3.68	12.66
OF	67.00	5.45	3.68	12.66
OF	68.00	5.45	3.68	12.66
OF	69.00	5.45	3.68	12.66
OF	70.00	5.45	3.68	12.66
OF	71.00	5.45	3.68	12.66
OF	72.00	5.45	3.68	12.66
OF	73.00	5.45	3.68	12.66
OF	74.00	5.45	3.68	12.66
OF	75.00	5.45	3.68	12.66
OF	76.00	5.45	3.68	12.66
OF	77.00	5.45	3.68	12.66
OF	78.00	5.45	3.68	12.66
OF	79.00	5.45	3.68	12.66
OF	80.00	5.45	3.68	12.66
OF	81.00	5.45	3.68	12.66
OF	82.00	5.45	3.68	12.66
OF	83.00	5.45	3.68	12.66
OF	84.00	5.45	3.68	12.66
OF	85.00	5.45	3.68	12.66
OF	86.00	5.45	3.68	12.66
OF	87.00	5.45	3.68	12.66
OF	88.00	5.45	3.68	12.66
OF	89.00	5.45	3.68	12.66
OF	90.00	5.45	3.68	12.66
OF	91.00	5.45	3.68	12.66
OF	92.00	5.45	3.68	12.66
OF	93.00	5.45	3.68	12.66
OF	94.00	5.45	3.68	12.66
OF	95.00	5.45	3.68	12.66
OF	96.00	5.45	3.68	12.66
OF	97.00	5.45	3.68	12.66
OF	98.00	5.45	3.68	12.66
OF	99.00	5.45	3.68	12.66
OF	100.00	5.45	3.68	12.66
OF	101.00	5.45	3.68	12.66
OF	102.00	5.45	3.68	12.66
OF	103.00	5.45	3.68	12.66
OF	104.00	5.45	3.68	12.66
OF	105.00	5.45	3.68	12.66
OF	106.00	5.45	3.68	12.66
OF	107.00	5.45	3.68	12.66
OF	108.00	5.45	3.68	12.66
OF	109.00	5.44	3.68	12.66
OF	110.00	5.44	3.68	12.66
OF	111.00	5.44	3.68	12.66
OF	112.00	5.44	3.68	12.66
OF	113.00	5.44	3.68	12.66
OF	114.00	5.44	3.68	12.66
OF	115.00	5.44	3.68	12.66
OF	116.00	5.44	3.68	12.66
OF	117.00	5.44	3.68	12.65
OF	118.00	5.44	3.68	12.65

OF	119.00	5.44	3.68	12.65
OF	120.00	5.44	3.68	12.65
OF	121.00	5.44	3.68	12.65
OF	122.00	5.44	3.68	12.65
OF	123.00	5.44	3.68	12.65
OF	124.00	5.44	3.68	12.65
OF	125.00	5.43	3.68	12.65
OF	126.00	5.43	3.68	12.65
OF	127.00	5.43	3.68	12.65
OF	128.00	5.43	3.68	12.65
OF	129.00	5.43	3.68	12.65
OF	130.00	5.43	3.68	12.65
OF	131.00	5.43	3.68	12.65
OF	132.00	5.43	3.68	12.65
OF	133.00	5.43	3.68	12.65
OF	134.00	5.43	3.68	12.65
OF	135.00	5.43	3.68	12.65
OF	136.00	5.43	3.68	12.65
OF	137.00	5.43	3.68	12.65
OF	138.00	5.42	3.68	12.64
OF	139.00	5.42	3.68	12.64
OF	140.00	5.42	3.69	12.64
OF	141.00	5.42	3.69	12.64
OF	142.00	5.42	3.69	12.64
OF	143.00	5.42	3.69	12.64
OF	144.00	5.42	3.69	12.64
OF	145.00	5.42	3.69	12.64
OF	146.00	5.42	3.69	12.64
OF	147.00	5.42	3.69	12.64
OF	148.00	5.41	3.69	12.64
OF	149.00	5.41	3.69	12.64
OF	150.00	5.41	3.69	12.64
OF	151.00	5.41	3.69	12.64
OF	152.00	5.41	3.69	12.63
OF	153.00	5.41	3.69	12.63
OF	154.00	5.41	3.69	12.63
OF	155.00	5.41	3.69	12.63
OF	156.00	5.41	3.69	12.63
OF	157.00	5.40	3.69	12.63
OF	158.00	5.40	3.69	12.63
OF	159.00	5.40	3.69	12.63
OF	160.00	5.40	3.69	12.63
OF	161.00	5.40	3.69	12.63
OF	162.00	5.40	3.69	12.63
OF	163.00	5.40	3.69	12.63
OF	164.00	5.40	3.69	12.63
OF	165.00	5.40	3.69	12.62
OF	166.00	5.39	3.69	12.62
OF	167.00	5.39	3.69	12.62
OF	168.00	5.39	3.69	12.62
OF	169.00	5.39	3.69	12.62
OF	170.00	5.39	3.69	12.62
OF	171.00	5.39	3.69	12.62
OF	172.00	5.39	3.69	12.62
OF	173.00	5.39	3.69	12.62
OF	174.00	5.38	3.69	12.62
OF	175.00	5.38	3.69	12.62
OF	176.00	5.38	3.69	12.62
OF	177.00	5.38	3.69	12.61
OF	178.00	5.38	3.69	12.61
OF	179.00	5.38	3.69	12.61
OF	180.00	5.38	3.69	12.61
OF	181.00	5.38	3.69	12.61
OF	182.00	5.37	3.69	12.61
OF	183.00	5.37	3.69	12.61
OF	184.00	5.37	3.69	12.61
OF	185.00	5.37	3.69	12.61
OF	186.00	5.37	3.69	12.61
OF	187.00	5.37	3.69	12.61
OF	188.00	5.37	3.69	12.61
OF	189.00	5.37	3.69	12.60
OF	190.00	5.36	3.69	12.60
OF	191.00	5.36	3.69	12.60
OF	192.00	5.36	3.69	12.60
OF	193.00	5.36	3.69	12.60
OF	195.00	5.36	3.69	12.60
OF	196.00	5.36	3.69	12.60
OF	198.00	5.35	3.69	12.60
OF	199.00	5.35	3.69	12.60
OF	201.00	5.35	3.69	12.59
OF	202.00	5.35	3.69	12.59
OF	204.00	5.35	3.69	12.59
OF	205.00	5.35	3.69	12.59
OF	207.00	5.34	3.69	12.59
OF	208.00	5.34	3.69	12.59
OF	210.00	5.34	3.69	12.59
OF	211.00	5.34	3.69	12.58
OF	213.00	5.33	3.69	12.58
OF	214.00	5.33	3.69	12.58
OF	216.00	5.33	3.69	12.58
OF	217.00	5.33	3.69	12.58
OF	219.00	5.33	3.69	12.58
OF	220.00	5.33	3.69	12.58
OF	222.00	5.32	3.69	12.57
OF	223.00	5.32	3.69	12.57
OF	225.00	5.32	3.69	12.57
OF	226.00	5.32	3.69	12.57
OF	228.00	5.31	3.69	12.57
OF	229.00	5.31	3.69	12.57
OF	231.00	5.31	3.69	12.57
OF	232.00	5.31	3.69	12.57
OF	234.00	5.31	3.69	12.56

OF	235.00	5.31	3.69	12.56
OF	237.00	5.30	3.69	12.56
OF	238.00	5.30	3.69	12.56
OF	240.00	5.30	3.69	12.56
OF	241.00	5.30	3.69	12.56
OF	243.00	5.30	3.69	12.56
OF	244.00	5.30	3.69	12.56
OF	246.00	5.29	3.69	12.55
OF	247.00	5.29	3.69	12.55
OF	249.00	5.29	3.69	12.55
OF	250.00	5.29	3.69	12.55
OF	252.00	5.29	3.69	12.55
OF	253.00	5.29	3.69	12.55
OF	255.00	5.28	3.69	12.55
OF	256.00	5.28	3.69	12.55
OF	258.00	5.28	3.69	12.55
OF	259.00	5.28	3.69	12.54
OF	261.00	5.28	3.69	12.54
OF	262.00	5.28	3.69	12.54
OF	264.00	5.27	3.69	12.54
OF	265.00	5.27	3.69	12.54
OF	267.00	5.27	3.69	12.54
OF	268.00	5.27	3.69	12.54
OF	270.00	5.27	3.69	12.54
OF	271.00	5.27	3.69	12.54
OF	273.00	5.26	3.69	12.53
OF	274.00	5.26	3.69	12.53
OF	276.00	5.26	3.69	12.53
OF	277.00	5.26	3.69	12.53
OF	279.00	5.26	3.69	12.53
OF	280.00	5.26	3.69	12.53
OF	282.00	5.26	3.69	12.53
OF	283.00	5.25	3.69	12.53
OF	285.00	5.25	3.69	12.53
OF	286.00	5.25	3.69	12.52
OF	291.00	5.25	3.69	12.52
OF	292.00	5.25	3.69	12.52
OF	297.00	5.24	3.69	12.52
OF	298.00	5.24	3.69	12.52
OF	303.00	5.23	3.70	12.51
OF	304.00	5.23	3.70	12.51
OF	309.00	5.23	3.70	12.51
OF	310.00	5.23	3.70	12.51
OF	315.00	5.22	3.70	12.51
OF	316.00	5.22	3.70	12.50
OF	321.00	5.22	3.70	12.50
OF	322.00	5.22	3.70	12.50
OF	327.00	5.21	3.70	12.50
OF	328.00	5.21	3.70	12.50
OF	331.00	5.21	3.70	12.50
OF	332.00	5.21	3.70	12.50
OF	337.00	5.21	3.70	12.49
OF	338.00	5.21	3.70	12.49
OF	343.00	5.20	3.70	12.49
OF	344.00	5.20	3.70	12.49
OF	349.00	5.20	3.70	12.49
OF	350.00	5.20	3.70	12.49
OF	355.00	5.20	3.70	12.49
OF	356.00	5.20	3.70	12.49
OF	361.00	5.19	3.70	12.48
OF	362.00	5.19	3.70	12.48
OF	367.00	5.19	3.70	12.48
OF	368.00	5.19	3.70	12.48
OF	373.00	5.19	3.70	12.48
OF	374.00	5.19	3.70	12.48
OF	379.00	5.19	3.70	12.48
OF	380.00	5.19	3.70	12.48
OF	385.00	5.18	3.70	12.48
OF	386.00	5.18	3.70	12.48
OF	391.00	5.18	3.70	12.48
OF	392.00	5.18	3.70	12.48
OF	398.00	5.18	3.70	12.47
OF	403.00	5.18	3.70	12.47
OF	404.00	5.18	3.70	12.47
OF	416.00	5.18	3.70	12.47
OF	422.00	5.18	3.70	12.47
	528.40	5.05	3.71	12.39
IF	574.00	4.03	3.71	11.67
IF	575.00	4.01	3.71	11.66
IF	610.20	3.73	3.71	11.46
IF	613.50	3.55	3.71	11.33
IF	616.80	3.36	3.71	11.20
IF	620.10	3.17	3.71	11.07
IF	623.40	2.96	3.71	10.92
IF	626.60	2.76	3.71	10.79
IF	629.90	2.67	3.71	10.73
IF	633.20	2.33	3.71	10.49
IF	636.50	1.86	3.71	10.18
IF	639.80	1.53	3.71	9.98
IF	643.00	1.40	3.71	9.92
IF	646.30	1.41	3.71	9.96
IF	649.60	1.44	3.71	10.00
IF	652.90	1.47	3.71	10.03
IF	656.20	1.49	3.71	10.04
IF	659.40	1.50	3.71	10.06
IF	662.70	1.48	3.71	10.04
IF	666.00	1.47	3.71	10.03
IF	669.30	1.45	3.71	10.02
IF	672.60	1.43	3.71	10.01
IF	675.90	1.42	3.71	10.00
IF	679.10	1.41	3.71	10.00
IF	682.40	1.40	3.71	9.99

IF	685.70	1.39	3.71	9.98
IF	689.00	1.38	3.71	9.98
IF	692.30	1.37	3.71	9.97
IF	695.50	1.37	3.71	9.97
IF	698.80	1.37	3.71	9.97
IF	702.10	1.37	3.71	9.97
IF	705.40	1.37	3.71	9.97
IF	708.70	1.38	3.71	9.97
IF	711.90	1.38	3.71	9.98
IF	715.20	1.39	3.71	9.98
IF	718.50	1.39	3.71	9.99
IF	721.80	1.39	3.71	9.99
IF	725.10	1.39	3.71	9.99
IF	728.30	1.39	3.71	9.99
IF	731.60	1.39	3.71	9.98
IF	734.90	1.39	3.71	9.98
IF	738.20	1.39	3.71	9.98
IF	741.50	1.39	3.71	9.98
IF	744.70	1.39	3.72	9.98
IF	748.00	1.39	3.72	9.98
IF	751.30	1.38	3.72	9.98
IF	754.60	1.38	3.72	9.98
IF	757.90	1.38	3.72	9.98
IF	761.20	1.39	3.72	9.98
IF	764.40	1.39	3.72	9.99
IF	767.70	1.40	3.72	9.99
IF	771.00	1.41	3.72	10.00
IF	774.30	1.42	3.72	10.00
IF	777.60	1.42	3.72	10.01
IF	780.80	1.43	3.72	10.01
IF	784.10	1.42	3.72	10.01
IF	787.40	1.41	3.72	10.00
IF	790.70	1.41	3.72	10.00
IF	794.00	1.41	3.72	10.00
IF	797.20	1.41	3.72	10.00
IF	800.50	1.41	3.72	10.00
IF	803.80	1.41	3.72	10.00
IF	807.10	1.41	3.72	10.00
IF	810.40	1.41	3.72	10.00
IF	813.60	1.41	3.72	10.00
IF	816.90	1.41	3.72	10.00
IF	820.20	1.41	3.72	10.00
IF	823.50	1.41	3.72	10.00
IF	826.80	1.41	3.72	10.00
IF	830.10	1.41	3.72	10.00
IF	833.30	1.41	3.72	10.00
IF	836.60	1.42	3.72	10.00
IF	839.90	1.42	3.72	10.01
IF	843.20	1.42	3.72	10.01
IF	846.50	1.42	3.72	10.01
IF	849.70	1.43	3.72	10.01
IF	853.00	1.43	3.72	10.01
IF	856.30	1.43	3.72	10.01
IF	859.60	1.44	3.72	10.02
IF	862.90	1.44	3.72	10.02
IF	866.10	1.44	3.72	10.02
IF	869.40	1.44	3.72	10.02
IF	872.70	1.45	3.72	10.02
IF	876.00	1.46	3.72	10.03
IF	879.30	1.47	3.72	10.04
IF	882.50	1.48	3.72	10.04
IF	885.80	1.49	3.72	10.05
IF	889.10	1.49	3.72	10.05
IF	892.40	1.48	3.72	10.05
IF	895.70	1.47	3.72	10.04
IF	898.90	1.47	3.73	10.04
IF	902.20	1.48	3.73	10.05
IF	905.50	1.48	3.73	10.05
IF	908.80	1.49	3.73	10.05
IF	912.10	1.50	3.73	10.06
IF	915.40	1.50	3.73	10.06
IF	918.60	1.51	3.73	10.06
IF	921.90	1.51	3.73	10.07
IF	925.20	1.52	3.73	10.07
IF	928.50	1.52	3.73	10.08
IF	931.80	1.53	3.73	10.08
IF	935.00	1.53	3.73	10.08
IF	938.30	1.56	3.73	10.10
IF	941.60	1.60	3.73	10.13
IF	944.90	1.64	3.73	10.16
IF	948.20	1.65	3.73	10.16
IF	951.40	1.65	3.73	10.17
IF	954.70	1.66	3.73	10.17
IF	958.00	1.67	3.73	10.18
IF	961.30	1.68	3.73	10.18
IF	964.60	1.69	3.73	10.19
IF	967.80	1.70	3.73	10.20
IF	971.10	1.71	3.73	10.20
IF	974.40	1.72	3.73	10.21
IF	977.70	1.73	3.73	10.22
IF	981.00	1.74	3.73	10.23
IF	984.20	1.75	3.73	10.23
IF	987.50	1.76	3.73	10.24
IF	990.80	1.77	3.73	10.24
IF	994.10	1.77	3.73	10.25
IF	997.40	1.77	3.73	10.25
IF	1000.70	1.76	3.73	10.24
IF	1003.90	1.75	3.73	10.23
IF	1007.20	1.74	3.73	10.22
IF	1010.50	1.76	3.73	10.24
IF	1013.80	1.78	3.73	10.25
IF	1017.10	1.81	3.73	10.27

IF	1020.30	1.82	3.73	10.28
IF	1023.60	1.82	3.73	10.28
IF	1026.90	1.80	3.73	10.27
IF	1030.20	1.78	3.73	10.26
IF	1033.50	1.78	3.73	10.26
IF	1036.70	1.80	3.73	10.27
IF	1040.00	1.82	3.73	10.28
IF	1043.30	1.83	3.73	10.29
IF	1046.60	1.84	3.73	10.30
IF	1049.90	1.83	3.73	10.29
IF	1053.10	1.80	3.73	10.27
IF	1056.40	1.82	3.73	10.29
IF	1059.70	1.84	3.73	10.30
IF	1063.00	1.82	3.73	10.29
IF	1066.30	1.80	3.73	10.27
IF	1069.60	1.78	3.73	10.25
IF	1072.80	1.75	3.73	10.23
IF	1076.10	1.71	3.73	10.21
IF	1079.40	1.60	3.73	10.13
IF	1082.70	1.49	3.73	10.06
IF	1086.00	1.38	3.73	9.98
IF	1089.20	1.33	3.73	9.95
IF	1092.50	1.31	3.73	9.94
IF	1095.80	1.30	3.73	9.93
IF	1099.10	1.28	3.73	9.92
IF	1102.40	1.27	3.73	9.91
IF	1105.60	1.25	3.73	9.91
IF	1108.90	1.25	3.73	9.91
IF	1112.20	1.26	3.73	9.91
IF	1115.50	1.27	3.73	9.92
IF	1118.80	1.28	3.73	9.93
IF	1122.00	1.29	3.73	9.94
IF	1125.30	1.30	3.73	9.94
IF	1128.60	1.31	3.73	9.95
IF	1131.90	1.32	3.73	9.96
IF	1135.20	1.33	3.73	9.97
IF	1138.40	1.34	3.73	9.98
IF	1141.70	1.35	3.73	9.98
IF	1145.00	1.34	3.73	9.98
IF	1148.30	1.34	3.73	9.97
IF	1151.60	1.34	3.73	9.97
IF	1154.90	1.33	3.73	9.97
IF	1158.10	1.31	3.73	9.95
IF	1161.40	1.22	3.73	9.88
IF	1164.70	1.03	3.73	9.75
IF	1168.00	0.85	3.73	9.63
IF	1171.30	0.70	3.73	9.53
IF	1174.50	0.76	3.73	9.58
IF	1177.80	0.73	3.73	9.57
IF	1181.10	0.69	3.73	9.54
IF	1184.40	0.69	3.73	9.54
IF	1187.70	0.74	3.73	9.57
IF	1190.90	0.80	3.73	9.61
IF	1194.20	0.77	3.73	9.59
IF	1197.50	0.62	3.73	9.48
IF	1200.80	0.61	3.73	9.48
IF	1204.10	0.62	3.73	9.49
IF	1207.30	0.63	3.73	9.50
IF	1210.60	0.64	3.73	9.51
IF	1213.90	0.65	3.73	9.51
IF	1217.20	0.66	3.73	9.52
IF	1220.50	0.67	3.73	9.53
IF	1223.80	0.69	3.73	9.54
IF	1227.00	0.70	3.73	9.55
IF	1230.30	0.70	3.73	9.55
IF	1233.60	0.70	3.73	9.55
IF	1236.90	0.69	3.73	9.55
IF	1240.20	0.68	3.73	9.54
IF	1243.40	0.67	3.73	9.53
IF	1246.70	0.59	3.73	9.48
IF	1250.00	0.52	3.73	9.43
IF	1253.30	0.43	3.73	9.37
IF	1256.60	0.22	3.73	9.23
IF	1259.90	0.01	3.73	9.08
AS	1273.90	0.00	0.00	8.85
IF	1278.00	0.04	0.23	8.88
IF	1287.00	0.01	0.33	8.86

PART3 LOCATION OF AREAS ABOVE 100-YEAR SURGE
BETWEEN 1259.90 AND 1273.90

PART4 LOCATION OF SURGE CHANGES		
STATION	10-YEAR SURGE	100-YEAR SURGE
150.00	1.00	8.85
216.00	1.00	8.85
403.00	1.00	8.85
574.00	1.00	8.85
610.20	1.00	8.85
613.50	1.00	8.85
620.10	1.00	8.85
623.40	1.00	8.85
626.60	1.00	8.85
629.90	1.00	8.86
633.20	1.00	8.87
636.50	1.00	8.88
639.80	1.00	8.91
643.00	1.00	8.94
646.30	1.00	8.98
649.60	1.00	8.99
652.90	1.00	9.00
656.20	1.00	9.00
659.40	1.00	9.01
662.70	1.00	9.01
666.00	1.00	9.01

669.30	1.00	9.01
672.60	1.00	9.01
679.10	1.00	9.01
685.70	1.00	9.01
777.60	1.00	9.01
784.10	1.00	9.01
882.50	1.00	9.01
892.40	1.00	9.01
908.80	1.00	9.01
938.30	1.00	9.01
941.60	1.00	9.01
951.40	1.00	9.01
967.80	1.00	9.01
997.40	1.00	9.01
1003.90	1.00	9.01
1013.80	1.00	9.01
1020.30	1.00	9.01
1023.60	1.00	9.01
1026.90	1.00	9.01
1030.20	1.00	9.01
1036.70	1.00	9.01
1049.90	1.00	9.01
1063.00	1.00	9.01
1076.10	1.00	9.01
1079.40	1.00	9.01
1082.70	1.00	9.01
1086.00	1.00	9.01
1089.20	1.00	9.02
1092.50	1.00	9.02
1095.80	1.00	9.02
1099.10	1.00	9.02
1102.40	1.00	9.03
1105.60	1.00	9.03
1108.90	1.00	9.03
1112.20	1.00	9.03
1115.50	1.00	9.03
1118.80	1.00	9.03
1122.00	1.00	9.03
1128.60	1.00	9.03
1138.40	1.00	9.04
1145.00	1.00	9.03
1158.10	1.00	9.03
1161.40	1.00	9.03
1168.00	1.00	9.03
1171.30	1.00	9.04
1174.50	1.00	9.05
1177.80	1.00	9.05
1181.10	1.00	9.05
1187.70	1.00	9.05
1190.90	1.00	9.05
1194.20	1.00	9.05
1197.50	1.00	9.05
1200.80	1.00	9.06
1204.10	1.00	9.06
1207.30	1.00	9.06
1210.60	1.00	9.06
1213.90	1.00	9.06
1220.50	1.00	9.06
1240.20	1.00	9.06
1250.00	1.00	9.06
1253.30	1.00	9.07
1256.60	1.00	9.08
1273.90	1.00	8.85

PART5 LOCATION OF V ZONES

STATION OF GUTTER	LOCATION OF ZONE
622.74	WINDWARD

PART6 NUMBERED A ZONES AND V ZONES

STATION OF GUTTER	ELEVATION	ZONE DESIGNATION	FHF
0.00	12.66		
149.00	12.64	V22 EL=13	120
150.00	12.64	V22 EL=13	120
214.00	12.58	V22 EL=13	120
216.00	12.58	V22 EL=13	120
323.98	12.50	V22 EL=12	120
398.00	12.47	V22 EL=12	120
403.00	12.47	V22 EL=12	120
422.00	12.47	V22 EL=12	120
574.00	11.67	V22 EL=12	120
575.00	11.66	V22 EL=12	120
602.87	11.50	V22 EL=11	120
610.20	11.46	V22 EL=11	120
613.50	11.33	V22 EL=11	120
616.80	11.20	V22 EL=11	120
620.10	11.07	V22 EL=11	120
622.74	10.95	A18 EL=11	90

623.40	10.92			
626.60	10.79	A18	EL=11	90
629.90	10.73	A18	EL=11	90
633.13	10.50	A18	EL=11	90
633.20	10.49	A18	EL=10	90
636.50	10.18	A18	EL=10	90
639.80	9.98	A18	EL=10	90
643.00	9.92	A18	EL=10	90
646.30	9.96	A18	EL=10	90
649.60	10.00	A18	EL=10	90
652.90	10.03	A18	EL=10	90
656.20	10.04	A18	EL=10	90
659.40	10.06	A18	EL=10	90
662.70	10.04	A18	EL=10	90
666.00	10.03	A18	EL=10	90
669.30	10.02	A18	EL=10	90
672.60	10.01	A18	EL=10	90
675.90	10.00	A18	EL=10	90
679.10	10.00	A18	EL=10	90
682.40	9.99	A18	EL=10	90
685.70	9.98	A18	EL=10	90
774.30	10.00	A18	EL=10	90
777.60	10.01	A18	EL=10	90
780.80	10.01	A18	EL=10	90
784.10	10.01	A18	EL=10	90
879.30	10.04	A18	EL=10	90
882.50	10.04	A18	EL=10	90
889.10	10.05	A18	EL=10	90
892.40	10.05	A18	EL=10	90
905.50	10.05	A18	EL=10	90
908.80	10.05	A18	EL=10	90
935.00	10.08	A18	EL=10	90
938.30	10.10	A18	EL=10	90
941.60	10.13	A18	EL=10	90
948.20	10.16	A18	EL=10	90
951.40	10.17	A18	EL=10	90
964.60	10.19	A18	EL=10	90
967.80	10.20	A18	EL=10	90
994.10	10.25	A18	EL=10	90
997.40	10.25	A18	EL=10	90
1000.70	10.24	A18	EL=10	90
1003.90	10.23	A18	EL=10	90
1010.50	10.24	A18	EL=10	90
1013.80	10.25	A18	EL=10	90
1017.10	10.27	A18	EL=10	90
1020.30	10.28	A18	EL=10	90
1023.60	10.28	A18	EL=10	90
1026.90	10.27	A18	EL=10	90
1030.20	10.26	A18	EL=10	90
1033.50	10.26	A18	EL=10	90
1036.70	10.27	A18	EL=10	90

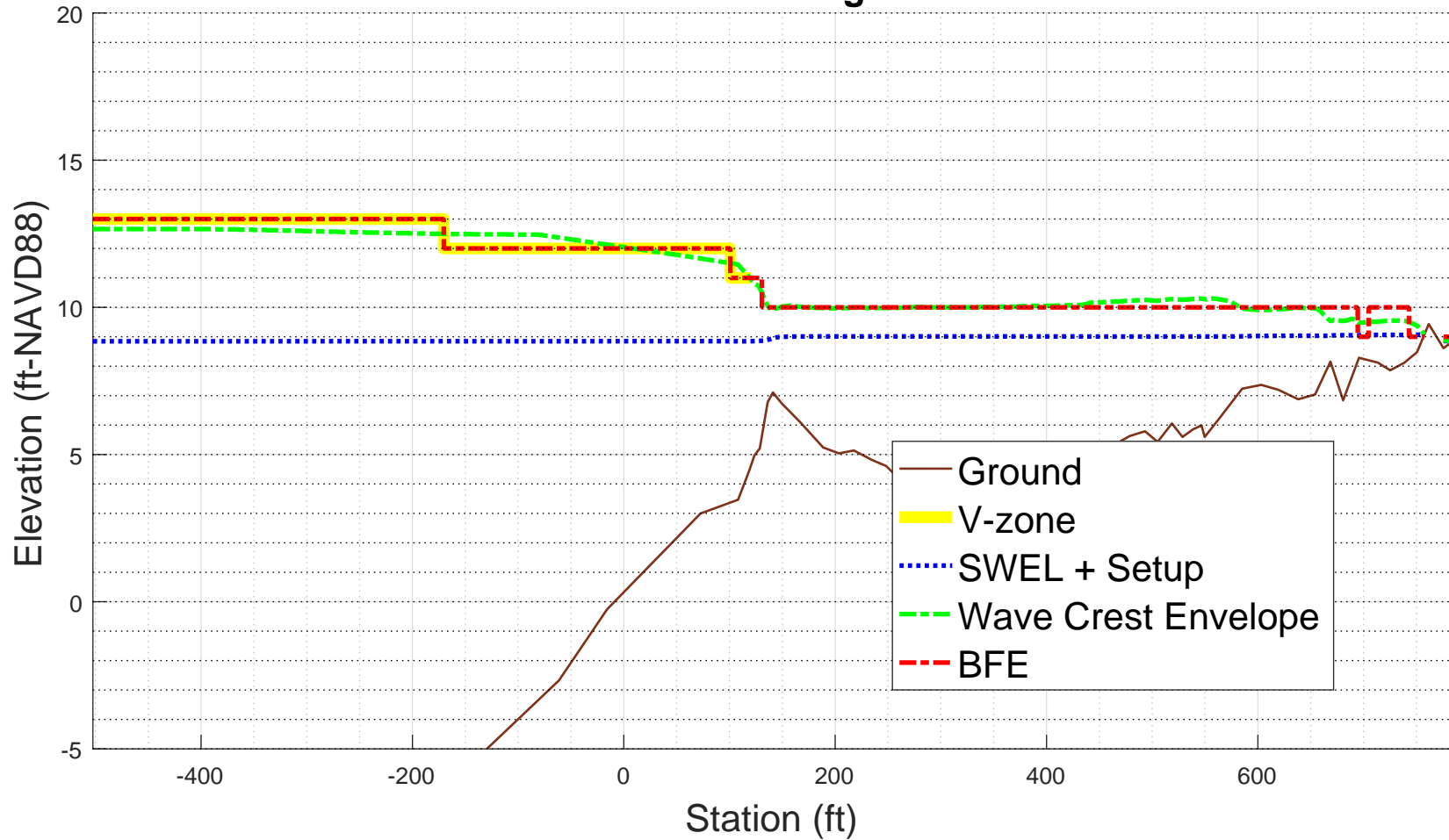
1046.60	10.30			
1049.90	10.29	A18	EL=10	90
1059.70	10.30	A18	EL=10	90
1063.00	10.29	A18	EL=10	90
1072.80	10.23	A18	EL=10	90
1076.10	10.21	A18	EL=10	90
1079.40	10.13	A18	EL=10	90
1082.70	10.06	A18	EL=10	90
1086.00	9.98	A18	EL=10	90
1089.20	9.95	A18	EL=10	90
1092.50	9.94	A18	EL=10	90
1095.80	9.93	A18	EL=10	90
1099.10	9.92	A18	EL=10	90
1102.40	9.91	A18	EL=10	90
1105.60	9.91	A18	EL=10	90
1108.90	9.91	A18	EL=10	90
1112.20	9.91	A18	EL=10	90
1115.50	9.92	A18	EL=10	90
1118.80	9.93	A18	EL=10	90
1122.00	9.94	A18	EL=10	90
1125.30	9.94	A18	EL=10	90
1128.60	9.95	A18	EL=10	90
1135.20	9.97	A18	EL=10	90
1138.40	9.98	A18	EL=10	90
1141.70	9.98	A18	EL=10	90
1145.00	9.98	A18	EL=10	90
1154.90	9.97	A18	EL=10	90
1158.10	9.95	A18	EL=10	90
1161.40	9.88	A18	EL=10	90
1164.70	9.75	A18	EL=10	90
1168.00	9.63	A18	EL=10	90
1171.30	9.53	A18	EL=10	90
1174.50	9.58	A18	EL=10	90
1177.80	9.57	A18	EL=10	90
1181.10	9.54	A18	EL=10	90
1184.40	9.54	A18	EL=10	90
1187.70	9.57	A18	EL=10	90
1190.90	9.61	A18	EL=10	90
1194.20	9.59	A18	EL=10	90
1197.00	9.50	A18	EL= 9	90
1197.50	9.48	A18	EL= 9	90
1200.80	9.48	A18	EL= 9	90
1204.10	9.49	A18	EL= 9	90
1207.28	9.50	A18	EL=10	90
1207.30	9.50	A18	EL=10	90
1210.60	9.51	A18	EL=10	90
1213.90	9.51	A18	EL=10	90
1217.20	9.52	A18	EL=10	90
1220.50	9.53	A18	EL=10	90
1236.90	9.55	A18	EL=10	90
1240.20	9.54	A18	EL=10	90

1245.24	9.50			
1246.70	9.48	A18	EL= 9	90
1250.00	9.43	A18	EL= 9	90
1253.30	9.37	A18	EL= 9	90
1256.60	9.23	A18	EL= 9	90
1259.90	9.08			
1273.90	8.85			
		A18	EL= 9	90
1287.00	8.86			

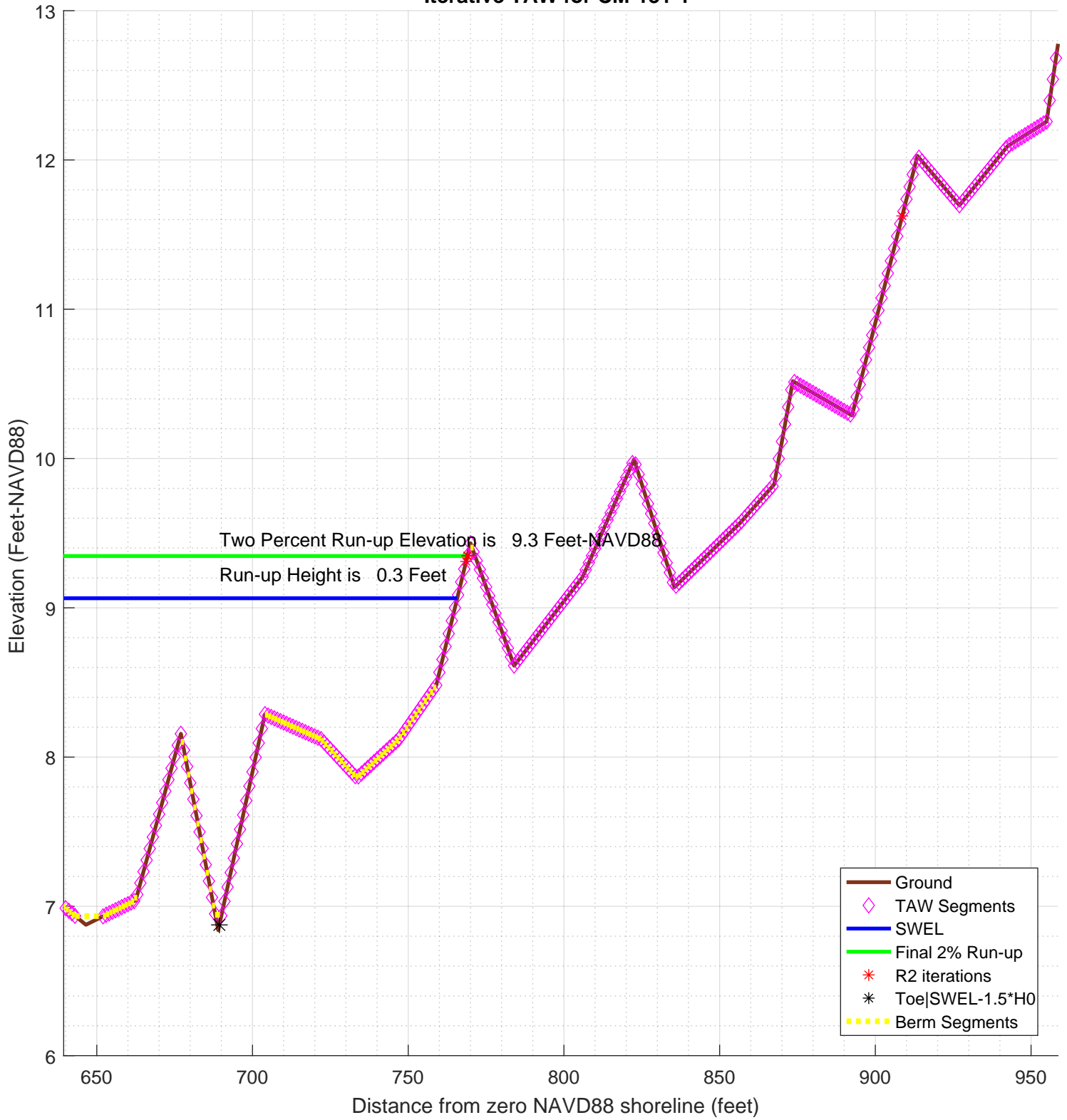
ZONE TERMINATED AT END OF TRANSECT
 PART 7 POSTSCRIPT NOTES
 PS# 1 START(419517.6773,4845666.4069)
 PS# 2 END(419374.3103,4845220.0835)

-1.000000e+00

CM-131-1
100-year WHAFIS Output
Zero Station: -70.00037484, 43.75835469
Onshore Dir: -107.8 deg CCW from E



Iterative TAW for CM-131-1




```

diary on          % begin recording

% FEMA appeal for The Town of Harpswell, Cumberland county, Maine
% TRANSECT ID: CM-131-1
% calculation by SJH, Ransom Consulting, Inc. 20-Feb-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/CM-131-1sta_ele_include.csv'; % file with station, elevation, include
% third column is 0 for excluded points
imgname='logfiles/CM-131-1-runup';
SWEL=8.8473; % 100-yr still water level including wave setup.
H0=1.4239; % significant wave height at toe of structure
Tp=3.7042; % peak period, 1/fma,
T0=Tp/1.1;

gamma_berm=0.99896; % this may get changed automatically below
gamma_rough=1;
gamma_beta=1;
gamma_perm=1;

setupAtToe=0.1644;
maxSetup=0.2308; % only used in case of berm/shallow foreshore weighted average

plotTitle='Iterative TAW for CM-131-1'

plotTitle =

Iterative TAW for CM-131-1

% END CONFIG
%-----

SWEL=SWEL+setupAtToe

SWEL =

          9.0117

SWEL_fore=SWEL+maxSetup

SWEL_fore =

          9.2425

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

L0 =

          58.0235896915613

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

Ztoe =

        6.87585

% 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 =

        11.14755

% 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 =

        585.748676625019

toe_sta =

        689.365955814508

top_sta =

        902.872140769547

% 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

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

top_sta =

        902.872140769547

toe_sta

toe_sta =

        689.365955814508

% 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 366.8 ft landward of toe of slope

ans =

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

ans =

-!!!-          setup is adjusted to 0.22 feet

ans =

-!!!-          SWEL is adjusted to 9.06 feet

k =

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% 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)

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        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('!!! - - Iribarren number: %6.2f is outside the valid range (0.5-10), TAW NOT VALID - - !!!\n', Irb*gamma_berm)
    TAW_VALID=0;
else
    sprintf('!!! - - Iribarren number: %6.2f is in the valid range (0.5-10), TAW RECOMMENDED - - !!!\n', Irb*gamma_berm)
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

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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 berm')
    % 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 =
    6.87585
toe_sta =
    689.365955814508
top_sta =
    902.872140769547
Z2 =
    11.14755
H0 =
    1.4239
Tp =
    3.7042
T0 =
    3.36745454545455
R2 =
    4.2717
Z2 =
    13.3356008553769
top_sta =
    962.616013781494
Lslope =
    273.250057966986
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 1
dh =
    2.10633285537685
rdh_sum =
    0.841854786251598
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 2
dh =
    2.05967235537685

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rdh_sum =
    1.66448332893937
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 3
dh =
    2.01301135537685
rdh_sum =
    2.46703076358375
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 4
dh =
    1.96635035537685
rdh_sum =
    3.24869562307788
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 5
dh =
    1.91968935537685
rdh_sum =
    4.00873175956462
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 6
dh =
    1.87302835537685
rdh_sum =
    4.74645032102899
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 7
dh =
    1.83625585537685
rdh_sum =
    5.46613420323588
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 8
dh =
    1.81925935537685
rdh_sum =
    6.17735836727645
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 9
dh =
    1.81215085537685
rdh_sum =
    6.88502220217542
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 10
dh =
    1.80504235537685
rdh_sum =
    7.58911293782331
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 11
dh =
    1.79793385537685
rdh_sum =
    8.28961802383533
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 12
dh =
    1.79082535537685
rdh_sum =
    8.98652513032316
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 13
dh =
    1.78371685537685
rdh_sum =
    9.67982214865309
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 14
dh =
    1.77660835537685
rdh_sum =
    10.3694971921907
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 15
dh =
    1.76949985537685
rdh_sum =
    11.0555385970319
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 16
dh =
    1.76239135537685
rdh_sum =
    11.73793492272
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 17
dh =
    1.75528285537685
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rdh_sum =
    12.4166749529493
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 18
dh =
    1.74817435537685
rdh_sum =
    13.091747696255
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 19
dh =
    1.74106585537685
rdh_sum =
    13.7631423866887
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 20
dh =
    1.73395735537685
rdh_sum =
    14.430848484481
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 21
dh =
    1.72684885537685
rdh_sum =
    15.0948556766891
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 22
dh =
    1.71974035537685
rdh_sum =
    15.7551538778315
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 23
dh =
    1.71263185537685
rdh_sum =
    16.4117332305077
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 24
dh =
    1.70552335537685
rdh_sum =
    17.0645841060046
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 25
dh =
    1.70275535537685
rdh_sum =
    17.7159805833779
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 26
dh =
    1.70866785537685
rdh_sum =
    18.3704819525397
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 27
dh =
    1.71892035537685
rdh_sum =
    19.0303516650813
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 28
dh =
    1.72917285537685
rdh_sum =
    19.6955692706332
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 29
dh =
    1.73942535537685
rdh_sum =
    20.3661136347288
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 30
dh =
    1.74967835537685
rdh_sum =
    21.0419631996797
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 31
dh =
    1.75993085537685
rdh_sum =
    21.7230952117379
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 32
dh =
    1.77018335537685
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rdh_sum =
    22.4094865006823
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 33
dh =
    1.78043635537685
rdh_sum =
    23.1011134782629
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 34
dh =
    1.79068885537685
rdh_sum =
    23.7979513758418
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 35
dh =
    1.80094135537685
rdh_sum =
    24.4999750141172
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 36
dh =
    1.81119385537685
rdh_sum =
    25.2071585504327
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 37
dh =
    1.82144635537685
rdh_sum =
    25.9194754820827
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 38
dh =
    1.83169935537685
rdh_sum =
    26.6368988980544
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 39
dh =
    1.84195185537685
rdh_sum =
    27.359400736076
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 40
dh =
    1.85220435537685
rdh_sum =
    28.0869525339406
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 41
dh =
    1.86416785537685
rdh_sum =
    28.8203602144864
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 42
dh =
    1.87955235537685
rdh_sum =
    29.5612383893607
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 43
dh =
    1.89664685537685
rdh_sum =
    30.3103359414417
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 44
dh =
    1.91374135537685
rdh_sum =
    31.0675642879231
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 45
dh =
    1.93083635537685
rdh_sum =
    31.8328321883445
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 46
dh =
    1.94793135537685
rdh_sum =
    32.6060453039643
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 47
dh =
    1.96502635537685
```

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rdh_sum =
    33.3871064704382
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 48
dh =
    1.98212135537685
rdh_sum =
    34.1759157323751
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 49
dh =
    1.99921635537685
rdh_sum =
    34.9723703788842
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 50
dh =
    2.01631135537685
rdh_sum =
    35.7763649801026
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 51
dh =
    2.03340635537685
rdh_sum =
    36.5877914246904
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 52
dh =
    2.05050135537685
rdh_sum =
    37.4065389582787
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 53
dh =
    2.06759585537685
rdh_sum =
    38.2324940137266
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 54
dh =
    2.08469035537685
rdh_sum =
    39.0655406765526
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 55
dh =
    2.10178535537685
rdh_sum =
    39.9055607125973
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 56
dh =
    2.11888035537685
rdh_sum =
    40.7524331985891
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 57
dh =
    2.12914935537685
rdh_sum =
    48.4107997068484
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 58
dh =
    2.12574435537685
rdh_sum =
    49.2603890202476
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 59
dh =
    2.11549185537685
rdh_sum =
    50.1059129679034
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 60
dh =
    2.10523935537685
rdh_sum =
    50.9473273507472
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 61
dh =
    2.09498635537685
rdh_sum =
    51.7845882917974
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 62
dh =
    2.08473385537685
```

```
rdh_sum =
    52.6176528504675
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 63
dh =
    2.07448135537685
rdh_sum =
    53.4464784214811
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 64
dh =
    2.06422885537685
rdh_sum =
    54.2710229418085
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 65
dh =
    2.05397635537685
rdh_sum =
    55.0912448960478
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 66
dh =
    2.04372335537685
rdh_sum =
    55.9071031079421
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 67
dh =
    2.03347085537685
rdh_sum =
    56.718557385042
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 68
dh =
    2.00654885537685
rdh_sum =
    57.518259188331
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 83
dh =
    0.962549855376849
rdh_sum =
    57.7746305814695
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 84
dh =
    1.07218435537685
rdh_sum =
    58.0854610562565
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 85
dh =
    1.18181935537685
rdh_sum =
    58.4535146126854
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 86
dh =
    1.29145435537685
rdh_sum =
    58.8807189829909
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 87
dh =
    1.40108885537685
rdh_sum =
    59.3681374326918
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 88
dh =
    1.51072335537685
rdh_sum =
    59.9159537760576
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 89
dh =
    1.62035835537685
rdh_sum =
    60.5234696939381
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 90
dh =
    1.72999335537685
rdh_sum =
    61.1891143830965
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 91
dh =
    1.83962785537685
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rdh_sum =
    61.9104675339925
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 92
dh =
    1.94926235537685
rdh_sum =
    62.6842952154543
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 93
dh =
    2.05889735537685
rdh_sum =
    63.5065970633593
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 94
dh =
    2.12030385537685
rdh_sum =
    65.2014721808151
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 109
dh =
    0.781146855376848
rdh_sum =
    65.3759105951208
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 110
dh =
    0.790442855376849
rdh_sum =
    65.5542576934972
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 111
dh =
    0.799738355376848
rdh_sum =
    65.7365470894001
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 112
dh =
    0.809033855376848
rdh_sum =
    65.9228121910588
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 113
dh =
    0.818329855376849
rdh_sum =
    66.1130862051501
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 114
dh =
    0.827625355376847
rdh_sum =
    66.3074014855544
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 115
dh =
    0.836920855376848
rdh_sum =
    66.5057901759427
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 116
dh =
    0.846216855376849
rdh_sum =
    66.7082842133126
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 117
dh =
    0.855512855376849
rdh_sum =
    66.9149148846796
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 118
dh =
    0.86480835537685
rdh_sum =
    67.1257128170563
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 119
dh =
    0.87410385537685
rdh_sum =
    67.3407084209133
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 120
dh =
    0.883399855376849
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rdh_sum =
    67.5599318935237
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 121
dh =
    0.89269535537685
rdh_sum =
    67.7834125327865
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 122
dh =
    0.90199085537685
rdh_sum =
    68.0111794155471
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 123
dh =
    0.911286855376849
rdh_sum =
    68.2432614007962
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 124
dh =
    0.920582855376848
rdh_sum =
    68.4796866639524
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 125
dh =
    0.929878355376848
rdh_sum =
    68.7204826878386
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 126
dh =
    0.939173855376849
rdh_sum =
    68.9656767285354
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 127
dh =
    0.955090855376849
rdh_sum =
    69.2184636065964
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 128
dh =
    0.977628855376848
rdh_sum =
    69.4821315275072
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 129
dh =
    1.00016685537685
rdh_sum =
    69.7568265781069
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 130
dh =
    1.02270485537685
rdh_sum =
    70.0426880289001
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 131
dh =
    1.04524285537685
rdh_sum =
    70.339848247968
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 132
dh =
    1.06778085537685
rdh_sum =
    70.6484326191456
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 133
dh =
    1.09031885537685
rdh_sum =
    70.9685594645173
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 134
dh =
    1.11285685537685
rdh_sum =
    71.3003399712766
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 135
dh =
    1.13539435537685
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rdh_sum =
    71.6438778610564
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 136
dh =
    1.15793185537685
rdh_sum =
    71.9992698454041
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 137
dh =
    1.18046985537685
rdh_sum =
    72.3666055745815
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 138
dh =
    1.19257385537685
rdh_sum =
    72.7403899933018
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 139
dh =
    1.18380935537685
rdh_sum =
    73.1095026054164
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 140
dh =
    1.16461035537685
rdh_sum =
    73.4684247935182
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 141
dh =
    1.14541135537685
rdh_sum =
    73.8172198395406
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 142
dh =
    1.12621235537685
rdh_sum =
    74.1559555680525
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 143
dh =
    1.10701335537685
rdh_sum =
    74.4847043158355
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 144
dh =
    1.08781435537685
rdh_sum =
    74.8035428994363
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 145
dh =
    1.06861535537685
rdh_sum =
    75.1125525807094
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 146
dh =
    1.04941635537685
rdh_sum =
    75.411819030367
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 147
dh =
    1.03021735537685
rdh_sum =
    75.7014322895499
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 148
dh =
    1.01101835537685
rdh_sum =
    75.9814867294388
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 149
dh =
    0.991819355376849
rdh_sum =
    76.2520810089232
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 150
dh =
    0.972620355376849
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rdh_sum =
    76.5133180303467
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 151
dh =
    0.953421355376848
rdh_sum =
    76.7653048933494
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 152
dh =
    0.928784855376849
rdh_sum =
    77.0055853280902
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 153
dh =
    0.898710355376849
rdh_sum =
    77.2318362492055
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 154
dh =
    0.86863585537685
rdh_sum =
    77.444358950153
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 155
dh =
    0.838561855376849
rdh_sum =
    77.6434700541958
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 156
dh =
    0.808487355376849
rdh_sum =
    77.8295004997437
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 157
dh =
    0.778412855376848
rdh_sum =
    78.0027958476773
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 158
dh =
    0.748338355376848
rdh_sum =
    78.1637156753682
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 159
dh =
    0.718263855376849
rdh_sum =
    78.3126331809219
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 160
dh =
    0.68818985537685
rdh_sum =
    78.449934962264
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 161
dh =
    0.658115355376848
rdh_sum =
    78.5760200156049
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 162
dh =
    0.628040855376849
rdh_sum =
    78.6912998788671
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 163
dh =
    0.597966855376848
rdh_sum =
    78.7961981513885
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 175
dh =
    -0.339221144623151
rdh_sum =
    78.8116773931597
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 176
dh =
    -0.28063464462315
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rdh_sum =
    78.8222889208286
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 177
dh =
    -0.22204814462315
rdh_sum =
    78.8289411386826
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 178
dh =
    -0.163461644623151
rdh_sum =
    78.8325498002911
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 179
dh =
    -0.104875144623152
rdh_sum =
    78.8340363086814
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 180
dh =
    -0.0462886446231519
rdh_sum =
    78.8343260060279
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 181
dh =
    0.0122978553768487
rdh_sum =
    78.8343720181381
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 182
dh =
    0.0708838553768505
rdh_sum =
    78.8358999127566
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 183
dh =
    0.129470355376849
rdh_sum =
    78.8409911380911
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 184
dh =
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rdh_sum =
    78.8517122593901
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 185
dh =
    0.246643355376849
rdh_sum =
    78.8701063334337
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 186
dh =
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rdh_sum =
    78.8981843774455
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 187
dh =
    0.36381635537685
rdh_sum =
    78.9379169717915
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 188
dh =
    0.42240285537685
rdh_sum =
    78.9912260315281
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 189
dh =
    0.438199855376849
rdh_sum =
    79.0485176062577
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 190
dh =
    0.411207355376849
rdh_sum =
    79.0990862821363
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 191
dh =
    0.384214855376849
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rdh_sum =
    79.1433305308877
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 192
dh =
    0.357222855376849
rdh_sum =
    79.181654537447
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 193
dh =
    0.33023035537685
rdh_sum =
    79.2144675163969
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 194
dh =
    0.30323785537685
rdh_sum =
    79.2421836818956
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 195
dh =
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rdh_sum =
    79.2652217670031
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 196
dh =
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rdh_sum =
    79.2840046524271
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 197
dh =
    0.222260855376849
rdh_sum =
    79.2989590585367
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 198
dh =
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rdh_sum =
    79.3105149582544
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 199
dh =
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rdh_sum =
    79.3191054125444
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 200
dh =
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rdh_sum =
    79.3251661543845
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 201
dh =
    0.114291355376848
rdh_sum =
    79.3291350659149
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 202
dh =
    0.087298855376849
rdh_sum =
    79.3314519348235
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 203
dh =
    0.0603068553768491
rdh_sum =
    79.3325580318549
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 204
dh =
    0.0333143553768487
rdh_sum =
    79.332895656387
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 205
dh =
    0.00632185537684826
rdh_sum =
    79.3329078156542
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 206
dh =
    -0.0206706446231504
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rdh_sum =
    79.3329655902888
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 207
dh =
    -0.0476631446231508
rdh_sum =
    79.3332727458936
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 208
dh =
    -0.0746551446231507
rdh_sum =
    79.3340261845725
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 209
dh =
    -0.101647644623151
rdh_sum =
    79.3354226490976
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 210
dh =
    -0.128640144623152
rdh_sum =
    79.3376586224025
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 211
dh =
    -0.165996644623151
rdh_sum =
    79.3413799396644
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 212
dh =
    -0.213718144623151
rdh_sum =
    79.347543420399
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 213
dh =
    -0.261439644623151
rdh_sum =
    79.3567572896778
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 214
dh =
    -0.309160644623152
rdh_sum =
    79.3696259741695
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 215
dh =
    -0.356882144623151
rdh_sum =
    79.3867494757335
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 216
dh =
    -0.404603644623151
rdh_sum =
    79.408722520724
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 217
dh =
    -0.452324644623152
rdh_sum =
    79.4361338025994
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 218
dh =
    -0.500046144623152
rdh_sum =
    79.4695654308566
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 219
dh =
    -0.547767644623152
rdh_sum =
    79.5095920462322
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 220
dh =
    -0.595488644623151
rdh_sum =
    79.556780088891
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 221
dh =
    -0.64320964462315
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rdh_sum =
    79.6116872450383
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 222
dh =
    -0.690931144623152
rdh_sum =
    79.6748617834261
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 223
dh =
    -0.738652644623151
rdh_sum =
    79.7468417124585
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 224
dh =
    -0.786373644623152
rdh_sum =
    79.8281540950315
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 225
dh =
    -0.83409514462315
rdh_sum =
    79.9193146954313
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 226
dh =
    -0.881816644623152
rdh_sum =
    80.0208270535204
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 227
dh =
    -0.901140144623151
rdh_sum =
    80.126671410744
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 228
dh =
    -0.863668644623152
rdh_sum =
    80.2241885640998
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 229
dh =
    -0.797799644623151
rdh_sum =
    80.3078124072049
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 230
dh =
    -0.731930644623151
rdh_sum =
    80.3785198636183
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 231
dh =
    -0.666061144623152
rdh_sum =
    80.4373180754972
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 232
dh =
    -0.60019164462315
rdh_sum =
    80.4852422293104
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 233
dh =
    -0.534322644623151
rdh_sum =
    80.523353095604
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 234
dh =
    -0.468453644623152
rdh_sum =
    80.5527343828683
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 235
dh =
    -0.402584644623152
rdh_sum =
    80.5744902813895
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 236
dh =
    -0.336715644623151
```

```
rdh_sum =
    80.5897428725406
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 237
dh =
    -0.270846144623151
rdh_sum =
    80.5996294597129
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 238
dh =
    -0.204976644623152
rdh_sum =
    80.6052999901343
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 239
dh =
    -0.139107644623151
rdh_sum =
    80.6079143218928
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 240
dh =
    -0.0948221446231514
rdh_sum =
    80.6091296150934
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 241
dh =
    -0.093704644623152
rdh_sum =
    80.610316443359
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 242
dh =
    -0.114171144623151
rdh_sum =
    80.6120779937279
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 243
dh =
    -0.13463714462315
rdh_sum =
    80.6145271271721
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 244
dh =
    -0.155103144623151
rdh_sum =
    80.6177765615553
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 245
dh =
    -0.175569144623152
rdh_sum =
    80.6219388334369
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 246
dh =
    -0.196035644623151
rdh_sum =
    80.6271262989931
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 247
dh =
    -0.216502144623151
rdh_sum =
    80.6334510612083
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 248
dh =
    -0.23696814462315
rdh_sum =
    80.6410249335245
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 249
dh =
    -0.257434144623153
rdh_sum =
    80.6499594728193
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 250
dh =
    -0.277900144623151
rdh_sum =
    80.6603659277178
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 251
dh =
    -0.298366644623151
```

```
rdh_sum =
    80.6723552534109
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 252
dh =
    -0.31883314462315
rdh_sum =
    80.6860380118777
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 253
dh =
    -0.339299144623151
rdh_sum =
    80.7015243360339
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 254
dh =
    -0.359765144623152
rdh_sum =
    80.7189239902277
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 255
dh =
    -0.380231144623151
rdh_sum =
    80.7383463053512
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 256
dh =
    -0.400697644623151
rdh_sum =
    80.7599002074728
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 257
dh =
    -0.42116414462315
rdh_sum =
    80.7836940916548
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 258
dh =
    -0.441630144623153
rdh_sum =
    80.8098357868047
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 259
dh =
    -0.462096144623152
rdh_sum =
    80.8384326433452
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 260
dh =
    -0.482562144623151
rdh_sum =
    80.8695914554937
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 261
dh =
    -0.503802644623152
rdh_sum =
    80.9035214870835
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 262
dh =
    -0.526591144623152
rdh_sum =
    80.9405511480081
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 263
dh =
    -0.550153144623151
rdh_sum =
    80.9809223711149
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 264
dh =
    -0.573715644623151
rdh_sum =
    81.0247732441194
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 265
dh =
    -0.597278144623152
rdh_sum =
    81.072240740422
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 266
dh =
    -0.620840644623151
```

```
rdh_sum =
    81.1234607474159
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 267
dh =
    -0.64440314462315
rdh_sum =
    81.1785680256829
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 268
dh =
    -0.667965144623151
rdh_sum =
    81.2376960817945
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 269
dh =
    -0.691527644623152
rdh_sum =
    81.3009773855973
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 270
dh =
    -0.715090144623153
rdh_sum =
    81.3685430758818
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 271
dh =
    -0.738652644623151
rdh_sum =
    81.4405230049143
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 278
dh =
    -1.42260614462315
rdh_sum =
    81.6901106993856
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 279
dh =
    -1.44238464462315
rdh_sum =
    81.9460197781445
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 280
dh =
    -1.43029764462315
rdh_sum =
    82.1980595219542
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 281
dh =
    -1.41821014462315
rdh_sum =
    82.4462493655522
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 282
dh =
    -1.40612264462315
rdh_sum =
    82.6906092083798
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 283
dh =
    -1.39403564462315
rdh_sum =
    82.9311594097166
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 284
dh =
    -1.38194864462315
rdh_sum =
    83.1679204710346
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 285
dh =
    -1.36986114462315
rdh_sum =
    83.4009130377703
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 286
dh =
    -1.35777364462315
rdh_sum =
    83.6301582103384
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 287
dh =
    -1.34568664462315
```

```
rdh_sum =
    83.8556775389728
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 288
dh =
    -1.33359914462315
rdh_sum =
    84.0774925600944
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 289
dh =
    -1.32151164462315
rdh_sum =
    84.2956252574297
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 290
dh =
    -1.30942464462315
rdh_sum =
    84.5100980566363
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 291
dh =
    -1.29733714462315
rdh_sum =
    84.7209333698031
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 292
dh =
    -1.28524964462315
rdh_sum =
    84.9281540483344
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 293
dh =
    -1.27316264462315
rdh_sum =
    85.1317833773629
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 294
dh =
    -1.26107564462315
rdh_sum =
    85.3318447758121
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 295
dh =
    -1.24898814462315
rdh_sum =
    85.5283617984211
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 296
dh =
    -1.23690064462315
rdh_sum =
    85.7213584281049
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 297
dh =
    -1.24853564462315
rdh_sum =
    85.9177432296734
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 318
dh =
    -2.93682164462315
rdh_sum =
    86.9177432296734
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 319
dh =
    -2.93911314462315
rdh_sum =
    87.9177432296734
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 320
dh =
    -2.91456764462315
rdh_sum =
    88.9177432296734
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 321
dh =
    -2.89002214462315
rdh_sum =
    89.9177432296734
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 322
dh =
    -2.86547614462315
```



```
rdh_sum =
    90.9177432296734
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 323
dh =
    -2.84093064462315
rdh_sum =
    91.6655516931356
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 324
dh =
    -2.81638514462315
rdh_sum =
    92.4054808384474
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 325
dh =
    -2.79183964462315
rdh_sum =
    93.1374524825781
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 326
dh =
    -2.76729414462315
rdh_sum =
    93.8613910355187
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 327
dh =
    -2.74274864462315
rdh_sum =
    94.5772235249143
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 328
dh =
    -2.71820314462315
rdh_sum =
    95.2848796198422
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 329
dh =
    -2.69365764462315
rdh_sum =
    95.9842916537301
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 330
dh =
    -2.66911214462315
rdh_sum =
    96.6753946464056
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 331
dh =
    -2.64456664462315
rdh_sum =
    97.358126325271
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 332
dh =
    -2.64509964462315
rdh_sum =
    98.0410404276937
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 333
dh =
    -2.67071114462315
rdh_sum =
    98.7326866328384
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 334
dh =
    -2.69632314462315
rdh_sum =
    99.4329971176172
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 335
dh =
    -2.72193464462315
rdh_sum =
    100.141900646781
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 336
dh =
    -2.74754614462315
rdh_sum =
    100.859323106289
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 337
dh =
    -2.77315814462315
```

```
rdh_sum =
    101.585187523818
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 338
dh =
    -2.79877014462315
rdh_sum =
    102.319413764877
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 339
dh =
    -2.82438164462315
rdh_sum =
    103.061918567492
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 340
dh =
    -2.84999314462315
rdh_sum =
    104.061918567492
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 341
dh =
    -2.87560514462315
rdh_sum =
    105.061918567492
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 342
dh =
    -2.90121714462315
rdh_sum =
    106.061918567492
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 343
dh =
    -2.92682864462315
rdh_sum =
    107.061918567492
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 344
dh =
    -2.95244014462315
rdh_sum =
    108.061918567492
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 345
dh =
    -2.97805214462315
rdh_sum =
    109.061918567492
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 346
dh =
    -3.00366364462315
rdh_sum =
    110.061918567492
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 347
dh =
    -3.02615314462315
rdh_sum =
    111.061918567492
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 348
dh =
    -3.04239864462315
rdh_sum =
    112.061918567492
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 349
dh =
    -3.05552214462315
rdh_sum =
    113.061918567492
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 350
dh =
    -3.06864564462315
rdh_sum =
    114.061918567492
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 351
dh =
    -3.08176864462315
rdh_sum =
    115.061918567492
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 352
dh =
    -3.09489214462315
```

```

rdh_sum =
    116.061918567492
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 353
dh =
    -3.10801564462315
rdh_sum =
    117.061918567492
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 354
dh =
    -3.12113864462315
rdh_sum =
    118.061918567492
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 355
dh =
    -3.13426214462315
rdh_sum =
    119.061918567492
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 356
dh =
    -3.14738564462315
rdh_sum =
    120.061918567492
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 357
dh =
    -3.16050914462315
rdh_sum =
    121.061918567492
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 358
dh =
    -3.17363264462315
rdh_sum =
    122.061918567492
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 359
dh =
    -3.18675564462315
rdh_sum =
    123.061918567492
ans =
!----- End Berm Factor Calculation, Iter: 1 -----!
berm_width =
    303
rB =
    1.10887442167207
rdh_mean =
    0.406144945767302
gamma_berm =
    0.341489320180684
gamma_berm =
    0.6
slope =
    -0.217134905614551
Irb =
    -1.38609244362968
gamma_berm =
    0.6
gamma_perm =
    1
gamma_beta =
    1
gamma_rough =
    1
gamma =
    0.6
ans =
!!! - - Iribaren number: -0.83 is outside the valid range (0.5-10), TAW NOT VALID - - !!!
ans =
!!! - - slope: 1:-4.6 V:H is outside the valid range (1:8 - 1:1), TAW NOT VALID - - !!!
R2_new =
    -2.09602376637433
!   Berm_width is greater than 1/4 wave length
!   Runup will be weighted average with foreshore calculation assuming depth limited wave height on berm
fore_H0 =
    1.80004383
upper_slope =
    0.0983111386978463
upper_slope =
    0.0992755606253062
upper_slope =
    0.100310419480375
upper_slope =
    0.101423724317526
upper_slope =
    0.102624746255337

```

```

upper_slope =
    0.103924277266033
upper_slope =
    0.105334955366755
upper_slope =
    0.106871676977954
upper_slope =
    0.108552124982866
upper_slope =
    0.110397452220613
upper_slope =
    0.112433176543556
upper_slope =
    0.114690367995418
upper_slope =
    0.117207245738271
upper_slope =
    0.120031298756944
upper_slope =
    0.123222558685264
upper_slope =
    0.126857542610512
upper_slope =
    0.131035710586596
upper_slope =
    0.135888648043583
upper_slope =
    0.141594175685385
upper_slope =
    0.141594192604262
upper_slope =
    0.141594213129044
upper_slope =
    0.141594238550011
upper_slope =
    0.141594135428206
upper_slope =
    0.141594156641943
upper_slope =
    0.141594185735989
upper_slope =
    0.141594228102908
upper_slope =
    0.14159429550948
upper_slope =
    0.141594419465514
upper_slope =
    0.141594722550552
upper_slope =
    0.141594000000014
upper_slope =
    0.141593999999999
upper_slope =
    0.141593999999996
upper_slope =
    0.141593999999997
upper_slope =
    0.141593999999998
upper_slope =
    0.141593999999999
upper_slope =
    0.141593999999999
upper_slope =
    0.141594151148415
upper_slope =
    0.141594131302283
R2_new =
    2.56131124654662
berm is wider than one wavelength, use full shallow foreshore solution
R2del =
    1.71038875345338
Z2 =
    11.6252121019235
top_sta =
    908.64085531658
ans =
!----- STARTING ITERATION 2 -----!
Ztoe =
    6.87585
toe_sta =
    689.365955814508
top_sta =
    908.64085531658
Z2 =
    11.6252121019235
H0 =
    1.4239
Tp =
    3.7042
T0 =

```

```
R2 = 3.36745454545455
Z2 = 2.56131124654662
top_sta = 11.6252121019235
Lslope = 908.64085531658
ans = 219.274899502072
Berm Factor Calculation: Iteration 2, Profile Segment: 1
dh = 2.10633285537685
rdh_sum = 0.841854786251598
ans = 2.05967235537685
Berm Factor Calculation: Iteration 2, Profile Segment: 2
dh = 2.05967235537685
rdh_sum = 1.66448332893937
ans = 1.66448332893937
Berm Factor Calculation: Iteration 2, Profile Segment: 3
dh = 2.01301135537685
rdh_sum = 2.46703076358375
ans = 2.46703076358375
Berm Factor Calculation: Iteration 2, Profile Segment: 4
dh = 1.96635035537685
rdh_sum = 3.24869562307788
ans = 3.24869562307788
Berm Factor Calculation: Iteration 2, Profile Segment: 5
dh = 1.91968935537685
rdh_sum = 4.00873175956462
ans = 4.00873175956462
Berm Factor Calculation: Iteration 2, Profile Segment: 6
dh = 1.87302835537685
rdh_sum = 4.74645032102899
ans = 4.74645032102899
Berm Factor Calculation: Iteration 2, Profile Segment: 7
dh = 1.83625585537685
rdh_sum = 5.46613420323588
ans = 5.46613420323588
Berm Factor Calculation: Iteration 2, Profile Segment: 8
dh = 1.81925935537685
rdh_sum = 6.17735836727645
ans = 6.17735836727645
Berm Factor Calculation: Iteration 2, Profile Segment: 9
dh = 1.81215085537685
rdh_sum = 6.88502220217542
ans = 6.88502220217542
Berm Factor Calculation: Iteration 2, Profile Segment: 10
dh = 1.80504235537685
rdh_sum = 7.58911293782331
ans = 7.58911293782331
Berm Factor Calculation: Iteration 2, Profile Segment: 11
dh = 1.79793385537685
rdh_sum = 8.28961802383533
ans = 8.28961802383533
Berm Factor Calculation: Iteration 2, Profile Segment: 12
dh = 1.79082535537685
rdh_sum = 8.98652513032316
ans = 8.98652513032316
Berm Factor Calculation: Iteration 2, Profile Segment: 13
dh = 1.78371685537685
rdh_sum = 9.67982214865309
ans = 9.67982214865309
Berm Factor Calculation: Iteration 2, Profile Segment: 14
dh =
```

```
1.77660835537685
rdh_sum = 10.3694971921907
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 15
dh = 1.76949985537685
rdh_sum = 11.0555385970319
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 16
dh = 1.76239135537685
rdh_sum = 11.73793492272
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 17
dh = 1.75528285537685
rdh_sum = 12.4166749529493
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 18
dh = 1.74817435537685
rdh_sum = 13.091747696255
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 19
dh = 1.74106585537685
rdh_sum = 13.7631423866887
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 20
dh = 1.73395735537685
rdh_sum = 14.430848484481
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 21
dh = 1.72684885537685
rdh_sum = 15.0948556766891
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 22
dh = 1.71974035537685
rdh_sum = 15.7551538778315
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 23
dh = 1.71263185537685
rdh_sum = 16.4117332305077
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 24
dh = 1.70552335537685
rdh_sum = 17.0645841060046
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 25
dh = 1.70275535537685
rdh_sum = 17.7159805833779
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 26
dh = 1.70866785537685
rdh_sum = 18.3704819525397
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 27
dh = 1.71892035537685
rdh_sum = 19.0303516650813
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 28
dh = 1.72917285537685
rdh_sum = 19.6955692706332
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 29
dh =
```

```
1.73942535537685
rdh_sum =
20.3661136347288
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 30
dh =
1.74967835537685
rdh_sum =
21.0419631996797
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 31
dh =
1.75993085537685
rdh_sum =
21.7230952117379
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 32
dh =
1.77018335537685
rdh_sum =
22.4094865006823
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 33
dh =
1.78043635537685
rdh_sum =
23.1011134782629
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 34
dh =
1.79068885537685
rdh_sum =
23.7979513758418
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 35
dh =
1.80094135537685
rdh_sum =
24.4999750141172
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 36
dh =
1.81119385537685
rdh_sum =
25.2071585504327
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 37
dh =
1.82144635537685
rdh_sum =
25.9194754820827
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 38
dh =
1.83169935537685
rdh_sum =
26.6368988980544
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 39
dh =
1.84195185537685
rdh_sum =
27.359400736076
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 40
dh =
1.85220435537685
rdh_sum =
28.0869525339406
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 41
dh =
1.86416785537685
rdh_sum =
28.8203602144864
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 42
dh =
1.87955235537685
rdh_sum =
29.5612383893607
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 43
dh =
1.89664685537685
rdh_sum =
30.3103359414417
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 44
dh =
```

```
1.91374135537685
rdh_sum = 31.0675642879231
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 45
dh = 1.93083635537685
rdh_sum = 31.8328321883445
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 46
dh = 1.94793135537685
rdh_sum = 32.6060453039643
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 47
dh = 1.96502635537685
rdh_sum = 33.3871064704382
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 48
dh = 1.98212135537685
rdh_sum = 34.1759157323751
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 49
dh = 1.99921635537685
rdh_sum = 34.9723703788842
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 50
dh = 2.01631135537685
rdh_sum = 35.7763649801026
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 51
dh = 2.03340635537685
rdh_sum = 36.5877914246904
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 52
dh = 2.05050135537685
rdh_sum = 37.4065389582787
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 53
dh = 2.06759585537685
rdh_sum = 38.2324940137266
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 54
dh = 2.08469035537685
rdh_sum = 39.0655406765526
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 55
dh = 2.10178535537685
rdh_sum = 39.9055607125973
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 56
dh = 2.11888035537685
rdh_sum = 40.7524331985891
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 57
dh = 2.12914935537685
rdh_sum = 48.4107997068484
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 58
dh = 2.12574435537685
rdh_sum = 49.2603890202476
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 59
dh =
```



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2.11549185537685
rdh_sum = 50.1059129679034
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 60
dh = 2.10523935537685
rdh_sum = 50.9473273507472
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 61
dh = 2.09498635537685
rdh_sum = 51.7845882917974
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 62
dh = 2.08473385537685
rdh_sum = 52.6176528504675
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 63
dh = 2.07448135537685
rdh_sum = 53.4464784214811
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 64
dh = 2.06422885537685
rdh_sum = 54.2710229418085
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 65
dh = 2.05397635537685
rdh_sum = 55.0912448960478
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 66
dh = 2.04372335537685
rdh_sum = 55.9071031079421
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 67
dh = 2.03347085537685
rdh_sum = 56.718557385042
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 68
dh = 2.00654885537685
rdh_sum = 57.518259188331
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 83
dh = 0.962549855376849
rdh_sum = 57.7746305814695
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 84
dh = 1.07218435537685
rdh_sum = 58.0854610562565
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 85
dh = 1.18181935537685
rdh_sum = 58.4535146126854
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 86
dh = 1.29145435537685
rdh_sum = 58.8807189829909
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 87
dh = 1.40108885537685
rdh_sum = 59.3681374326918
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 88
dh =
```

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1.51072335537685
rdh_sum =
59.9159537760576
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 89
dh =
1.62035835537685
rdh_sum =
60.5234696939381
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 90
dh =
1.72999335537685
rdh_sum =
61.1891143830965
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 91
dh =
1.83962785537685
rdh_sum =
61.9104675339925
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 92
dh =
1.94926235537685
rdh_sum =
62.6842952154543
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 93
dh =
2.05889735537685
rdh_sum =
63.5065970633593
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 94
dh =
2.12030385537685
rdh_sum =
65.2014721808151
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 109
dh =
0.781146855376848
rdh_sum =
65.3759105951208
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 110
dh =
0.790442855376849
rdh_sum =
65.5542576934972
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 111
dh =
0.799738355376848
rdh_sum =
65.7365470894001
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 112
dh =
0.809033855376848
rdh_sum =
65.9228121910588
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 113
dh =
0.818329855376849
rdh_sum =
66.1130862051501
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 114
dh =
0.827625355376847
rdh_sum =
66.3074014855544
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 115
dh =
0.836920855376848
rdh_sum =
66.5057901759427
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 116
dh =
0.846216855376849
rdh_sum =
66.7082842133126
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 117
dh =
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0.855512855376849
rdh_sum = 66.9149148846796
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 118
dh = 0.86480835537685
rdh_sum = 67.1257128170563
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 119
dh = 0.87410385537685
rdh_sum = 67.3407084209133
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 120
dh = 0.883399855376849
rdh_sum = 67.5599318935237
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 121
dh = 0.89269535537685
rdh_sum = 67.7834125327865
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 122
dh = 0.90199085537685
rdh_sum = 68.0111794155471
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 123
dh = 0.911286855376849
rdh_sum = 68.2432614007962
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 124
dh = 0.920582855376848
rdh_sum = 68.4796866639524
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 125
dh = 0.929878355376848
rdh_sum = 68.7204826878386
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 126
dh = 0.939173855376849
rdh_sum = 68.9656767285354
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 127
dh = 0.955090855376849
rdh_sum = 69.2184636065964
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 128
dh = 0.977628855376848
rdh_sum = 69.4821315275072
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 129
dh = 1.00016685537685
rdh_sum = 69.7568265781069
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 130
dh = 1.02270485537685
rdh_sum = 70.0426880289001
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 131
dh = 1.04524285537685
rdh_sum = 70.339848247968
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 132
dh =
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1.06778085537685
rdh_sum = 70.6484326191456
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 133
dh = 1.09031885537685
rdh_sum = 70.9685594645173
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 134
dh = 1.11285685537685
rdh_sum = 71.3003399712766
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 135
dh = 1.13539435537685
rdh_sum = 71.6438778610564
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 136
dh = 1.15793185537685
rdh_sum = 71.9992698454041
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 137
dh = 1.18046985537685
rdh_sum = 72.3666055745815
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 138
dh = 1.19257385537685
rdh_sum = 72.7403899933018
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 139
dh = 1.18380935537685
rdh_sum = 73.1095026054164
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 140
dh = 1.16461035537685
rdh_sum = 73.4684247935182
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 141
dh = 1.14541135537685
rdh_sum = 73.8172198395406
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 142
dh = 1.12621235537685
rdh_sum = 74.1559555680525
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 143
dh = 1.10701335537685
rdh_sum = 74.4847043158355
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 144
dh = 1.08781435537685
rdh_sum = 74.8035428994363
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 145
dh = 1.06861535537685
rdh_sum = 75.1125525807094
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 146
dh = 1.04941635537685
rdh_sum = 75.411819030367
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 147
dh =
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1.03021735537685
rdh_sum = 75.7014322895499
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 148
dh = 1.01101835537685
rdh_sum = 75.9814867294388
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 149
dh = 0.991819355376849
rdh_sum = 76.2520810089232
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 150
dh = 0.972620355376849
rdh_sum = 76.5133180303467
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 151
dh = 0.953421355376848
rdh_sum = 76.7653048933494
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 152
dh = 0.928784855376849
rdh_sum = 77.0055853280902
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 153
dh = 0.898710355376849
rdh_sum = 77.2318362492055
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 154
dh = 0.86863585537685
rdh_sum = 77.444358950153
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 155
dh = 0.838561855376849
rdh_sum = 77.6434700541958
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 156
dh = 0.808487355376849
rdh_sum = 77.8295004997437
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 157
dh = 0.778412855376848
rdh_sum = 78.0027958476773
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 158
dh = 0.748338355376848
rdh_sum = 78.1637156753682
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 159
dh = 0.718263855376849
rdh_sum = 78.3126331809219
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 160
dh = 0.68818985537685
rdh_sum = 78.449934962264
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 161
dh = 0.658115355376848
rdh_sum = 78.5760200156049
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 162
dh =
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0.628040855376849
rdh_sum = 78.6912998788671
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 163
dh = 0.597966855376848
rdh_sum = 78.7961981513885
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 175
dh = -0.339221144623151
rdh_sum = 78.8388566685811
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 176
dh = -0.28063464462315
rdh_sum = 78.8681861634195
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 177
dh = -0.22204814462315
rdh_sum = 78.8866160385371
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 178
dh = -0.163461644623151
rdh_sum = 78.8966319558067
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 179
dh = -0.104875144623152
rdh_sum = 78.9007630064032
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 180
dh = -0.0462886446231519
rdh_sum = 78.9015686567011
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 181
dh = 0.0122978553768487
rdh_sum = 78.9016146688112
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 182
dh = 0.0708838553768505
rdh_sum = 78.9031425634297
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 183
dh = 0.129470355376849
rdh_sum = 78.9082337887642
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 184
dh = 0.188056855376848
rdh_sum = 78.9189549100633
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 185
dh = 0.246643355376849
rdh_sum = 78.9373489841068
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 186
dh = 0.305229855376849
rdh_sum = 78.9654270281186
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 187
dh = 0.36381635537685
rdh_sum = 79.0051596224647
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 188
dh =
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0.42240285537685
rdh_sum = 79.0584686822012
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 189
dh = 0.438199855376849
rdh_sum = 79.1157602569308
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 190
dh = 0.411207355376849
rdh_sum = 79.1663289328094
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 191
dh = 0.384214855376849
rdh_sum = 79.2105731815608
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 192
dh = 0.357222855376849
rdh_sum = 79.2488971881201
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 193
dh = 0.33023035537685
rdh_sum = 79.28171016707
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 194
dh = 0.30323785537685
rdh_sum = 79.3094263325687
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 195
dh = 0.276245355376849
rdh_sum = 79.3324644176763
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 196
dh = 0.249252855376849
rdh_sum = 79.3512473031002
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 197
dh = 0.222260855376849
rdh_sum = 79.3662017092099
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 198
dh = 0.195268355376848
rdh_sum = 79.3777576089276
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 199
dh = 0.168275855376848
rdh_sum = 79.3863480632176
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 200
dh = 0.141283855376848
rdh_sum = 79.3924088050576
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 201
dh = 0.114291355376848
rdh_sum = 79.3963777165881
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 202
dh = 0.087298855376849
rdh_sum = 79.3986945854966
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 203
dh =
```

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0.0603068553768491
rdh_sum = 79.3998006825281
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 204
dh = 0.0333143553768487
rdh_sum = 79.4001383070601
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 205
dh = 0.00632185537684826
rdh_sum = 79.4001504663273
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 206
dh = -0.0206706446231504
rdh_sum = 79.4003111601138
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 207
dh = -0.0476631446231508
rdh_sum = 79.4011653530891
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 208
dh = -0.0746551446231507
rdh_sum = 79.4032600939857
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 209
dh = -0.101647644623151
rdh_sum = 79.407141117819
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 210
dh = -0.128640144623152
rdh_sum = 79.4133521838758
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 211
dh = -0.165996644623151
rdh_sum = 79.4236800860395
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 212
dh = -0.213718144623151
rdh_sum = 79.4407609078389
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 213
dh = -0.261439644623151
rdh_sum = 79.466248715618
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 214
dh = -0.309160644623152
rdh_sum = 79.501768667096
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 215
dh = -0.356882144623151
rdh_sum = 79.5489117686487
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 216
dh = -0.404603644623151
rdh_sum = 79.6092291190691
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 217
dh = -0.452324644623152
rdh_sum = 79.6842265319591
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 218
dh =
```



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-0.500046144623152
rdh_sum = 79.7753598471694
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 219
dh = -0.547767644623152
rdh_sum = 79.8840294908025
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 220
dh = -0.595488644623151
rdh_sum = 80.0115756199815
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 221
dh = -0.64320964462315
rdh_sum = 80.1592739150573
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 222
dh = -0.690931144623152
rdh_sum = 80.3283312636722
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 223
dh = -0.738652644623151
rdh_sum = 80.5198811911163
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 224
dh = -0.786373644623152
rdh_sum = 80.7349799304322
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 225
dh = -0.83409514462315
rdh_sum = 80.974603549986
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 226
dh = -0.881816644623152
rdh_sum = 81.23964387563
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 227
dh = -0.901140144623151
rdh_sum = 81.5152099117972
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 228
dh = -0.863668644623152
rdh_sum = 81.770484909899
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 229
dh = -0.797799644623151
rdh_sum = 81.9913699182938
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 230
dh = -0.731930644623151
rdh_sum = 82.1796858255001
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 231
dh = -0.666061144623152
rdh_sum = 82.3374657705602
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 232
dh = -0.60019164462315
rdh_sum = 82.4669423602593
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 233
dh =
```

```
-0.534322644623151
rdh_sum = 82.5705330363081
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 234
dh = -0.468453644623152
rdh_sum = 82.6508238912072
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 235
dh = -0.402584644623152
rdh_sum = 82.7105530206748
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 236
dh = -0.336715644623151
rdh_sum = 82.7525926608763
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 237
dh = -0.270846144623151
rdh_sum = 82.7799303505445
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 238
dh = -0.204976644623152
rdh_sum = 82.7956496876913
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 239
dh = -0.139107644623151
rdh_sum = 82.8029101192756
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 240
dh = -0.0948221446231514
rdh_sum = 82.8062879995299
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 241
dh = -0.093704644623152
rdh_sum = 82.8095868179563
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 242
dh = -0.114171144623151
rdh_sum = 82.8144814176275
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 243
dh = -0.13463714462315
rdh_sum = 82.8212837350033
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 244
dh = -0.155103144623151
rdh_sum = 82.8303045396343
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 245
dh = -0.175569144623152
rdh_sum = 82.8418532031769
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 246
dh = -0.196035644623151
rdh_sum = 82.8562375774766
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 247
dh = -0.216502144623151
rdh_sum = 82.8737636694932
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 248
dh =
```

```
-0.23696814462315
rdh_sum = 82.8947354185807
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 249
dh = -0.257434144623153
rdh_sum = 82.9194546659672
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 250
dh = -0.277900144623151
rdh_sum = 82.9482208915393
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 251
dh = -0.298366644623151
rdh_sum = 82.9813311348659
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 252
dh = -0.31883314462315
rdh_sum = 83.019079602944
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 253
dh = -0.339299144623151
rdh_sum = 83.0617574560673
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 254
dh = -0.359765144623152
rdh_sum = 83.1096528581974
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 255
dh = -0.380231144623151
rdh_sum = 83.1630506856582
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 256
dh = -0.400697644623151
rdh_sum = 83.2222324923435
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 257
dh = -0.42116414462315
rdh_sum = 83.2874760564549
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 258
dh = -0.441630144623153
rdh_sum = 83.3590551783273
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 259
dh = -0.462096144623152
rdh_sum = 83.4372398108993
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 260
dh = -0.482562144623151
rdh_sum = 83.5222957449013
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 261
dh = -0.503802644623152
rdh_sum = 83.6147594433648
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 262
dh = -0.526591144623152
rdh_sum = 83.7154782093869
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 263
dh =
```

```
-0.550153144623151
rdh_sum = 83.8250601528309
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 264
dh = -0.573715644623151
rdh_sum = 83.9438315326637
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 265
dh = -0.597278144623152
rdh_sum = 84.0721107483301
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 266
dh = -0.620840644623151
rdh_sum = 84.2102082583982
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 267
dh = -0.64440314462315
rdh_sum = 84.3584263212658
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 268
dh = -0.667965144623151
rdh_sum = 84.5170585186662
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 269
dh = -0.691527644623152
rdh_sum = 84.6863901764792
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 270
dh = -0.715090144623153
rdh_sum = 84.8666974665636
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 271
dh = -0.738652644623151
rdh_sum = 85.0582473940076
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 278
dh = -1.42260614462315
rdh_sum = 85.6448626557696
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 279
dh = -1.44238464462315
rdh_sum = 86.2433975866762
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 280
dh = -1.43029764462315
rdh_sum = 86.8346546350737
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 281
dh = -1.41821014462315
rdh_sum = 87.4186134415003
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 282
dh = -1.40612264462315
rdh_sum = 87.9952555513162
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 283
dh = -1.39403564462315
rdh_sum = 88.5645644218131
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 284
dh =
```

```

-1.38194864462315
rdh_sum = 89.1265248197536
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 285
dh = -1.36986114462315
rdh_sum = 89.681122822199
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 286
dh = -1.35777364462315
rdh_sum = 90.228346428187
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 287
dh = -1.34568664462315
rdh_sum = 90.768185563355
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 288
dh = -1.33359914462315
rdh_sum = 91.3006311655584
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 289
dh = -1.32151164462315
rdh_sum = 91.825676103063
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 290
dh = -1.30942464462315
rdh_sum = 92.343315177292
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 291
dh = -1.29733714462315
rdh_sum = 92.8535442048192
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 292
dh = -1.28524964462315
rdh_sum = 93.3563609372441
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 293
dh = -1.27316264462315
rdh_sum = 93.8517650620582
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 294
dh = -1.26107564462315
rdh_sum = 94.3397575893784
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 295
dh = -1.24898814462315
rdh_sum = 94.8203408518919
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 296
dh = -1.23690064462315
rdh_sum = 95.293519117512
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 297
dh = -1.24853564462315
rdh_sum = 95.7738250842091
ans =
!----- End Berm Factor Calculation, Iter: 2 -----!
berm_width =
261
rB = 1.19028671586523
rdh_mean = 0.366949521395437
gamma_berm =

```

```

0.246488424844862
gamma_berm =
0.6
slope =
-0.113825060820629
Irb =
-0.726608447649742
gamma_berm =
0.6
gamma_perm =
1
gamma_beta =
1
gamma_rough =
1
gamma =
0.6
ans =
!!! - - Iribaren number: -0.44 is outside the valid range (0.5-10), TAW NOT VALID - - !!!
ans =
!!! - - slope: 1:-8.8 V:H is outside the valid range (1:8 - 1:1), TAW NOT VALID - - !!!
R2_new =
-1.09876407026219
! Berm_width is greater than 1/4 wave length
! Runup will be weighted average with foreshore calculation assuming depth limited wave height on berm
fore_H0 =
1.80004383
upper_slope =
0.0551728537467984
upper_slope =
0.0549814463892573
upper_slope =
0.054785333786638
upper_slope =
0.0545843402808336
upper_slope =
0.0543782813599065
upper_slope =
0.0541669630931363
upper_slope =
0.0539501815222504
upper_slope =
0.053727722004819
upper_slope =
0.0534993585053727
upper_slope =
0.0532648528293208
upper_slope =
0.0530239537942115
upper_slope =
0.0527763963322741
upper_slope =
0.0525219005175009
upper_slope =
0.0522601562969684
upper_slope =
0.0519908789898695
upper_slope =
0.051713723371585
upper_slope =
0.0514283385627553
upper_slope =
0.0511343525336961
upper_slope =
0.0508313704863908
upper_slope =
0.0494211182221622
upper_slope =
0.0479663498183526
upper_slope =
0.0464649236737676
upper_slope =
0.0449145422788337
upper_slope =
0.0433128055705313
upper_slope =
0.0416571012143848
upper_slope =
0.0399446549589138
upper_slope =
0.0381724990873066
upper_slope =
0.0363374552538057
upper_slope =
0.0344361154598454
upper_slope =
0.0324648025342239
upper_slope =
0.0304196198740962
upper_slope =

```

```

0.0282963158973391
upper_slope =
0.0260903273669414
upper_slope =
0.02379672859041
upper_slope =
0.0214101947036273
upper_slope =
0.018924960399275
upper_slope =
0.0163347523112545
upper_slope =
0.0136328205015949
R2_new =
0.246605534789728
berm is wider than one wavelength, use full shallow foreshore solution
R2del =
2.31470571175689
Z2 =
9.31050639016658
top_sta =
768.590570439523
ans =
!----- STARTING ITERATION 3 -----!
Ztoe =
6.87585
toe_sta =
689.365955814508
top_sta =
768.590570439523
Z2 =
9.31050639016658
H0 =
1.4239
Tp =
3.7042
T0 =
3.36745454545455
R2 =
0.246605534789728
Z2 =
9.31050639016658
top_sta =
768.590570439523
Lslope =
79.2246146250154
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 1
dh =
2.10633285537685
rdh_sum =
1
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 2
dh =
2.05967235537685
rdh_sum =
2
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 3
dh =
2.01301135537685
rdh_sum =
3
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 4
dh =
1.96635035537685
rdh_sum =
4
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 5
dh =
1.91968935537685
rdh_sum =
5
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 6
dh =
1.87302835537685
rdh_sum =
6
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 7
dh =
1.83625585537685
rdh_sum =
7
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 8

```

```
dh =
    1.81925935537685
rdh_sum =
    8
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 9
dh =
    1.81215085537685
rdh_sum =
    9
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 10
dh =
    1.80504235537685
rdh_sum =
    10
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 11
dh =
    1.79793385537685
rdh_sum =
    11
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 12
dh =
    1.79082535537685
rdh_sum =
    12
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 13
dh =
    1.78371685537685
rdh_sum =
    13
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 14
dh =
    1.77660835537685
rdh_sum =
    14
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 15
dh =
    1.76949985537685
rdh_sum =
    15
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 16
dh =
    1.76239135537685
rdh_sum =
    16
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 17
dh =
    1.75528285537685
rdh_sum =
    17
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 18
dh =
    1.74817435537685
rdh_sum =
    18
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 19
dh =
    1.74106585537685
rdh_sum =
    19
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 20
dh =
    1.73395735537685
rdh_sum =
    20
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 21
dh =
    1.72684885537685
rdh_sum =
    21
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 22
dh =
    1.71974035537685
rdh_sum =
    22
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 23
```



```
dh =
    1.71263185537685
rdh_sum =
    23
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 24
dh =
    1.70552335537685
rdh_sum =
    24
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 25
dh =
    1.70275535537685
rdh_sum =
    25
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 26
dh =
    1.70866785537685
rdh_sum =
    26
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 27
dh =
    1.71892035537685
rdh_sum =
    27
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 28
dh =
    1.72917285537685
rdh_sum =
    28
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 29
dh =
    1.73942535537685
rdh_sum =
    29
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 30
dh =
    1.74967835537685
rdh_sum =
    30
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 31
dh =
    1.75993085537685
rdh_sum =
    31
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 32
dh =
    1.77018335537685
rdh_sum =
    32
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 33
dh =
    1.78043635537685
rdh_sum =
    33
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 34
dh =
    1.79068885537685
rdh_sum =
    34
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 35
dh =
    1.80094135537685
rdh_sum =
    35
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 36
dh =
    1.81119385537685
rdh_sum =
    36
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 37
dh =
    1.82144635537685
rdh_sum =
    37
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 38
```

```
dh =
    1.83169935537685
rdh_sum =
    38
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 39
dh =
    1.84195185537685
rdh_sum =
    39
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 40
dh =
    1.85220435537685
rdh_sum =
    40
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 41
dh =
    1.86416785537685
rdh_sum =
    41
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 42
dh =
    1.87955235537685
rdh_sum =
    42
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 43
dh =
    1.89664685537685
rdh_sum =
    43
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 44
dh =
    1.91374135537685
rdh_sum =
    44
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 45
dh =
    1.93083635537685
rdh_sum =
    45
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 46
dh =
    1.94793135537685
rdh_sum =
    46
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 47
dh =
    1.96502635537685
rdh_sum =
    47
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 48
dh =
    1.98212135537685
rdh_sum =
    48
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 49
dh =
    1.99921635537685
rdh_sum =
    49
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 50
dh =
    2.01631135537685
rdh_sum =
    50
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 51
dh =
    2.03340635537685
rdh_sum =
    51
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 52
dh =
    2.05050135537685
rdh_sum =
    52
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 53
```

```
dh =
    2.06759585537685
rdh_sum =
    53
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 54
dh =
    2.08469035537685
rdh_sum =
    54
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 55
dh =
    2.10178535537685
rdh_sum =
    55
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 56
dh =
    2.11888035537685
rdh_sum =
    56
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 57
dh =
    2.12914935537685
rdh_sum =
    65
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 58
dh =
    2.12574435537685
rdh_sum =
    66
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 59
dh =
    2.11549185537685
rdh_sum =
    67
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 60
dh =
    2.10523935537685
rdh_sum =
    68
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 61
dh =
    2.09498635537685
rdh_sum =
    69
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 62
dh =
    2.08473385537685
rdh_sum =
    70
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 63
dh =
    2.07448135537685
rdh_sum =
    71
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 64
dh =
    2.06422885537685
rdh_sum =
    72
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 65
dh =
    2.05397635537685
rdh_sum =
    73
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 66
dh =
    2.04372335537685
rdh_sum =
    74
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 67
dh =
    2.03347085537685
rdh_sum =
    75
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 68
```

```
dh =
    2.00654885537685
rdh_sum =
    76
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 83
dh =
    0.962549855376849
rdh_sum =
    77
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 84
dh =
    1.07218435537685
rdh_sum =
    78
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 85
dh =
    1.18181935537685
rdh_sum =
    79
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 86
dh =
    1.29145435537685
rdh_sum =
    80
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 87
dh =
    1.40108885537685
rdh_sum =
    81
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 88
dh =
    1.51072335537685
rdh_sum =
    82
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 89
dh =
    1.62035835537685
rdh_sum =
    83
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 90
dh =
    1.72999335537685
rdh_sum =
    84
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 91
dh =
    1.83962785537685
rdh_sum =
    85
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 92
dh =
    1.94926235537685
rdh_sum =
    86
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 93
dh =
    2.05889735537685
rdh_sum =
    87
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 94
dh =
    2.12030385537685
rdh_sum =
    89
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 109
dh =
    0.781146855376848
rdh_sum =
    90
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 110
dh =
    0.790442855376849
rdh_sum =
    91
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 111
```

```
dh =
    0.799738355376848
rdh_sum =
    92
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 112
dh =
    0.809033855376848
rdh_sum =
    93
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 113
dh =
    0.818329855376849
rdh_sum =
    94
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 114
dh =
    0.827625355376847
rdh_sum =
    95
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 115
dh =
    0.836920855376848
rdh_sum =
    96
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 116
dh =
    0.846216855376849
rdh_sum =
    97
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 117
dh =
    0.855512855376849
rdh_sum =
    98
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 118
dh =
    0.86480835537685
rdh_sum =
    99
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 119
dh =
    0.87410385537685
rdh_sum =
    100
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 120
dh =
    0.883399855376849
rdh_sum =
    101
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 121
dh =
    0.89269535537685
rdh_sum =
    102
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 122
dh =
    0.90199085537685
rdh_sum =
    103
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 123
dh =
    0.911286855376849
rdh_sum =
    104
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 124
dh =
    0.920582855376848
rdh_sum =
    105
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 125
dh =
    0.929878355376848
rdh_sum =
    106
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 126
```

```
dh =
    0.939173855376849
rdh_sum =
    107
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 127
dh =
    0.955090855376849
rdh_sum =
    108
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 128
dh =
    0.977628855376848
rdh_sum =
    109
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 129
dh =
    1.00016685537685
rdh_sum =
    110
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 130
dh =
    1.02270485537685
rdh_sum =
    111
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 131
dh =
    1.04524285537685
rdh_sum =
    112
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 132
dh =
    1.06778085537685
rdh_sum =
    113
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 133
dh =
    1.09031885537685
rdh_sum =
    114
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 134
dh =
    1.11285685537685
rdh_sum =
    115
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 135
dh =
    1.13539435537685
rdh_sum =
    116
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 136
dh =
    1.15793185537685
rdh_sum =
    117
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 137
dh =
    1.18046985537685
rdh_sum =
    118
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 138
dh =
    1.19257385537685
rdh_sum =
    119
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 139
dh =
    1.18380935537685
rdh_sum =
    120
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 140
dh =
    1.16461035537685
rdh_sum =
    121
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 141
```

```
dh =
    1.14541135537685
rdh_sum =
    122
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 142
dh =
    1.12621235537685
rdh_sum =
    123
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 143
dh =
    1.10701335537685
rdh_sum =
    124
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 144
dh =
    1.08781435537685
rdh_sum =
    125
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 145
dh =
    1.06861535537685
rdh_sum =
    126
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 146
dh =
    1.04941635537685
rdh_sum =
    127
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 147
dh =
    1.03021735537685
rdh_sum =
    128
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 148
dh =
    1.01101835537685
rdh_sum =
    129
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 149
dh =
    0.991819355376849
rdh_sum =
    130
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 150
dh =
    0.972620355376849
rdh_sum =
    131
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 151
dh =
    0.953421355376848
rdh_sum =
    132
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 152
dh =
    0.928784855376849
rdh_sum =
    133
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 153
dh =
    0.898710355376849
rdh_sum =
    134
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 154
dh =
    0.86863585537685
rdh_sum =
    135
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 155
dh =
    0.838561855376849
rdh_sum =
    136
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 156
```

```

dh =
    0.808487355376849
rdh_sum =
    137
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 157
dh =
    0.778412855376848
rdh_sum =
    138
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 158
dh =
    0.748338355376848
rdh_sum =
    139
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 159
dh =
    0.718263855376849
rdh_sum =
    140
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 160
dh =
    0.68818985537685
rdh_sum =
    141
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 161
dh =
    0.658115355376848
rdh_sum =
    142
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 162
dh =
    0.628040855376849
rdh_sum =
    143
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 163
dh =
    0.597966855376848
rdh_sum =
    144
ans =
!----- End Berm Factor Calculation, Iter: 3 -----!
berm_width =
    144
rB =
    1.81761691971085
rdh_mean =
    1
gamma_berm =
    1
slope =
    -0.0375861351665043
Irb =
    -0.239933131856825
gamma_berm =
    1
gamma_perm =
    1
gamma_beta =
    1
gamma_rough =
    1
gamma =
    1
ans =
!!! - - Iribaren number: -0.24 is outside the valid range (0.5-10), TAW NOT VALID - - !!!
ans =
!!! - - slope: 1:-26.6 V:H is outside the valid range (1:8 - 1:1), TAW NOT VALID - - !!!
R2_new =
    -0.604704192018152
!   Berm_width is greater than 1/4 wave length
!   Runup will be weighted average with foreshore calculation assuming depth limited wave height on berm
fore_H0 =
    1.80004383
upper_slope =
    0.030947071587065
upper_slope =
    0.0307672683813648
upper_slope =
    0.030585841006305
upper_slope =
    0.0304027673552631
upper_slope =
    0.030218024918596

```



```

upper_slope =
    0.030031590774414
upper_slope =
    0.0298434415790995
upper_slope =
    0.0296535535575638
upper_slope =
    0.0294619024932317
upper_slope =
    0.029268463717746
upper_slope =
    0.0290732121003827
upper_slope =
    0.0288761220371673
upper_slope =
    0.0286771674396819
upper_slope =
    0.0284763169709144
upper_slope =
    0.0282735530212766
upper_slope =
    0.0280688432484573
upper_slope =
    0.0278621595077885
upper_slope =
    0.0276534731091878
upper_slope =
    0.027442754803882
upper_slope =
    0.0268843106780823
upper_slope =
    0.0263203757141537
upper_slope =
    0.0257508685299471
upper_slope =
    0.0251757011620495
upper_slope =
    0.0245947988607293
upper_slope =
    0.0240080703324087
upper_slope =
    0.0234154274830841
upper_slope =
    0.022816780433751
upper_slope =
    0.0222120374749631
upper_slope =
    0.0216011050199963
upper_slope =
    0.0209838824127838
upper_slope =
    0.0203602824266751
upper_slope =
    0.019730200429913
upper_slope =
    0.0190935348285896
upper_slope =
    0.0184501818945769
upper_slope =
    0.0178000357091881
upper_slope =
    0.0171429881050443
upper_slope =
    0.01647892327017
upper_slope =
    0.0158077390010864
R2_new =
    0.285947866013736
berm is wider than one wavelength, use full shallow foreshore solution
R2del =
    0.0393423312240073
Z2 =
    9.34984872139058
top_sta =
    769.045421369913
ans =
!----- STARTING ITERATION 4 -----!
Ztoe =
    6.87585
toe_sta =
    689.365955814508
top_sta =
    769.045421369913
Z2 =
    9.34984872139058
H0 =
    1.4239
Tp =
    3.7042
T0 =

```

```
3.36745454545455
R2 =
0.285947866013736
Z2 =
9.34984872139058
top_sta =
769.045421369913
Lslope =
79.6794655554046
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 1
dh =
2.10633285537685
rdh_sum =
1
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 2
dh =
2.05967235537685
rdh_sum =
2
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 3
dh =
2.01301135537685
rdh_sum =
3
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 4
dh =
1.96635035537685
rdh_sum =
4
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 5
dh =
1.91968935537685
rdh_sum =
5
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 6
dh =
1.87302835537685
rdh_sum =
6
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 7
dh =
1.83625585537685
rdh_sum =
7
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 8
dh =
1.81925935537685
rdh_sum =
8
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 9
dh =
1.81215085537685
rdh_sum =
9
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 10
dh =
1.80504235537685
rdh_sum =
10
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 11
dh =
1.79793385537685
rdh_sum =
11
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 12
dh =
1.79082535537685
rdh_sum =
12
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 13
dh =
1.78371685537685
rdh_sum =
13
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 14
dh =
```

```
1.77660835537685
rdh_sum =
14
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 15
dh =
1.76949985537685
rdh_sum =
15
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 16
dh =
1.76239135537685
rdh_sum =
16
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 17
dh =
1.75528285537685
rdh_sum =
17
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 18
dh =
1.74817435537685
rdh_sum =
18
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 19
dh =
1.74106585537685
rdh_sum =
19
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 20
dh =
1.73395735537685
rdh_sum =
20
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 21
dh =
1.72684885537685
rdh_sum =
21
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 22
dh =
1.71974035537685
rdh_sum =
22
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 23
dh =
1.71263185537685
rdh_sum =
23
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 24
dh =
1.70552335537685
rdh_sum =
24
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 25
dh =
1.70275535537685
rdh_sum =
25
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 26
dh =
1.70866785537685
rdh_sum =
26
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 27
dh =
1.71892035537685
rdh_sum =
27
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 28
dh =
1.72917285537685
rdh_sum =
28
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 29
dh =
```

```
1.73942535537685
rdh_sum =
29
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 30
dh =
1.74967835537685
rdh_sum =
30
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 31
dh =
1.75993085537685
rdh_sum =
31
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 32
dh =
1.77018335537685
rdh_sum =
32
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 33
dh =
1.78043635537685
rdh_sum =
33
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 34
dh =
1.79068885537685
rdh_sum =
34
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 35
dh =
1.80094135537685
rdh_sum =
35
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 36
dh =
1.81119385537685
rdh_sum =
36
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 37
dh =
1.82144635537685
rdh_sum =
37
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 38
dh =
1.83169935537685
rdh_sum =
38
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 39
dh =
1.84195185537685
rdh_sum =
39
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 40
dh =
1.85220435537685
rdh_sum =
40
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 41
dh =
1.86416785537685
rdh_sum =
41
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 42
dh =
1.87955235537685
rdh_sum =
42
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 43
dh =
1.89664685537685
rdh_sum =
43
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 44
dh =
```

```
1.91374135537685
rdh_sum =
44
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 45
dh =
1.93083635537685
rdh_sum =
45
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 46
dh =
1.94793135537685
rdh_sum =
46
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 47
dh =
1.96502635537685
rdh_sum =
47
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 48
dh =
1.98212135537685
rdh_sum =
48
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 49
dh =
1.99921635537685
rdh_sum =
49
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 50
dh =
2.01631135537685
rdh_sum =
50
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 51
dh =
2.03340635537685
rdh_sum =
51
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 52
dh =
2.05050135537685
rdh_sum =
52
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 53
dh =
2.06759585537685
rdh_sum =
53
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 54
dh =
2.08469035537685
rdh_sum =
54
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 55
dh =
2.10178535537685
rdh_sum =
55
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 56
dh =
2.11888035537685
rdh_sum =
56
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 57
dh =
2.12914935537685
rdh_sum =
65
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 58
dh =
2.12574435537685
rdh_sum =
66
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 59
dh =
```

```
2.11549185537685
rdh_sum =
67
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 60
dh =
2.10523935537685
rdh_sum =
68
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 61
dh =
2.09498635537685
rdh_sum =
69
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 62
dh =
2.08473385537685
rdh_sum =
70
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 63
dh =
2.07448135537685
rdh_sum =
71
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 64
dh =
2.06422885537685
rdh_sum =
72
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 65
dh =
2.05397635537685
rdh_sum =
73
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 66
dh =
2.04372335537685
rdh_sum =
74
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 67
dh =
2.03347085537685
rdh_sum =
75
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 68
dh =
2.00654885537685
rdh_sum =
76
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 83
dh =
0.962549855376849
rdh_sum =
77
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 84
dh =
1.07218435537685
rdh_sum =
78
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 85
dh =
1.18181935537685
rdh_sum =
79
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 86
dh =
1.29145435537685
rdh_sum =
80
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 87
dh =
1.40108885537685
rdh_sum =
81
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 88
dh =
```

```
1.51072335537685
rdh_sum =
82
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 89
dh =
1.62035835537685
rdh_sum =
83
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 90
dh =
1.72999335537685
rdh_sum =
84
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 91
dh =
1.83962785537685
rdh_sum =
85
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 92
dh =
1.94926235537685
rdh_sum =
86
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 93
dh =
2.05889735537685
rdh_sum =
87
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 94
dh =
2.12030385537685
rdh_sum =
89
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 109
dh =
0.781146855376848
rdh_sum =
90
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 110
dh =
0.790442855376849
rdh_sum =
91
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 111
dh =
0.799738355376848
rdh_sum =
92
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 112
dh =
0.809033855376848
rdh_sum =
93
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 113
dh =
0.818329855376849
rdh_sum =
94
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 114
dh =
0.827625355376847
rdh_sum =
95
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 115
dh =
0.836920855376848
rdh_sum =
96
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 116
dh =
0.846216855376849
rdh_sum =
97
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 117
dh =
```

```
0.855512855376849
rdh_sum =
98
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 118
dh =
0.86480835537685
rdh_sum =
99
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 119
dh =
0.87410385537685
rdh_sum =
100
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 120
dh =
0.883399855376849
rdh_sum =
101
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 121
dh =
0.89269535537685
rdh_sum =
102
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 122
dh =
0.90199085537685
rdh_sum =
103
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 123
dh =
0.911286855376849
rdh_sum =
104
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 124
dh =
0.920582855376848
rdh_sum =
105
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 125
dh =
0.929878355376848
rdh_sum =
106
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 126
dh =
0.939173855376849
rdh_sum =
107
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 127
dh =
0.955090855376849
rdh_sum =
108
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 128
dh =
0.977628855376848
rdh_sum =
109
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 129
dh =
1.00016685537685
rdh_sum =
110
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 130
dh =
1.02270485537685
rdh_sum =
111
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 131
dh =
1.04524285537685
rdh_sum =
112
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 132
dh =
```



```
1.06778085537685
rdh_sum =
113
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 133
dh =
1.09031885537685
rdh_sum =
114
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 134
dh =
1.11285685537685
rdh_sum =
115
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 135
dh =
1.13539435537685
rdh_sum =
116
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 136
dh =
1.15793185537685
rdh_sum =
117
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 137
dh =
1.18046985537685
rdh_sum =
118
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 138
dh =
1.19257385537685
rdh_sum =
119
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 139
dh =
1.18380935537685
rdh_sum =
120
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 140
dh =
1.16461035537685
rdh_sum =
121
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 141
dh =
1.14541135537685
rdh_sum =
122
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 142
dh =
1.12621235537685
rdh_sum =
123
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 143
dh =
1.10701335537685
rdh_sum =
124
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 144
dh =
1.08781435537685
rdh_sum =
125
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 145
dh =
1.06861535537685
rdh_sum =
126
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 146
dh =
1.04941635537685
rdh_sum =
127
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 147
dh =
```

```
1.03021735537685
rdh_sum =
128
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 148
dh =
1.01101835537685
rdh_sum =
129
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 149
dh =
0.991819355376849
rdh_sum =
130
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 150
dh =
0.972620355376849
rdh_sum =
131
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 151
dh =
0.953421355376848
rdh_sum =
132
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 152
dh =
0.928784855376849
rdh_sum =
133
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 153
dh =
0.898710355376849
rdh_sum =
134
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 154
dh =
0.86863585537685
rdh_sum =
135
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 155
dh =
0.838561855376849
rdh_sum =
136
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 156
dh =
0.808487355376849
rdh_sum =
137
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 157
dh =
0.778412855376848
rdh_sum =
138
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 158
dh =
0.748338355376848
rdh_sum =
139
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 159
dh =
0.718263855376849
rdh_sum =
140
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 160
dh =
0.68818985537685
rdh_sum =
141
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 161
dh =
0.658115355376848
rdh_sum =
142
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 162
dh =
```

```

0.628040855376849
rdh_sum =
143
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 163
dh =
0.597966855376848
rdh_sum =
144
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 175
dh =
-0.339221144623151
rdh_sum =
144.916776329317
ans =
!----- End Berm Factor Calculation, Iter: 4 -----!
berm_width =
145
rB =
1.81979132251051
rdh_mean =
0.999426043650463
gamma_berm =
0.998955519215613
slope =
-0.0378747470826194
Irb =
-0.241775501672662
gamma_berm =
0.998955519215613
gamma_perm =
1
gamma_beta =
1
gamma_rough =
1
gamma =
0.998955519215613
ans =
!!! - - Iribaren number: -0.24 is outside the valid range (0.5-10), TAW NOT VALID - - !!!
ans =
!!! - - slope: 1:-26.4 V:H is outside the valid range (1:8 - 1:1), TAW NOT VALID - - !!!
R2_new =
-0.60871107041417
! Berm width is greater than 1/4 wave length
! Runup will be weighted average with foreshore calculation assuming depth limited wave height on berm
fore_H0 =
1.80004383
upper_slope =
0.0308337479357856
upper_slope =
0.030653065688491
upper_slope =
0.0304707479716043
upper_slope =
0.0302867724786619
upper_slope =
0.030101116495692
upper_slope =
0.0299137568918655
upper_slope =
0.0297246701098894
upper_slope =
0.0295338321561329
upper_slope =
0.0293412185904777
upper_slope =
0.0291468045158837
upper_slope =
0.0289505645676611
upper_slope =
0.0287524729024388
upper_slope =
0.028552503186818
upper_slope =
0.0283506238227682
upper_slope =
0.0281468169645676
upper_slope =
0.0279410499970052
upper_slope =
0.0277332945064642
upper_slope =
0.0275235215274855
upper_slope =
0.027311701529305
upper_slope =
0.0267513694238024
upper_slope =

```

```

0.0261855155694505
upper_slope =
0.0256140579416344
upper_slope =
0.0250369079067906
upper_slope =
0.0244539900616892
upper_slope =
0.0238652124082927
upper_slope =
0.023270486141255
upper_slope =
0.0226697206516596
upper_slope =
0.0220628234810003
upper_slope =
0.0214497002737439
upper_slope =
0.0208302495725805
upper_slope =
0.0202043833646636
upper_slope =
0.0195719961744145
upper_slope =
0.0189329855536639
upper_slope =
0.0182872468969232
upper_slope =
0.0176346733842989
upper_slope =
0.0169751559225846
upper_slope =
0.0163085777355695
upper_slope =
0.015634835668085
R2_new =
0.282820199299665
berm is wider than one wavelength, use full shallow foreshore solution
R2del =
0.00312766671407066
Z2 =
9.34672105467651
top_sta =
769.00926128304
% final 2% runup elevation
Z2=R2_new+SWEL
Z2 =
9.34672105467651
diary off
-1.000000e+00
-1.000000e+00
-1.000000e+00

```

PART 5: RUNUP2

for transect: CM-131-1

Station locations shifted by: -0.43 feet from their
original location to set the shoreline to
elevation 0 for RUNUP2 input

RUNUP2 INPUT CONVERSIONS

for transect: CM-131-1

Incident significant wave height: 3.40 feet

Peak wave period: 3.68 seconds

Mean wave height: 2.13 feet

Local Depth below SWEL: 25.79 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, $D = 25.79$

Period, $T = 3.12$

Waveheight, $H = 2.13$

Deep water wavelength, L_0 (ft)

$L_0 = g \cdot T^2 / 2\pi$

$L_0 = 32.17 \cdot 3.12^2 / 6.28 = 49.99$

Deep water wave celerity, C_0 (ft/s)

$C_0 = L_0 / T$

$C_0 = 49.99 / 3.12 = 16.00$

Angular frequency, σ (rad/s)

$\sigma = 2\pi / T$

$\sigma = 6.28 / 3.12 = 2.01$

Hunts (1979) approximation for Celerity C_{1H} (ft/s) at Depth D (ft)

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

$y = 2.01 \cdot 2.01 \cdot 25.79 / 32.17 = 3.24$

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

$C_{1H} = 15.94$

Shoaling Coefficient K_{sH}

$K_{sH} = \sqrt{C_0 / C_{1H}}$

$K_{sH} = \sqrt{16.00 / 15.94} = 1.00$

Deepwater Wave Height H_{0_H} (ft)

$H_{0_H} = H / K_{sH}$

$H_{0_H} = 2.13 / 1.00 = 2.12$

Deepwater mean wave height: 2.12 feet

END RUNUP2 CONVERSIONS

RUNUP2 RESULTS

for transect: CM-131-1

RUNUP2 SWEL:

8.85

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: 3.40 feet

Significant wave height deshoaled using Hunt equation

Deepwater significant wave height: 2.97 feet

Peak wave period: 3.68 seconds

Average beach Slope: 1:44.77 (H:V)

ACES RUNUP CALCULATED USING 'Aces_Beach_Runup.m'

ACES Beach 2-percent runup height above SWEL: 1.14 feet

ACES Beach 2-percent runup elevation: 9.98 feet-NAVD88

ACES BEACH RUNUP is valid

_____END ACES BEACH RESULTS_____

PART 5 COMPLETE_____

FEMA
RUNUP2 transect: CM-131-1

sjh

job 2
1

14.0
-16.94 -493.6 1.0
-16.41 -398.6 1.0
-15.09 -360.6 1.0
-10.25 -261.6 1.0
-6.35 -163.6 1.0
-2.67 -52.6 1.0
-0.24 -6.6 1.0
3.00 81.4 1.0
3.46 116.9 1.0
7.11 149.9 1.0
7.11 571.4 1.0
7.37 662.9 1.0
8.16 677.4 1.0
8.29 747.4 1.0
9.43 770.4 1.0
10.52 892.9 1.0
12.03 913.9 1.0
12.26 955.4 1.0
14.95 974.4 1.0
1 16.26 992.9 1.0
8.8 2.02 2.97
8.8 2.02 3.12
8.8 2.02 3.28
8.8 2.12 2.97
8.8 2.12 3.12
8.8 2.12 3.28
8.8 2.23 2.97
8.8 2.23 3.12
8.8 2.23 3.28

CLIENT- FEMA
PROJECT-RUNUP2 transect: CM-131-1

** WAVE RUNUP-VERSION 2.0 **

ENGINEERED BY sjh

JOB job 2
RUN 1 PAGE 1

CROSS SECTION PROFILE

	LENGTH	ELEV.	SLOPE	ROUGHNESS
1	-493.0	-16.9		
2	-398.0	-16.4	.00	1.00
3	-360.0	-15.0	27.14	1.00
4	-261.0	-10.2	20.63	1.00
5	-163.6	-6.3	25.30	1.00
6	-52.6	-2.7	30.16	1.00
7	-6.6	-.2	18.93	1.00
8	81.4	3.0	27.16	1.00
9	116.9	3.5	77.17	1.00
10	149.9	7.1	9.04	1.00
11	571.4	7.1	FLAT	1.00
12	662.9	7.4	351.92	1.00
13	677.4	8.2	18.35	1.00
14	747.4	8.3	538.46	1.00
15	770.4	9.4	20.18	1.00
16	892.9	10.5	112.39	1.00
17	913.9	12.0	13.91	1.00
18	955.4	12.3	180.43	1.00
19	974.4	15.0	7.06	1.00
20	992.9	16.3	14.12	1.00
	LAST SLOPE	14.00	LAST ROUGHNESS	1.00

CLIENT- FEMA
PROJECT-RUNUP2 transect: CM-131-1

** WAVE RUNUP-VERSION 2.0 **

ENGINEERED BY sjh

JOB job 2
RUN 1 PAGE 2

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

