

Beaufort Sea Coastal Sediment Study

Numerical Estimation of Sediment Transport and Nearshore Profile Adjustment

Part II - Data



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July 1985
Keith Philpott Consulting Limited

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Department of Indian and Northern Affairs
and
The Geological Survey of Canada,
Department of Energy, Mines, and Resources, Canada

Final Report

BEAUFORT SEA COASTAL SEDIMENT STUDY

PART II - DATA

Numerical Estimation of Sediment Transport and
Nearshore Profile Adjustment at Coastal Sites in
the Canadian Beaufort Sea - Part of the Northern
Oil and Gas Action Plan (NOGAP)

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PART II

- i) Outline of Methods
- ii) Site Specific Data Packages
 - Atkinson Point
 - Kay Point
 - King Point
 - North Head
 - Pauline Cove
 - Stokes Point
 - Tuktoyaktuk

i) Outline of Methods

i) Outline of Methods

Detailed descriptions of all the numerical techniques are presented in Part I of this report. The following outline is provided only as a guide to the data packages which comprise this part of the report.

1. Deep Water Wave Climate Statistics and Plots (1970-1983)

This group of data is a statistical summary of the 14-year wind-wave hindcast. The hindcast was performed with our hindcast package, PHEW, which employs the Bretschneider (S.M.B.) deep and shallow water parametric models. Hindcast fetches had variable depths and lengths because of the changing position of the sea ice edge. The statistical summary was compiled with our WAVSTATS program.

2. Wave Transformation Analysis

Wave transformations were performed with LINREF and SPECTRANS. LINREF is a linear wave refraction model which was used to backtrack high density wave rays from an inshore point of interest to deep water. SPECTRANS computes inshore wave height factors and mean wave directions using directional spectrum transfer techniques.

3. Inshore Wave Climate Statistics and Plots

The inshore wave climate was determined from the results of the previous sections (1 and 2) and is presented in statistical form again with the aid of the WAVSTATS program. The results are only presented for King Point.

4. Alongshore Sediment Transport

Average yearly sediment transport estimates were calculated with three bulk energy models and nine detailed predictors using the SEDX program at two nodes at each site (excluding Pauline Cove). The detailed predictors provide sediment transport estimates within separate zones along the profile (see the beach profile figures) as well as the total transport.

5. Nearshore Profile Adjustment

Nearshore profile adjustment was successfully estimated at Kay Point, King Point and Stokes Point. For these sites calibration results and storm surge results are presented. Only the calibration runs are presented at Atkinson Point and Tuktoyaktuk since storm surge runs produced invalid results.

6. Beach Plan Shape Evolution

The beach plan shape change was estimated at King Point, with and without a structure, for the period 1970-1983, using the BPLAN model.

ii) Site Specific Data Packages

Atkinson Point Data Package

Atkinson Point

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Atkinson Point

A. Description of Site

At Atkinson Point a 3 km long, slow, wide, medium-fine sand spit extends towards the north-east across the western half of the mouth of McKinley from an anchor point comprising a reach of receding low, sand-rich cliffs. The distal end of the spit terminates in a wide, low sand bank which extends a further 3 km across the mouth of the Bay. See the site plan.

Atkinson Point Beach differs from the other six sites of this study; it is all sand, whereas at each of the other sites there is a significant proportion of gravel or coarser material.

BEAUFORT SEA COASTAL SEDIMENT STUDY

DEEPWATER WAVE STATISTICS - ATKINSON POINT

WAVES 9/7/70 TO 28/9/83

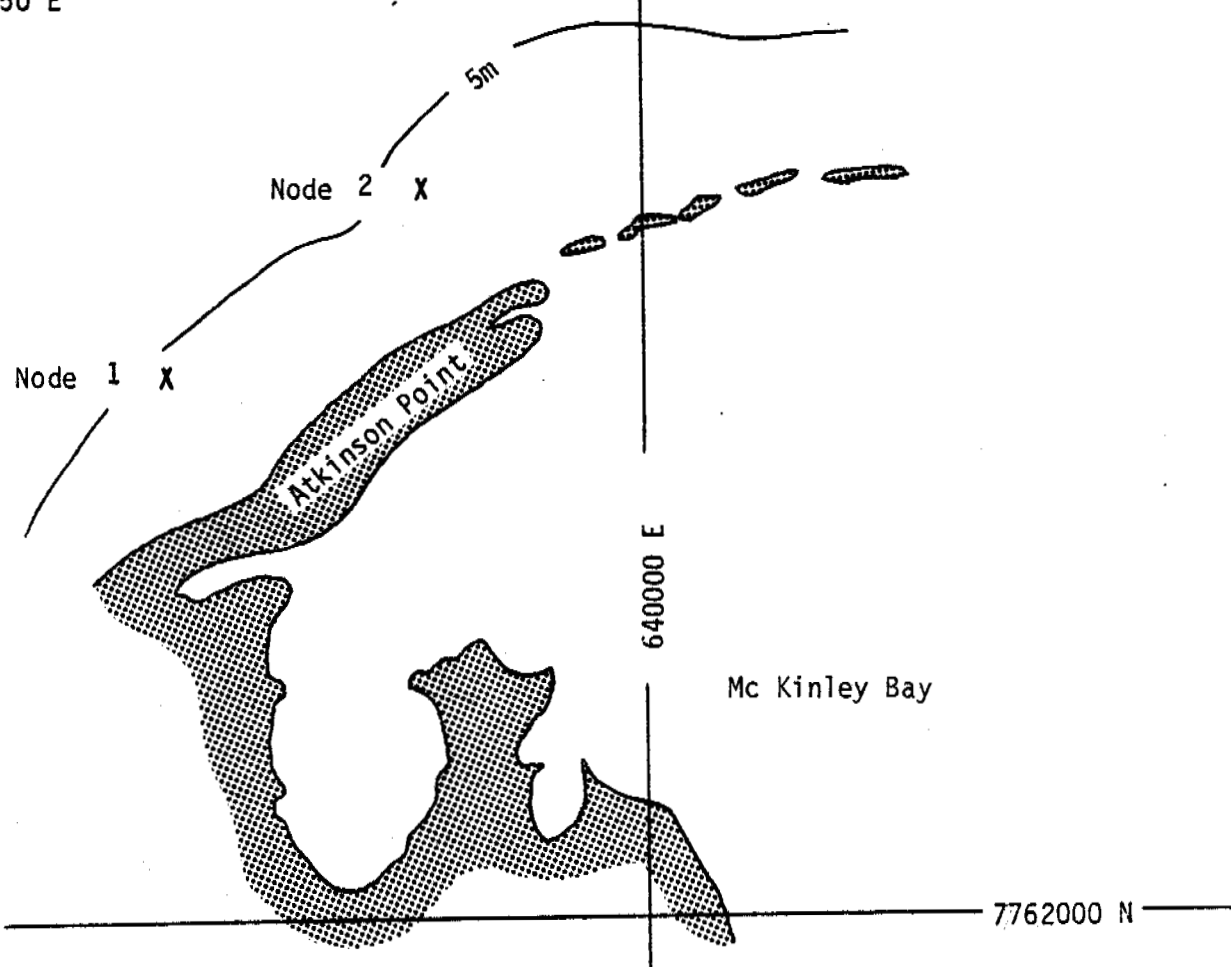
SEASON: Summer, Fall

KEITH PHILPOTT CONSULTING LTD
P.O. BOX 938
THORNHILL
ONTARIO L3T 4A5

Node 1

7766900 N
638475 E

Node 2

7765650 N
636750 EUniversal Transverse Mercator Projection
Zone 8

1000 0 1000 2000 3000

Scale
in
Metres

BEAUFORT SEA COASTAL SEDIMENT STUDY

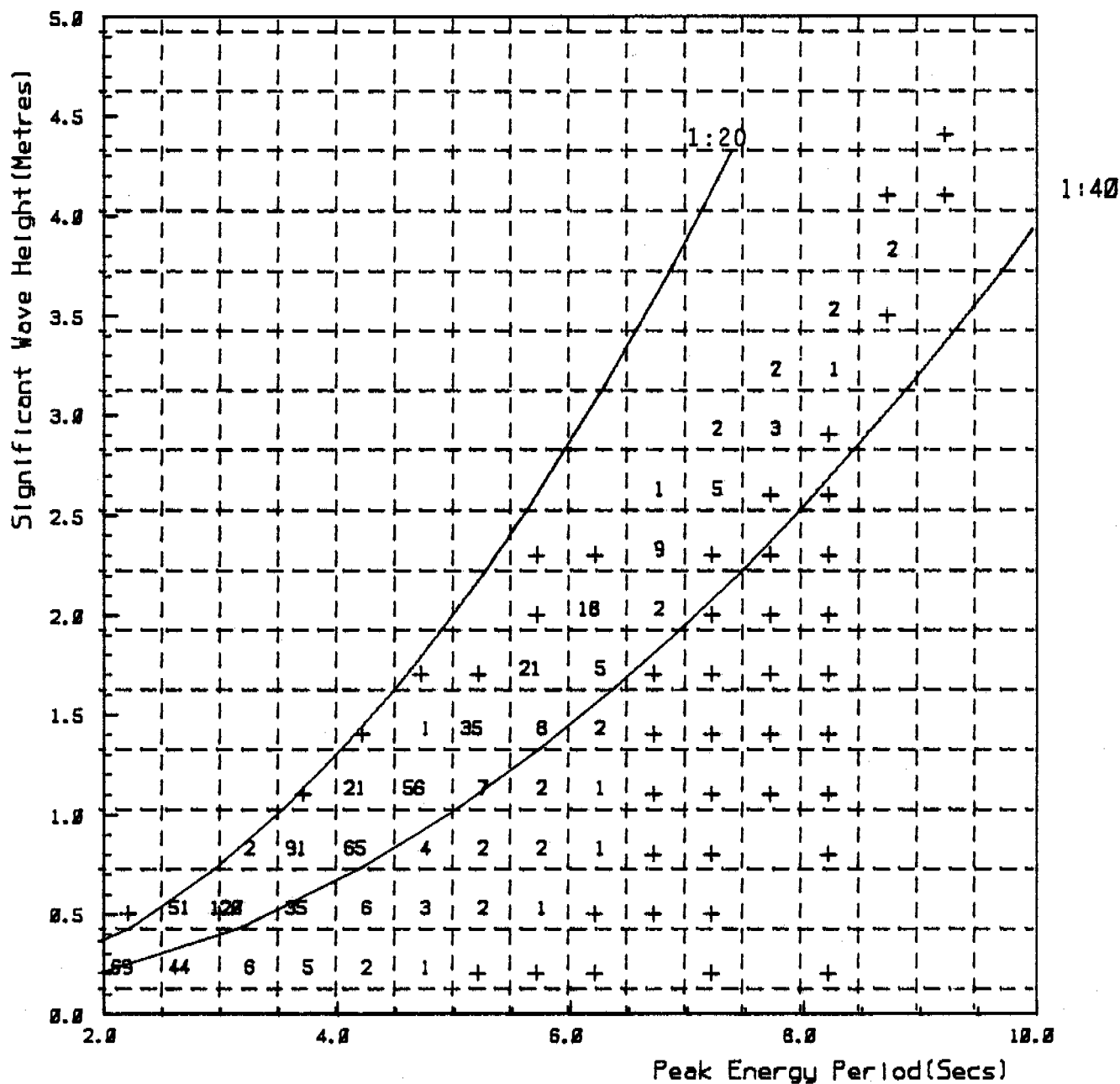
Atkinson Point: Site Plan Showing Nodes

Date: 2 May 85

Scales as shown

Checked by:

Keith Philpott
Consulting Limited



Direction Limits: 0.0 TO 360.0

Values in parts per : 1000

Calms: 19.5 %

+ - Values less than 1 ppt

Dates: 9/7/78 to 28/9/83

Season: Summer, Fall

Total No. of Records: 35531

Waves Hindcast Using Wind Data from Tuktoyaktuk N.W.T.

BEAUFORT SEA COASTAL SEDIMENT STUDY

Date: 17 Feb 85

Scales as shown

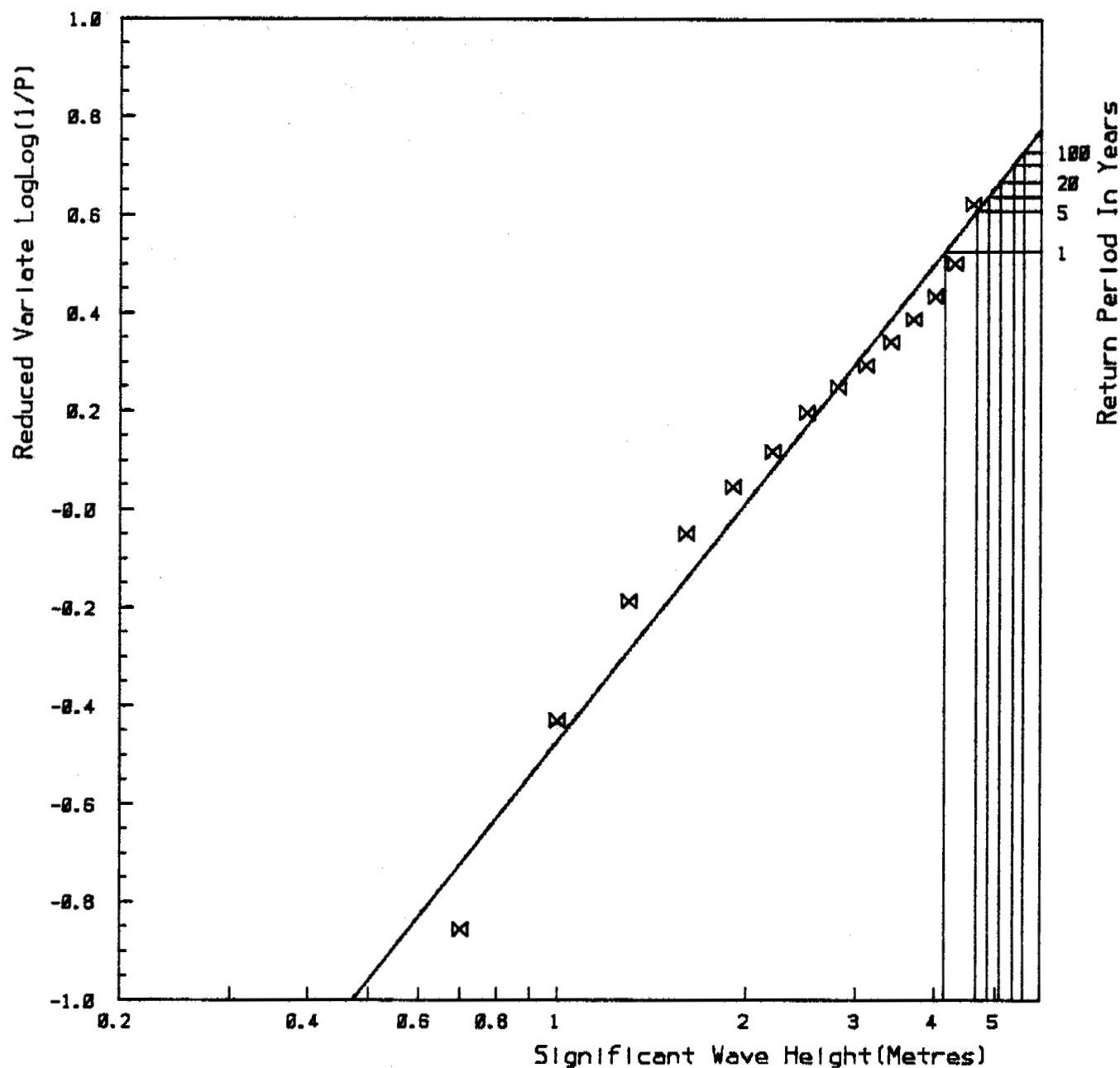
Atkinson Point: Scatter Diagram for Deep Water Wave

Checked by:

Data 1970 - 1983

Keith Philpott

Consulting Limited



Direction Limits: 0.0 TO 360.0

Calms: 10.3 %

Dates: 9/7/70 to 28/9/83

Season: Summer, Fall

Total No. of Records: 31896

Waves Hindcast Using Data from Tuktoyaktuk N.W.T.

BEAUFORT SEA COASTAL SEDIMENT STUDY

Atkinson Point: Weibull Long Term Distribution of
Wave Heights

Date: 18 Mar 85

Scales as shown

Checked by:

Keith Philpott

Consulting Limited

BEAUFORT SEA COASTAL SEDIMENT STUDY

ATKINSON POINT

WAVES 9/ 7/78 TO 28/ 9/83
-----SEASON: Summer, Fall

WEIBULL PROBABILITY ANALYSIS

WHT LIMIT	CUM TOTAL	CUM PROB(P)	LOGLOG(1./P(H))	LOG(WHT)
< .4	31896	.999969	-4.865937	-.397940
< .7	23148	.725460	-.855779	-.154902
< 1.0	13546	.424679	-.429529	.000000
< 1.3	7126	.223407	-.186483	.113943
< 1.6	4079	.127880	-.049053	.204120
< 1.9	2467	.077343	.045941	.278754
< 2.2	1546	.048469	.118774	.342423
< 2.5	844	.026460	.197944	.397940
< 2.8	532	.016679	.249892	.447158
< 3.1	342	.010722	.294405	.491362
< 3.4	202	.006333	.342106	.531479
< 3.7	114	.003574	.388606	.568282
< 4.0	60	.001891	.435462	.602060
< 4.3	21	.000658	.502636	.633468
< 4.6	2	.000063	.623530	.662758

LEAST SQUARES CURVE FIT ON LOGLOG(1/(1-P))

LOG(WHT)	LOGLOG(1./P(H))	CURVE FIT	RESIDUAL
-.39794	-4.86596	-.57440	-33.38989
-.15490	-.85578	.19181	122.18480
.00000	-.42953	.27325	87.60947
.11394	-.18648	.31969	60.60141
.20412	-.04905	.34595	38.62153
.27875	.04594	.36410	21.71599
.34242	.11877	.37802	8.54117
.39794	.19794	.39314	-1.09026
.44716	.24989	.40307	-9.65347
.49136	.29441	.41157	-16.78285
.53148	.34211	.42069	-22.51641
.56828	.38861	.42957	-27.32726
.60206	.43546	.43853	-31.37762
.63347	.50264	.45136	-34.25055
.66276	.62353	.47446	-35.18111

SLOPE= .19107, INTERCEPT= .35532, CORR COEFF= .82514

1 GROUPS TO BE OMITTED FROM NEXT FIT:

< .4

31896

LEAST SQUARES CURVE FIT ON LOGLOG(1/(1-P))

LOG(WHT)	LOGLOG(1./P(H))	CURVE FIT	RESIDUAL
-.15490	-.85578	-.23821	-17.45485
.00000	-.42953	.02559	6.07035
.11394	-.18648	.17601	15.36399
.20412	-.04985	.26107	14.01140
.27875	.04594	.31986	9.92743
.34242	.11877	.36494	5.32051
.39794	.19794	.41393	3.75128
.44716	.24989	.44688	-.24699
.49136	.29441	.47363	-3.99999
.53148	.34211	.50315	-6.31372
.56820	.38861	.53193	-8.01186
.60206	.43546	.56093	-9.03546
.63347	.50264	.60231	-6.88117
.66276	.62353	.67733	3.41152

SLOPE=.61689

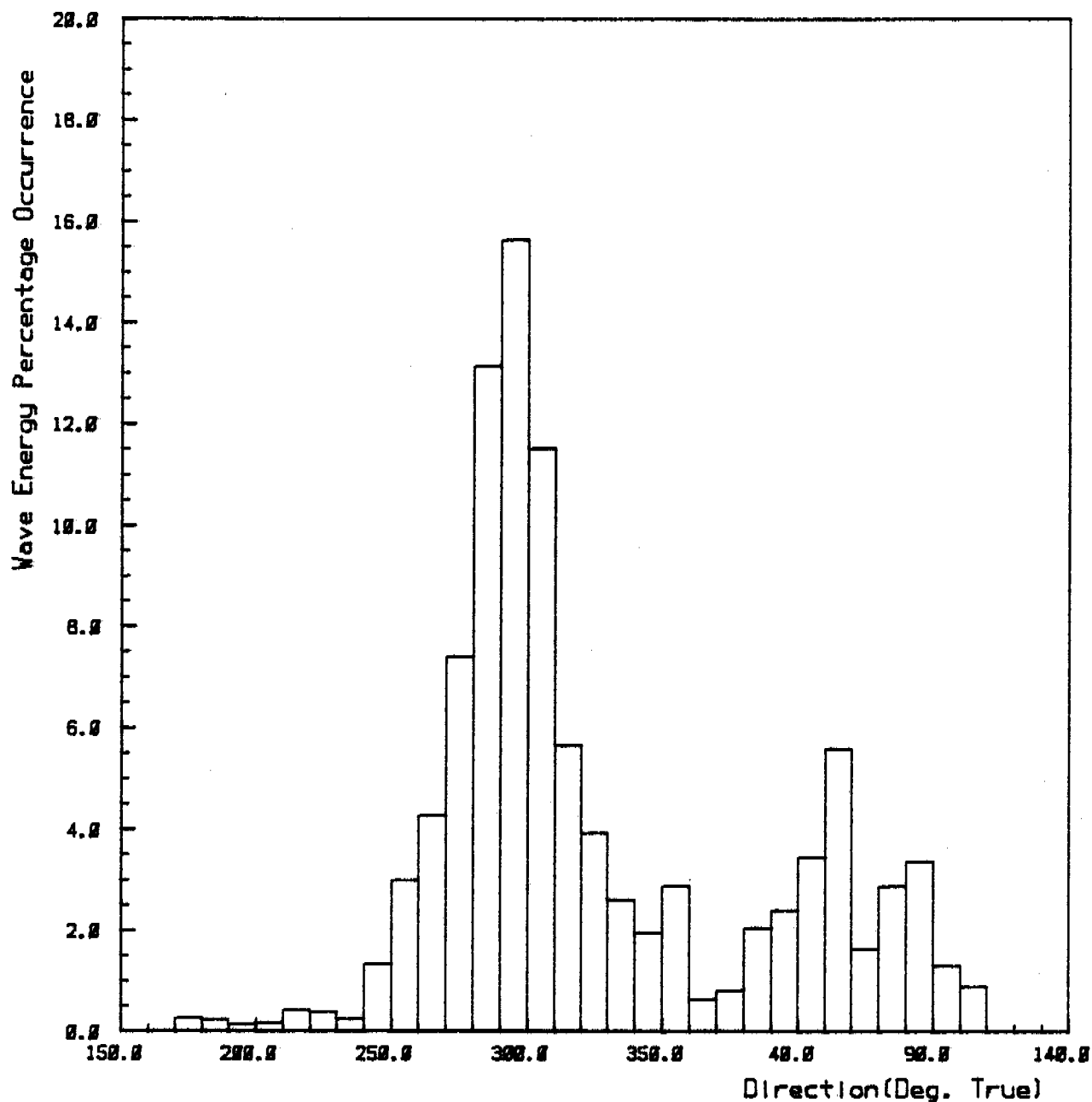
INTERCEPT=.29143

CORR COEFF=.98605

PREDICTED WAVE HEIGHTS FOR GIVEN RETURN PERIODS

RETURN PERIOD(YEARS) WAVE HEIGHT(HS)

1.0	4.1
5.0	4.7
10.0	4.9
20.0	5.1
50.0	5.3
100.0	5.5



Direction Limits: 170.0 TO 110.0

Calms: 19.5 %

Dates: 9/7/78 to 28/9/83

Season: Summer, Fall

Total No. of Records: 185631

Waves Hindcast Using Wind Data from Tuktoyaktuk N.W.T.

BEAUFORT SEA COASTAL SEDIMENT STUDY

Atkinson Point: Deep Water Wave Energy Distribution
1970 - 1983

Date: 17 Feb 85

Scales as shown

Checked by:

Keith Philpott
Consulting Limited

BEAUFORT SEA COASTAL SEDIMENT STUDY

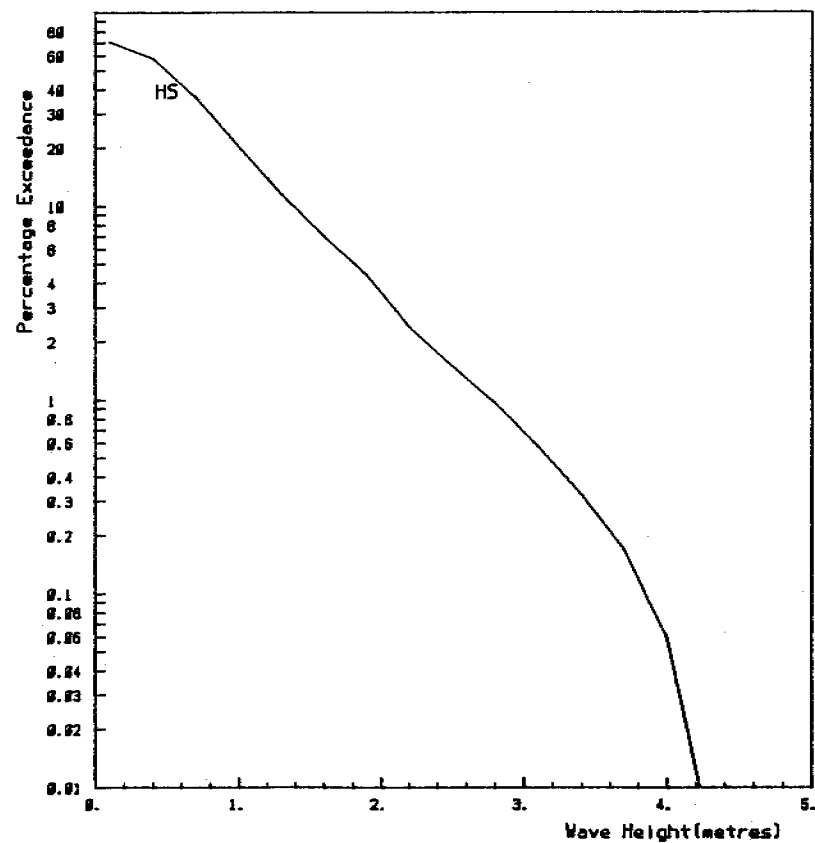
ATKINSON POINT

WAVES 9/07/70 TO 28/09/83
-----SEASON: Summer, Fall

PERCENTAGE WAVE POWER DISTRIBUTION

DIRECTION SECTOR	PERCENTAGE FREQUENCY	MEAN POWER (KW)	PERCENTAGE ENERGY
170. - 180.	1.86	.38	.24
180. - 190.	1.49	.40	.21
190. - 200.	.91	.38	.12
200. - 210.	.85	.54	.16
210. - 220.	1.42	.83	.41
220. - 230.	1.23	.88	.38
230. - 240.	.81	.85	.24
240. - 250.	1.53	2.47	1.32
250. - 260.	1.70	5.04	2.99
260. - 270.	2.49	4.92	4.27
270. - 280.	3.17	6.68	7.39
280. - 290.	4.93	7.63	13.13
290. - 300.	6.09	7.35	15.63
300. - 310.	5.73	5.75	11.52
310. - 320.	3.75	4.32	5.65
320. - 330.	3.59	3.13	3.93
330. - 340.	2.96	2.52	2.61
340. - 350.	1.73	3.22	1.94
350. - 360.	3.21	2.56	2.87
360. - 10.	1.77	1.84	.64
10. - 20.	2.02	1.15	.81
20. - 30.	3.88	1.51	2.85
30. - 40.	4.15	1.64	2.38
40. - 50.	3.87	2.54	3.44
50. - 60.	5.10	3.14	5.59
60. - 70.	4.58	1.02	1.64
70. - 80.	6.41	1.28	2.87
80. - 90.	8.83	1.89	3.36
90. - 100.	5.40	.69	1.31
100. - 110.	4.54	.56	.89

FIGURE



Direction Limits: 170.0 TO 110.0

Calcs: 19.5 %

Dates: 9/7/78 to 28/9/83

Season: Summer, Fall

Total No. of Records: 35531

Waves Hindcast Using Wind Data from Tuktoyaktuk N.W.T.

BEAUFORT SEA COASTAL SEDIMENT STUDY

Date: 17 Feb 85

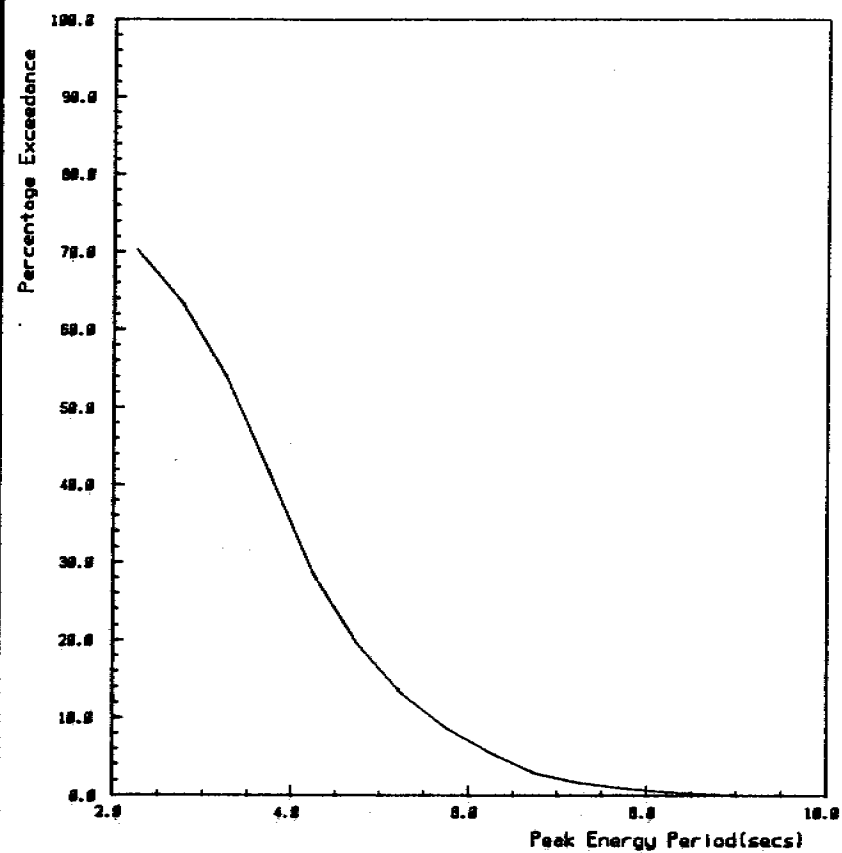
Scales as shown

Checked by:

Keith Philpott
Consulting Limited

Atkinson Point: Deep Water Wave Height Exceedance
1978 - 1983

FIGURE



Direction Limits: 170.0 TO 110.0

Calcs: 19.5 %

Dates: 9/7/78 to 28/9/83

Season: Summer, Fall

Total No. of Records: 35531

Waves Hindcast Using Wind Data from Tuktoyaktuk N.W.T.

BEAUFORT SEA COASTAL SEDIMENT STUDY

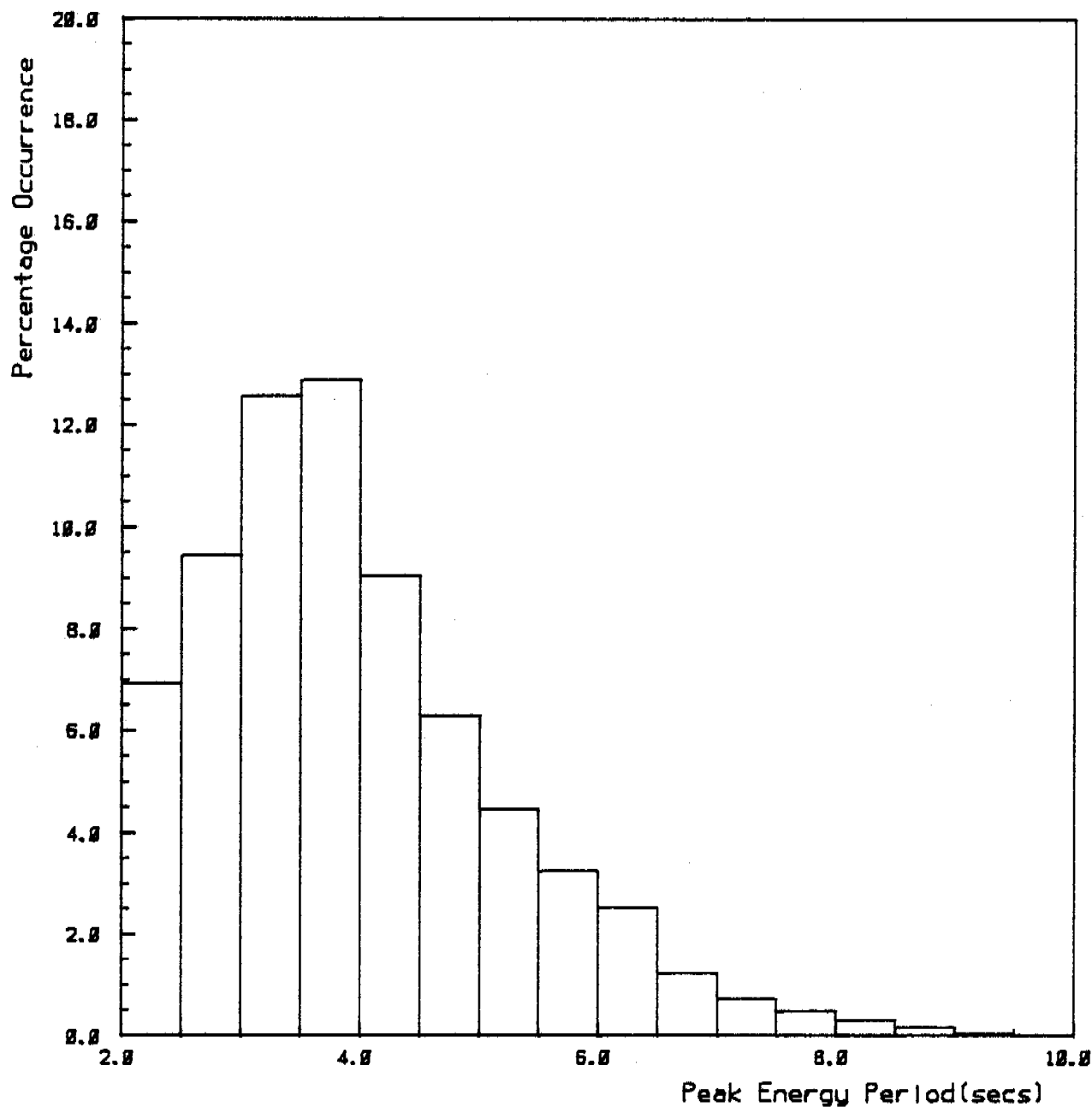
Date: 17 Feb 85

Scales as shown

Checked by:

Keith Philpott
Consulting Limited

Atkinson Point: Deep Water Wave Period Exceedance
1978 - 1983



Direction Limits: 170.0 TO 110.0

Calms: 19.5 %

Dates: 9/7/70 to 28/9/83

Season: Summer, Fall

Total No. of Records: 35531

Waves Hindcast Using Wind Data from Tuktoyaktuk N.W.T.

BEAUFORT SEA COASTAL SEDIMENT STUDY

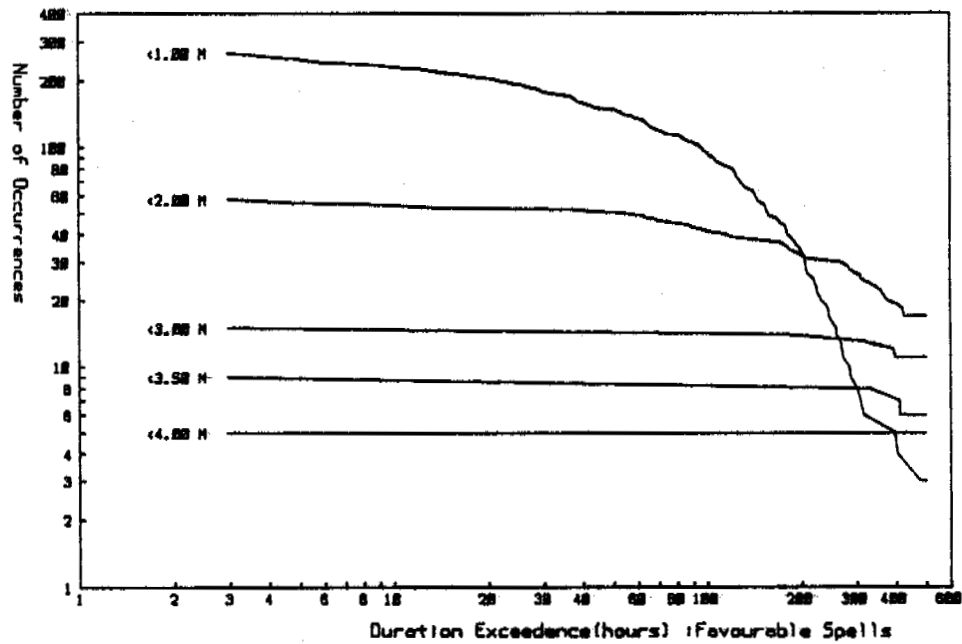
Atkinson Point: Deep Water Wave Period Occurrence
1970 - 1983

Date: 17 Feb 85

Scales as shown

Checked by:

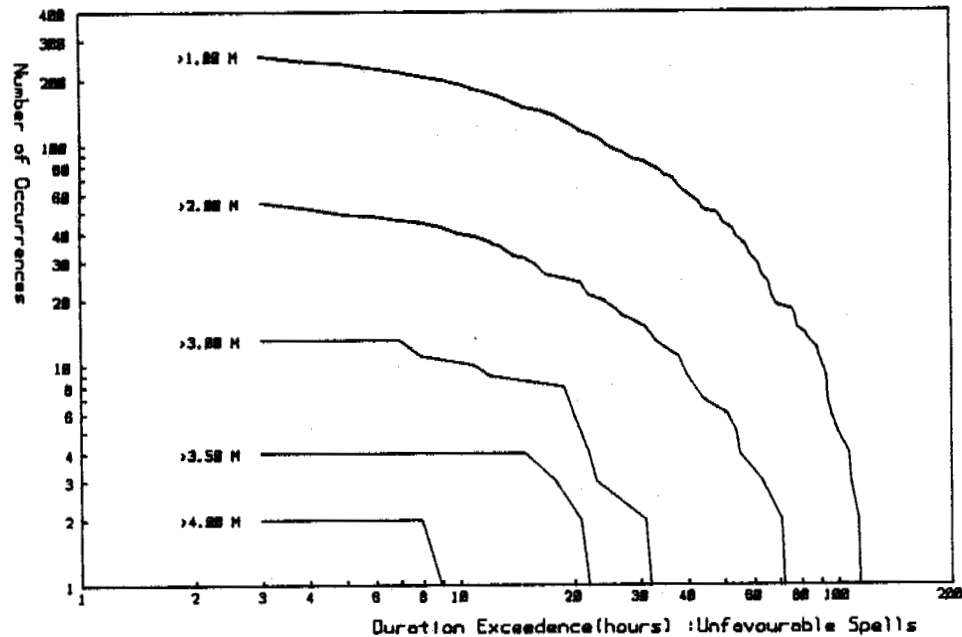
Keith Philpott
Consulting Limited



Dates: 9/7/78 to 28/9/83

Season: Summer, Fall

Waves Hindcast Using Wind Data from Tuktoyaktuk N.V.T.



Dates: 9/7/78 to 28/9/83

Season: Summer, Fall

Waves Hindcast Using Wind Data from Tuktoyaktuk N.V.T.

BEAUFORT SEA COASTAL SEDIMENT STUDY

Atkinson Point: Deep Water Wave Height Persistence
Favourable and Unfavourable Spells

Date: 17 May 85

Scales as shown

Checked by:

Keith Philpott

Consulting Limited

BEAUFORT SEA COASTAL SEDIMENT STUDY
WAVES 9/ 7/78 TO 28/ 9/83

ALL DIRECTIONS

[illegible]

SUMMARY :

NO. IN TOTAL SECTOR = 31896
NO. OUTSIDE TOTAL SECTOR = 3635
NO. OF CALMS = 6929
TOTAL NO. OF ALL RECORDS = 31896
PERCENTAGE CALMS = 19.51

BEAUFORT SEA COASTAL SEDIMENT STUDY
WAVES 9/ 7/70 TO 28/ 9/83

DIRECTION 170 TO 180

[illegible]

DIRECTION 188 TO 198

[illegible]

ATKINSON POINT

BEAUFORT SEA COASTAL SEDIMENT STUDY
WAVES 9/ 7/78 TO 28/ 9/83

DIRECTION 190 TO 200

WAVE ! HNT(H)!	Wave Period(secs)											Total!
	12	13	14	15	16	17	18	19	20	21	22	
1.10!	103!	1!	0!	0!	0!	0!	0!	0!	0!	0!	0!	104!
1.40!	40!	56!	0!	0!	0!	0!	0!	0!	0!	0!	0!	96!
1.70!	0!	26!	1!	0!	0!	0!	0!	0!	0!	0!	0!	27!
1.00!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
1.30!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
1.60!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
1.90!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.20!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.50!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.80!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.70!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.00!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.30!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.60!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
TOTAL!	143!	83!	1!	0!	0!	0!	0!	0!	0!	0!	0!	227!

DIRECTION 200 TO 210

WAVE ! HNT(H)!	Wave Period(secs)											Total!
	12	13	14	15	16	17	18	19	20	21	22	
1.10!	71!	4!	0!	0!	0!	0!	0!	0!	0!	0!	0!	75!
1.40!	36!	49!	0!	0!	0!	0!	0!	0!	0!	0!	0!	85!
1.70!	0!	46!	3!	0!	0!	0!	0!	0!	0!	0!	0!	49!
1.00!	0!	3!	1!	0!	0!	0!	0!	0!	0!	0!	0!	4!
1.30!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
1.60!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
1.90!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.20!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.50!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.80!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.70!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.00!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.30!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.60!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
TOTAL!	107!	102!	4!	0!	0!	0!	0!	0!	0!	0!	0!	213!

ATKINSON POINT

BEAUFORT SEA COASTAL SEDIMENT STUDY
WAVES 9/ 7/78 TO 28/ 9/83

DIRECTION 210 TO 220

WAVE ! HNT(H)!	Wave Period(secs)											Total!
	12	13	14	15	16	17	18	19	20	21	22	
1.10!	75!	5!	0!	0!	0!	0!	0!	0!	0!	0!	0!	80!
1.40!	56!	95!	0!	0!	0!	0!	0!	0!	0!	0!	0!	151!
1.70!	0!	60!	32!	0!	0!	0!	0!	0!	0!	0!	0!	92!
1.00!	0!	0!	32!	0!	0!	0!	0!	0!	0!	0!	0!	32!
1.30!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
1.60!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
1.90!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.20!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.50!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.80!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.70!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.00!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.30!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.60!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
TOTAL!	131!	160!	64!	0!	0!	0!	0!	0!	0!	0!	0!	355!

DIRECTION 220 TO 230

WAVE ! HNT(H)!	Wave Period(secs)											Total!
	12	13	14	15	16	17	18	19	20	21	22	
1.10!	85!	6!	0!	0!	0!	0!	0!	0!	0!	0!	0!	91!
1.40!	13!	100!	0!	0!	0!	0!	0!	0!	0!	0!	0!	113!
1.70!	0!	44!	21!	0!	0!	0!	0!	0!	0!	0!	0!	65!
1.00!	0!	2!	31!	0!	0!	0!	0!	0!	0!	0!	0!	33!
1.30!	0!	0!	5!	0!	0!	0!	0!	0!	0!	0!	0!	5!
1.60!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
1.90!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.20!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.50!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.80!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.70!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.00!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.30!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.60!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
TOTAL!	98!	152!	57!	0!	0!	0!	0!	0!	0!	0!	0!	307!

ATKINSON POINT

BEAUFORT SEA COASTAL SEDIMENT STUDY
WAVES 9/ 7/78 TO 28/ 9/83

DIRECTION 70 TO 80

WAVE !	Wave Period(secs)										Total!
INT(H)!											
>	12	13	14	15	16	17	18	19	10!	-	
.10!	101!	24!	9!	0!	0!	0!	0!	0!	0!	0!	214!
.40!	132!	315!	10!	0!	0!	0!	0!	0!	0!	0!	457!
1.00!	0!	1!	310!	0!	0!	0!	0!	0!	0!	0!	311!
1.30!	0!	0!	0!	14!	0!	0!	0!	0!	0!	0!	14!
1.60!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
1.90!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.20!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.50!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.80!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.70!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.00!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.30!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.60!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
TOTAL!	313!	699!	573!	14!	0!	0!	0!	0!	0!	0!	1599!

DIRECTION 80 TO 90

WAVE !	Wave Period(secs)										Total!
INT(H)!											
>	12	13	14	15	16	17	18	19	10!	-	
.10!	309!	23!	0!	0!	0!	0!	0!	0!	0!	0!	332!
.40!	107!	613!	11!	0!	0!	0!	0!	0!	0!	0!	811!
.70!	0!	494!	254!	0!	0!	0!	0!	0!	0!	0!	748!
1.00!	0!	1!	290!	0!	0!	0!	0!	0!	0!	0!	291!
1.30!	0!	0!	1!	21!	0!	0!	0!	0!	0!	0!	22!
1.60!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
1.90!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.20!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.50!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.80!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.70!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.00!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.30!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.60!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
TOTAL!	496!	1131!	554!	21!	0!	0!	0!	0!	0!	0!	2204!

ATKINSON POINT

BEAUFORT SEA COASTAL SEDIMENT STUDY
WAVES 9/ 7/78 TO 28/ 9/83

DIRECTION 90 TO 100

WAVE !	Wave Period(secs)										Total!
INT(H)!											
>	12	13	14	15	16	17	18	19	10!	-	
.10!	256!	6!	0!	0!	0!	0!	0!	0!	0!	0!	262!
.40!	186!	436!	0!	0!	0!	0!	0!	0!	0!	0!	622!
.70!	0!	482!	42!	0!	0!	0!	0!	0!	0!	0!	444!
1.00!	0!	1!	10!	0!	0!	0!	0!	0!	0!	0!	19!
1.30!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
1.60!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
1.90!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.20!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.50!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.80!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.70!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.00!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.30!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.60!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
TOTAL!	442!	845!	60!	0!	0!	0!	0!	0!	0!	0!	1347!

DIRECTION 100 TO 110

WAVE !	Wave Period(secs)										Total!
INT(H)!											
>	12	13	14	15	16	17	18	19	10!	-	
.10!	259!	9!	0!	0!	0!	0!	0!	0!	0!	0!	268!
.40!	174!	455!	0!	0!	0!	0!	0!	0!	0!	0!	629!
.70!	0!	204!	22!	0!	0!	0!	0!	0!	0!	0!	226!
1.00!	0!	0!	9!	0!	0!	0!	0!	0!	0!	0!	9!
1.30!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
1.60!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
1.90!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.20!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.50!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.80!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.70!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.00!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.30!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.60!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
TOTAL!	433!	660!	31!	0!	0!	0!	0!	0!	0!	0!	1132!

BEAUFORT SEA COASTAL SEDIMENT STUDY

OFFSHORE TO ONSHORE WAVE TRANSFORMATION FUNCTIONS

ATKINSON POINT

KEITH PHILPOTT CONSULTING LTD.
P.O. Box 938
THORNHILL
ONTARIO L3T 4A5

KEY

Grid Number
Nodal Dimensions (XxY)
Mesh Size (metres)

1
29X37
50X50

2
29X37
50X50

3
45X41
50X50

4
45X33
50X50

5
27X57
100X100

6
10X114
200X200

7
19X67
600X600

8
16X51
1200X1200



10 0 10 20
X 1000 Metres

BEAUFORT SEA COASTAL SEDIMENT STUDY

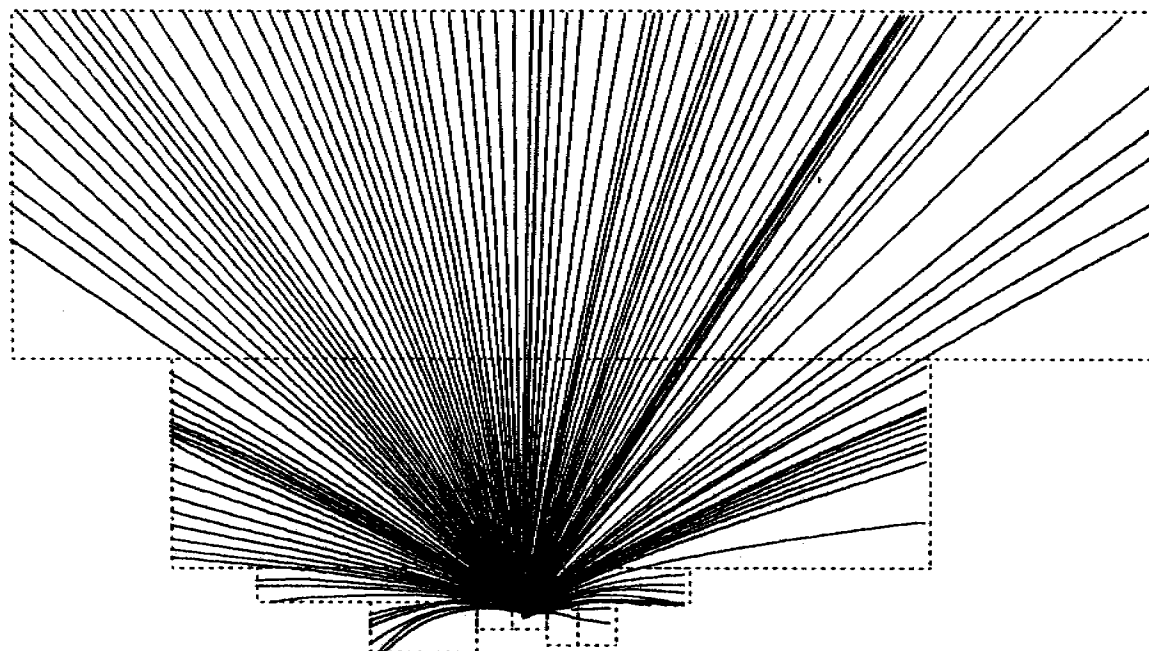
Atkinson Point: Nodal Dimensions and Mesh Size of
Refraction Model Grids

Date: 14 May 85

Scales as shown

Checked by:

Keith Philpott
Consulting Limited



FIGURE

WAVE RAY DETAILS

Tide Level= 0.50 m.

Wave Period= 5.0 secs

Position No:2

Bathymetry information used for grids obtained from the Canadian Hydrographic Service. Field Sheets numbered:

M.A. 10028 B

F.S. 10005



BEAUFORT SEA COASTAL STUDY

Wave Refraction Analysis for

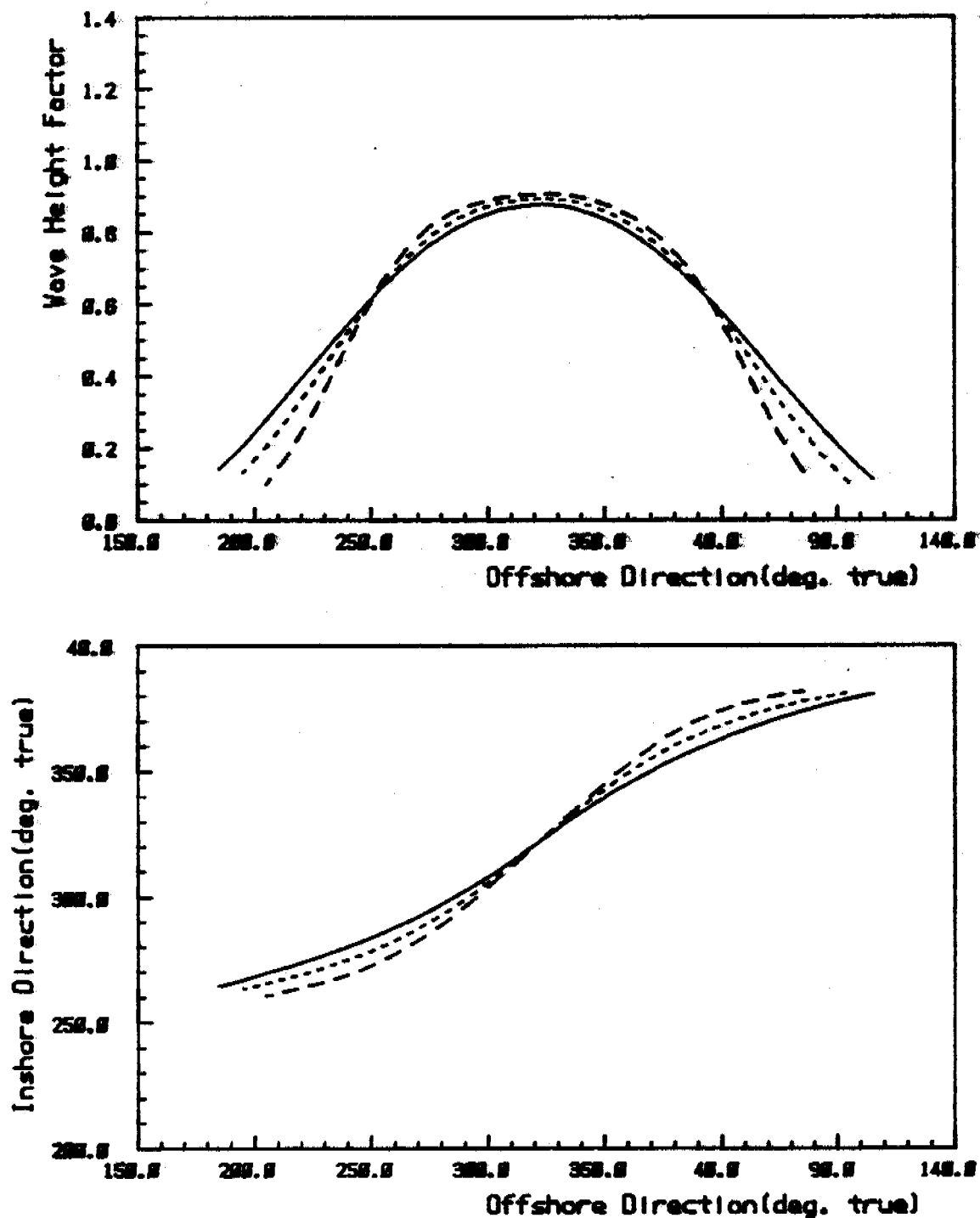
Atkinson Point - Beaufort Sea

Date: 18 Apr 85

Scale 1:250000

Checked by:

Keith Philpott
Consulting Limited



Node No: 1

Spreading Index:

2

Tide Level: 0.50 m.

4

Peak Period: 3.2 secs

10

BEAUFORT SEA COASTAL SEDIMENT STUDY

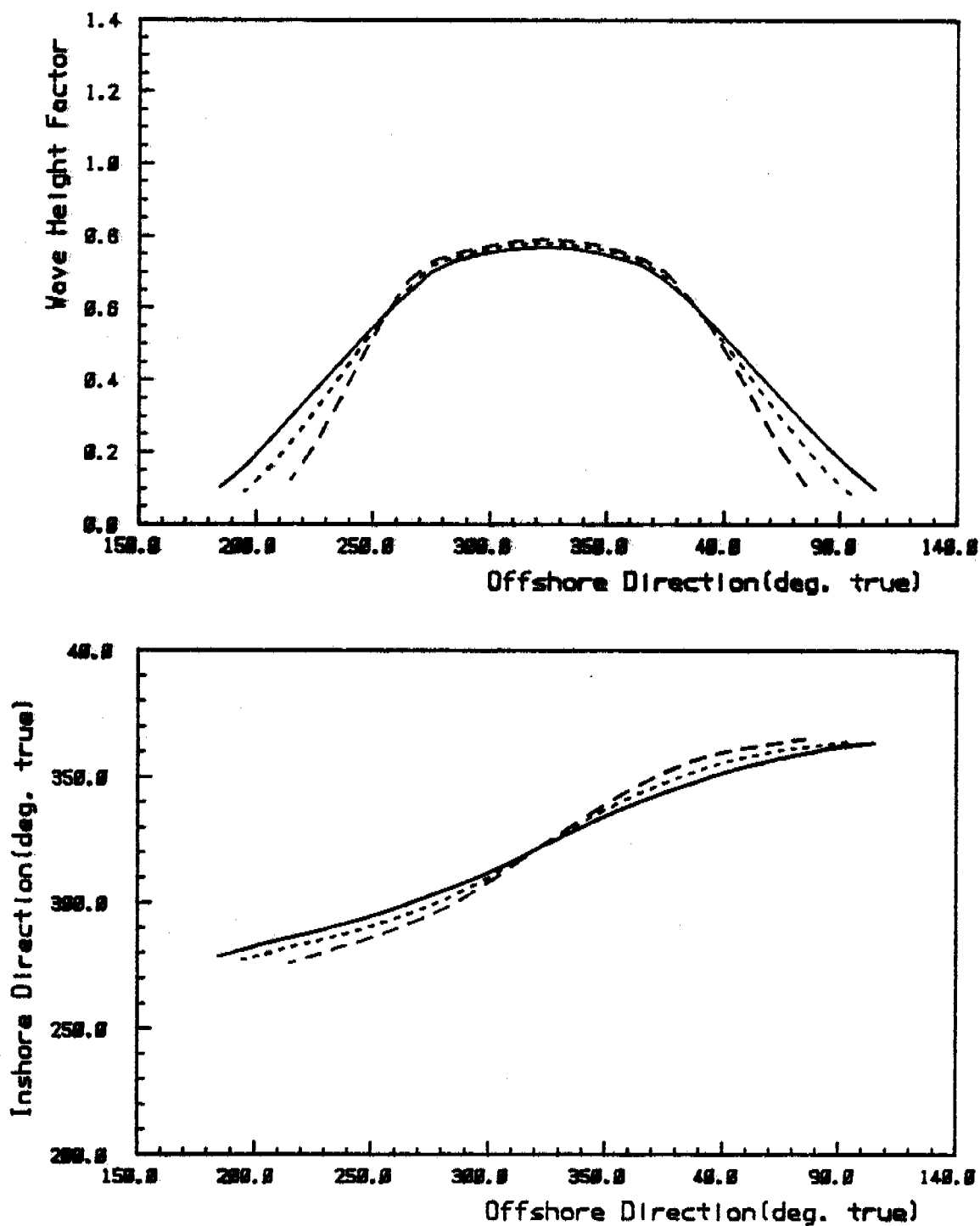
Date: 27 Mar 85

Scale as shown

Atkinson Point: Wave Spectrum Transformation Results for
Node Number 01

Checked by:

Keith Philpott
Consulting Limited



Node No: 1

Spreading Index:

2

Tide Level: 0.50 m.

4

Peak Period: 5.0 secs

10

BEAUFORT SEA COASTAL SEDIMENT STUDY

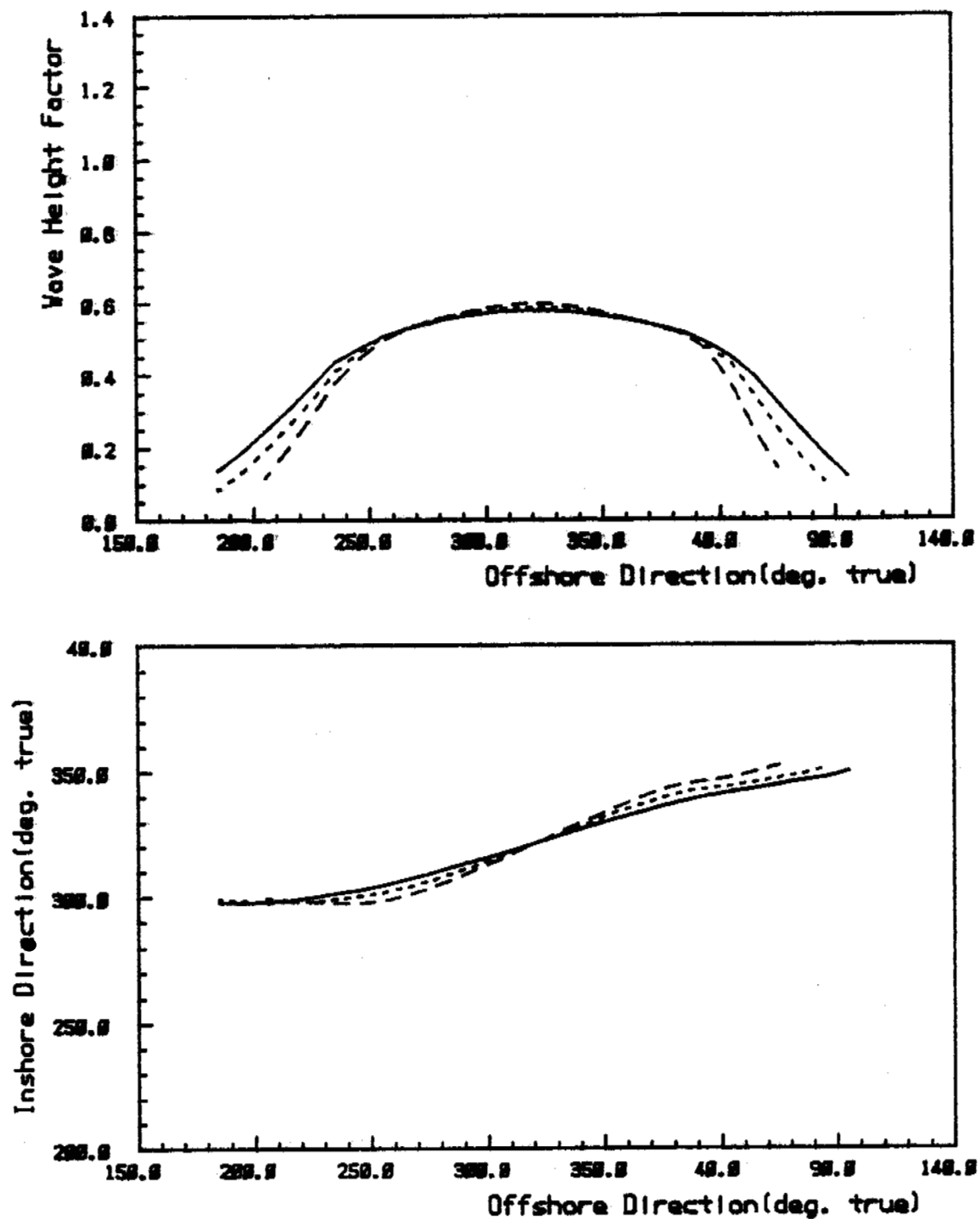
Date: 27 Mar 85

Scale: as shown

Atkinson Point: Wave Spectrum Transformation Results for
Node Number 01

Checked by:

Keith Philpott
Consulting Limited



Node No: 1

Spreading Index:

2

Tide Level: 8.58 m.

4

Peak Period: 7.9 secs

10

BEAUFORT SEA COASTAL SEDIMENT STUDY

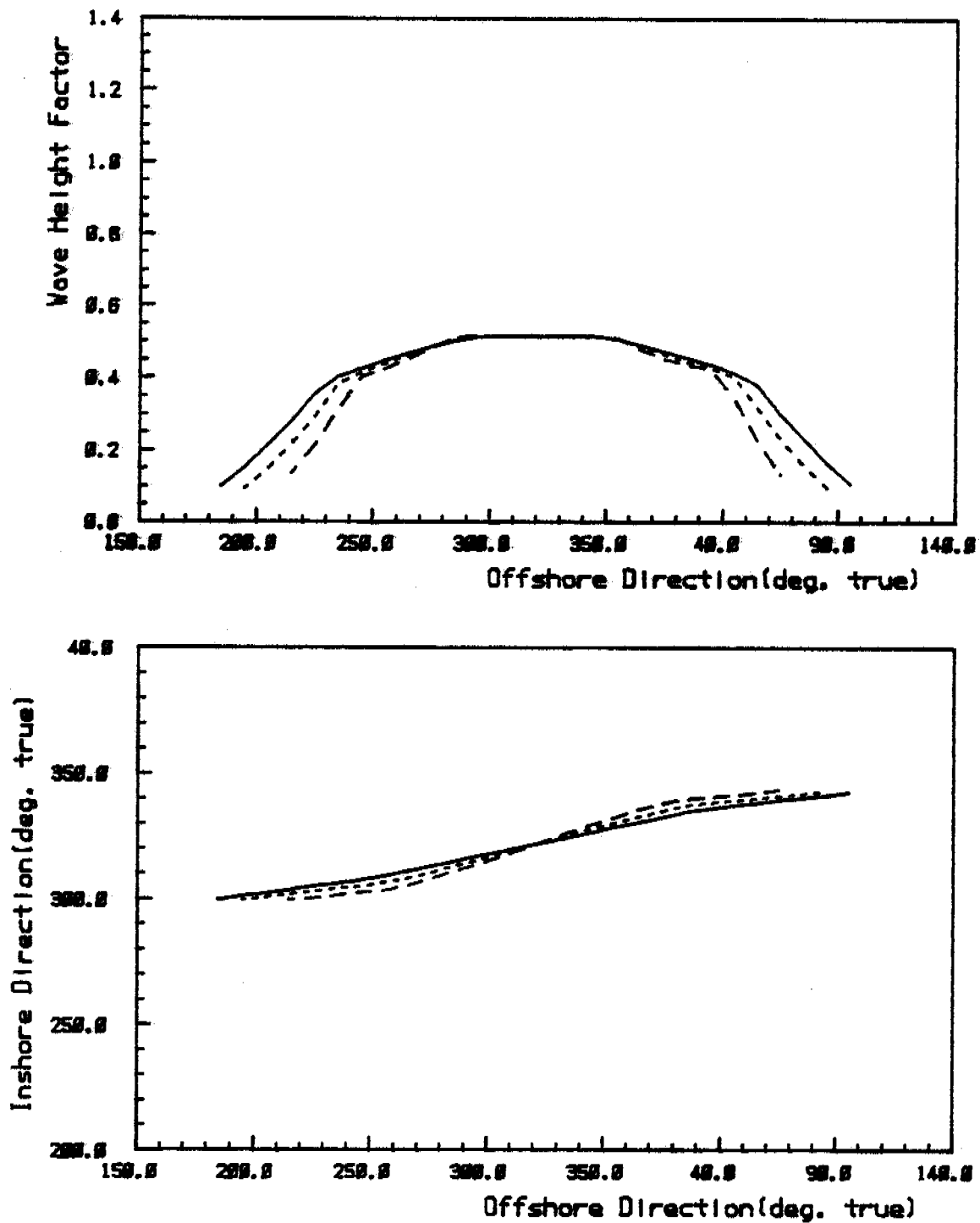
Date: 27 Mar 85

Scale as shown

Atkinson Point: Wave Spectrum Transformation Results for
Node Number 01

Checked by:

Keith Philpott
Consulting Limited



Node No: 1

Spreading Index:

2

Tide Level: 0.50 m.

4

Peak Period: 10.0 secs

10

BEAUFORT SEA COASTAL SEDIMENT STUDY

Date: 27 Mar 85

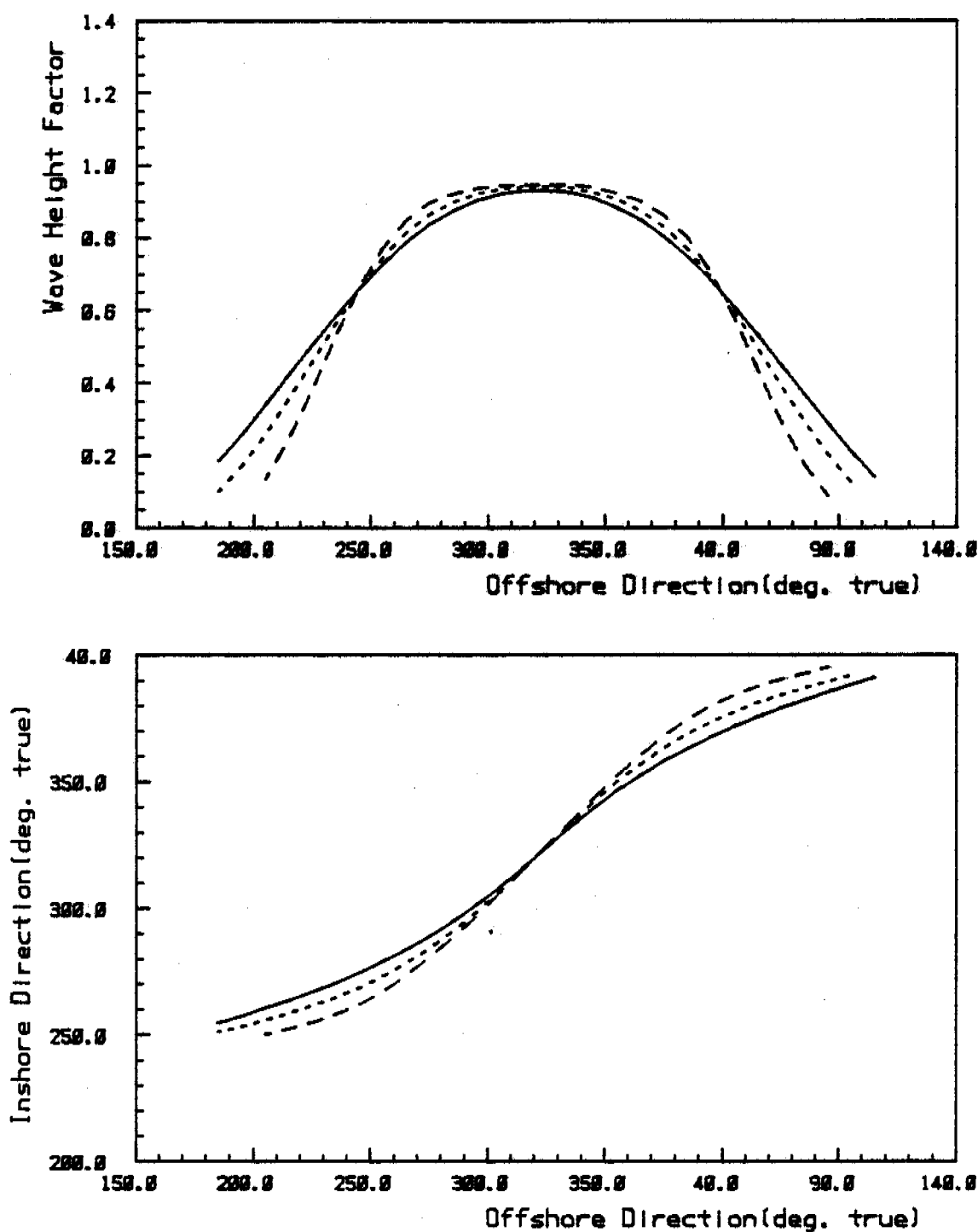
Scale: as shown

Atkinson Point: Wave Spectrum Transformation Results for
Node Number 01

Checked by:

Keith Philpott

Consulting Limited



Node No: 1

Spreading Index:

2

Tide Level: 2.25 m.

4

Peak Period: 3.2 secs

10

BEAUFORT SEA COASTAL SEDIMENT STUDY

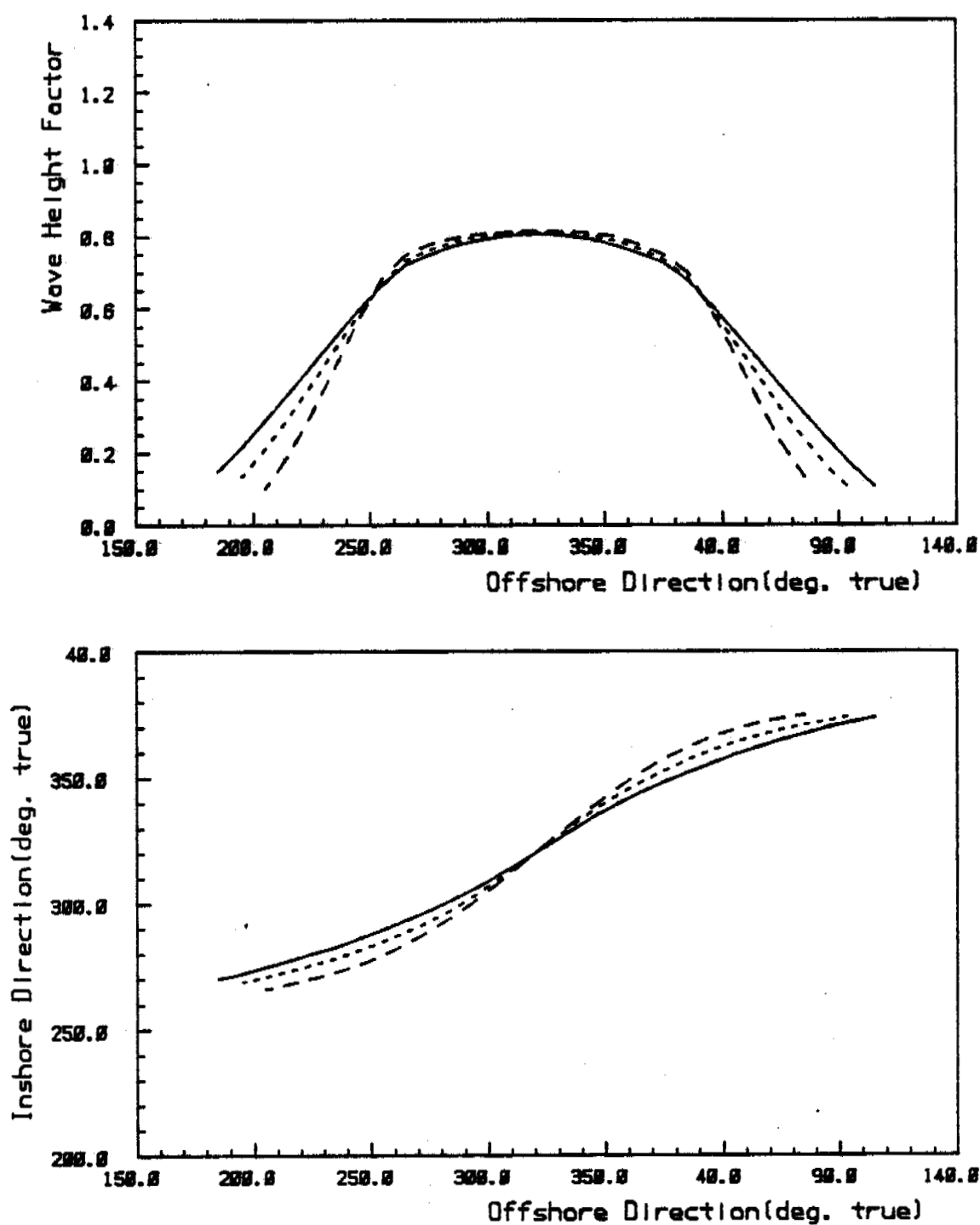
Date: 27 Mar 85

Scales as shown

Atkinson Point: Wave Spectrum Transformation Results for
Node Number 01

Checked by:

Keith Philpott
Consulting Limited



Node No: 1

Spreading Index:

2

Tide Level: 2.25 m.

4

Peak Period: 5.0 secs

18

BEAUFORT SEA COASTAL SEDIMENT STUDY

Date: 27 Mar 85

Scale as shown

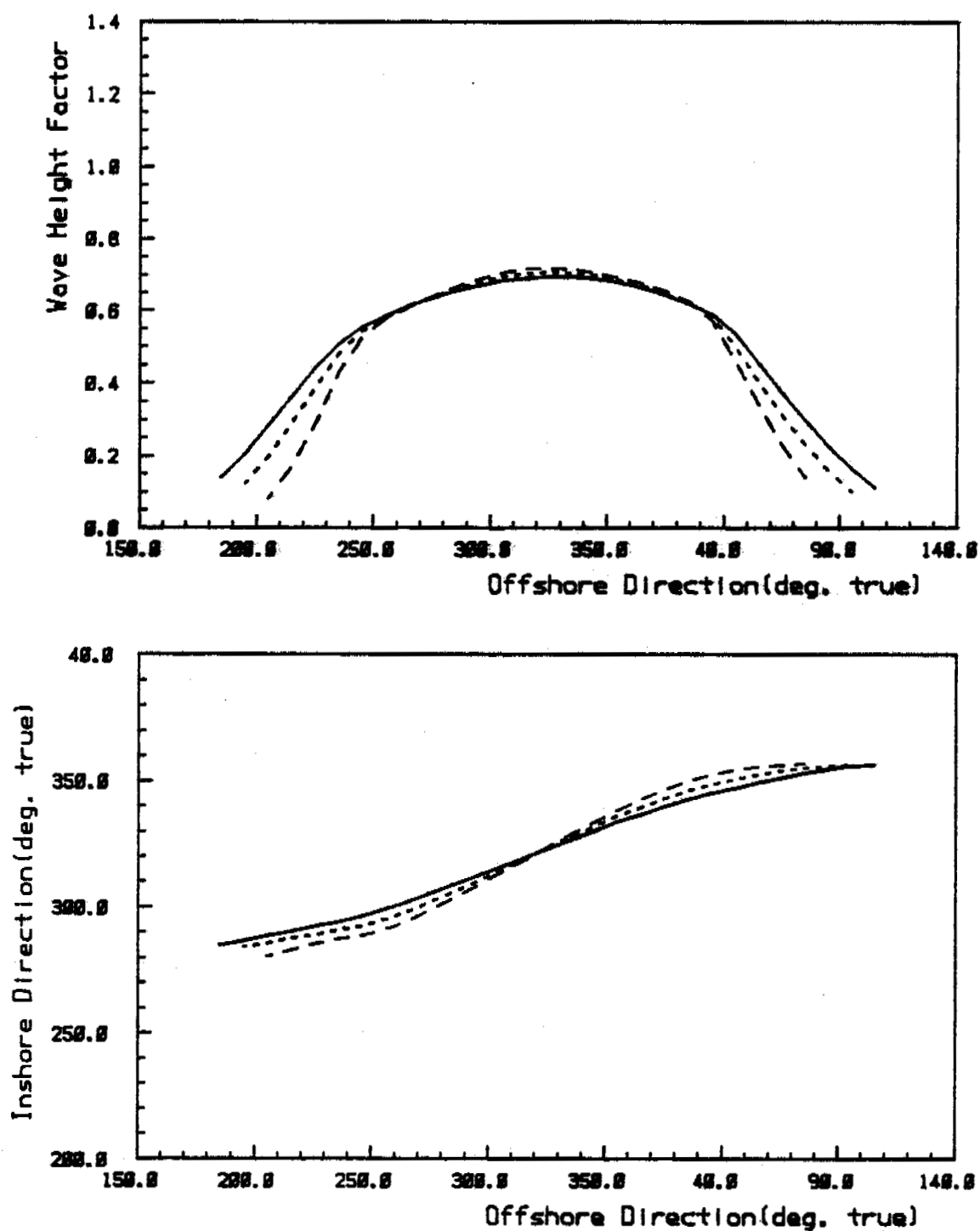
Atkinson Point: Wave Spectrum Transformation Results for

Checked by:

Node Number 01

Keith Philpott

Consulting Limited



Node No: 1

Tide Level: 2.25 m.

Peak Period: 7.9 secs

Spreading Index:

2

4

18

BEAUFORT SEA COASTAL SEDIMENT STUDY

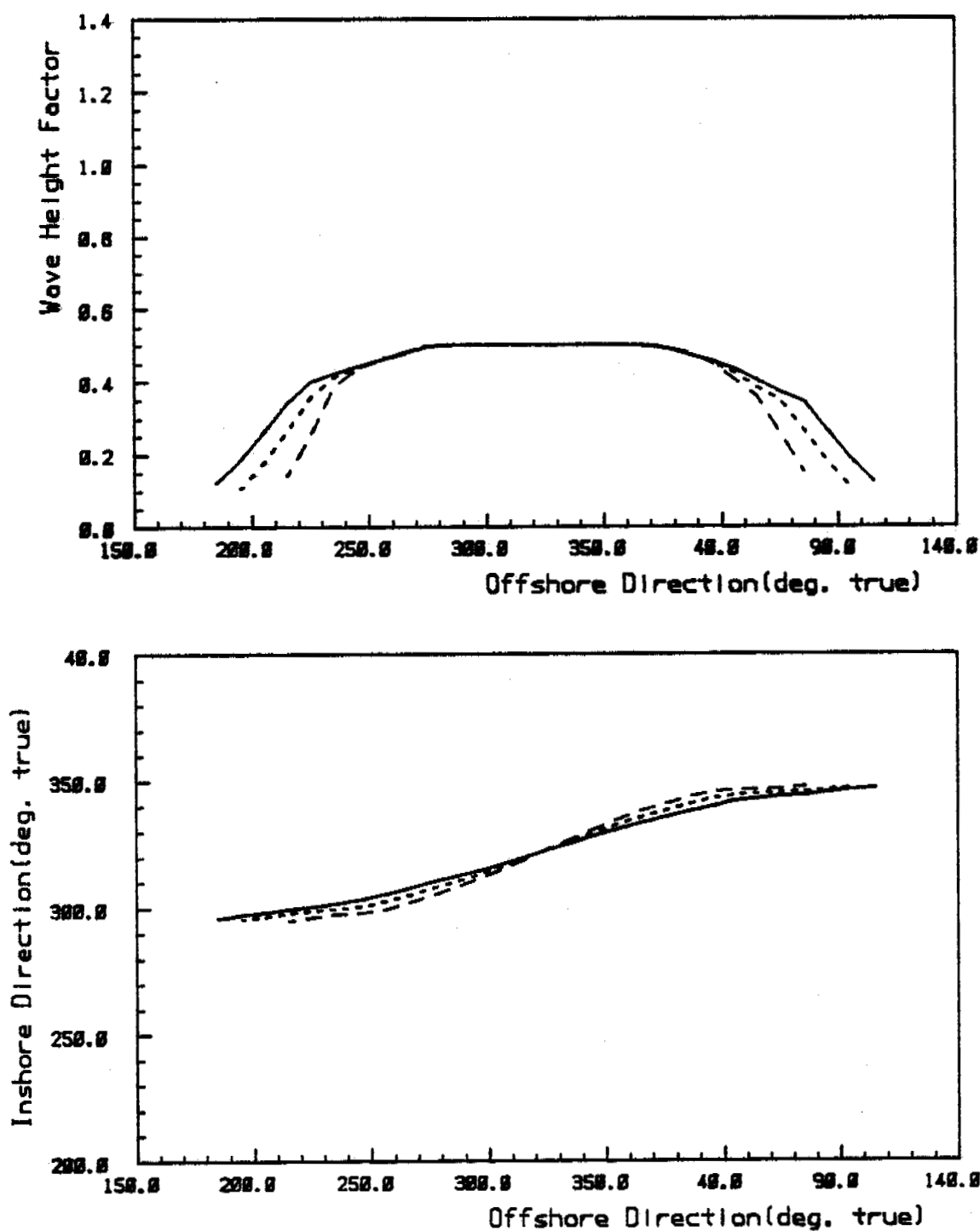
Atkinson Point: Wave Spectrum Transformation Results for
Node Number 01

Date: 27 Mar 85

Scale as shown

Checked by:

Keith Philpott
Consulting Limited



Node No: 1

Spreading Index: 2

Tide Level: 2.25 m.

4

Peak Period: 10.0 secs

10

BEAUFORT SEA COASTAL SEDIMENT STUDY

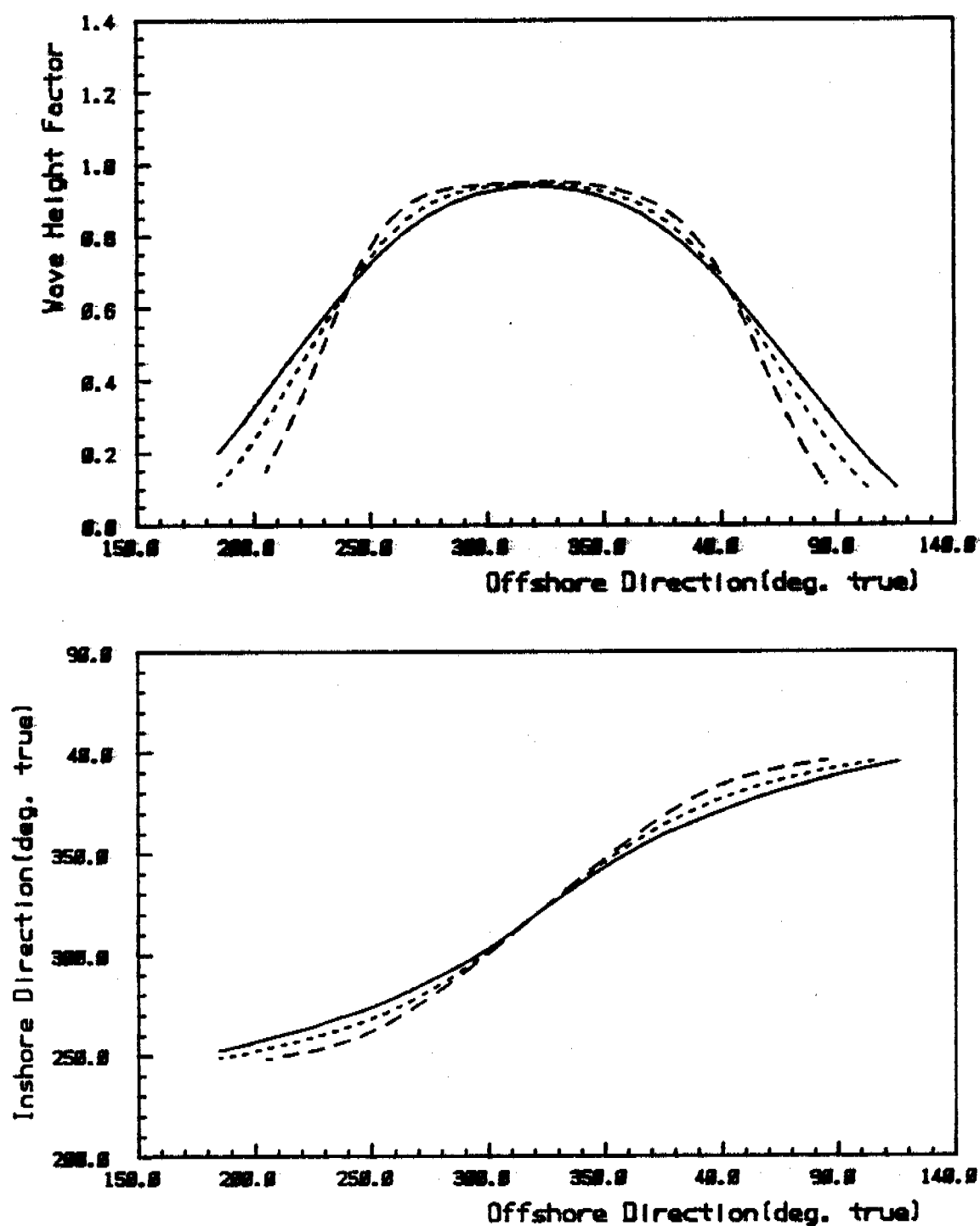
Date: 27 Mar 85

Scale as shown

Atkinson Point: Wave Spectrum Transformation Results for
Node Number 01

Checked by:

Keith Philpott
Consulting Limited



Node No: 2

Spreading Index:

2

Tide Level: 8.50 m.

4

Peak Period: 3.2 secs

10

BEAUFORT SEA COASTAL SEDIMENT STUDY

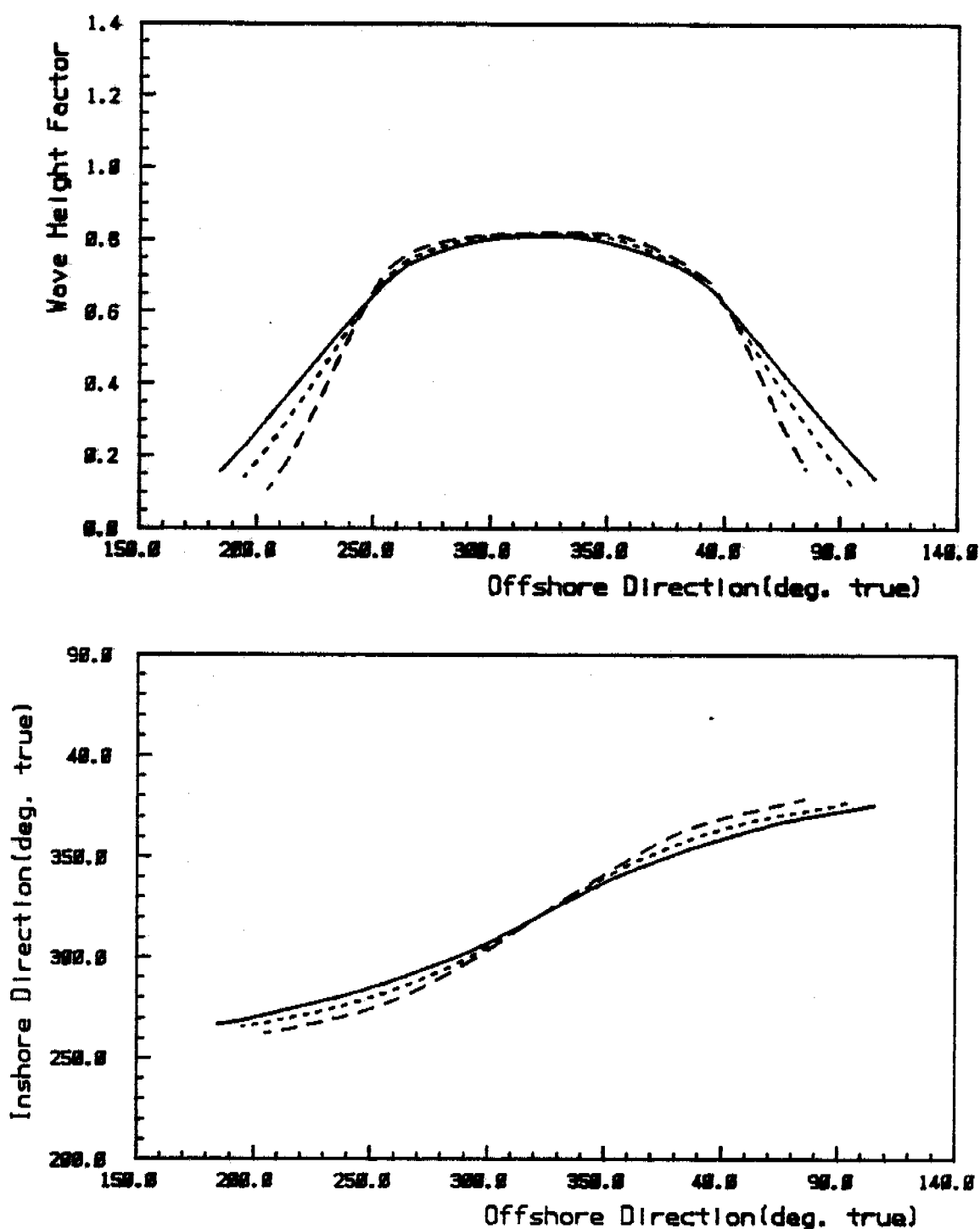
Date: 27 Mar 85

Scale as shown

Atkinson Point: Wave Spectrum Transformation Results for
Node Number 02

Checked by:

Keith Philpott
Consulting Limited



Node No: 2

Spreading Index: 2

Tide Level: 0.50 m.

4

Peak Period: 5.0 secs

10

BEAUFORT SEA COASTAL SEDIMENT STUDY

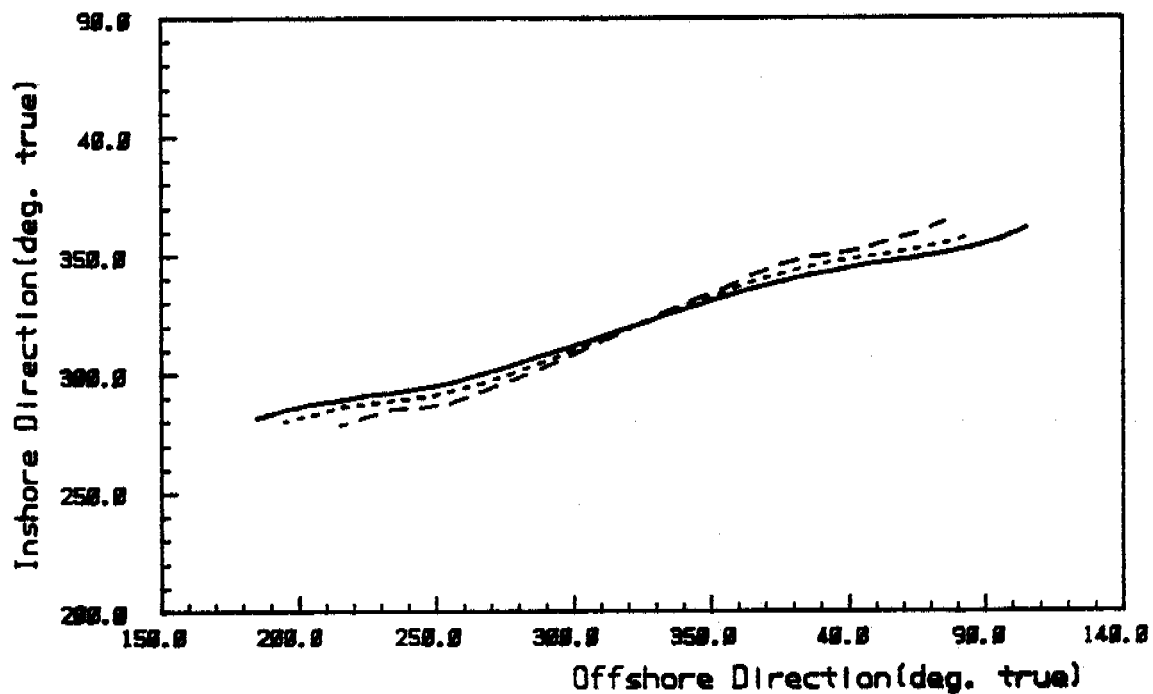
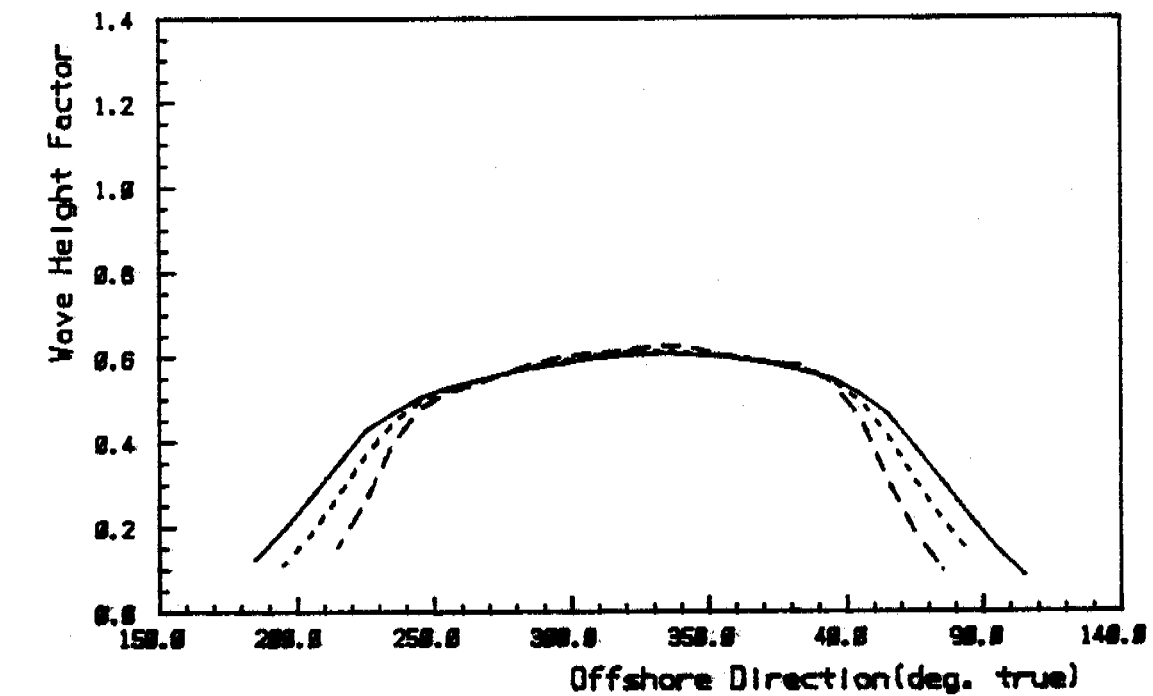
Date: 27 Mar 85

Scale: as shown

Atkinson Point: Wave Spectrum Transformation Results for
Node Number 02

Checked by:

Keith Philpott
Consulting Limited



Node No: 2

Spreading Index: 2

Tide Level: 0.50 m.

4

Peak Period: 7.9 secs

10

BEAUFORT SEA COASTAL SEDIMENT STUDY

Atkinson Point: Wave Spectrum Transformation Results for
Node Number 02

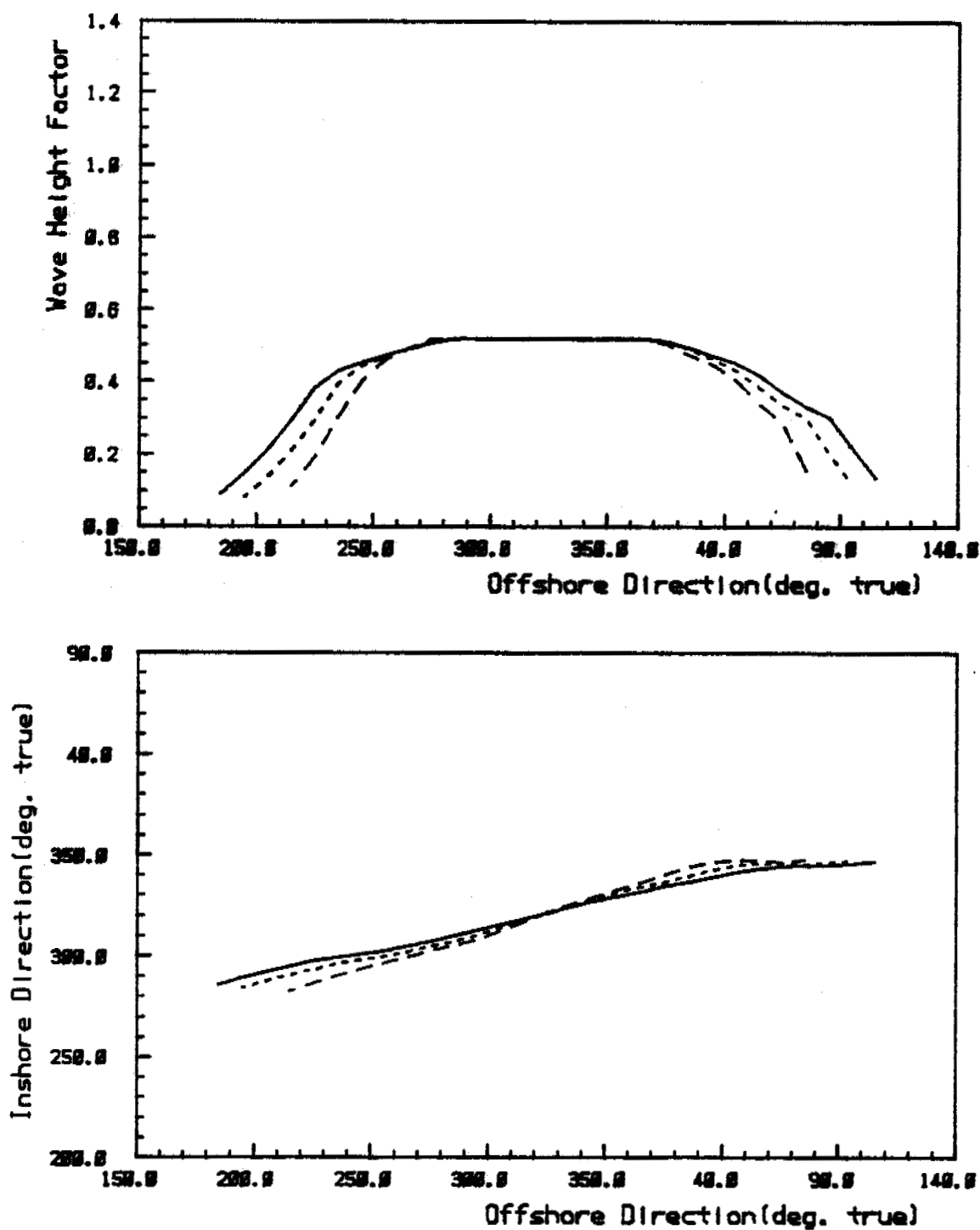
Date: 27 Mar 85

Scale as shown

Checked by:

Keith Philpott
Consulting Limited

FIGURE



Node No: 2

Spreading Index:

2

Tide Level: 0.50 m.

4

Peak Period: 10.0 secs

10

BEAUFORT SEA COASTAL SEDIMENT STUDY

Date: 27 Mar 85

Scale: as shown

Atkinson Point: Wave Spectrum Transformation Results for
Node Number 02

Checked by:

Keith Philpott
Consulting Limited

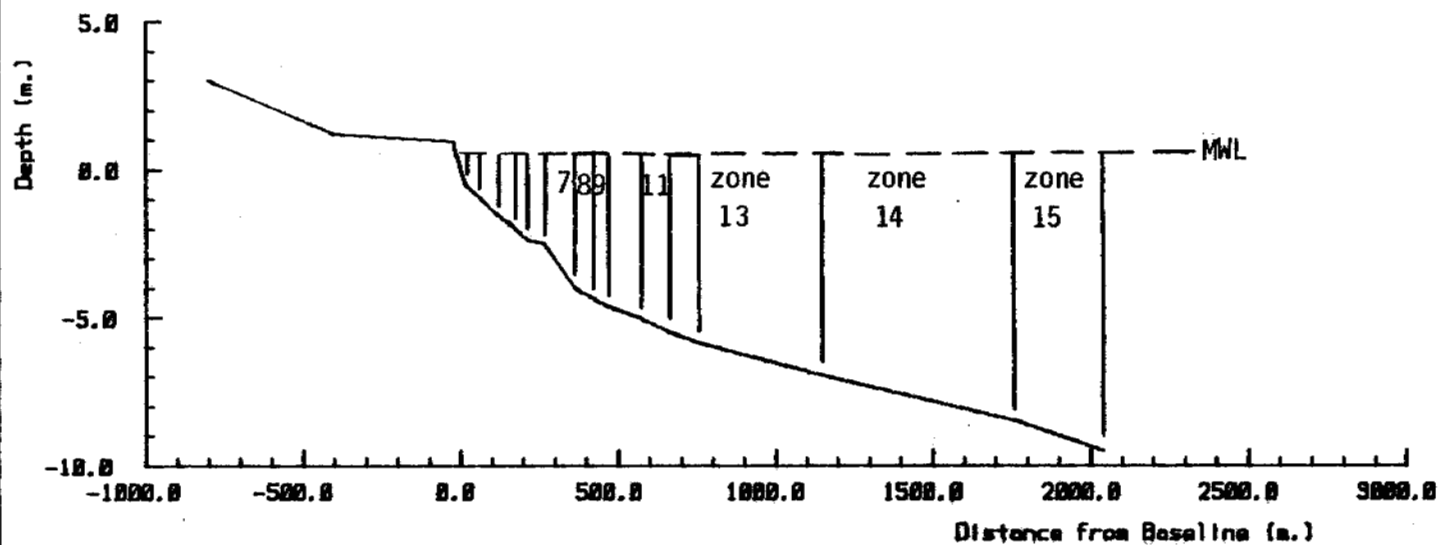
BEAUFORT SEA COASTAL SEDIMENT STUDY

ALONGSHORE SEDIMENT TRANSPORT RESULTS

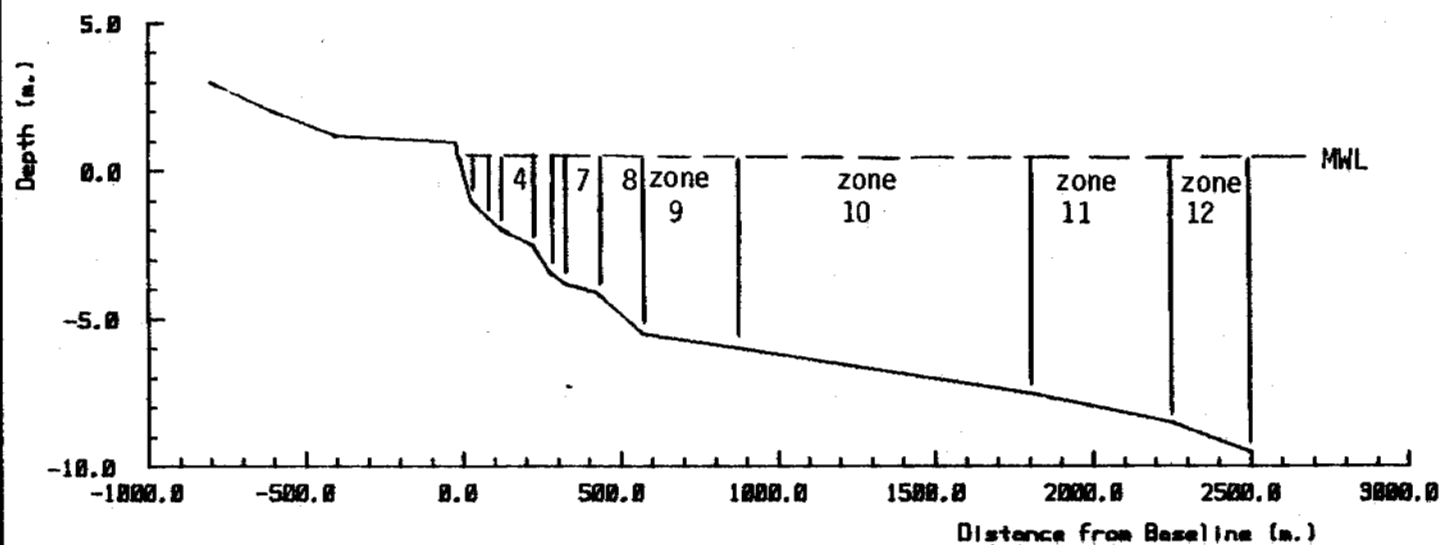
FOURTEEN YEAR AVERAGES

(1970 - 1983)

KEITH PHILPOTT CONSULTING LTD.
P.O. Box 938
THORNHILL
ONTARIO L3T 4A5



(a) Profile at Node 1



(b) Profile at Node 2

BEAUFORT SEA COASTAL SEDIMENT STUDY

Atkinson Point: Beach Profiles used in Sediment
Transport Predictions

Date: 15 Mar 85

Scales as shown

Checked by:

Keith Philpott

Consulting Limited

BEAUFORT SEA COASTAL SEDIMENT STUDY

Current date is 02/27/85

Current time is 17:45:45.45

14 YEAR AVERAGE SEDIMENT TRANSPORT HINDCAST

WAVE DATA IS HINDCAST FROM TUKTOYAKTUK N.W.T. WINDS

This run used the following sediment transport models

- 1 CERC formula
- 2 Queen's modified CERC (March 1985)
- 3 Swart modified CERC
- 4 Bijker formula
- 5 Engelund and Hansen (by Swart)
- 7 Swart model
- 8 Willis model
- 9 Van Der Graaf and Overeen model
- 10 Nielsen model (breaking waves)
- 11 Nielsen model (non breaking waves)
- 12 Fleming model
- 13 Swart and Lenhoff model

ATKINSON POINT NODE 1, MEAN WATER LEVEL

Profile Zone

Zone	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Shoreline O/S to mid-zone	7.5	40.0	90.0	140.0	190.0	240.0	315.0	390.0	440.0	515.0	615.0	715.0	965.0	1462.5	1900.0
Sed. Transport Zone Width	15.0	50.0	50.0	50.0	50.0	50.0	100.0	50.0	50.0	100.0	100.0	100.0	400.0	595.0	280.0
Depth at Centre of Zone	.25	.75	1.25	1.70	2.15	2.45	3.25	4.15	4.45	4.80	5.25	5.70	6.45	7.75	9.00
Sediment Transport Switch	On	On	On	On	On	On	On	On	On	On	On	On	On	On	On

Input Grain Size Distribution (mm)

Zone	D16	D25	D35	D50	D65	D75	D84	D90	Switch	Height	Length
1 to 15	.130	.150	.160	.180	.200	.220	.240	.250			

Roughness Computation Parameters

Roughness Based on Ripple Height

refraction analysis was to a depth of 4.0 meters

beach normal azimuth = 327.0 degrees

weighted breaker depth = .82 meters

ATKINSON POINT NODE 2, MEAN WATER LEVEL

Profile Data

Zone	1	2	3	4	5	6	7	8	9	10	11	12
Shoreline O/S to mid-zone	12.5	50.0	100.0	175.0	250.0	300.0	375.0	500.0	725.0	1337.5	2025.0	2375.0
Sed. Transport Zone Width	25.0	50.0	50.0	100.0	50.0	50.0	100.0	150.0	300.0	925.0	450.0	250.0
Depth at Centre of Zone	.50	1.25	1.75	2.25	2.95	3.60	3.95	4.80	5.75	6.75	8.00	9.00
Sediment Transport Switch	On	On	On	On	On	On	On	On	On	On	On	On

Input Grain Size Distribution (mm)

Zone	D16	D25	D35	D50	D65	D75	D84	D90	Switch	Height	Length
1 to 12	.130	.150	.160	.180	.200	.220	.240	.250			

Roughness Computation Parameters

Roughness Based on Ripple Height

refraction analysis was to a depth of 4.0 meters

beach normal azimuth = 346.0 degrees

weighted breaker depth = .85 meters

ATKINSON POINT NODE 1, MEAN WATER LEVEL

NEGATIVE SEDIMENT TRANSPORT RATES (counter clockwise wrt. beach normal)

[illegible]

ATKINSON POINT NODE 1. MEAN WATER LEVEL

CUMULATIVE DISTRIBUTION OF NET SEDIMENT TRANSPORT (cu.m./yr.)

Model	B(1)	B(2)	B(3)	B(4)	B(5)	B(6)	B(7)	B(8)	B(9)	B(10)	B(11)	B(12)	B(13)	B(14)	B(15)
4	.5231E+02	.2638E+05	.6525E+05	.9289E+05	.1804E+06	.1181E+06	.1289E+06	.1289E+06	.1289E+06	.1289E+06	.1289E+06	.1289E+06	.1289E+06	.1289E+06	.1289E+06
5	.1981E+04	.1406E+06	.3581E+06	.4913E+06	.5668E+06	.6809E+06	.6221E+06	.6227E+06	.6238E+06	.6233E+06	.6234E+06	.6234E+06	.6235E+06	.6235E+06	.6235E+06
7	.4545E+03	.5638E+06	.2406E+07	.4323E+07	.5518E+07	.6186E+07	.6292E+07	.6293E+07	.6293E+07	.6293E+07	.6293E+07	.6293E+07	.6293E+07	.6293E+07	.6293E+07
8	.6162E+04	.1183E+07	.3119E+07	.4867E+07	.5880E+07	.6316E+07	.6438E+07	.6444E+07	.6447E+07	.6458E+07	.6451E+07	.6452E+07	.6452E+07	.6452E+07	.6452E+07
9	.9215E+04	.1592E+07	.4444E+07	.6694E+07	.7912E+07	.8576E+07	.8714E+07	.8718E+07	.8719E+07	.8721E+07	.8721E+07	.8721E+07	.8721E+07	.8721E+07	.8721E+07
10	.1980E+04	.3928E+05	.7267E+05	.9406E+05	.1056E+06	.1128E+06	.1162E+06	.1164E+06	.1163E+06	.1167E+06	.1167E+06	.1167E+06	.1167E+06	.1167E+06	.1167E+06
11	.5035E+03	.1993E+05	.4543E+05	.6454E+05	.7577E+05	.8299E+05	.8636E+05	.8641E+05	.8673E+05	.8684E+05	.8688E+05	.8689E+05	.8689E+05	.8689E+05	.8689E+05
12	.2628E+04	.1556E+06	.3446E+06	.4475E+06	.5459E+06	.5943E+06	.5944E+06	.5948E+06	.5958E+06	.5952E+06	.5953E+06	.5953E+06	.5953E+06	.5953E+06	.5953E+06
13	.3758E+04	.7575E+06	.2161E+07	.3277E+07	.3873E+07	.4198E+07	.4246E+07	.4247E+07	.4247E+07	.4247E+07	.4248E+07	.4248E+07	.4248E+07	.4248E+07	.4248E+07
MEAN	.2961E+04	.4898E+06	.1452E+07	.2265E+07	.2723E+07	.2975E+07	.3026E+07	.3027E+07	.3028E+07	.3028E+07	.3029E+07	.3029E+07	.3029E+07	.3029E+07	.3029E+07
S.D.	.3802E+04	.5633E+06	.1643E+07	.2554E+07	.3074E+07	.3361E+07	.3417E+07	.3418E+07	.3419E+07	.3419E+07	.3420E+07	.3420E+07	.3420E+07	.3420E+07	.3420E+07

ATKINSON POINT NODE 1, MEAN WATER LEVEL

PERCENTAGE DISTRIBUTION OF NET SEDIMENT TRANSPORT

[illegible]

RESULTS OF ALL WAVE CONDITIONS

ATKINSON POINT NODE 2, MEAN WATER LEVEL

GROSS SEDIMENT TRANSPORT RATES (cu.m./m./yr)

Model	B(1)	B(2)	B(3)	B(4)	B(5)	B(6)	B(7)	B(8)	B(9)	B(10)	B(11)	B(12)	Total Transport (cu.m./yr.)
1													.1646E+06
2													.4607E+05
3													.2193E+06
4	.5343E+03	.9727E+03	.5262E+03	.2130E+03	.3545E+02	.2843E+01	.1417E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.1115E+06
5	.3464E+04	.5033E+04	.2628E+04	.9982E+03	.1745E+03	.2985E+02	.1126E+02	.1253E+01	.1818E+00	.5828E-02	.0000E+00	.0000E+00	.5810E+06
7	.4873E+04	.4283E+05	.3295E+05	.1354E+05	.1565E+04	.9175E+02	.1540E+02	.1864E+00	.6426E-04	.0000E+00	.0000E+00	.0000E+00	.5349E+07
8	.1829E+05	.5823E+05	.3886E+05	.1138E+05	.1661E+04	.2449E+03	.9912E+02	.1572E+02	.2394E+01	.5860E+00	.0000E+00	.0000E+00	.5719E+07
9	.2677E+05	.6835E+05	.3961E+05	.1456E+05	.1909E+04	.2821E+03	.6182E+02	.4802E+01	.3289E+00	.1533E-01	.0000E+00	.0000E+00	.7636E+07
10	.1138E+04	.8382E+03	.4215E+03	.1749E+03	.4226E+02	.9940E+01	.4291E+01	.5163E+00	.4116E-01	.2365E-02	.0000E+00	.0000E+00	.1122E+06
11	.4898E+03	.6539E+03	.3850E+03	.1749E+03	.4354E+02	.9928E+01	.4285E+01	.5156E+00	.4110E-01	.2361E-02	.0000E+00	.0000E+00	.8487E+05
12	.3576E+04	.4771E+04	.2422E+04	.8810E+03	.1376E+03	.1963E+02	.7180E+01	.7803E+00	.8588E-01	.1684E-01	.0000E+00	.0000E+00	.5459E+06
13	.1212E+05	.3549E+05	.1944E+05	.6940E+04	.8853E+03	.6685E+02	.1734E+02	.1181E+01	.1868E+00	.2270E-01	.0000E+00	.0000E+00	.3689E+07

MEAN	.7916E+04	.2382E+05	.1427E+05	.5429E+04	.7882E+03	.7522E+02	.2453E+02	.2755E+01	.3434E+00	.7238E-01	.0000E+00	.0000E+00	.2822E+07
S.D.	.9247E+04	.2686E+05	.1627E+05	.6221E+04	.7939E+03	.8959E+02	.3351E+02	.5873E+01	.7750E+00	.1928E+00	.0000E+00	.0000E+00	.2779E+07

ATKINSON POINT NODE 2, MEAN WATER LEVEL

NET SEDIMENT TRANSPORT RATES (cu.m./m./yr.)

Model	B(1)	B(2)	B(3)	B(4)	B(5)	B(6)	B(7)	B(8)	B(9)	B(10)	B(11)	B(12)	Total Transport (cu.m./yr.)
1													.1419E+06
2													.4381E+05
3													.1891E+06
4	.2957E+03	.9846E+03	.5114E+03	.2124E+03	.3545E+02	.2843E+01	.1417E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.1814E+06
5	.1786E+04	.4587E+04	.2539E+04	.9843E+03	.1735E+03	.2896E+02	.1124E+02	.1253E+01	.1818E+00	.5828E-02	.0000E+00	.0000E+00	.5189E+06
7	.3127E+04	.4105E+05	.3268E+05	.1352E+05	.1564E+04	.9175E+02	.1540E+02	.1864E+00	.6426E-04	.0000E+00	.0000E+00	.0000E+00	.5197E+07
8	.1829E+05	.4713E+05	.2944E+05	.1138E+05	.1653E+04	.2436E+03	.9871E+02	.1572E+02	.2394E+01	.5860E+00	.0000E+00	.0000E+00	.5324E+07
9	.1518E+05	.6436E+05	.3887E+05	.1448E+05	.1986E+04	.2818E+03	.6179E+02	.4802E+01	.3289E+00	.1533E-01	.0000E+00	.0000E+00	.7182E+07
10	.7298E+03	.7598E+03	.4832E+03	.1738E+03	.4198E+02	.9988E+01	.4286E+01	.5163E+00	.4116E-01	.2365E-02	.0000E+00	.0000E+00	.9677E+05
11	.2698E+03	.5816E+03	.3669E+03	.1718E+03	.4318E+02	.9896E+01	.4288E+01	.5156E+00	.4110E-01	.2361E-02	.0000E+00	.0000E+00	.7442E+05
12	.1894E+04	.4393E+04	.2352E+04	.8714E+03	.1369E+03	.1956E+02	.7881E+01	.7803E+00	.8588E-01	.1684E-01	.0000E+00	.0000E+00	.4884E+06
13	.7855E+04	.3172E+05	.1913E+05	.6915E+04	.8847E+03	.6679E+02	.1732E+02	.1181E+01	.1868E+00	.2270E-01	.0000E+00	.0000E+00	.3456E+07

MEAN	.4514E+04	.2172E+05	.1482E+05	.5403E+04	.7866E+03	.7582E+02	.2447E+02	.2755E+01	.3434E+00	.7238E-01	.0000E+00	.0000E+00	.1893E+07
S.D.	.5244E+04	.2462E+05	.1688E+05	.6196E+04	.7923E+03	.8926E+02	.3348E+02	.5873E+01	.7750E+00	.1928E+00	.0000E+00	.0000E+00	.2616E+07

ATKINSON POINT NODE 2, MEAN WATER LEVEL

POSITIVE SEDIMENT TRANSPORT RATES (clockwise wrt. beach normal)

Model	B(1)	B(2)	B(3)	B(4)	B(5)	B(6)	B(7)	B(8)	B(9)	B(10)	B(11)	B(12)	Total Transport (cu.m./yr.)
1													.1532E+06
2													.4454E+05
3													.2842E+06
4	.4150E+03	.9387E+03	.5188E+03	.2127E+03	.3545E+02	.2843E+01	.1417E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.1864E+06
5	.2625E+04	.4810E+04	.2583E+04	.9912E+03	.1740E+03	.2980E+02	.1125E+02	.1253E+01	.1818E+00	.5828E-02	.0000E+00	.0000E+00	.5459E+06
7	.4888E+04	.4194E+05	.3278E+05	.1353E+05	.1565E+04	.9175E+02	.1540E+02	.1864E+00	.6426E-04	.0000E+00	.0000E+00	.0000E+00	.5273E+07
8	.1429E+05	.4868E+05	.2975E+05	.1134E+05	.1657E+04	.2443E+03	.9892E+02	.1572E+02	.2394E+01	.5860E+00	.0000E+00	.0000E+00	.5522E+07
9	.2897E+05	.6636E+05	.3924E+05	.1452E+05	.1988E+04	.2828E+03	.6181E+02	.4802E+01	.3289E+00	.1533E-01	.0000E+00	.0000E+00	.7369E+07
10	.9337E+03	.7986E+03	.4123E+03	.1750E+03	.4288E+02	.9924E+01	.4288E+01	.5163E+00	.4116E-01	.2365E-02	.0000E+00	.0000E+00	.1845E+06
11	.3794E+03	.6177E+03	.3768E+03	.1729E+03	.4336E+02	.9912E+01	.4283E+01	.5156E+00	.4110E-01	.2361E-02	.0000E+00	.0000E+00	.7965E+05
12	.2735E+04	.4582E+04	.2387E+04	.8762E+03	.1372E+03	.1968E+02	.7891E+01	.7803E+00	.8588E-01	.1684E-01	.0000E+00	.0000E+00	.5131E+06
13	.9589E+04	.3261E+05	.1929E+05	.6928E+04	.8850E+03	.6682E+02	.1733E+02	.1181E+01	.1868E+00	.2270E-01	.0000E+00	.0000E+00	.3573E+07

MEAN	.6215E+04	.2237E+05	.1415E+05	.5416E+04	.7874E+03	.7512E+02	.2458E+02	.2755E+01	.3434E+00	.7238E-01	.0000E+00	.0000E+00	.1957E+07
S.D.	.7245E+04	.2534E+05	.1613E+05	.6288E+04	.7931E+03	.8942E+02	.3345E+02	.5873E+01	.7750E+00	.1928E+00	.0000E+00	.0000E+00	.2697E+07

ATKINSON POINT NODE 2, MEAN WATER LEVEL

NEGATIVE SEDIMENT TRANSPORT RATES (counter clockwise wrt. beach normal)

Model	B(1)	B(2)	B(3)	B(4)	B(5)	B(6)	B(7)	B(8)	B(9)	B(10)	B(11)	B(12)	Total Transport (cu. ft./yr.)
1													.1136E+05
2													.1530E+04
3													.1514E+05
4	.1193E+03	.3405E+02	.7422E+01	.3183E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.3088E+04
5	.8392E+03	.2228E+03	.4428E+02	.6958E+01	.5285E+00	.4771E-01	.9200E-02	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.3586E+05
7	.8730E+03	.8911E+03	.1761E+03	.9687E+01	.2644E-01	.7590E-05	.1717E-08	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.7616E+05
8	.3997E+04	.1540E+04	.3187E+03	.4295E+02	.3877E+01	.6713E+00	.2832E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.1974E+06
9	.5792E+04	.1994E+04	.3693E+03	.3819E+02	.1620E+01	.1085E+00	.1911E-01	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.2669E+06
10	.2839E+03	.3962E+02	.9150E+01	.1946E+01	.1803E+00	.1596E-01	.2734E-02	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.7748E+04
11	.1104E+03	.3615E+02	.9051E+01	.1944E+01	.1801E+00	.1594E-01	.2731E-02	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.9224E+04
12	.8411E+03	.1891E+03	.3492E+02	.4802E+01	.3806E+00	.3243E-01	.9479E-02	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.3273E+05
13	.2534E+04	.8850E+03	.1532E+03	.1240E+02	.3399E+00	.2914E-01	.8592E-02	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.1165E+06
MEAN	.1701E+04	.6490E+03	.1238E+03	.1324E+02	.7846E+00	.1823E+00	.2834E-01	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.6424E+05
S.D.	.2804E+04	.7290E+03	.1382E+03	.1601E+02	.1259E+01	.2159E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.8678E+05

ATKINSON POINT NODE 2, MEAN WATER LEVEL

CUMULATIVE DISTRIBUTION OF NET SEDIMENT TRANSPORT (cu. ft./yr.)

Model	B(1)	B(2)	B(3)	B(4)	B(5)	B(6)	B(7)	B(8)	B(9)	B(10)	B(11)	B(12)
4	.7392E+04	.5262E+05	.7819E+05	.9943E+05	.1012E+06	.1013E+06	.1014E+06	.1014E+06	.1014E+06	.1014E+06	.1014E+06	.1014E+06
5	.4464E+05	.2740E+06	.4810E+06	.4994E+06	.5001E+06	.5095E+06	.5106E+06	.5108E+06	.5109E+06	.5109E+06	.5109E+06	.5109E+06
7	.7810E+05	.2131E+07	.3761E+07	.5112E+07	.5191E+07	.5193E+07	.5197E+07	.5197E+07	.5197E+07	.5197E+07	.5197E+07	.5197E+07
8	.2573E+06	.2614E+07	.4086E+07	.5216E+07	.5298E+07	.5311E+07	.5321E+07	.5323E+07	.5324E+07	.5324E+07	.5324E+07	.5324E+07
9	.3795E+06	.3598E+07	.5541E+07	.6990E+07	.7885E+07	.7895E+07	.7101E+07	.7102E+07	.7102E+07	.7102E+07	.7102E+07	.7102E+07
10	.1824E+05	.5620E+05	.7635E+05	.9366E+05	.9575E+05	.9625E+05	.9660E+05	.9675E+05	.9676E+05	.9677E+05	.9677E+05	.9677E+05
11	.6725E+04	.3580E+05	.5415E+05	.7125E+05	.7341E+05	.7390E+05	.7433E+05	.7441E+05	.7442E+05	.7442E+05	.7442E+05	.7442E+05
12	.4734E+05	.2670E+06	.3846E+06	.4717E+06	.4786E+06	.4795E+06	.4802E+06	.4804E+06	.4804E+06	.4804E+06	.4804E+06	.4804E+06
13	.1764E+06	.1762E+07	.2719E+07	.3411E+07	.3451E+07	.3454E+07	.3456E+07	.3456E+07	.3456E+07	.3456E+07	.3456E+07	.3456E+07
MEAN	.1129E+06	.1199E+07	.1900E+07	.2440E+07	.2476E+07	.2480E+07	.2482E+07	.2482E+07	.2482E+07	.2483E+07	.2483E+07	.2483E+07
S.D.	.1311E+06	.1353E+07	.2144E+07	.2755E+07	.2794E+07	.2790E+07	.2801E+07	.2801E+07	.2801E+07	.2801E+07	.2801E+07	.2801E+07

ATKINSON POINT NODE 2, MEAN WATER LEVEL

PERCENTAGE DISTRIBUTION OF NET SEDIMENT TRANSPORT

Model	B(1)	B(2)	B(3)	B(4)	B(5)	B(6)	B(7)	B(8)	B(9)	B(10)	B(11)	B(12)
4	15.87	46.18	26.86	18.82	1.81	.14	.01	.00	.00	.00	.00	.00
5	17.66	45.37	25.11	9.73	1.72	.29	.11	.01	.00	.00	.00	.00
7	3.48	44.63	35.45	14.70	1.70	.18	.02	.00	.00	.00	.00	.00
8	10.27	47.85	29.39	11.28	1.65	.24	.10	.02	.00	.00	.00	.00
9	11.24	47.65	28.78	10.72	1.41	.15	.05	.00	.00	.00	.00	.00
10	34.40	35.77	19.00	9.15	1.98	.47	.20	.02	.00	.00	.00	.00
11	18.60	48.21	25.37	11.82	2.99	.68	.38	.04	.00	.00	.00	.00
12	19.57	45.41	24.31	9.01	1.42	.20	.07	.01	.00	.00	.00	.00
13	10.74	48.27	29.11	18.52	1.22	.10	.03	.00	.00	.00	.00	.00
MEAN	15.66	44.50	26.95	18.75	1.77	.26	.10	.01	.00	.00	.00	.00
S.D.	8.68	4.82	4.51	1.87	.51	.19	.00	.00	.00	.00	.00	.00

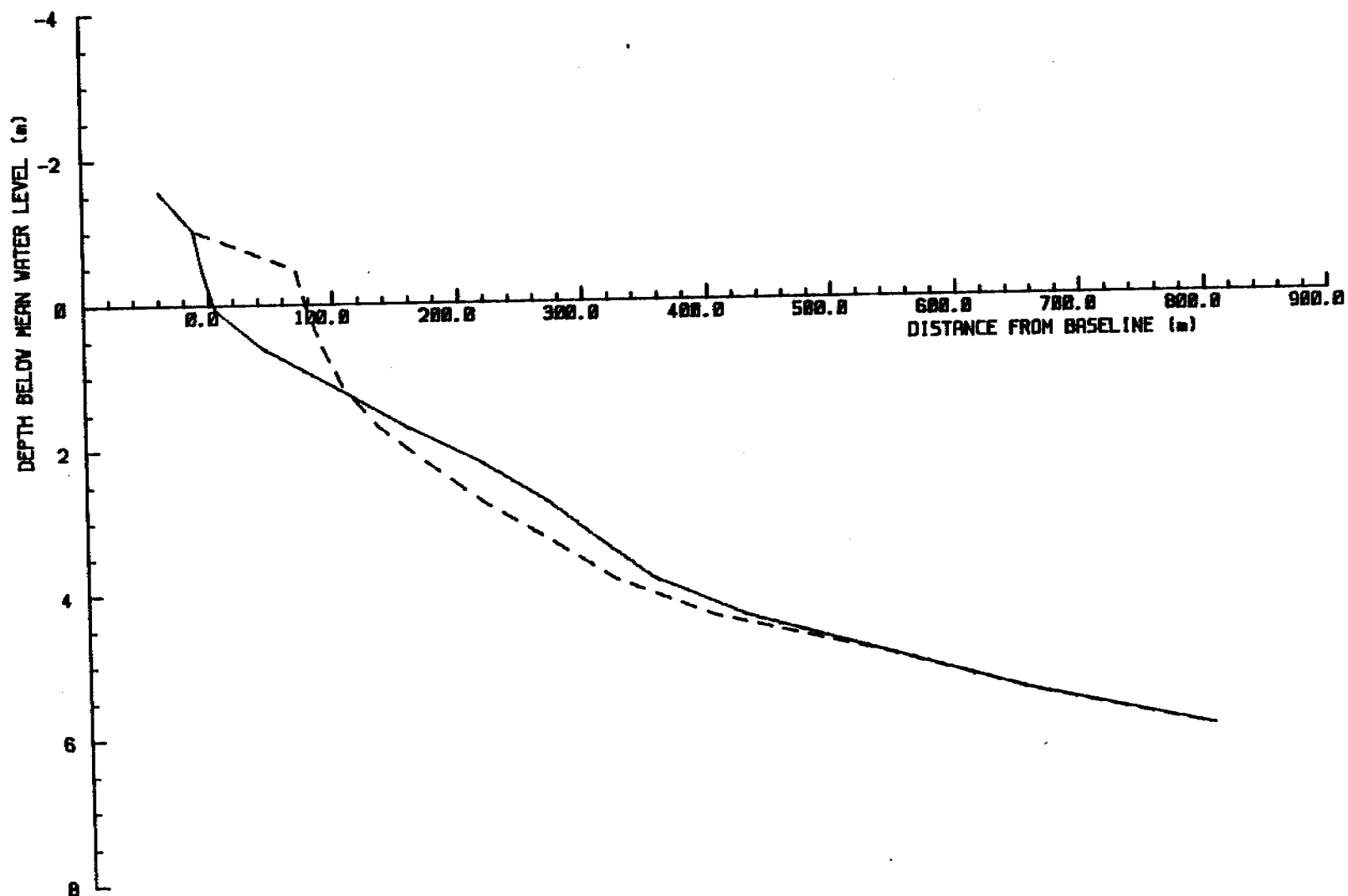
BEAUFORT SEA COASTAL SEDIMENT STUDY

NEARSHORE PROFILE ADJUSTMENT RESULTS - ATKINSON POINT

NODE 1

Calibration Runs and Storm Surge Runs

KEITH PHILPOTT CONSULTING LTD
P.O. BOX 938
THORNHILL
ONTARIO L3T 4A5

LEGEND

— Initial profile

- - - - - End of run profile

CALIBRATION RUN 2

SUPPLEMENTARY DATA

Calibration run for 90 wave conditions
 Total time all waves was 1312.1 hours

Shoreline advance = 74.55 metres

ATKINSON POINT PROFILE ADJUSTMENT

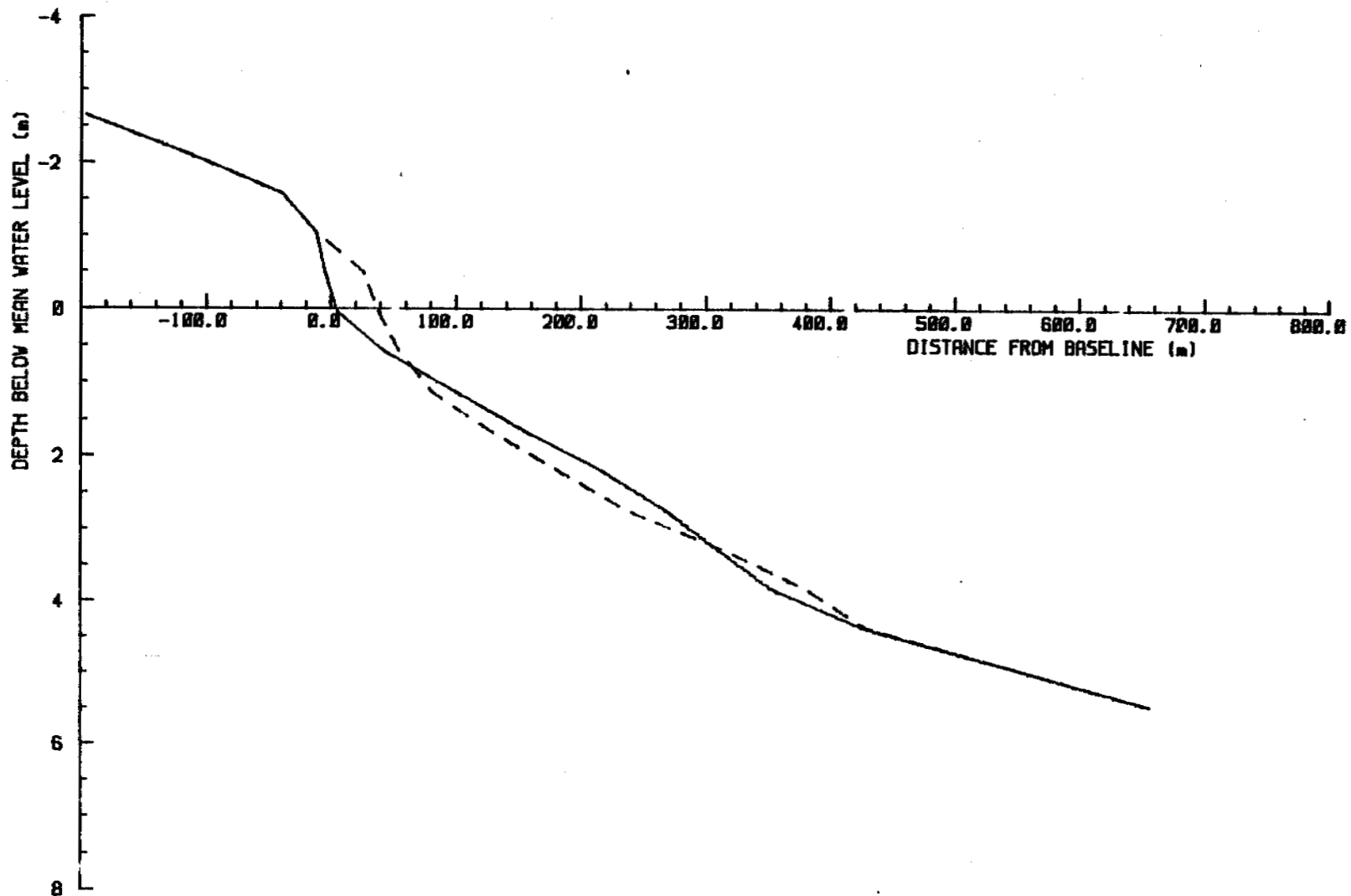
CALIBRATION RUN / VSKARL = 0.7 / MEASURED PROFILE

Date: 24 Apr 85

Scales as shown

Checked by:

Keith Philpott
Consulting Limited



ATKINSON POINT PROFILE ADJUSTMENT

CALIBRATION RUN / WSKAL = 1.0 / MEASURED PROFILE

Date: 24 Apr 85

Scales as shown

Checked by:

Keith Philpott
Consulting Limited

LEGEND

———— Initial profile

----- End of run profile

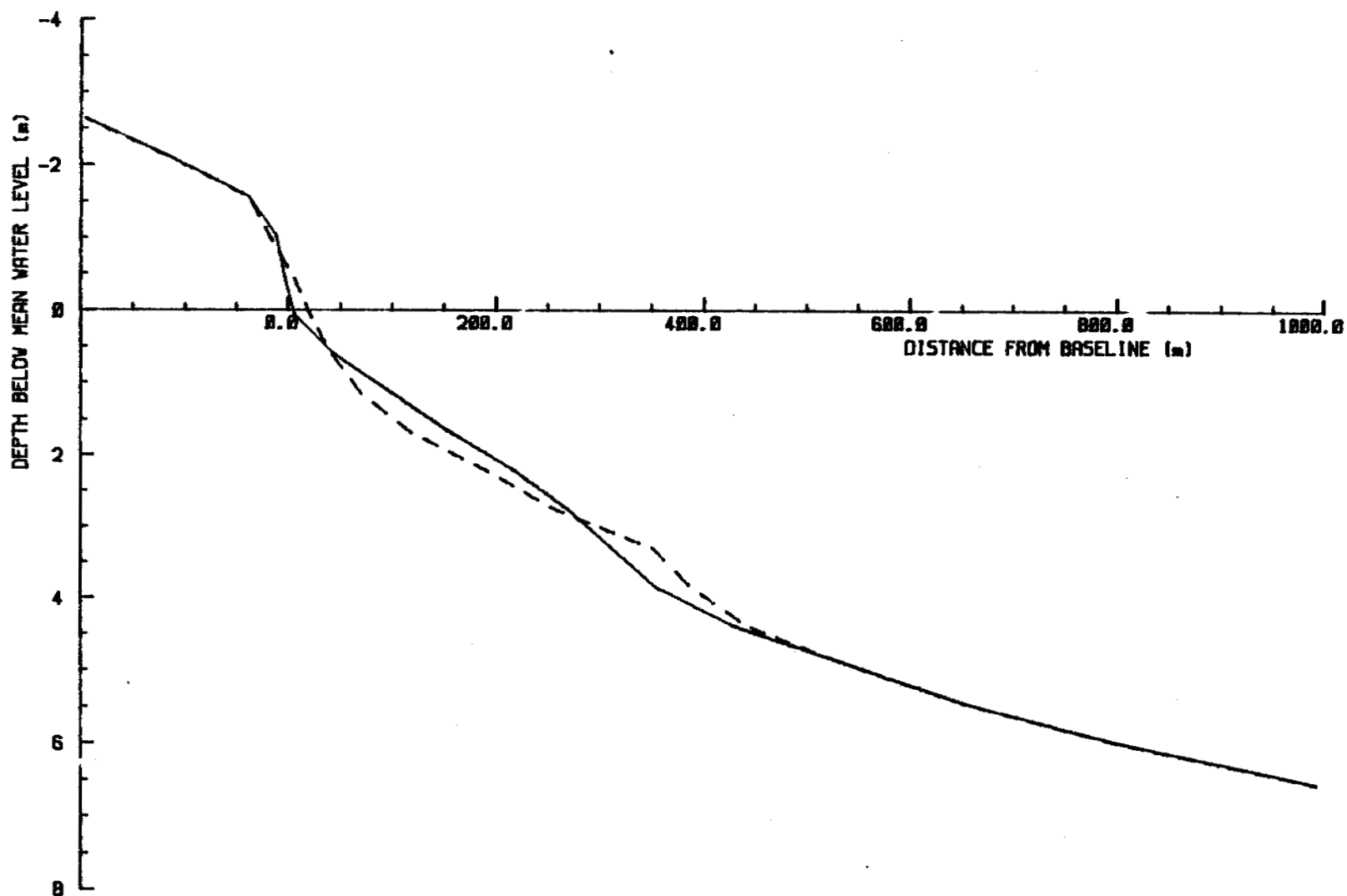
CALIBRATION RUN 1

SUPPLEMENTARY DATA

Calibration run for 90 wave conditions
Total time all waves was 1312.1 hours

Shoreline advance = 32.98 metres

FIGURE

LEGEND

———— Initial profile

----- End of run profile

CALIBRATION RUN 3

SUPPLEMENTARY DATA

Calibration run for 90 wave conditions
 Total time all waves was 1312.1 hours

Shoreline advance = 14.58 metres

ATKINSON POINT PROFILE ADJUSTMENT

Date: 24 Apr 85

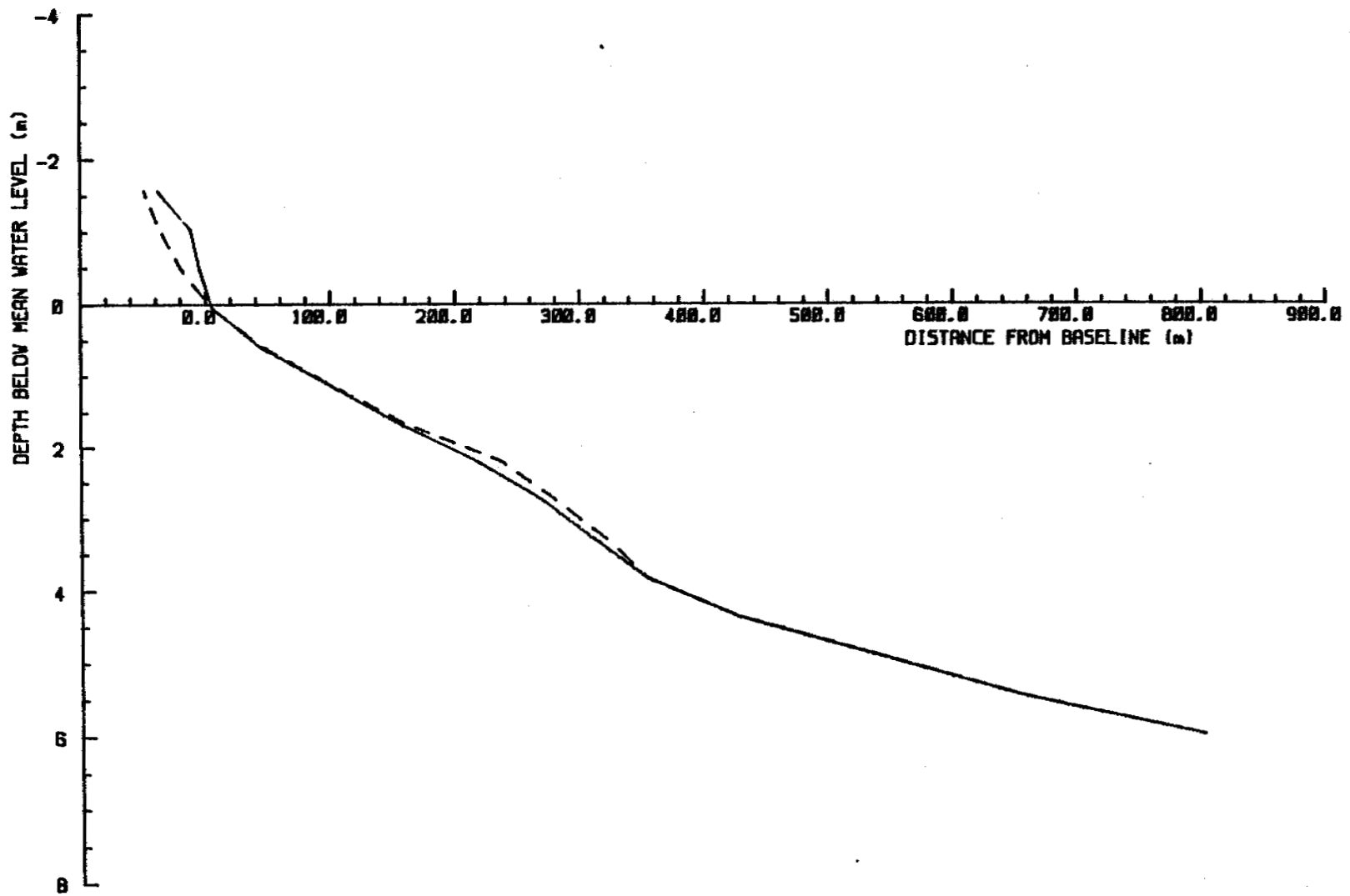
Scales as shown

Checked by:

Keith Philpott

Consulting Limited

CALIBRATION RUN / VSKAL = 1.25 / MEASURED PROFILE

LEGEND

———— Initial profile - - - - - End of run profile

CALIBRATION RUN 8

SUPPLEMENTARY DATA

Calibration run for 90 wave conditions
Total time all waves was 1312.1 hours

Shoreline retreat = 2.53 metres

ATKINSON POINT PROFILE ADJUSTMENT

CALIBRATION RUN / WSKRAL = 1.0 / MEASURED PROFILE

TIDE = 1.0 m

Date: 24 Apr 85

Scales as shown

Checked by:

Kalith Philpott

Consulting Limited

ATKINSON POINT
Storm Wave Climate for Nearshore
Profile Adjustment Runs

Hs(m)	Tp(s)	HR	DD/MM/YY
1.81	4.44	10	1/ 9/72
1.81	4.73	11	1/ 9/72
.99	4.88	12	1/ 9/72
1.85	5.10	13	1/ 9/72
1.23	5.72	14	1/ 9/72
1.33	6.07	15	1/ 9/72
1.41	6.35	16	1/ 9/72
1.48	6.59	17	1/ 9/72
1.54	6.79	18	1/ 9/72
1.59	6.97	19	1/ 9/72
1.65	7.14	20	1/ 9/72
1.70	7.30	21	1/ 9/72
1.74	7.46	22	1/ 9/72
1.78	7.60	23	1/ 9/72
1.82	7.74	0	2/ 9/72
1.88	7.93	1	2/ 9/72
1.97	8.16	2	2/ 9/72
2.06	8.40	3	2/ 9/72
2.16	8.67	4	2/ 9/72
2.25	8.89	5	2/ 9/72
2.27	8.95	6	2/ 9/72
2.28	8.98	7	2/ 9/72
2.29	9.01	8	2/ 9/72
2.31	9.06	9	2/ 9/72
2.29	9.03	10	2/ 9/72
2.30	9.07	11	2/ 9/72
2.30	9.06	12	2/ 9/72
2.27	8.99	13	2/ 9/72
2.23	8.86	14	2/ 9/72
2.17	8.72	15	2/ 9/72
2.11	8.57	16	2/ 9/72
2.05	8.41	17	2/ 9/72
1.99	8.24	18	2/ 9/72
1.94	8.13	19	2/ 9/72
1.88	7.99	20	2/ 9/72
1.67	8.24	21	2/ 9/72
1.64	8.13	22	2/ 9/72
1.60	7.99	23	2/ 9/72
1.25	8.24	0	3/ 9/72
1.13	8.24	1	3/ 9/72
1.01	8.24	2	3/ 9/72
.89	8.24	3	3/ 9/72
.76	8.24	4	3/ 9/72
.79	8.13	5	3/ 9/72
.68	8.13	6	3/ 9/72

Kay Point Data Package

Kay Point

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Storm Surge Run on the New Profile	
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Kay Point

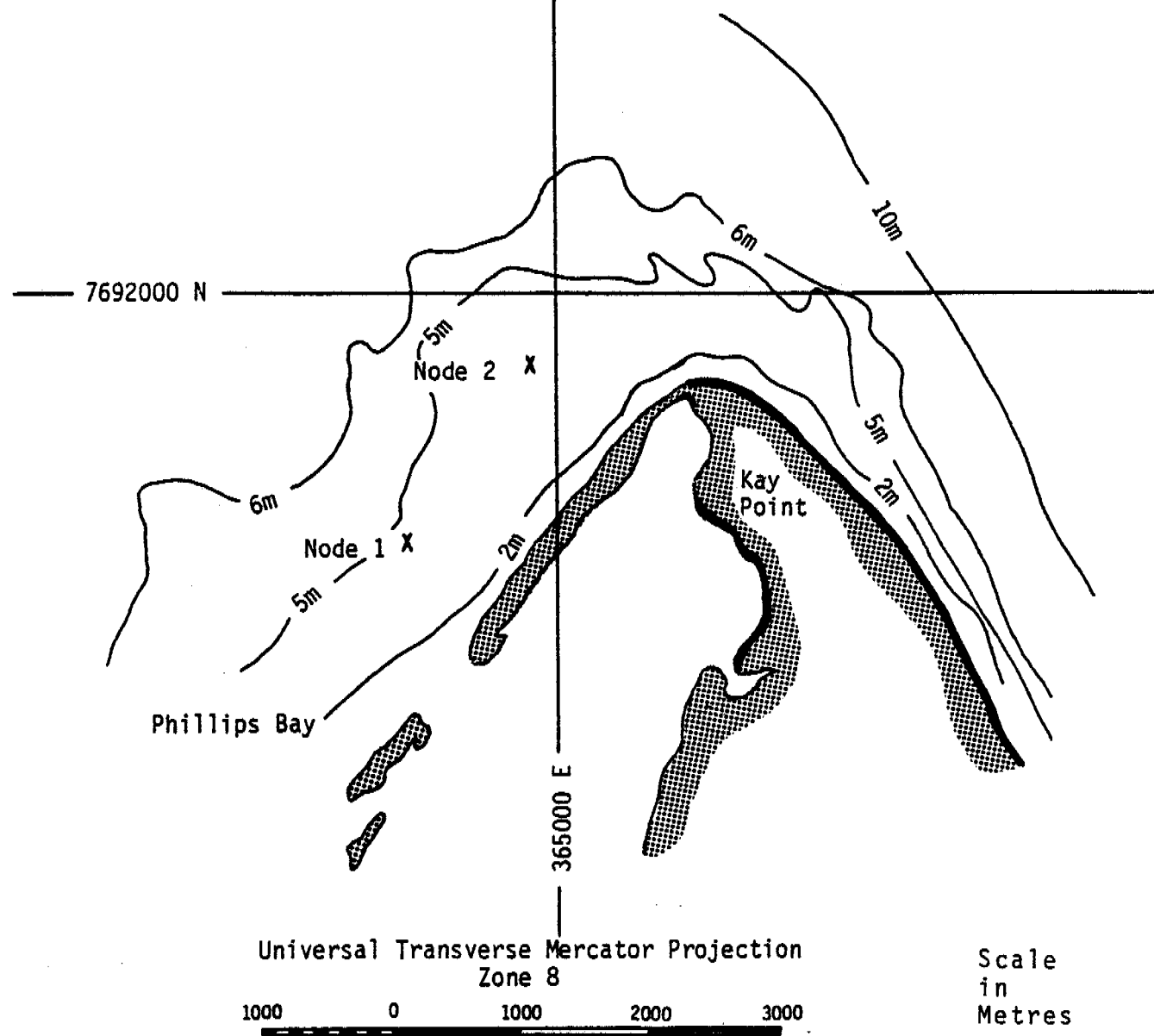
A. Description of Site

Kay Point is a narrow, transgressive, gravel-covered barrier which extends over 4 km southwards from the rapidly retreating cliffed headland to which it is anchored at its northern end. See Figure 2.2. The spit features a narrow, relatively steep, coarse-grained beach face. This barrier has been breached in recent years and there is evidence that the tip is prograding. No quantitative data on shoreline change was available.

Node 1 7690100 N
363850 E

Node 2 7691500 N
364800 E

Shows Cliff



BEAUFORT SEA COASTAL SEDIMENT STUDY

Kay Point: Site Plan Showing Nodes

Date: 2 May 85

Scales as shown

Checked by:

Keith Philpott
Consulting Limited

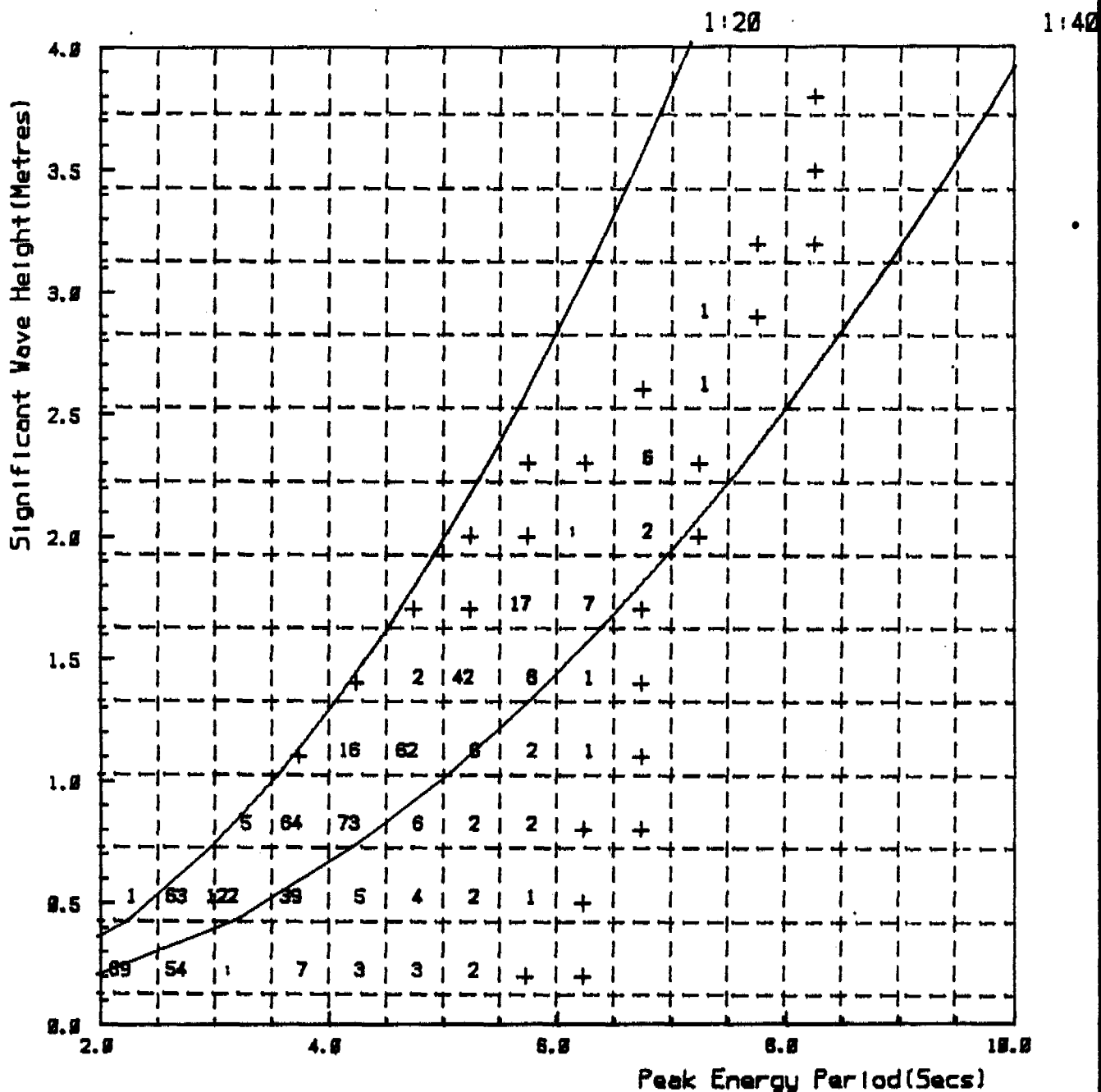
BEAUFORT SEA COASTAL SEDIMENT STUDY

DEEPWATER WAVE STATISTICS - KAY POINT

WAVES 2/7/70 TO 7/9/83

SEASON: Summer, Fall

KEITH PHILPOTT CONSULTING LTD
P.O. BOX 938
THORNHILL
ONTARIO L3T 4A5



Direction Limits: 0.0 TO 360.0

Values in parts per : 1000

Calm: 27.3 %

+ - Values less than 1 ppt

Dates: 2/7/78 to 7/9/83

Season: Summer, Fall

Total No. of Records: 32423

Waves Hindcast Using Wind Data from Tuktoyaktuk N.W.T.

BEAUFORT SEA COASTAL SEDIMENT STUDY

Key Point: Scatter Diagram for Deep Water Wave Data
1978 - 1983

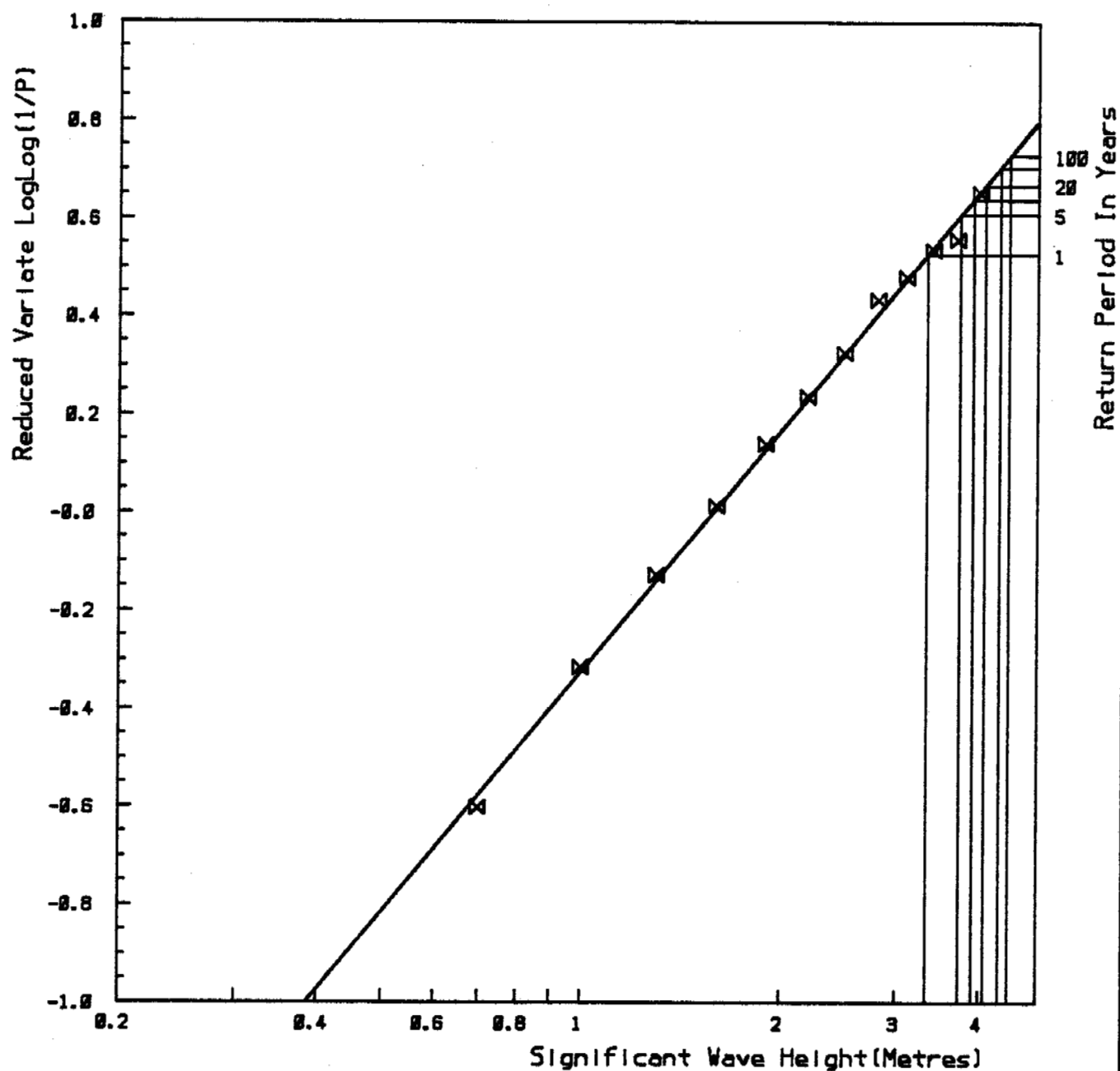
Date: 17 Feb 85

Scales as shown

Checked by:

Keith Philpott

Consulting Limited



Direction Limits: 0.0 TO 360.0

Calms: 27.2 %

Dates: 2/7/70 to 7/9/83

Season: Summer, Fall

Total No. of Records: 32400

Hindcast Using Data from Tuktoyaktuk N.W.T.

BEAUFORT SEA COASTAL SEDIMENT STUDY

Key Point: Weibull Long Term Distribution of
Wave Heights

Date: 18 Mar 85

Scales as shown

Checked by:

Keith Philpott
Consulting Limited

BEAUFORT SEA COASTAL SEDIMENT STUDY

Kav Point

WAVES 2/ 7/78 TO 7/ 9/83

SEASON: Summer, Fall

WEIBULL PROBABILITY ANALYSIS

WHT LIMIT	CUM TOTAL	CUM PROB(P)	LOGLOG(1./P(H))	LOG(WHT)
< .4	32400	.999969	-4.872612	-.397940
< .7	18219	.562297	-.602001	-.154902
< 1.0	10640	.328385	-.315499	.000000
< 1.3	5825	.179778	-.127691	.113943
< 1.6	3013	.092991	.013494	.204120
< 1.9	1349	.041635	.140051	.278754
< 2.2	604	.018641	.237926	.342423
< 2.5	246	.007592	.326259	.397940
< 2.8	63	.001944	.433164	.447158
< 3.1	31	.000957	.479891	.491362
< 3.4	12	.000370	.535468	.531479
< 3.7	8	.000247	.557203	.568202
< 4.0	1	.000031	.654230	.602060

LEAST SQUARES CURVE FIT ON LOGLOG(1/(1-P))

LOG(WHT)	LOGLOG(1./P(H))	CURVE FIT	RESIDUAL
-.39794	-4.87261	-.54184	-28.20402
-.15490	-.60200	.19343	123.01170
.00000	-.31550	.24275	74.88493
.11394	-.12769	.27509	44.92512
.20412	.01349	.29939	24.53019
.27875	.14005	.32118	10.26310
.34242	.23793	.33803	-1.00527
.39794	.32626	.35324	-9.77999
.44716	.43316	.37165	-15.95911
.49136	.47989	.37969	-22.67286
.53148	.53547	.38926	-27.92522
.56820	.55720	.39300	-33.19600
.60206	.65423	.40971	-35.78311

SLOPE=.17217

INTERCEPT=.29707

CORR COEFF=.82751

1 GROUPS TO BE OMITTED FROM NEXT FIT:

< .4

32480

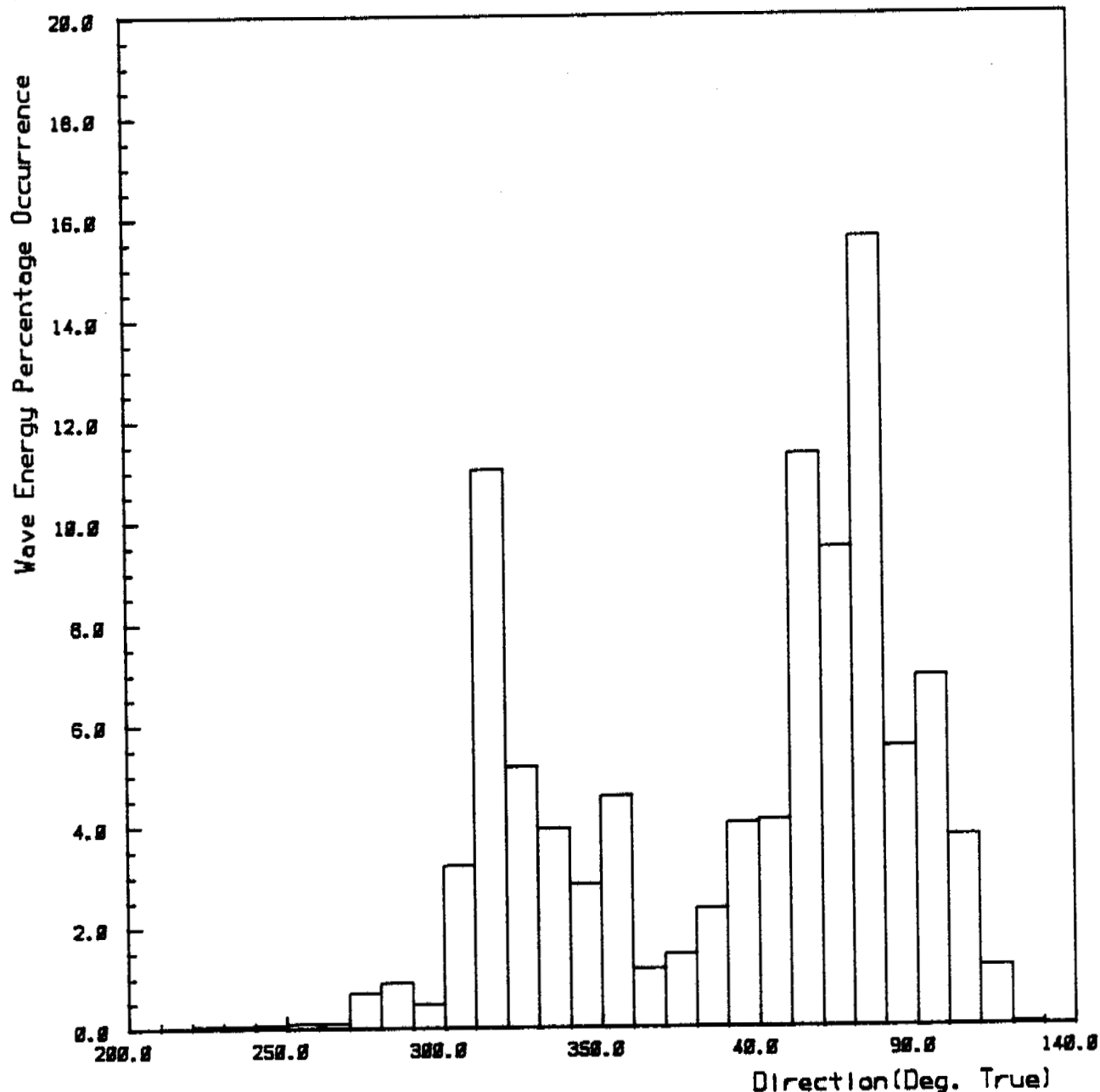
LEAST SQUARES CURVE FIT ON LOGLOG(1/(1-P))

LOG(WHT)	LOGLOG(1./P(H))	CURVE FIT	RESIDUAL
-----	-----	-----	-----
-.15498	-.68208	-.17038	-3.48380
.00000	-.31550	.00556	1.28957
.11394	-.12769	.12065	1.60268
.20412	.01349	.20751	.78440
.27875	.14005	.28528	1.49515
.34242	.23793	.34528	.65970
.39794	.32626	.39950	.35994
.44716	.43316	.46512	4.22340
.49136	.47989	.49381	.56444
.53148	.53547	.52792	-.81578
.56620	.55720	.54126	-6.01446
.60206	.65423	.60062	-.28462

SLOPE=.61384 INTERCEPT=.19923 CORR COEFF=.99884

PREDICTED WAVE HEIGHTS FOR GIVEN RETURN PERIODS

RETURN PERIOD(YEARS)	WAVE HEIGHT(HS)
-----	-----
1.0	3.3
5.0	3.7
10.0	3.9
20.0	4.1
50.0	4.3
100.0	4.4



Direction Limits: 220.0 TO 130.0

Calms: 27.3 %

Dates: 2/7/78 to 7/9/83

Season: Summer, Fall

Total No. of Records: 32423

Waves Hindcast Using Wind Data from Tuktoyaktuk N.W.T.

BEAUFORT SEA COASTAL SEDIMENT STUDY

Key Point: Deep Water Wave Energy Distribution
1970 - 1983

Date: 17 Feb 85

Scales as shown

Checked by:

Keith Philpott
Consulting Limited

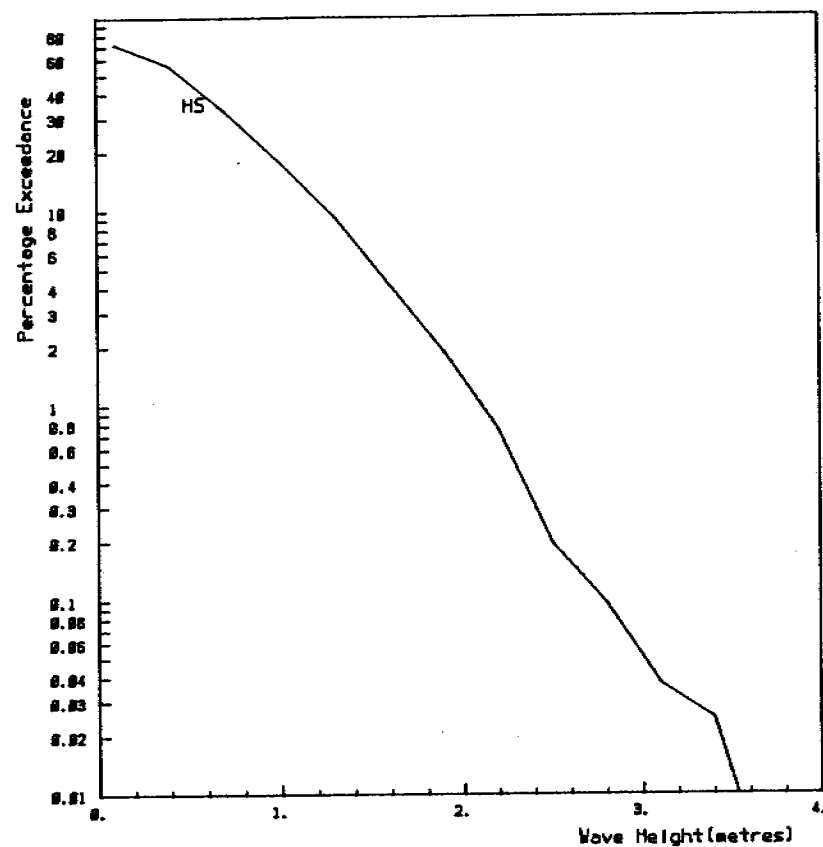
BEAUFORT SEA COASTAL SEDIMENT STUDY

Kay Point

WAVES 2/ 7/70 TO 7/ 9/83
-----SEASON: Summer, Fall
-----PERCENTAGE WAVE POWER DISTRIBUTION

DIRECTION SECTOR	PERCENTAGE FREQUENCY	MEAN POWER (KW)	PERCENTAGE ENERGY
220. - 230.	.71	.13	.05
230. - 240.	.56	.14	.04
240. - 250.	.71	.16	.06
250. - 260.	1.01	.17	.09
260. - 270.	.92	.18	.09
270. - 280.	3.01	.45	.70
280. - 290.	3.57	.48	.90
290. - 300.	2.18	.42	.48
300. - 310.	7.12	.86	3.21
310. - 320.	6.75	3.13	11.03
320. - 330.	4.16	2.37	5.15
330. - 340.	3.16	2.39	3.93
340. - 350.	2.00	2.62	2.04
350. - 360.	3.49	2.51	4.56
360. - 10.	2.19	1.01	1.15
10. - 20.	2.59	1.07	1.44
20. - 30.	3.05	1.17	2.35
30. - 40.	4.33	1.79	4.04
40. - 50.	3.70	2.12	4.10
50. - 60.	5.94	3.66	11.32
60. - 70.	6.87	2.64	9.46
70. - 80.	8.99	3.33	15.59
80. - 90.	6.46	1.64	5.52
90. - 100.	7.31	1.82	6.93
100. - 110.	5.26	1.37	3.76
110. - 120.	2.76	.81	1.17
120. - 130.	.29	.24	.04

FIGURE



Direction Limits: 220.0 TO 130.0

Coast: 27.3 S

Dates: 2/7/78 to 7/9/83

Season: Summer, Fall

Total No. of Records: 32423

Waves Hindcast Using Wind Data from Tuktoyaktuk N.W.T.

BEAUFORT SEA COASTAL SEDIMENT STUDY

Date: 17 Feb 85

Scales as shown

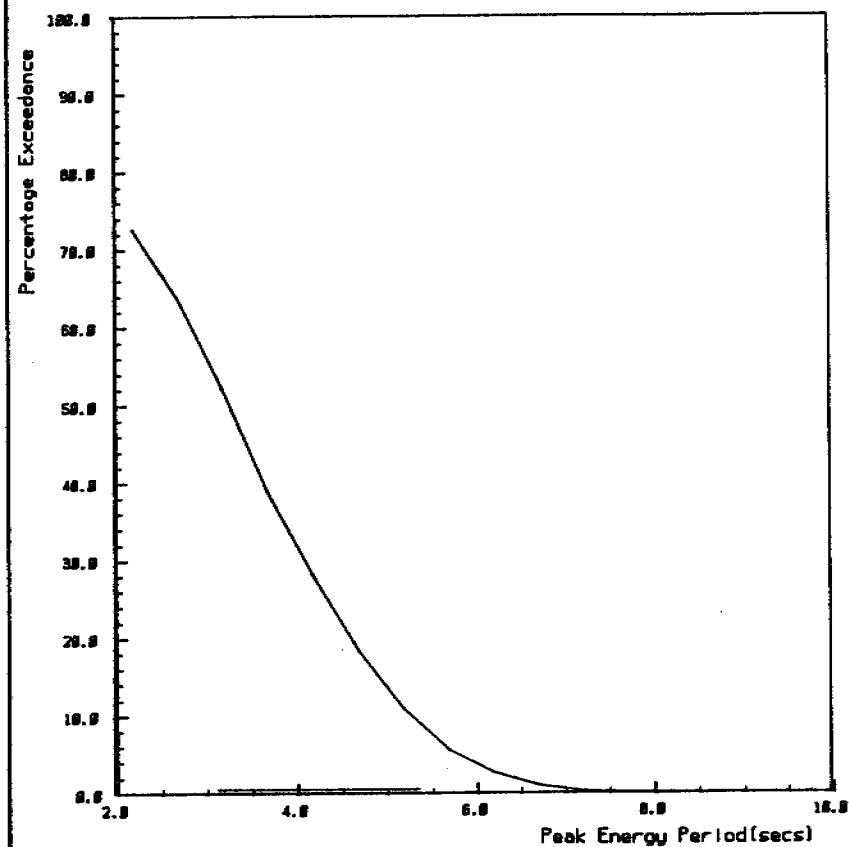
Key Point: Deep Water Wave Height Exceedance

Checked by:

Keith Philpott
Consulting Limited

1978 - 1983

FIGURE



Direction Limits: 220.0 TO 130.0

Coast: 27.3 S

Dates: 2/7/78 to 7/9/83

Season: Summer, Fall

Total No. of Records: 32423

Waves Hindcast Using Wind Data from Tuktoyaktuk N.W.T.

BEAUFORT SEA COASTAL SEDIMENT STUDY

Date: 17 Feb 85

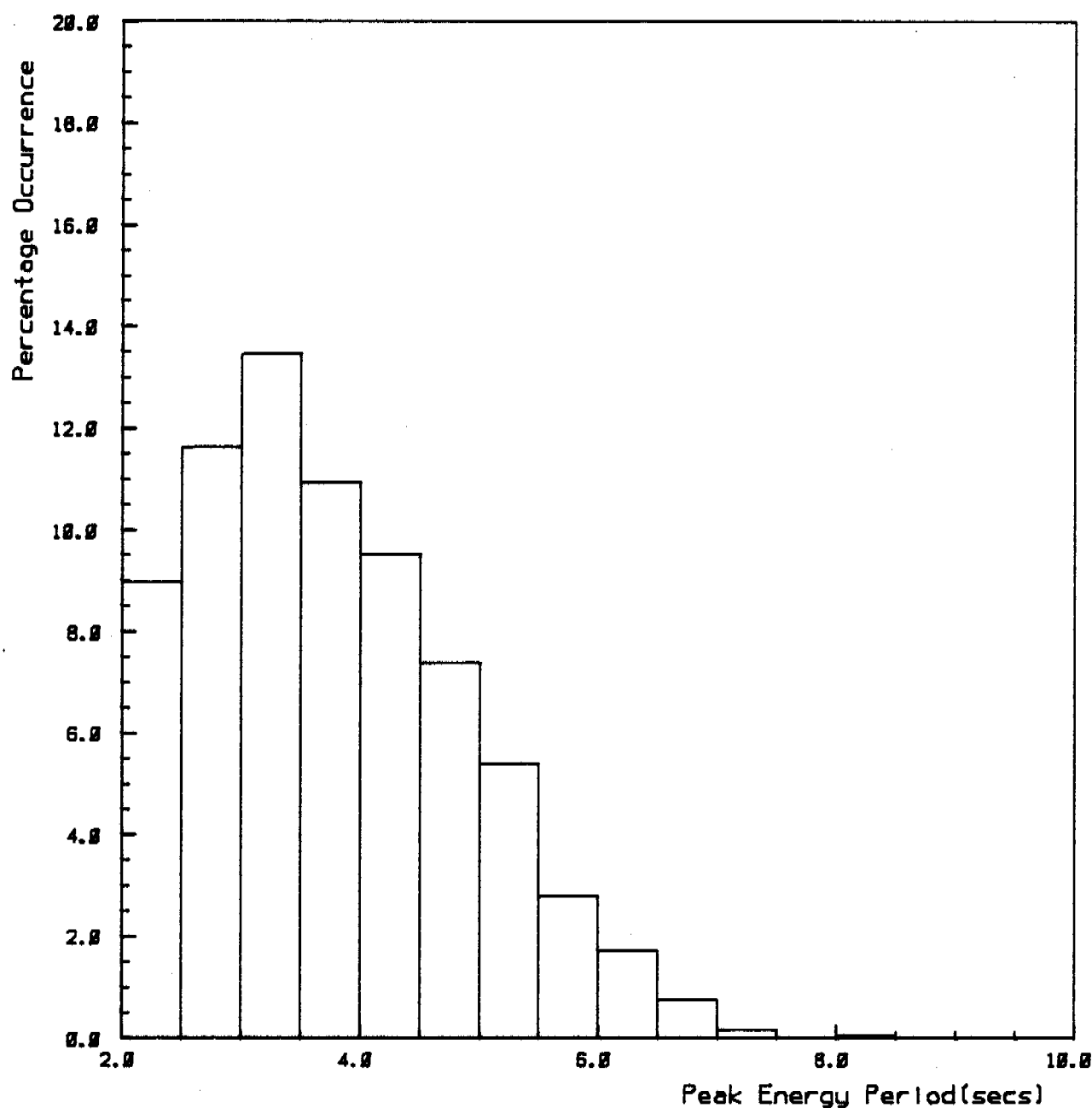
Scales as shown

Key Point: Deep Water Wave Period Exceedance

Checked by:

Keith Philpott
Consulting Limited

1978 - 1983



Direction Limits: 220.0 TO 130.0

Calms: 27.3 %

Dates: 2/7/78 to 7/9/83

Season: Summer, Fall

Total No. of Records: 32423

Waves Hindcast Using Wind Data from Tuktoyaktuk N.W.T.

BEAUFORT SEA COASTAL SEDIMENT STUDY

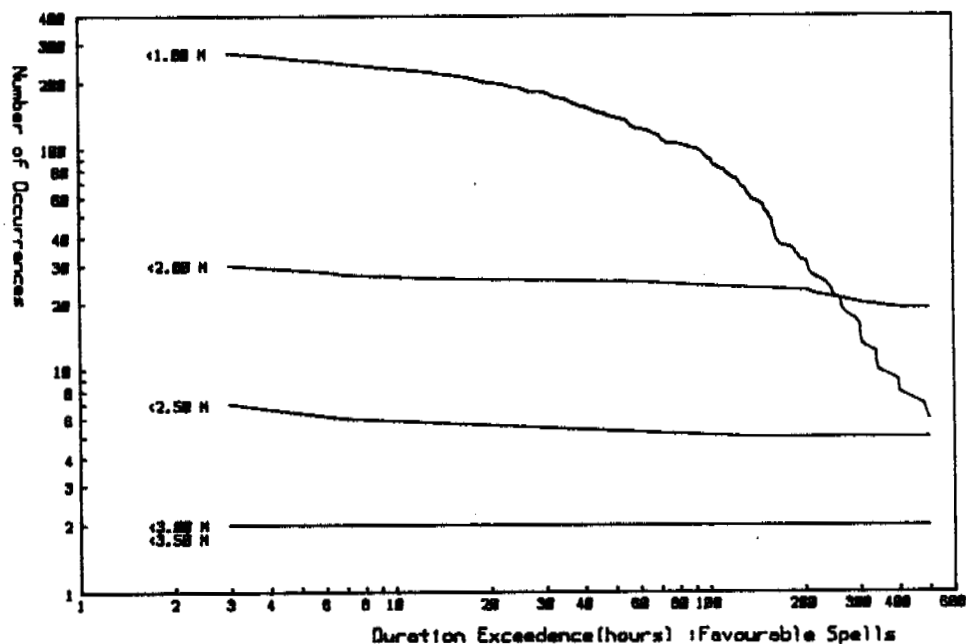
Key Point: Deep Water Wave Period Occurrence
1970 - 1983

Date: 17 Feb 85

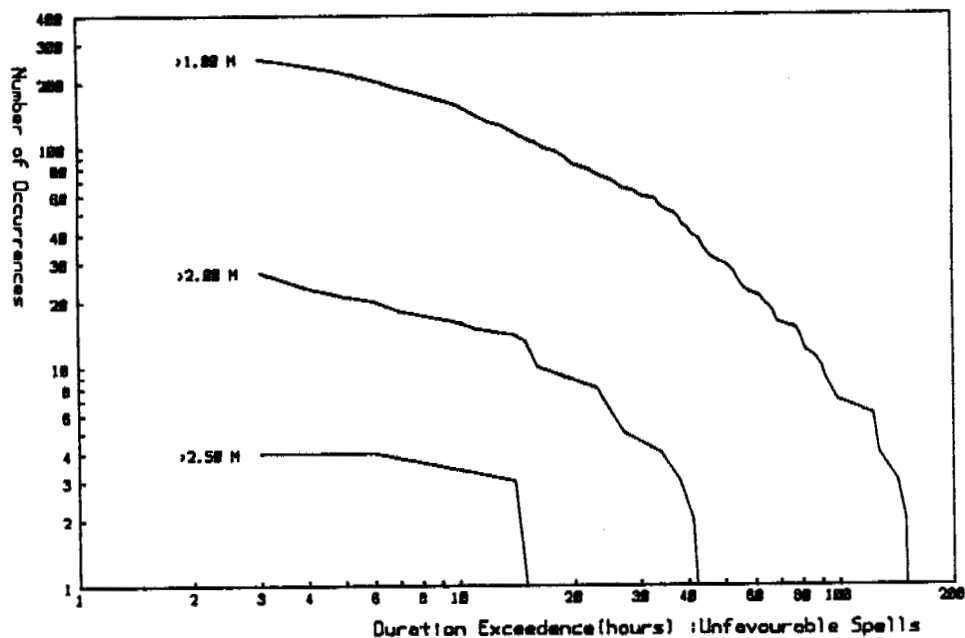
Scales as shown

Checked by:

Keith Philpott
Consulting Limited



Date: 2/7/78 to 7/9/83
Season: Summer, Fall
Waves Hindcast Using Wind Data from Tuktoyaktuk N.V.T.



Date: 2/7/78 to 7/9/83
Season: Summer, Fall
Waves Hindcast Using Wind Data from Tuktoyaktuk N.V.T.

BEAUFORT SEA COASTAL SEDIMENT STUDY

Key Point: Deep Water Wave Height Persistence
Favourable and Unfavourable Spells

Date: 17 May 85

Scales as shown

Checked by:

Keith Philpott
Consulting Limited

Kay Point

BEAUFORT SEA COASTAL SEDIMENT STUDY

WAVES 2/ 7/78 TO 7/ 9/83

ALL DIRECTIONS

!WAVE !	Wave Period(secs)																!Total!
!INT(N)!																	!
!> !	!2 !	!3 !	!4 !	!5 !	!6 !	!7 !	!8 !	!9 !	!10 !	!	!	!	!	!	!	!	!
! .10 !	4630 !	496 !	161 !	41 !	6 !	0 !	0 !	0 !	0 !	5334 !							
! .40 !	2838 !	5193 !	269 !	70 !	9 !	0 !	0 !	0 !	0 !	7579 !							
! .70 !	0 !	2282 !	2522 !	80 !	11 !	0 !	0 !	0 !	0 !	4815 !							
! 1.00 !	0 !	0 !	2485 !	300 !	21 !	0 !	0 !	0 !	0 !	2812 !							
! 1.30 !	0 !	0 !	0 !	37 !	1603 !	24 !	0 !	0 !	0 !	1664 !							
! 1.60 !	0 !	0 !	0 !	3 !	546 !	196 !	0 !	0 !	0 !	745 !							
! 1.90 !	0 !	0 !	0 !	0 !	10 !	347 !	1 !	0 !	0 !	358 !							
! 2.20 !	0 !	0 !	0 !	0 !	2 !	177 !	4 !	0 !	0 !	183 !							
! 2.50 !	0 !	0 !	0 !	0 !	0 !	5 !	27 !	0 !	0 !	32 !							
! 2.80 !	0 !	0 !	0 !	0 !	0 !	0 !	19 !	0 !	0 !	19 !							
! 3.10 !	0 !	0 !	0 !	0 !	0 !	0 !	1 !	3 !	0 !	4 !							
! 3.40 !	0 !	0 !	0 !	0 !	0 !	0 !	0 !	7 !	0 !	7 !							
! 3.70 !	0 !	0 !	0 !	0 !	0 !	0 !	0 !	1 !	0 !	1 !							
! 4.00 !	0 !	0 !	0 !	0 !	0 !	0 !	0 !	0 !	0 !	0 !							
!TOTAL !	6668 !	7897 !	5477 !	2652 !	796 !	52 !	11 !	0 !	23553 !								

SUMMARY :

NO. IN TOTAL SECTOR = 32400
 NO. OUTSIDE TOTAL SECTOR = 23
 NO. OF CALMS = 8847
 TOTAL NO. OF ALL RECORDS = 32400
 PERCENTAGE CALMS = 27.32

Kay Point

BEAUFORT SEA COASTAL SEDIMENT STUDY

WAVES 2/ 7/78 TO 7/ 9/83

DIRECTION 220 TO 230

!WAVE !	Wave Period(secs)																!Total!
!INT(N)!																	!
!> !	!2 !	!3 !	!4 !	!5 !	!6 !	!7 !	!8 !	!9 !	!10 !	!	!	!	!	!	!	!	!
! .10 !	140 !	0 !	0 !	0 !	0 !	0 !	0 !	0 !	0 !	140 !							
! .40 !	25 !	3 !	0 !	0 !	0 !	0 !	0 !	0 !	0 !	28 !							
! .70 !	0 !	0 !	0 !	0 !	0 !	0 !	0 !	0 !	0 !	0 !							
! 1.00 !	0 !	0 !	0 !	0 !	0 !	0 !	0 !	0 !	0 !	0 !							
! 1.30 !	0 !	0 !	0 !	0 !	0 !	0 !	0 !	0 !	0 !	0 !							
! 1.60 !	0 !	0 !	0 !	0 !	0 !	0 !	0 !	0 !	0 !	0 !							
! 1.90 !	0 !	0 !	0 !	0 !	0 !	0 !	0 !	0 !	0 !	0 !							
! 2.20 !	0 !	0 !	0 !	0 !	0 !	0 !	0 !	0 !	0 !	0 !							
! 2.50 !	0 !	0 !	0 !	0 !	0 !	0 !	0 !	0 !	0 !	0 !							
! 2.80 !	0 !	0 !	0 !	0 !	0 !	0 !	0 !	0 !	0 !	0 !							
! 3.10 !	0 !	0 !	0 !	0 !	0 !	0 !	0 !	0 !	0 !	0 !							
! 3.40 !	0 !	0 !	0 !	0 !	0 !	0 !	0 !	0 !	0 !	0 !							
! 3.70 !	0 !	0 !	0 !	0 !	0 !	0 !	0 !	0 !	0 !	0 !							
! 4.00 !	0 !	0 !	0 !	0 !	0 !	0 !	0 !	0 !	0 !	0 !							
!TOTAL !	165 !	3 !	0 !	0 !	0 !	0 !	0 !	0 !	0 !	168 !							

DIRECTION 230 TO 240

!WAVE !	Wave Period(secs)																!Total!
!INT(N)!																	!
!> !	!2 !	!3 !	!4 !	!5 !	!6 !	!7 !	!8 !	!9 !	!10 !	!	!	!	!	!	!	!	!
! .10 !	106 !	0 !	0 !	0 !	0 !	0 !	0 !	0 !	0 !	106 !							
! .40 !	26 !	1 !	0 !	0 !	0 !	0 !	0 !	0 !	0 !	27 !							
! .70 !	0 !	0 !	0 !	0 !	0 !	0 !	0 !	0 !	0 !	0 !							
! 1.00 !	0 !	0 !	0 !	0 !	0 !	0 !	0 !	0 !	0 !	0 !							
! 1.30 !	0 !	0 !	0 !	0 !	0 !	0 !	0 !	0 !	0 !	0 !							
! 1.60 !	0 !	0 !	0 !	0 !	0 !	0 !	0 !	0 !	0 !	0 !							
! 1.90 !	0 !	0 !	0 !	0 !	0 !	0 !	0 !	0 !	0 !	0 !							
! 2.20 !	0 !	0 !	0 !	0 !	0 !	0 !	0 !	0 !	0 !	0 !							
! 2.50 !	0 !	0 !	0 !	0 !	0 !	0 !	0 !	0 !	0 !	0 !							
! 2.80 !	0 !	0 !	0 !	0 !	0 !	0 !	0 !	0 !	0 !	0 !							
! 3.10 !	0 !	0 !	0 !	0 !	0 !	0 !	0 !	0 !	0 !	0 !							
! 3.40 !	0 !	0 !	0 !	0 !	0 !	0 !	0 !	0 !	0 !	0 !							
! 3.70 !	0 !	0 !	0 !	0 !	0 !	0 !	0 !	0 !	0 !	0 !							
! 4.00 !	0 !	0 !	0 !	0 !	0 !	0 !	0 !	0 !	0 !	0 !							
!TOTAL !	132 !	1 !	0 !	0 !	0 !	0 !	0 !	0 !	0 !	133 !							

BEAUFORT SEA COASTAL SEDIMENT STUDY

Kay Point

WAVES 2/ 7/70 TO 7/ 9/83

DIRECTION 240 TO 250

WAVE !	Wave Period(secs)										Total!
INT(H)!											
	1	2	3	4	5	6	7	8	9	10	
.10!	124!	0!	0!	0!	0!	0!	0!	0!	0!	0!	124!
.40!	38!	4!	0!	0!	0!	0!	0!	0!	0!	0!	42!
.70!	0!	1!	0!	0!	0!	0!	0!	0!	0!	0!	1!
1.00!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
1.30!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
1.60!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
1.90!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.20!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.50!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.80!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.70!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.00!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
TOTAL!	162!	5!	0!	0!	0!	0!	0!	0!	0!	0!	167!

DIRECTION 250 TO 260

WAVE !	Wave Period(secs)										Total!
INT(H)!											
	1	2	3	4	5	6	7	8	9	10	
.10!	163!	0!	0!	0!	0!	0!	0!	0!	0!	0!	163!
.40!	70!	5!	0!	0!	0!	0!	0!	0!	0!	0!	75!
.70!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
1.00!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
1.30!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
1.60!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
1.90!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.20!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.50!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.80!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.70!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.00!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
TOTAL!	233!	5!	0!	0!	0!	0!	0!	0!	0!	0!	238!

BEAUFORT SEA COASTAL SEDIMENT STUDY

Kay Point

WAVES 2/ 7/70 TO 7/ 9/83

DIRECTION 260 TO 270

WAVE !	Wave Period(secs)										Total!
INT(H)!											
	1	2	3	4	5	6	7	8	9	10	
.10!	153!	0!	0!	0!	0!	0!	0!	0!	0!	0!	153!
.40!	42!	22!	0!	0!	0!	0!	0!	0!	0!	0!	64!
.70!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
1.00!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
1.30!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
1.60!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
1.90!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.20!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.50!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.80!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.70!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.00!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
TOTAL!	195!	22!	0!	0!	0!	0!	0!	0!	0!	0!	217!

DIRECTION 270 TO 280

WAVE !	Wave Period(secs)										Total!
INT(H)!											
	1	2	3	4	5	6	7	8	9	10	
.10!	206!	0!	0!	0!	0!	0!	0!	0!	0!	0!	206!
.40!	104!	232!	0!	0!	0!	0!	0!	0!	0!	0!	416!
.70!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
1.00!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
1.30!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
1.60!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
1.90!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.20!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.50!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.80!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.70!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.00!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
TOTAL!	390!	315!	0!	0!	0!	0!	0!	0!	0!	0!	710!

BEAUFORT SEA COASTAL SEDIMENT STUDY

Kay Point

WAVES 2/ 7/78 TO 7/ 9/83

DIRECTION 320 TO 330

WAVE !	Wave Period(secs)										Total!
INT(H)!											
	12	13	14	15	16	17	18	19	20		
.10!	90!	37!	12!	15!	0!	0!	0!	0!	0!	154!	
.40!	44!	100!	20!	25!	4!	0!	0!	0!	0!	201!	
.70!	0!	02!	160!	10!	5!	0!	0!	0!	0!	257!	
1.00!	0!	0!	07!	12!	3!	0!	0!	0!	0!	102!	
1.30!	0!	0!	6!	00!	3!	0!	0!	0!	0!	97!	
1.60!	0!	0!	0!	45!	14!	0!	0!	0!	0!	59!	
1.90!	0!	0!	0!	0!	27!	0!	0!	0!	0!	27!	
2.20!	0!	0!	0!	0!	3!	0!	0!	0!	0!	3!	
2.50!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
2.80!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
3.10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
3.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
3.70!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
4.00!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
TOTAL!	134!	307!	205!	195!	59!	0!	0!	0!	0!	900!	

DIRECTION 330 TO 340

WAVE !	Wave Period(secs)										Total!
INT(H)!											
	12	13	14	15	16	17	18	19	20		
.10!	92!	20!	7!	0!	1!	0!	0!	0!	0!	120!	
.40!	43!	150!	6!	3!	1!	0!	0!	0!	0!	211!	
.70!	0!	74!	110!	5!	0!	0!	0!	0!	0!	109!	
1.00!	0!	0!	76!	6!	0!	0!	0!	0!	0!	82!	
1.30!	0!	0!	0!	65!	0!	0!	0!	0!	0!	65!	
1.60!	0!	0!	0!	49!	4!	0!	0!	0!	0!	53!	
1.90!	0!	0!	0!	1!	20!	0!	0!	0!	0!	21!	
2.20!	0!	0!	0!	0!	2!	0!	0!	0!	0!	2!	
2.50!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
2.80!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
3.10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
3.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
3.70!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
4.00!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
TOTAL!	135!	252!	199!	129!	30!	0!	0!	0!	0!	745!	

BEAUFORT SEA COASTAL SEDIMENT STUDY

Kay Point

WAVES 2/ 7/78 TO 7/ 9/83

DIRECTION 340 TO 350

WAVE !	Wave Period(secs)										Total!				
INT(H)!															
!>	!2	!3	!4	!4	!5	!5	!6	!7	!7	!8	!8	!9	!9	!10	!
! .10!	00!	13!	3!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	96!	
! .40!	29!	122!	3!	1!	0!	0!	0!	0!	0!	0!	0!	0!	0!	155!	
! .70!	0!	53!	54!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	107!	
! 1.00!	0!	2!	52!	1!	0!	0!	0!	0!	0!	0!	0!	0!	0!	55!	
! 1.30!	0!	0!	1!	20!	0!	0!	0!	0!	0!	0!	0!	0!	0!	29!	
! 1.60!	0!	0!	0!	4!	2!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
! 1.90!	0!	0!	0!	0!	15!	0!	0!	0!	0!	0!	0!	0!	0!	15!	
! 2.20!	0!	0!	0!	0!	26!	0!	0!	0!	0!	0!	0!	0!	0!	26!	
! 2.50!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
! 2.80!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
! 3.10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
! 3.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
! 3.70!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
! 4.00!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
!TOTAL!	109!	190!	113!	36!	43!	0!	0!	0!	0!	0!	0!	0!	0!	491!	

DIRECTION 350 TO 360

WAVE !	Wave Period(secs)										Total!
INT(H)?											
	12	13	14	15	16	17	18	19	20		
.10!	151!	4!	0!	0!	0!	0!	0!	0!	0!	155!	
.40!	04!	235!	7!	0!	0!	0!	0!	0!	0!	326!	
.70!	0!	90!	93!	0!	0!	0!	0!	0!	0!	193!	
1.00!	0!	1!	53!	0!	3!	0!	0!	0!	0!	57!	
1.30!	0!	0!	2!	17!	4!	0!	0!	0!	0!	23!	
1.60!	0!	0!	0!	4!	4!	0!	0!	0!	0!	0!	
1.90!	0!	0!	0!	0!	13!	0!	0!	0!	0!	21!	
2.20!	0!	0!	0!	0!	14!	0!	0!	0!	0!	14!	
2.50!	0!	0!	0!	0!	1!	13!	0!	0!	0!	14!	
2.80!	0!	0!	0!	0!	0!	12!	0!	0!	0!	12!	
3.10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
3.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
3.70!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
4.00!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
TOTAL!	235!	330!	155!	29!	39!	25!	0!	0!	0!	821!	

BEAUFORT SEA COASTAL SEDIMENT STUDY

Kay Point

WAVES 2/ 7/78 TO 7/ 9/83

DIRECTION 48 TO 58

WAVE !	Wave Period(secs)											Total!
INT(H)!												
	1	2	3	4	5	6	7	8	9	10	11	-
.10!	180!	11!	0!	0!	0!	0!	0!	0!	0!	0!	199!	
.40!	51!	225!	0!	0!	0!	0!	0!	0!	0!	0!	276!	
.70!	0!	90!	82!	0!	0!	0!	0!	0!	0!	0!	172!	
1.00!	0!	0!	127!	3!	0!	0!	0!	0!	0!	0!	130!	
1.30!	0!	0!	1!	37!	2!	0!	0!	0!	0!	0!	40!	
1.60!	0!	0!	0!	11!	6!	0!	0!	0!	0!	0!	17!	
1.90!	0!	0!	0!	0!	16!	0!	0!	0!	0!	0!	16!	
2.20!	0!	0!	0!	0!	11!	0!	0!	0!	0!	0!	11!	
2.50!	0!	0!	0!	0!	0!	9!	0!	0!	0!	0!	9!	
2.80!	0!	0!	0!	0!	0!	2!	0!	0!	0!	0!	2!	
3.10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
3.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
3.70!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
4.00!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
TOTAL!	239!	326!	210!	51!	35!	11!	0!	0!	0!	0!	872!	

DIRECTION 58 TO 68

WAVE !	Wave Period(secs)											Total!
INT(H)!												
	1	2	3	4	5	6	7	8	9	10	11	-
.10!	171!	17!	0!	0!	0!	0!	0!	0!	0!	0!	196!	
.40!	50!	219!	13!	0!	0!	0!	0!	0!	0!	0!	290!	
.70!	0!	57!	211!	9!	0!	0!	0!	0!	0!	0!	277!	
1.00!	0!	0!	183!	41!	0!	0!	0!	0!	0!	0!	224!	
1.30!	0!	0!	1!	140!	0!	0!	0!	0!	0!	0!	149!	
1.60!	0!	0!	0!	72!	63!	0!	0!	0!	0!	0!	135!	
1.90!	0!	0!	0!	0!	102!	0!	0!	0!	0!	0!	102!	
2.20!	0!	0!	0!	0!	25!	0!	0!	0!	0!	0!	25!	
2.50!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
2.80!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
3.10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
3.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
3.70!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
4.00!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
TOTAL!	221!	293!	416!	270!	190!	0!	0!	0!	0!	0!	1390!	

BEAUFORT SEA COASTAL SEDIMENT STUDY

Kay Point

WAVES 2/ 7/78 TO 7/ 9/83

DIRECTION 68 TO 78

WAVE !	Wave Period(secs)											Total!
INT(H)!												
	1	2	3	4	5	6	7	8	9	10	11	-
.10!	194!	39!	21!	2!	5!	0!	0!	0!	0!	0!	261!	
.40!	50!	265!	49!	5!	4!	0!	0!	0!	0!	0!	381!	
.70!	0!	91!	190!	1!	5!	0!	0!	0!	0!	0!	295!	
1.00!	0!	0!	245!	72!	4!	0!	0!	0!	0!	0!	321!	
1.30!	0!	0!	0!	229!	4!	0!	0!	0!	0!	0!	233!	
1.60!	0!	0!	0!	44!	52!	0!	0!	0!	0!	0!	96!	
1.90!	0!	0!	0!	0!	26!	0!	0!	0!	0!	0!	26!	
2.20!	0!	0!	0!	0!	5!	0!	0!	0!	0!	0!	5!	
2.50!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
2.80!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
3.10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
3.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
3.70!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
4.00!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
TOTAL!	252!	395!	513!	353!	185!	0!	0!	0!	0!	0!	1618!	

DIRECTION 78 TO 88

WAVE !	Wave Period(secs)											Total!
INT(H)!												
	1	2	3	4	5	6	7	8	9	10	11	-
.10!	227!	20!	12!	6!	0!	0!	0!	0!	0!	0!	273!	
.40!	66!	326!	22!	7!	0!	0!	0!	0!	0!	0!	421!	
.70!	0!	115!	238!	14!	0!	0!	0!	0!	0!	0!	367!	
1.00!	0!	0!	299!	69!	7!	0!	0!	0!	0!	0!	375!	
1.30!	0!	0!	0!	488!	6!	0!	0!	0!	0!	0!	414!	
1.60!	0!	0!	0!	151!	37!	0!	0!	0!	0!	0!	188!	
1.90!	0!	0!	0!	0!	58!	0!	0!	0!	0!	0!	58!	
2.20!	0!	0!	0!	0!	20!	2!	0!	0!	0!	0!	22!	
2.50!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
2.80!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
3.10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
3.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
3.70!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
4.00!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
TOTAL!	293!	469!	571!	655!	128!	2!	0!	0!	0!	0!	2110!	

BEAUFORT SEA COASTAL SEDIMENT STUDY

Key Point

WAVES 2/ 7/70 TO 7/ 9/83

DIRECTION 120 TO 130

[illegible]

KP-19

BEAUFORT SEA COASTAL SEDIMENT STUDY

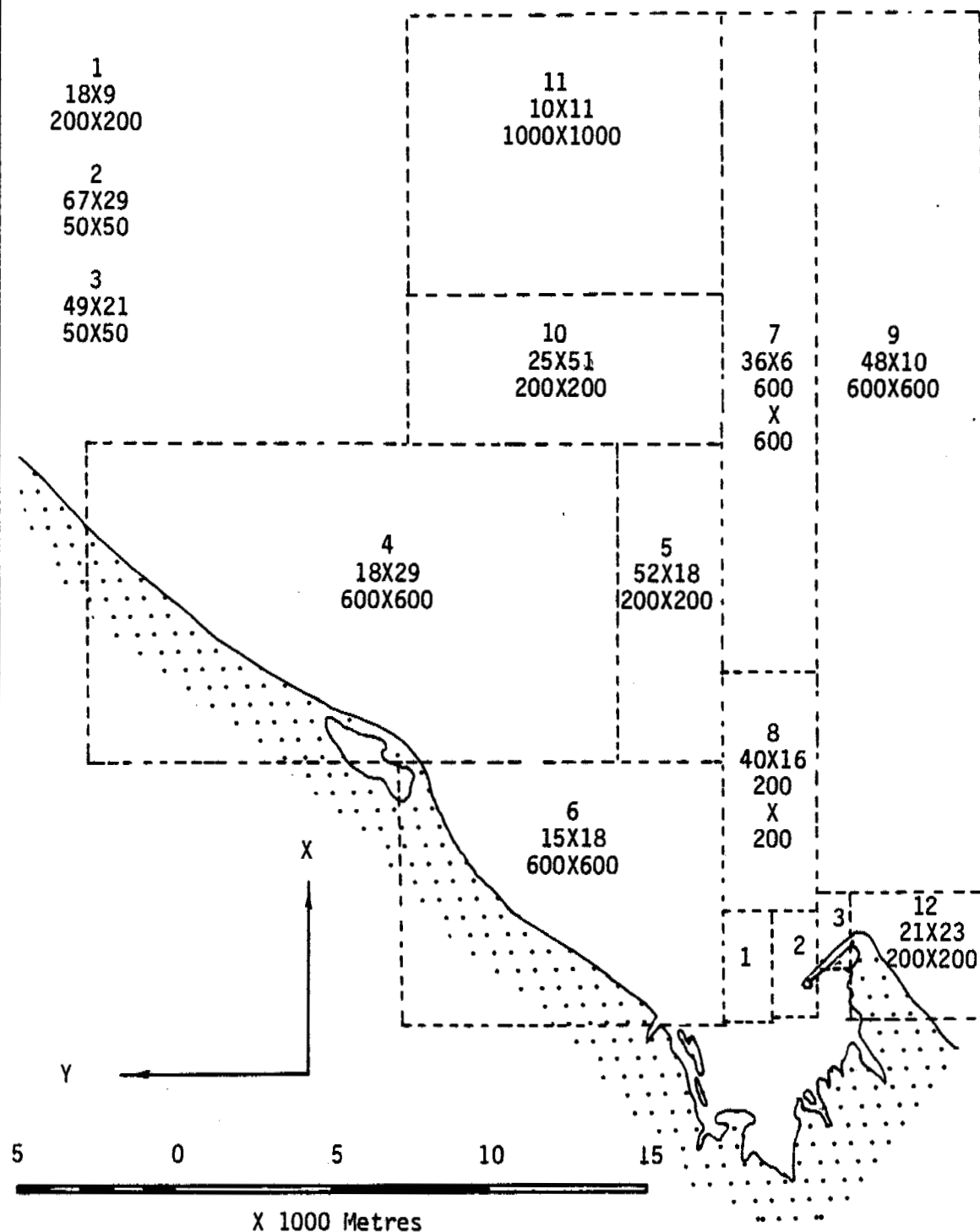
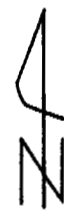
OFFSHORE TO ONSHORE WAVE TRANSFORMATION FUNCTIONS

KAY POINT

KEITH PHILPOTT CONSULTING LTD.
P.O. Box 938
THORNHILL
ONTARIO L3T 4A5

KEY

Grid Number
Nodal Dimensions (XxY)
Mesh Size (metres)



BEAUFORT SEA COASTAL SEDIMENT STUDY

Date: 14 May 85

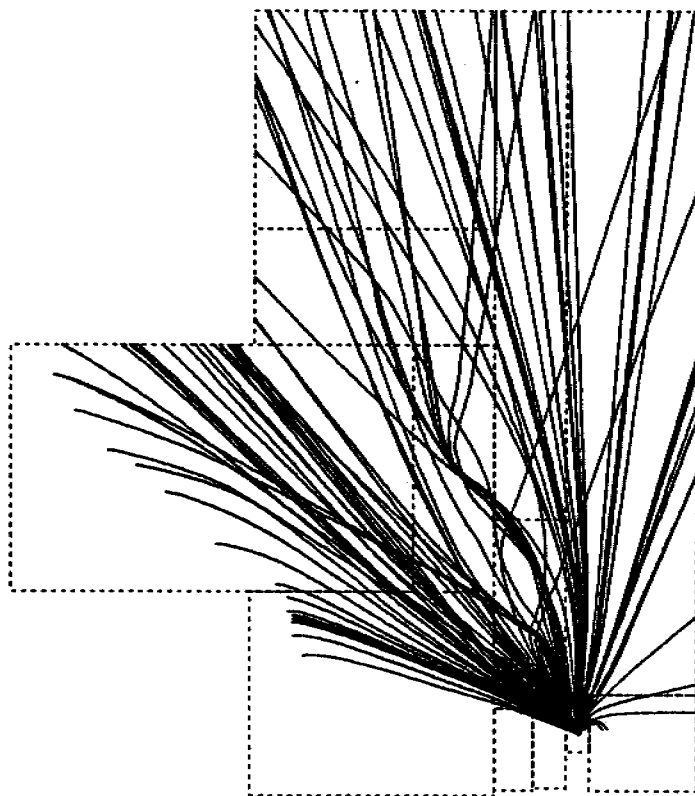
Scales as shown

Checked by:

Keith Philpott

Consulting Limited

Key Point: Nodal Dimensions and Mesh Size of Refraction
Model Grids



FIGURE

WAVE RAY DETAILS

Tide Level= 0.50 m.

Wave Period= 5.0 secs

Position No:2

Bathymetry information used for
grids obtained from the Canadian
Hydrographic Service, Field Sheets
numbered:

W.A. 10070 (1970)
F.S. 3588 (1969)



BEAUFORT SEA COASTAL SEDIMENT
STUDY

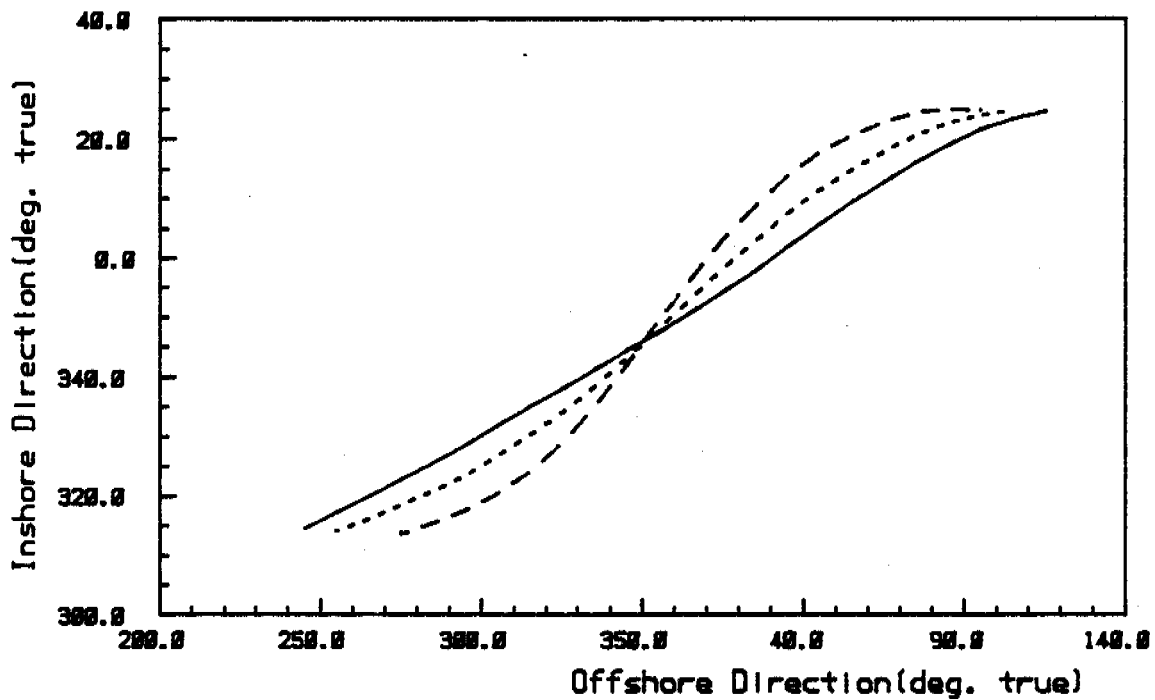
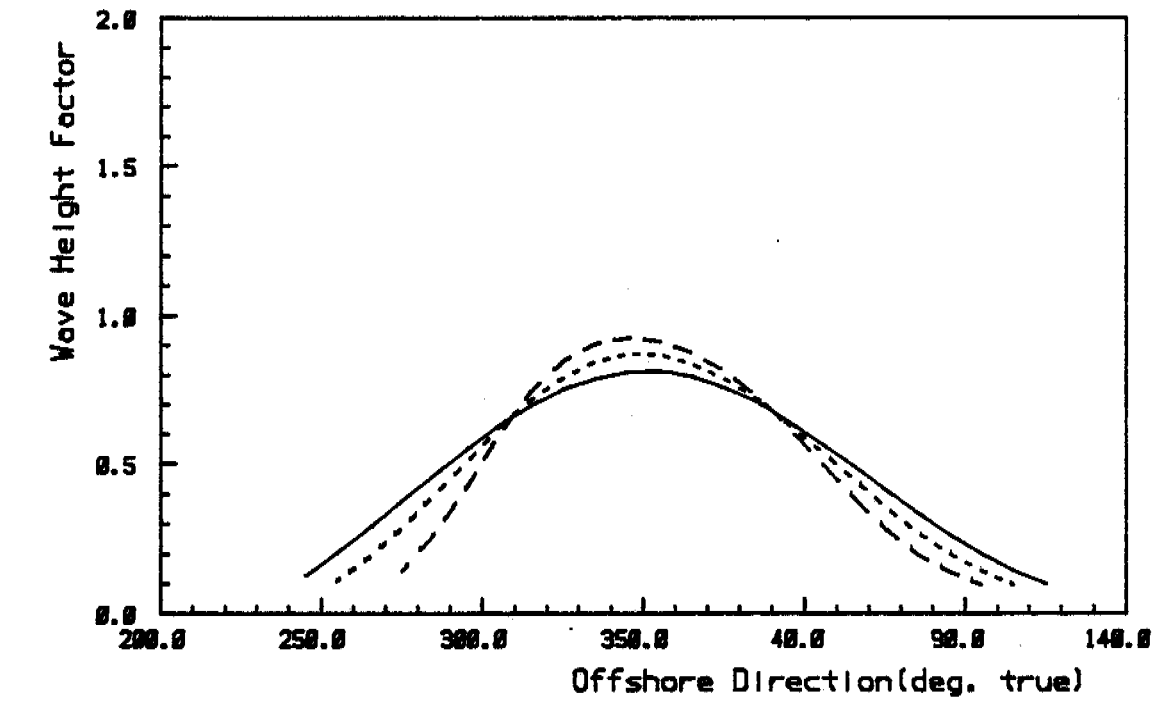
KAY POINT - BACKWARD TRACKING

Date: 16 Apr 85

Scale 1:200000

Checked by:

Keith Philpott
Consulting Limited



Node No: 1

Tide Level: 0.50 m.

Peak Period: 3.2 secs

Spreading Index:

2

4

10

—————

.....

BEAUFORT SEA COASTAL SEDIMENT STUDY

Date: 26 Mar 85

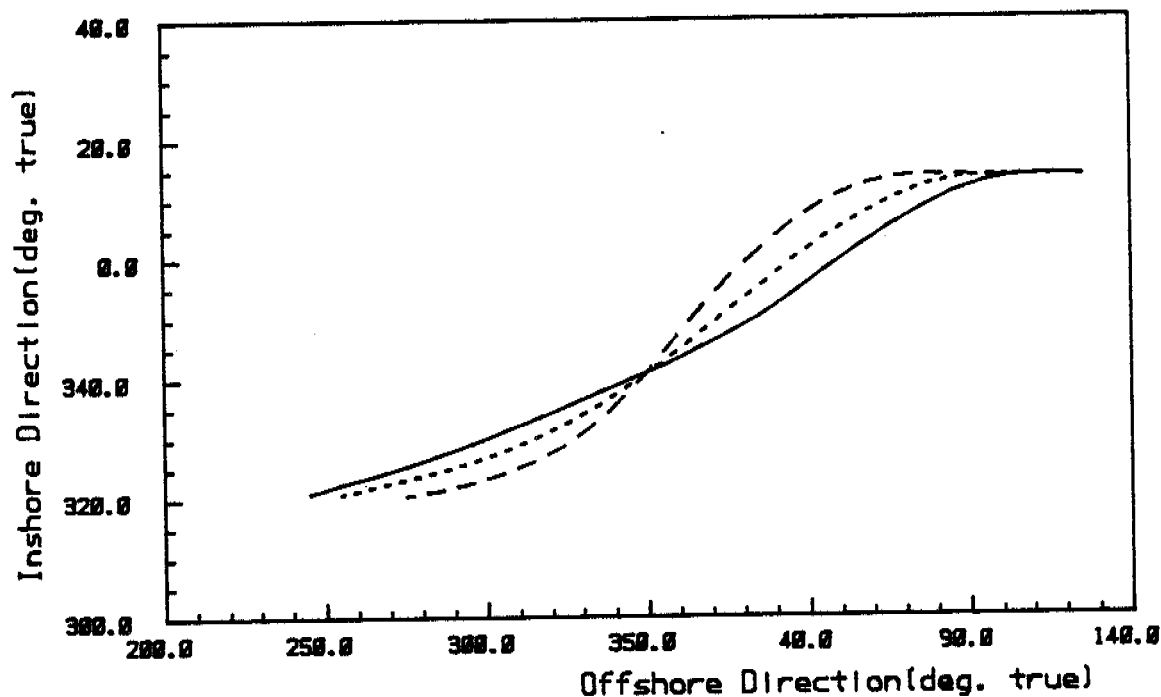
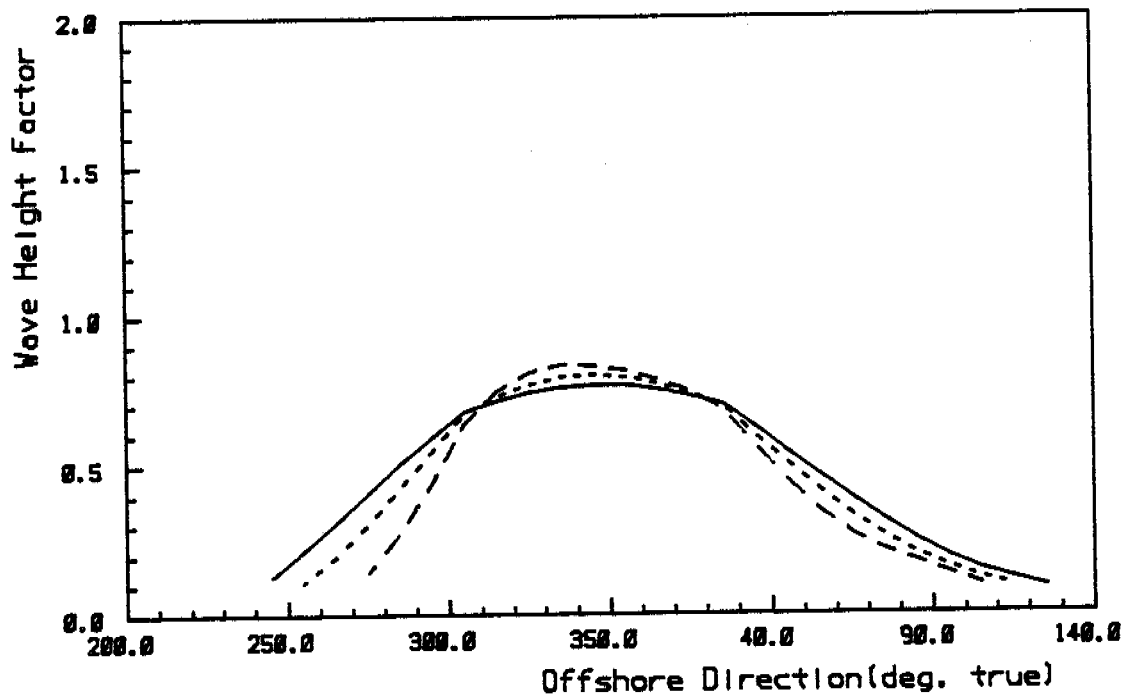
Scales as shown

Checked by:

Keith Philpott

Consulting Limited

Key Point: Wave Spectrum Transformation Results for Node
Number 01



Node No: 1

Tide Level: 0.50 m.

Peak Period: 5.0 secs

Spreading Index:

2

4

10

BEAUFORT SEA COASTAL SEDIMENT STUDY

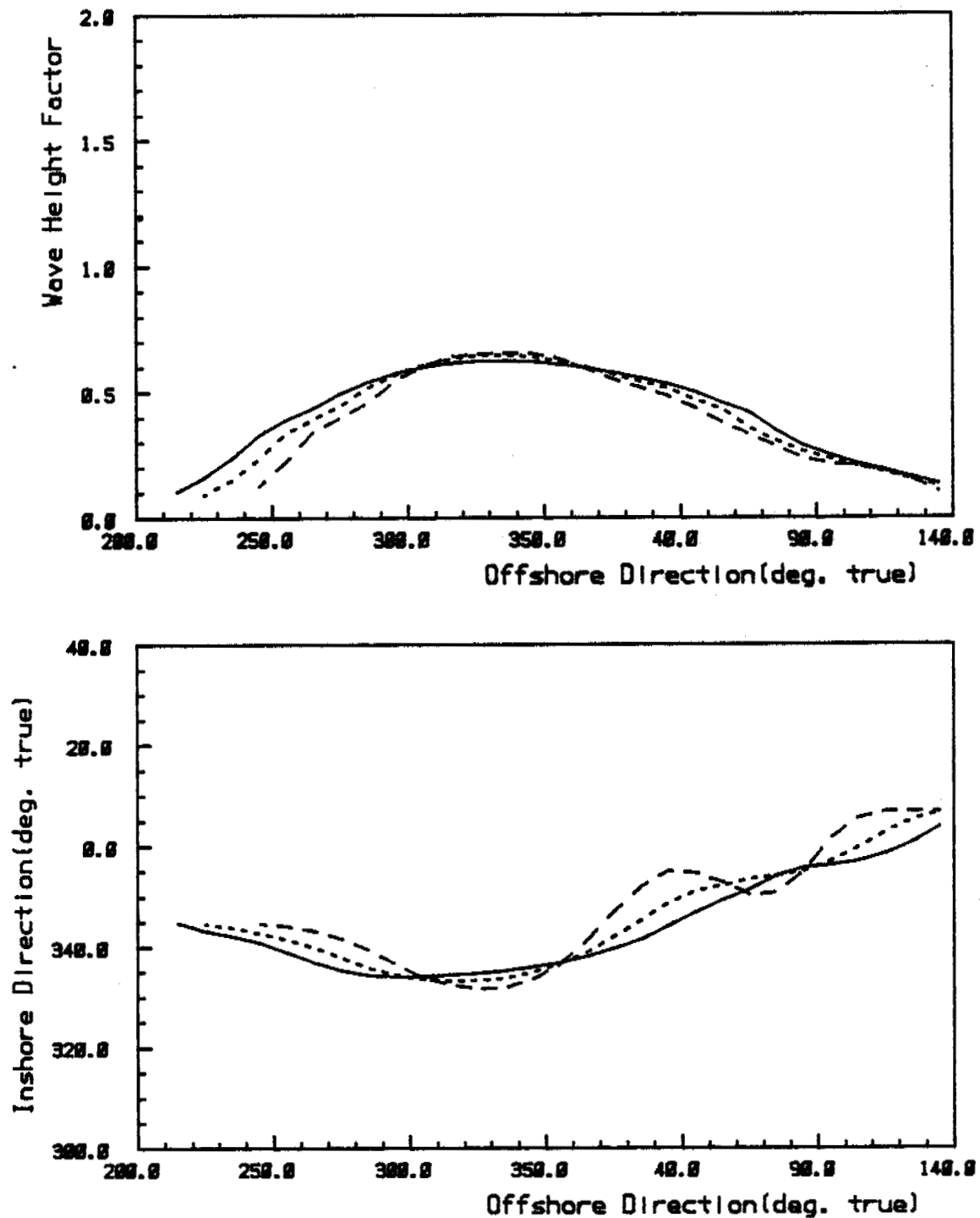
Date: 26 Mar 85

Scales as shown

Checked by:

Keith Philpott
Consulting Limited

Key Point: Wave Spectrum Transformation Results for Node
Number 01



Node No: 1

Tide Level: 0.50 m.

Peak Period: 7.9 secs

Spreading Index:

2

4

10

BEAUFORT SEA COASTAL SEDIMENT STUDY

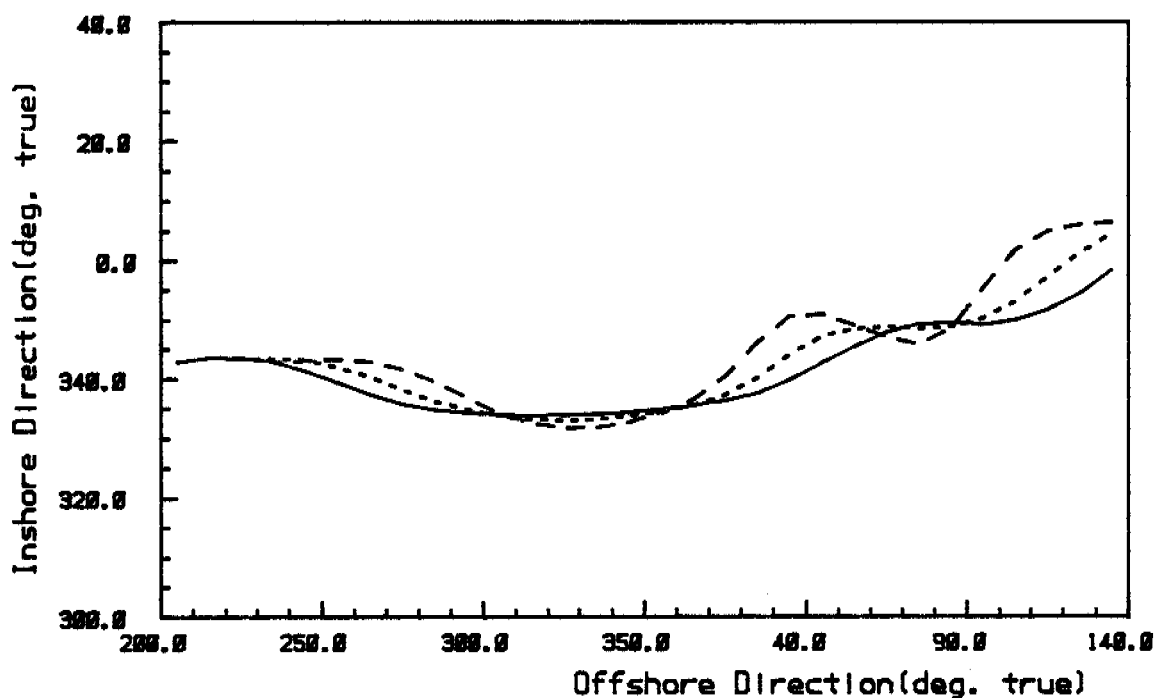
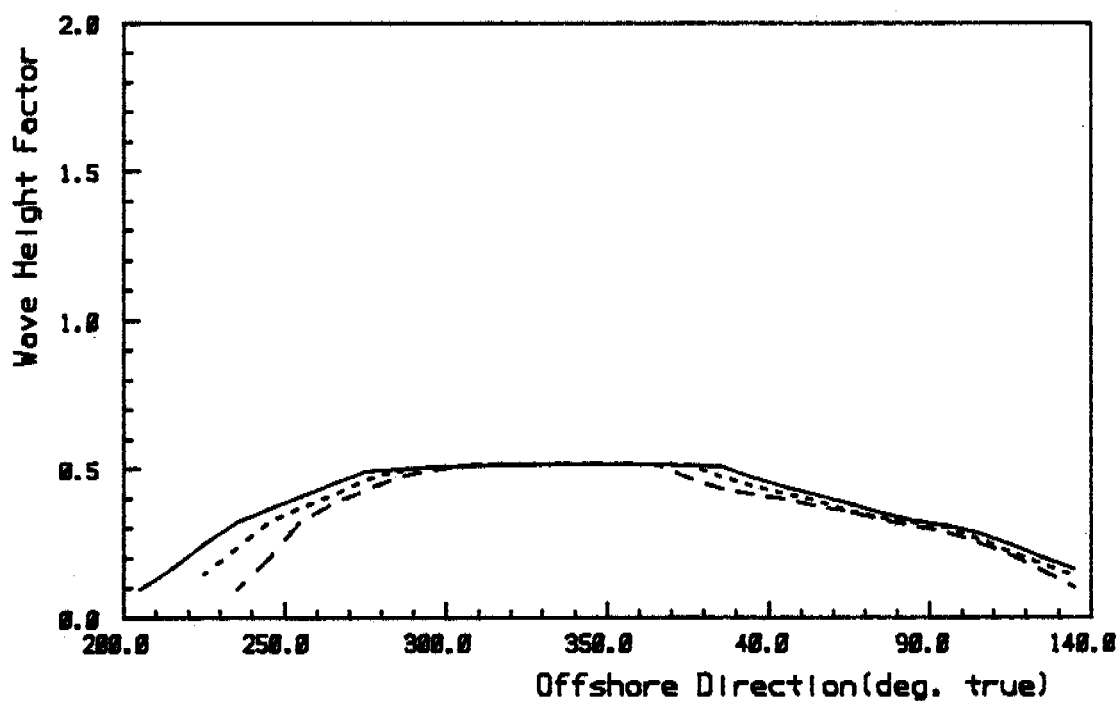
Date: 26 Mar 85

Scales as shown

Checked by:

Keith Philpott
Consulting Limited

Key Point: Wave Spectrum Transformation Results for Node
Number 01



Node No: 1

Spreading Index:

2

Tide Level: 0.50 m.

4

Peak Period: 10.0 secs

10

BEAUFORT SEA COASTAL SEDIMENT STUDY

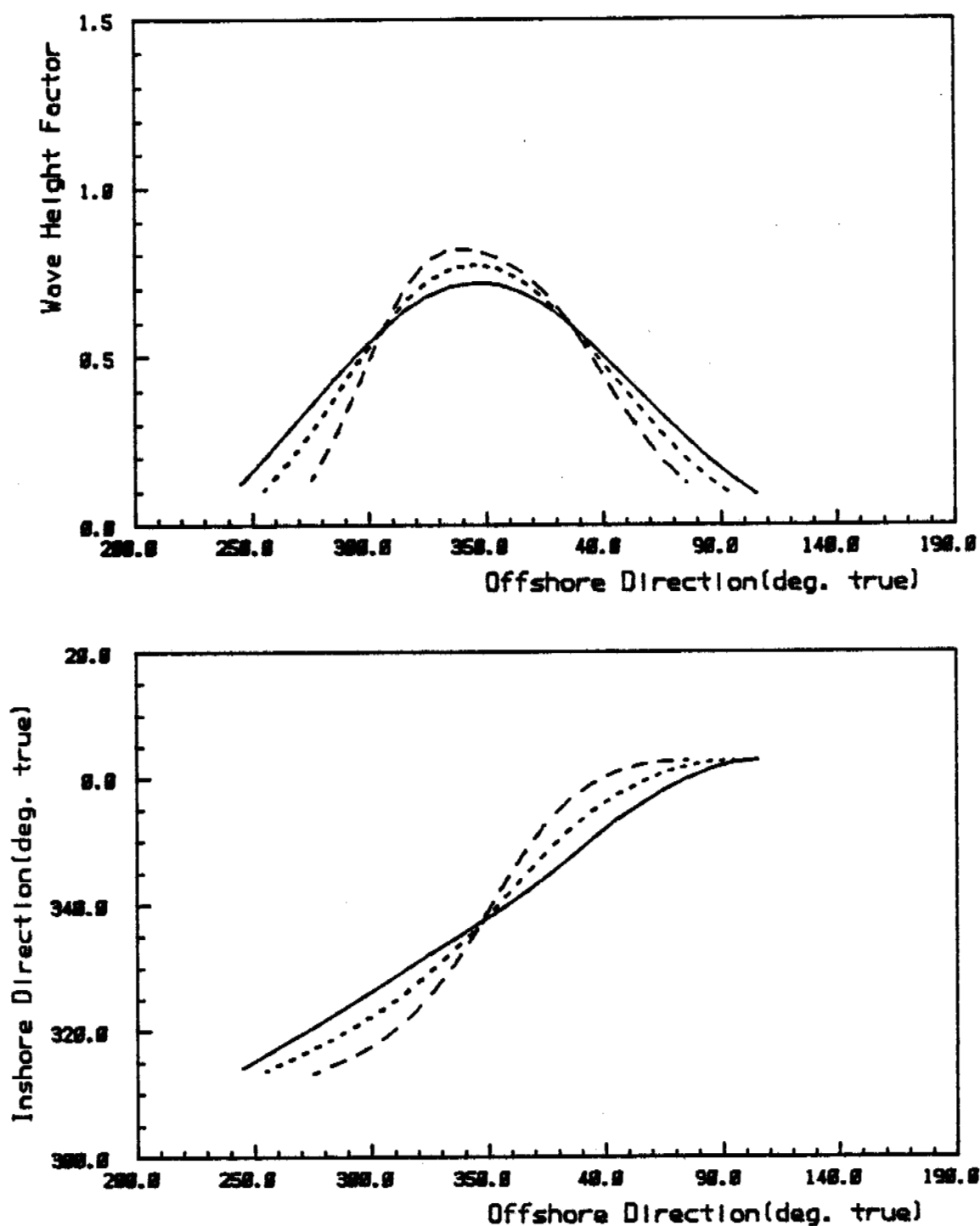
Date: 28 Mar 85

Scales as shown

Key Point: Wave Spectrum Transformation Results for Node
Number 01

Checked by:

Keith Philpott
Consulting Limited



Node No: 1

Tide Level: 2.25 m.

Peak Period: 3.2 secs

Spreading Index:

2

4

10

BEAUFORT SEA COASTAL SEDIMENT STUDY

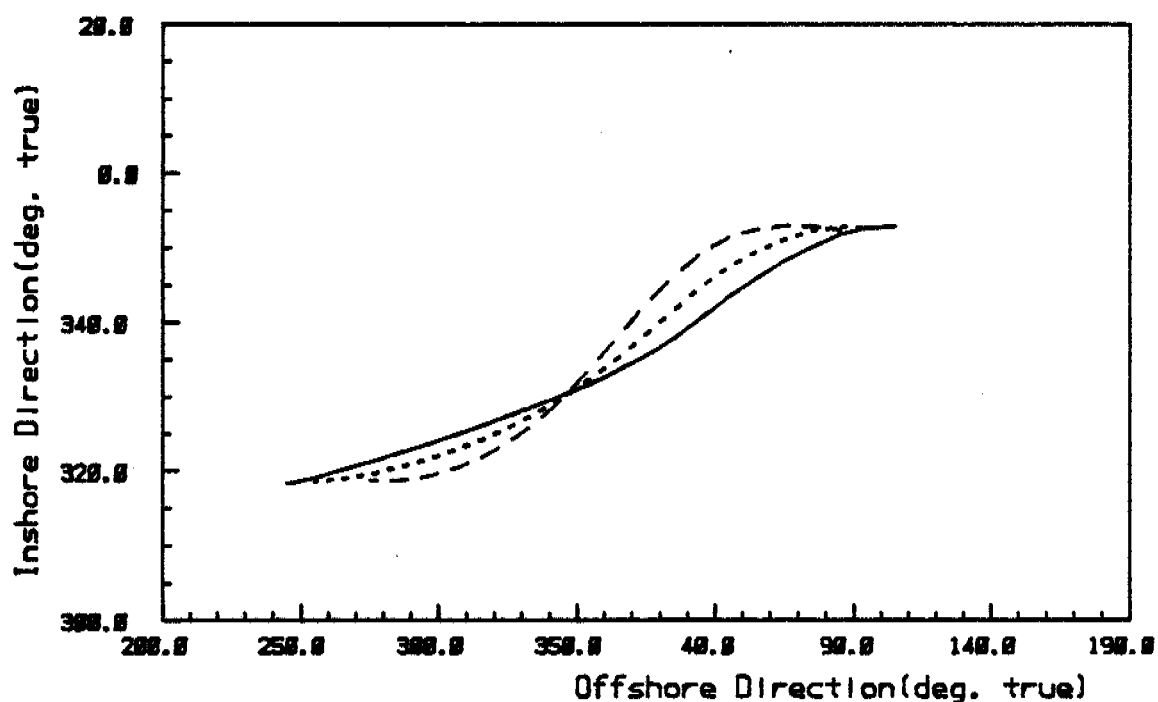
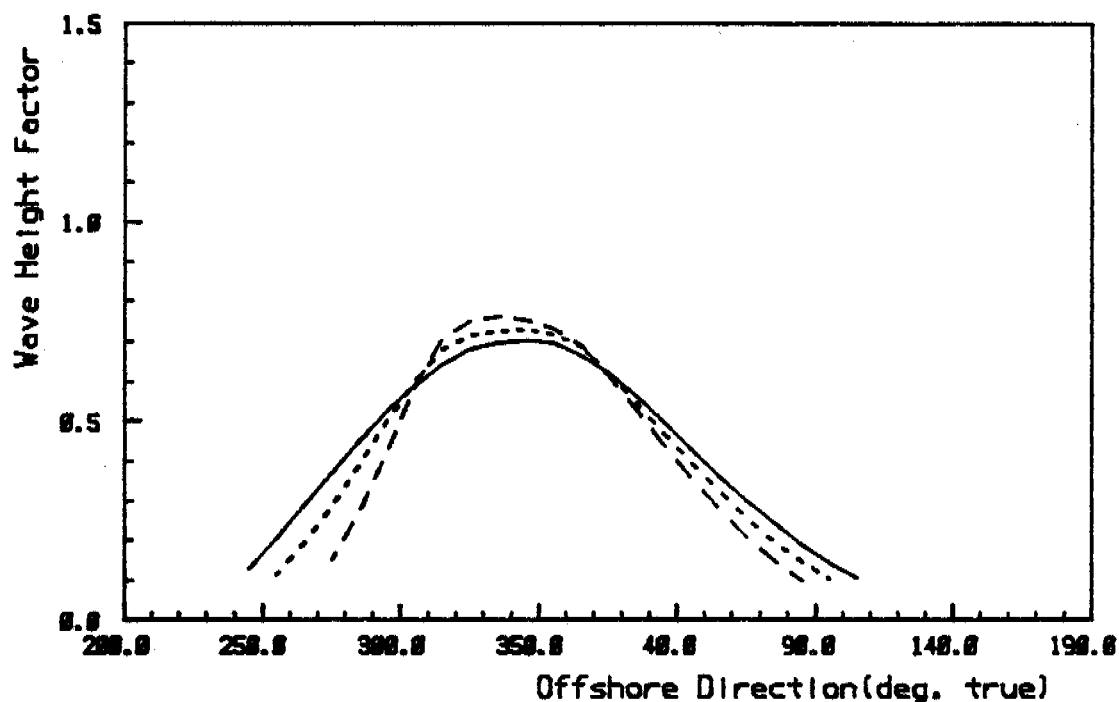
Date: 26 Mar 85

Scales as shown

Checked by:

Keith Philpott
Consulting Limited

Key Point: Wave Spectrum Transformation Results for Node
Number 01



Node No: 1

Spreading Index:

2

Tide Level: 2.25 m.

4

Peak Period: 5.0 secs

10

BEAUFORT SEA COASTAL SEDIMENT STUDY

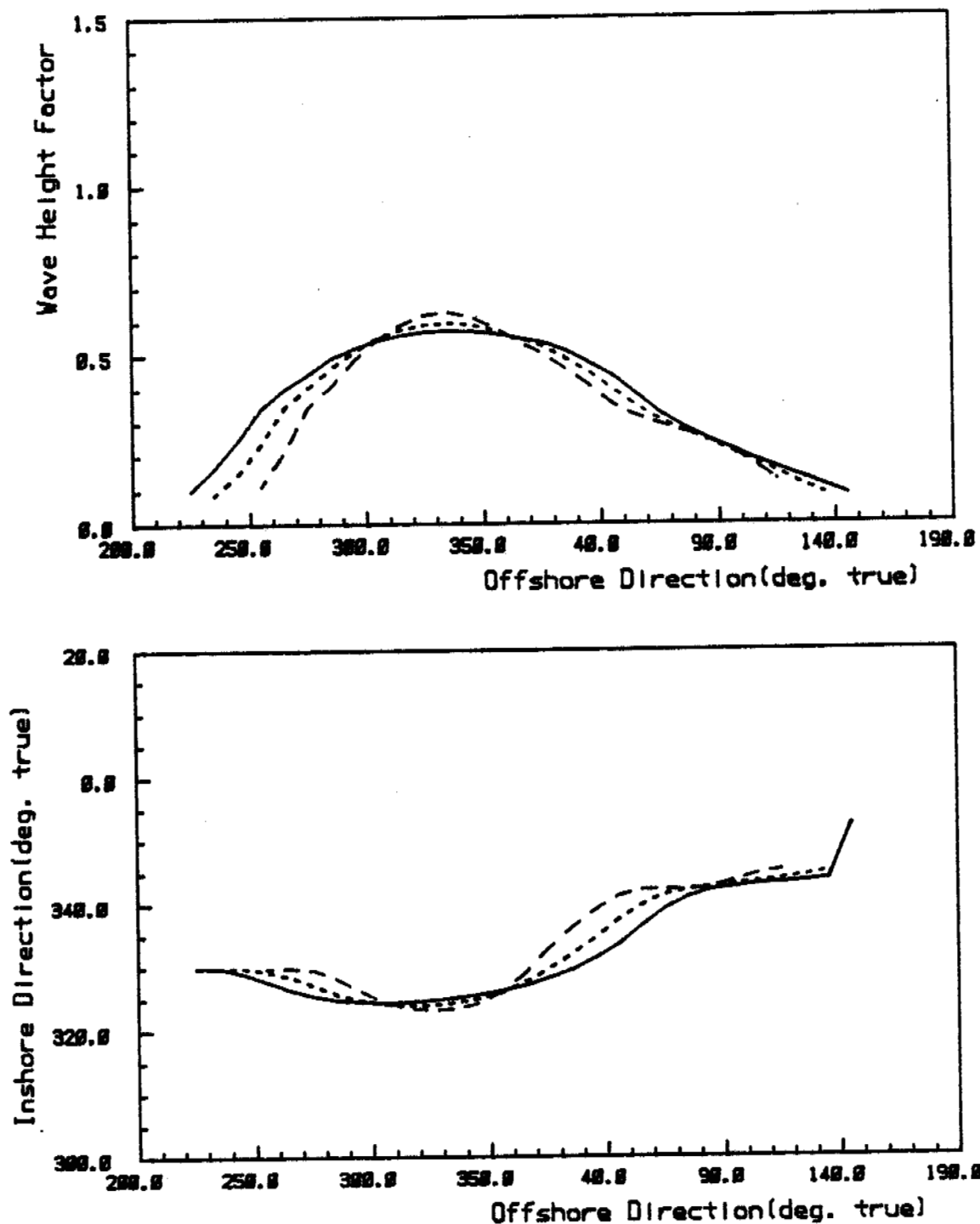
Date: 26 Mar 85

Scales as shown

Key Point: Wave Spectrum Transformation Results for Node
Number 01

Checked by:

Keith Philpott
Consulting Limited



Node No: 1

Tide Level: 2.25 m.

Peak Period: 7.9 secs

Spreading Index:

2

4

10

BEAUFORT SEA COASTAL SEDIMENT STUDY

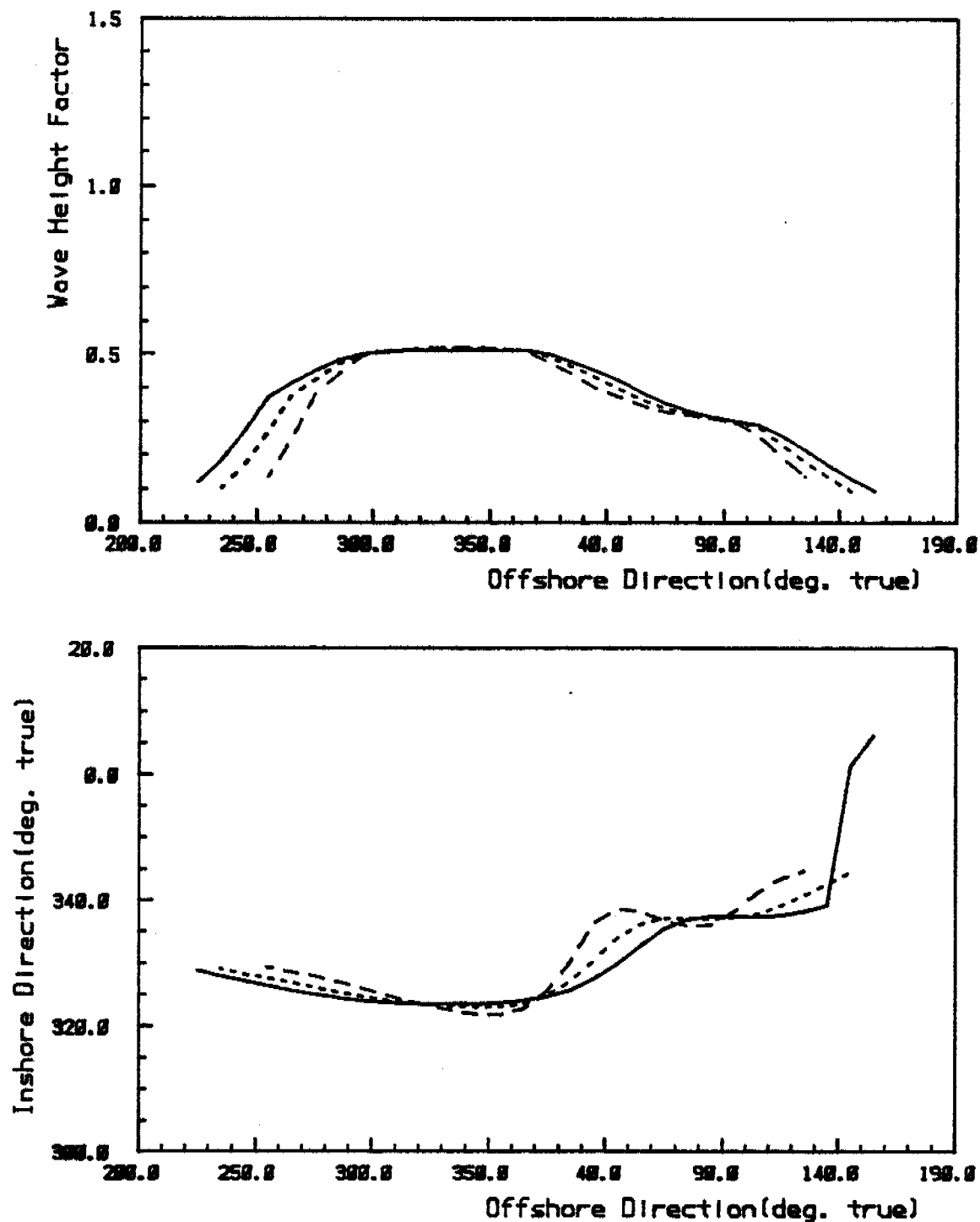
Key Point: Wave Spectrum Transformation Results for Node
Number 01

Date: 26 Mar 85

Scales as shown

Checked by:

Keith Philpott
Consulting Limited



Node No: 1

Spreading Index:

2

Tide Level: 2.25 m.

4

Peak Period: 10.0 secs

10

BEAUFORT SEA COASTAL SEDIMENT STUDY

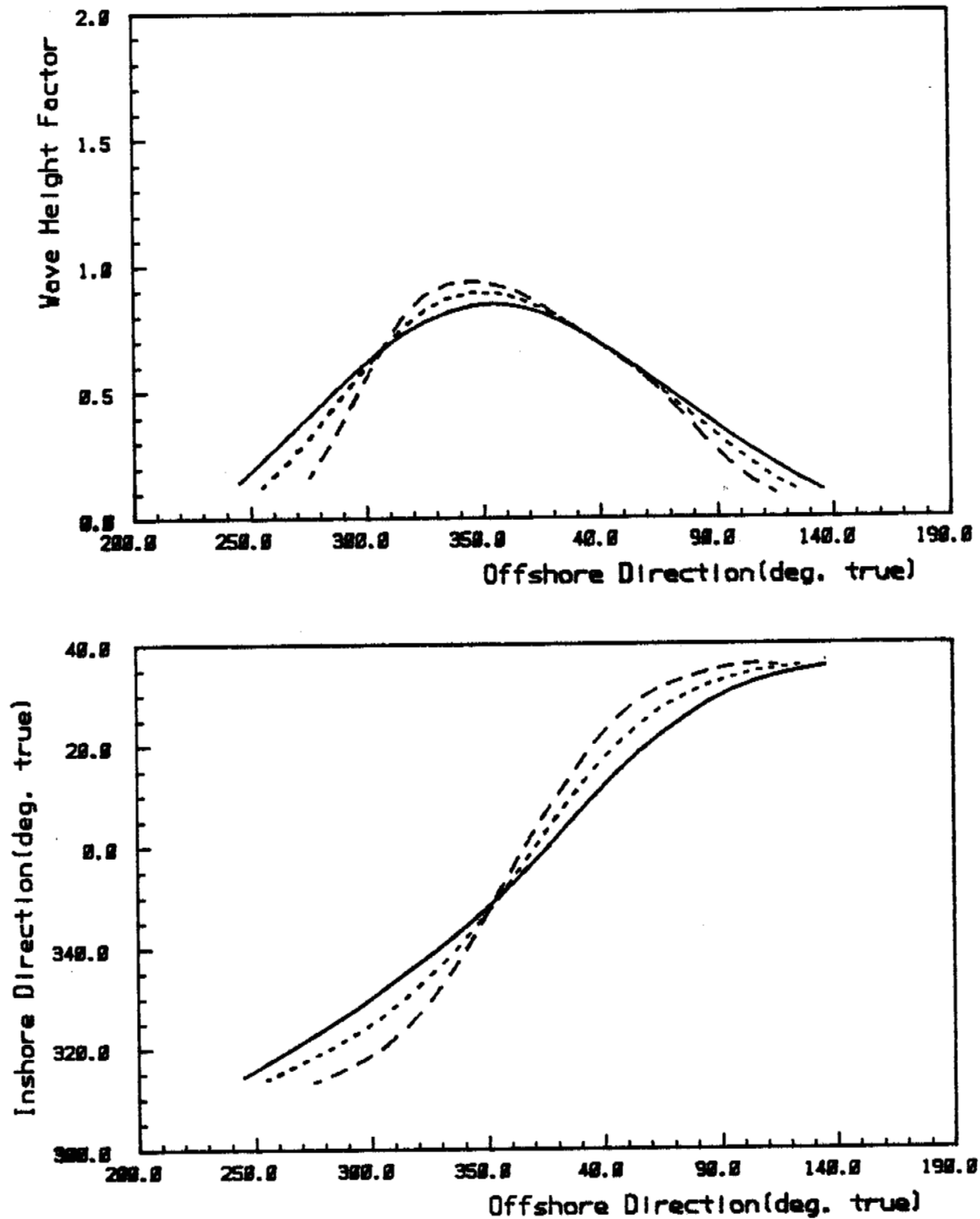
Date: 26 Mar 85

Scales as shown

Key Point: Wave Spectrum Transformation Results for Node
Number 01

Checked by:

Keith Philpott
Consulting Limited



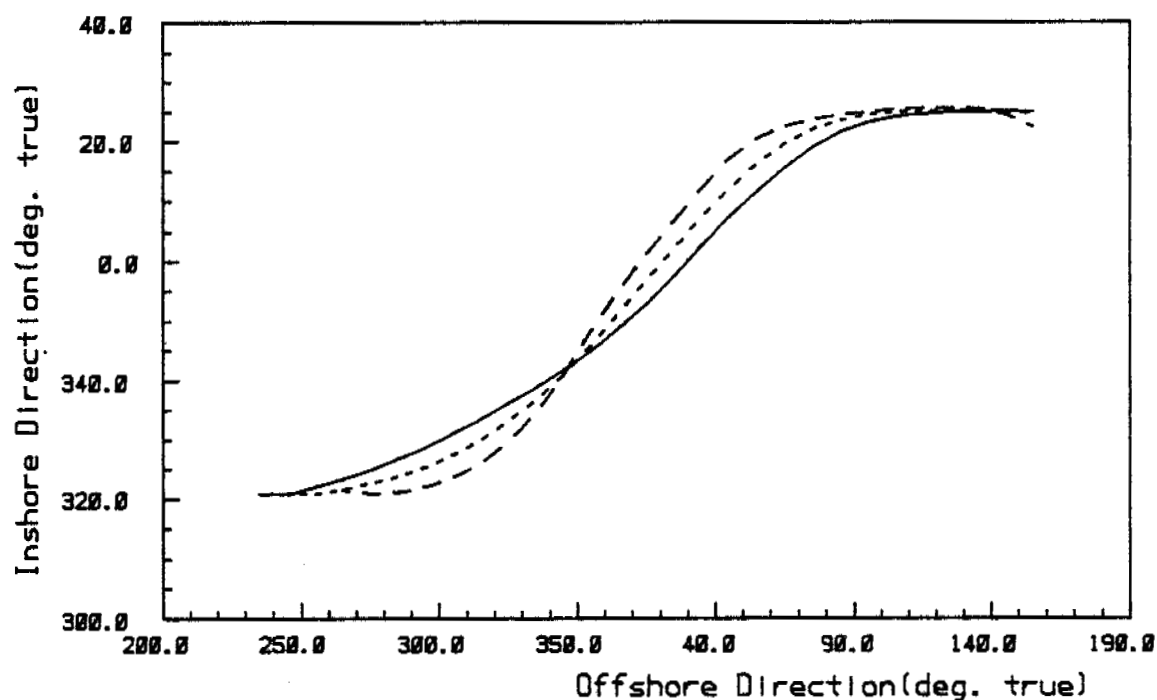
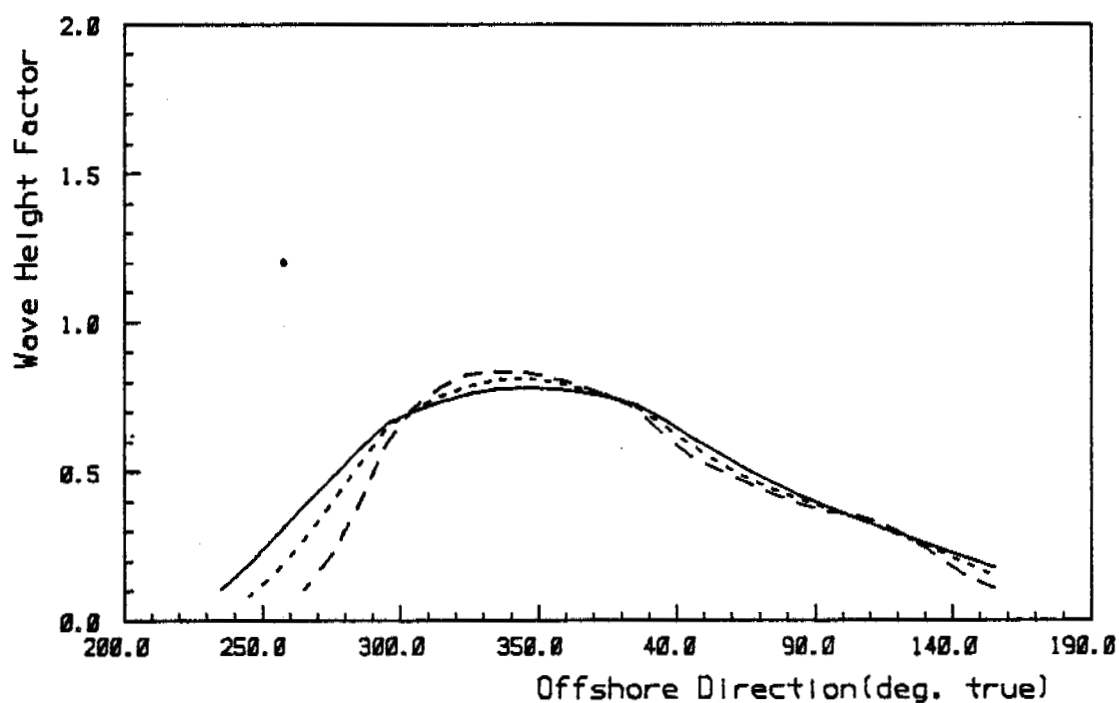
Node No: 2
 Tide Level: 0.50 m.
 Peak Period: 3.2 secs

Spreading Index: 2 —————
 4 - - - - -
 18 - . - . -

BEAUFORT SEA COASTAL SEDIMENT STUDY

Key Point: Wave Spectrum Transformation Results for Node
 Number 02

Date: 27 Mar 85
 Scales as shown
 Checked by:
 Keith Philpott
 Consulting Limited



Node No: 2

Spreading Index:

2

Tide Level: 0.50 m.

4

Peak Period: 5.0 secs

10

BEAUFORT SEA COASTAL SEDIMENT STUDY

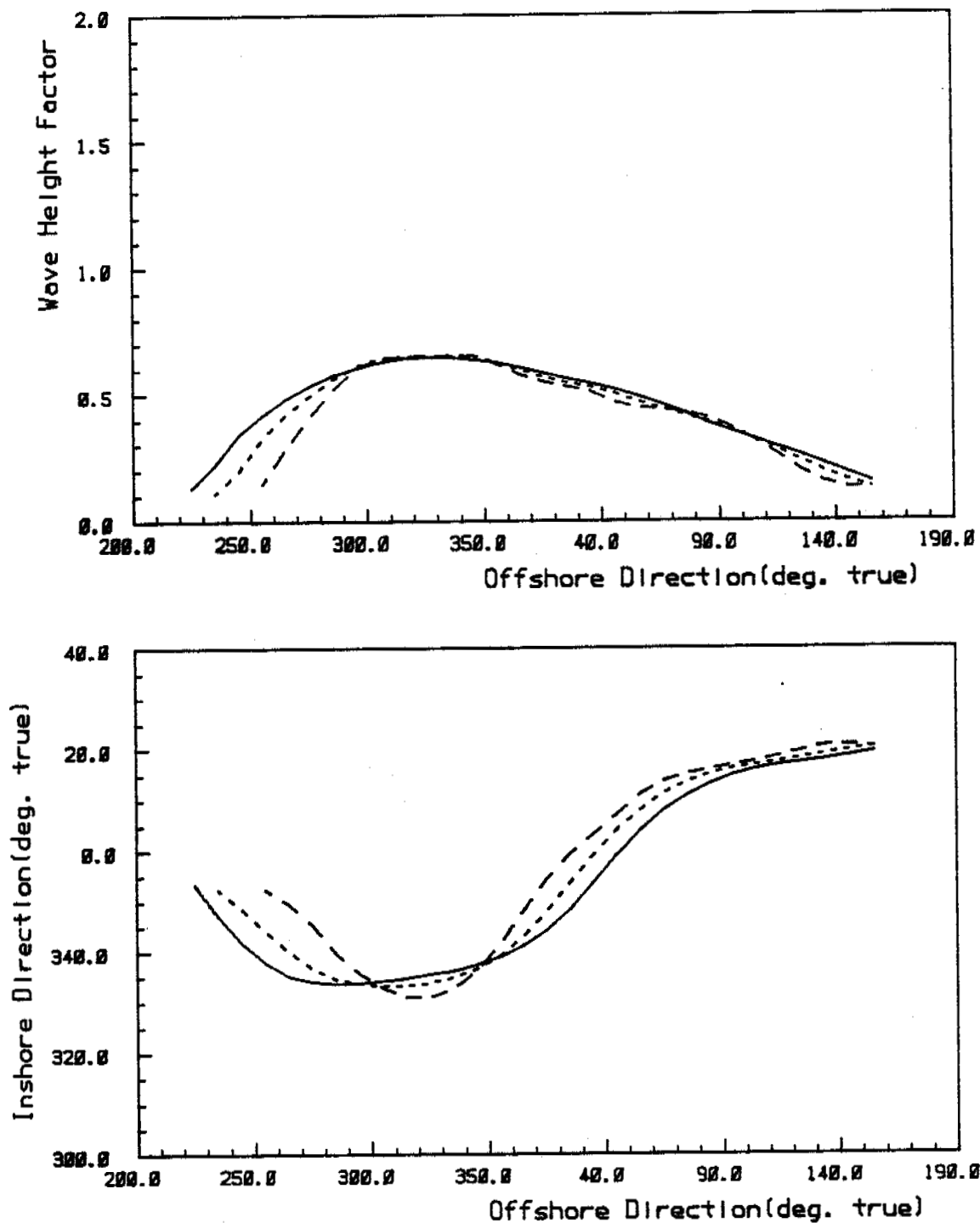
Date: 27 Mar 85

Scales as shown

Key Point: Wave Spectrum Transformation Results for Node
Number 02

Checked by:

Keith Philpott
Consulting Limited



Node No: 2

Spreading Index:

2

Tide Level: 0.50 m.

4

Peak Period: 7.9 secs

10

BEAUFORT SEA COASTAL SEDIMENT STUDY

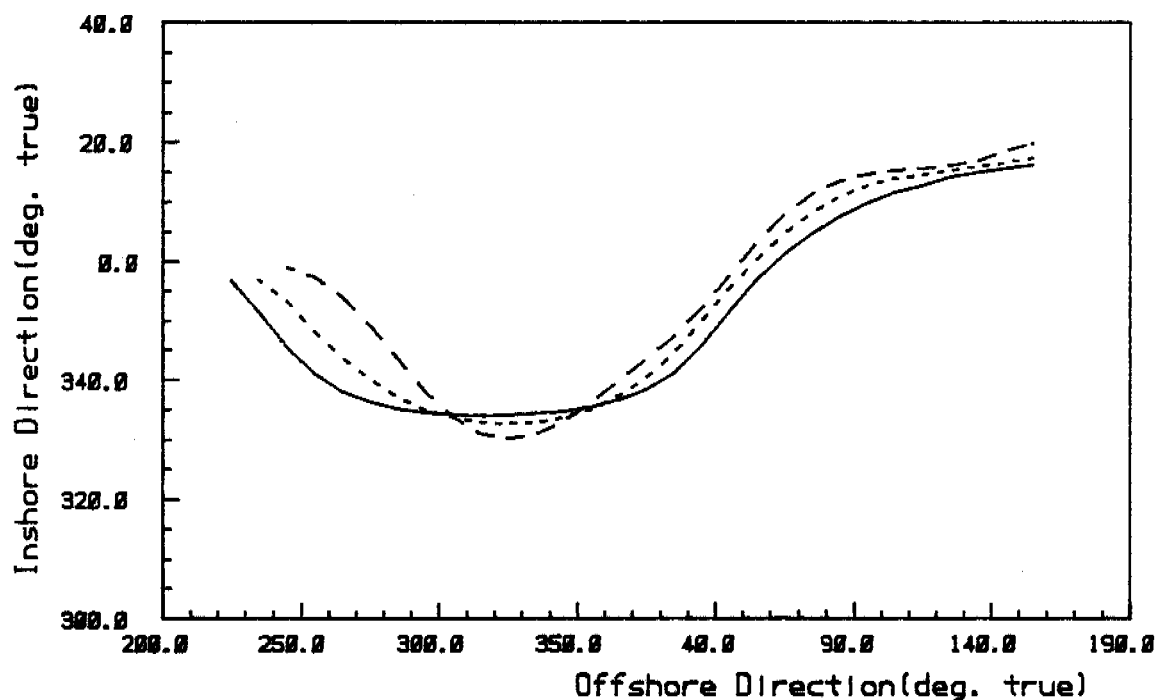
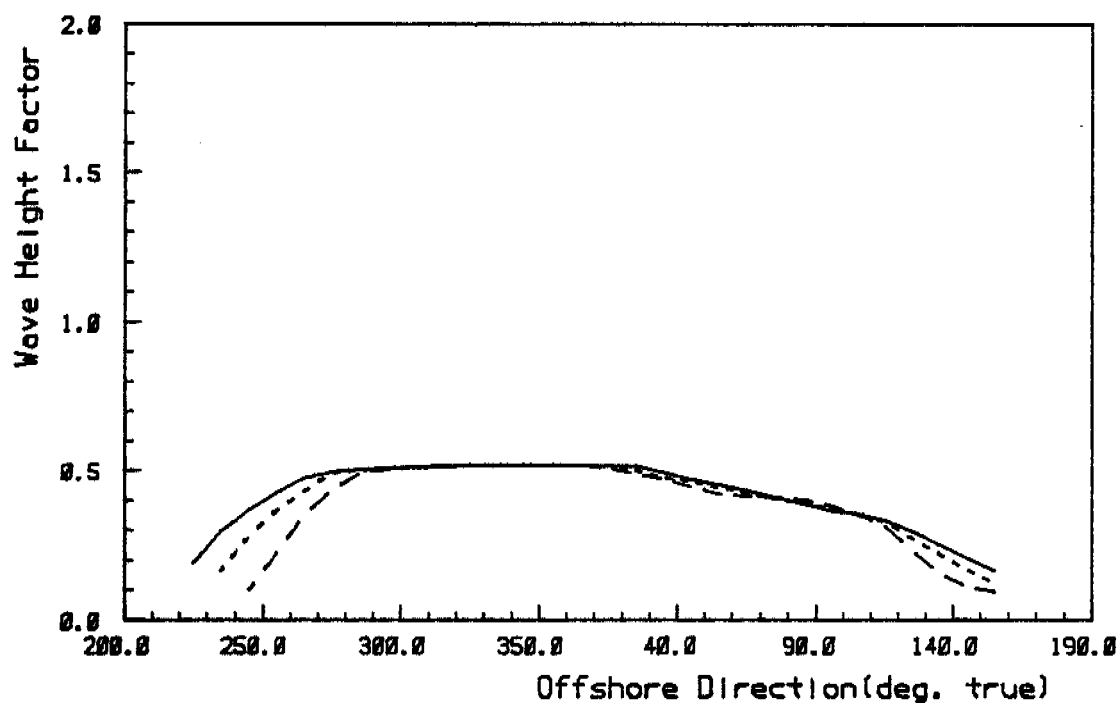
Date: 27 Mar 85

Scales as shown

Checked by:

Keith Philpott
Consulting Limited

Key Point: Wave Spectrum Transformation Results for Node
Number 02



Node No: 2

Spreading Index:

2

Tide Level: 0.50 m.

4

Peak Period: 10.0 secs

10

BEAUFORT SEA COASTAL SEDIMENT STUDY

Date: 27 Mar 85

Scales as shown

Key Point: Wave Spectrum Transformation Results for Node
Number 02

Checked by:

Keith Philpott
Consulting Limited

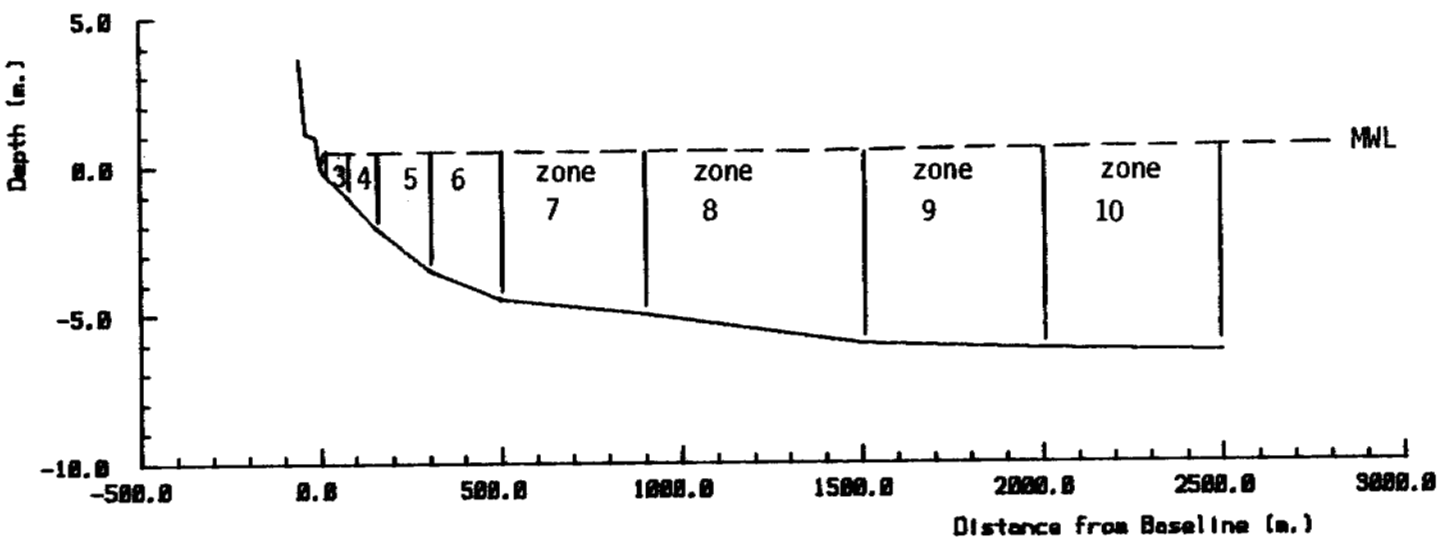
BEAUFORT SEA COASTAL SEDIMENT STUDY

ALONGSHORE SEDIMENT TRANSPORT RESULTS

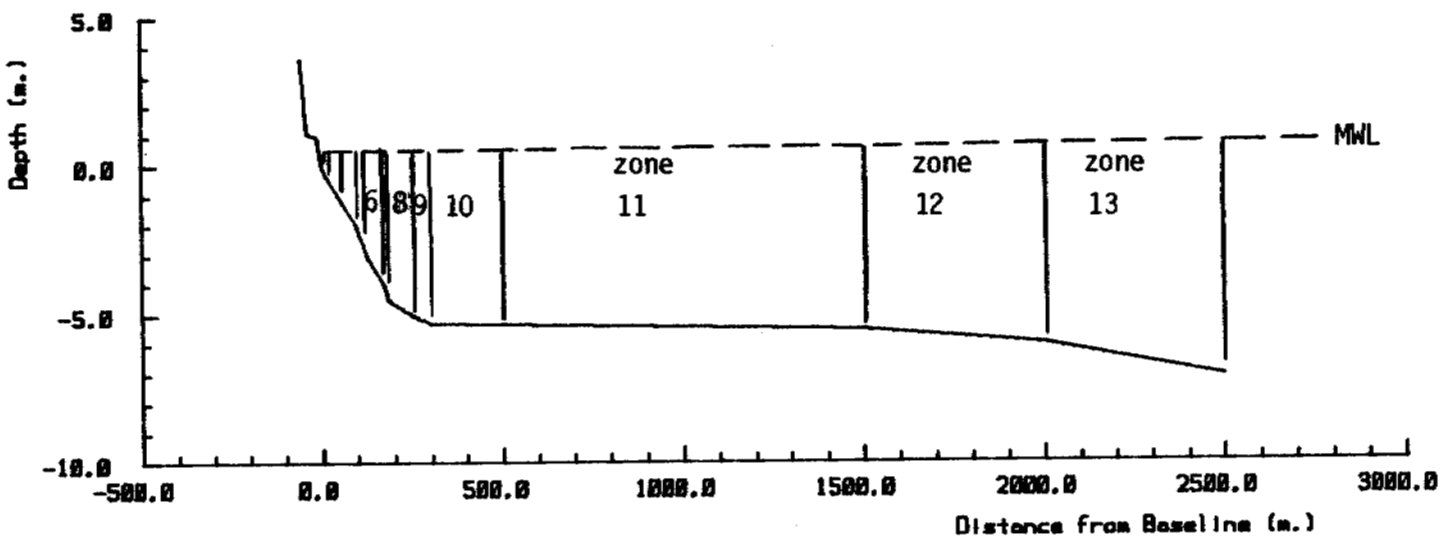
FOURTEEN YEAR AVERAGES

(1970 - 1983)

KEITH PHILPOTT CONSULTING LTD.
P.O. Box 938
THORNHILL
ONTARIO L3T 4A5



(a) Profile at Node 1



(b) Profile at Node 2

BEAUFORT SEA COASTAL SEDIMENT STUDY

Key Point: Beach Profiles used in Sediment Transport Predictions

Date: 15 Mar 85
 Scales as shown
 Checked by:
 Keith Philpott
 Consulting Limited

BEAUFORT SEA COASTAL SEDIMENT STUDY

Current date is 02/27/85

Current time is 17:45:45.45

14 YEAR AVERAGE SEDIMENT TRANSPORT HINDCAST

WAVE DATA IS HINDCAST FROM TUKTOYAKTUK N.W.T. WINDS

This run used the following sediment transport models

- 1 CERC formula
- 2 Queen's modified CERC (March 1983)
- 3 Swart modified CERC
- 4 Bijker formula
- 5 Engelund and Hansen (by Swart)
- 7 Swart model
- 8 Willis model
- 9 Van Der Graaf and Overeen model
- 10 Nielsen model (breaking waves)
- 11 Nielsen model (non breaking waves)
- 12 Fleming model
- 13 Swart and Lenhoff model

KAY POINT NODE 1, MEAN WATER LEVEL

Profile Data

Zone	1	2	3	4	5	6	7	8	9	10
Shoreline O/S to mid-zone	2.6	10.3	47.8	117.8	230.3	485.3	705.3	1205.3	1755.3	2255.3
Sed. Transport Zone Width	5.3	10.0	65.0	75.0	150.0	200.0	400.0	600.0	500.0	500.0
Depth at Centre of Zone	.25	.60	1.10	2.00	3.25	4.50	5.25	6.00	6.60	6.75
Sediment Transport Switch	On	On	On	On	On	On	On	On	On	On

Input Grain Size Distribution (mm)

Zone	D16	D25	D35	D50	D65	D75	D84	D90	
1	.800	1.000	1.100	1.500	2.600	3.700	5.200	6.200	Roughness Based on Ripple Height
2 TO 8	.170	.190	.200	.230	.260	.290	.310	.340	Roughness Based on Ripple Height
9 TO 10	.160	.180	.230	.460	1.200	2.600	4.400	6.200	Roughness Based on Ripple Height

refraction analysis was to a depth of 4.0 meters

beach normal azimuth =306.0 degrees

weighted breaker depth = .64 meters

KAY POINT NODE 2, MEAN WATER LEVEL

Profile Data

Zone	1	2	3	4	5	6	7	8	9	10	11	12	13
Shoreline O/S to mid-zone	2.6	10.3	35.3	80.3	117.8	155.3	185.3	222.8	280.3	405.3	1005.3	1755.3	2255.3
Sed. Transport Zone Width	5.3	10.0	40.0	50.0	25.0	50.0	10.0	65.0	50.0	200.0	1000.0	500.0	500.0
Depth at Centre of Zone	.25	.60	1.10	2.00	3.00	4.00	4.75	5.25	5.65	5.81	5.91	6.25	7.05
Sediment Transport Switch	On	On	On	On	On	On	On	On	On	On	On	On	On

Input Grain Size Distribution (mm)

Zone	D16	D25	D35	D50	D65	D75	D84	D90	
1 to 2	.800	1.000	1.100	1.500	2.600	3.700	5.200	6.200	Roughness Based on Ripple Height
3 to 11	.170	.190	.200	.230	.260	.290	.310	.340	Roughness Based on Ripple Height
12 to 13	.160	.180	.230	.460	1.200	2.600	4.400	6.200	Roughness Based on Ripole Height

refraction analysis was to a depth of 4.0 meters

beach normal azimuth =306.0 degrees

weighted breaker depth = .68 meters

KEY POINT NODE 2, MEAN WATER LEVEL

NEGATIVE SEDIMENT TRANSPORT RATES (counter clockwise wrt. beach normal)

Model	B(1)	B(2)	B(3)	B(4)	B(5)	B(6)	B(7)	B(8)	B(9)	B(10)	B(11)	B(12)	B(13)	Total Transport(cu.m./yr.)
1														.6907E+05
2														.2884E+05
3														.5843E+05
4	.0000E+00	.0000E+00	.1405E+03	.3049E+02	.2541E+01	.1853E-10	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.7207E+04
5	.0655E+02	.3790E+03	.1258E+04	.2713E+03	.2302E+02	.1560E+01	.2343E+00	.6808E-01	.2442E-01	.1590E-01	.1209E-01	.0000E+00	.0000E+00	.6802E+05
7	.0000E+00	.0000E+00	.1277E+04	.4365E+03	.2005E+02	.2391E+00	.1310E-02	.7576E-05	.1020E-00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.7360E+05
8	.1945E+03	.3955E+03	.3919E+04	.9895E+03	.9426E+02	.9538E+01	.1825E+01	.5707E+00	.4515E+00	.4135E+00	.3920E+00	.0000E+00	.0000E+00	.2146E+06
9	.2579E+02	.6805E+02	.5054E+04	.1156E+04	.8309E+02	.3833E+01	.4822E+00	.1265E+00	.4176E-01	.2632E-01	.1962E-01	.0000E+00	.0000E+00	.2630E+06
10	.0838E+01	.1994E+02	.1687E+03	.3341E+02	.4129E+01	.4271E+00	.6697E-01	.1927E-01	.7842E-02	.4639E-02	.3559E-02	.0000E+00	.0000E+00	.8797E+04
11	.3872E+01	.0103E+01	.1387E+03	.3527E+02	.4336E+01	.4266E+00	.6609E-01	.1924E-01	.7033E-02	.4633E-02	.3554E-02	.0000E+00	.0000E+00	.7552E+04
12	.2754E+02	.5323E+02	.7255E+03	.1416E+03	.1823E+02	.6720E+00	.7878E-01	.1931E-01	.1520E-01	.1400E-01	.1320E-01	.0000E+00	.0000E+00	.3709E+05
13	.0977E+01	.2917E+02	.2627E+04	.5830E+03	.3701E+02	.1255E+01	.1305E+00	.2870E-01	.2027E-01	.1779E-01	.1643E-01	.0000E+00	.0000E+00	.1356E+06
=====														
MEAN	.3957E+02	.1051E+03	.1701E+04	.4006E+03	.3185E+02	.1995E+01	.3207E+00	.9465E-01	.6304E-01	.5520E-01	.5117E-01	.0000E+00	.0000E+00	.8038E+05
S.D.	.6487E+02	.1614E+03	.1708E+04	.4243E+03	.3445E+02	.3857E+01	.5836E+00	.1829E+00	.1463E+00	.1347E+00	.1200E+00	.0000E+00	.0000E+00	.8335E+05

KAY POINT NODE 2, MEAN WATER LEVEL

CUMULATIVE DISTRIBUTION OF NET SEDIMENT TRANSPORT (cu.m./yr.)

Model	B(1)	B(2)	B(3)	B(4)	B(5)	B(6)	B(7)	B(8)	B(9)	B(10)	B(11)	B(12)	B(13)
4	.0000E+00	.0000E+00	-.5619E+04	-.7143E+04	-.7207E+04	-.7207E+04	-.7207E+04	-.7207E+04	-.7207E+04	-.7207E+04	-.7207E+04	-.7207E+04	-.7207E+04
5	-.4564E+03	-.4246E+04	-.5450E+05	-.6014E+05	-.6872E+05	-.6800E+05	-.6800E+05	-.6800E+05	-.6800E+05	-.6801E+05	-.6802E+05	-.6802E+05	-.6802E+05
7	.0000E+00	.0000E+00	-.5186E+05	-.7289E+05	-.7359E+05	-.7360E+05	-.7360E+05	-.7360E+05	-.7360E+05	-.7360E+05	-.7360E+05	-.7360E+05	-.7360E+05
8	-.1026E+04	-.4901E+04	-.1610E+06	-.2112E+06	-.2136E+06	-.2141E+06	-.2141E+06	-.2141E+06	-.2141E+06	-.2142E+06	-.2146E+06	-.2146E+06	-.2146E+06
9	-.1360E+03	-.7445E+03	-.2029E+06	-.2687E+06	-.2628E+06	-.2630E+06	-.2630E+06	-.2630E+06	-.2630E+06	-.2630E+06	-.2630E+06	-.2630E+06	-.2630E+06
10	-.4660E+02	-.2400E+03	-.6995E+04	-.8666E+04	-.8789E+04	-.8790E+04	-.8791E+04	-.8792E+04	-.8792E+04	-.8793E+04	-.8797E+04	-.8797E+04	-.8797E+04
11	-.2042E+02	-.1022E+03	-.5652E+04	-.7415E+04	-.7524E+04	-.7545E+04	-.7546E+04	-.7547E+04	-.7547E+04	-.7548E+04	-.7552E+04	-.7552E+04	-.7552E+04
12	-.1452E+03	-.6775E+03	-.2970E+05	-.3678E+05	-.3703E+05	-.3707E+05	-.3707E+05	-.3707E+05	-.3707E+05	-.3707E+05	-.3709E+05	-.3709E+05	-.3709E+05
13	-.4733E+02	-.3390E+03	-.1054E+06	-.1346E+06	-.1355E+06	-.1356E+06	-.1356E+06	-.1356E+06	-.1356E+06	-.1356E+06	-.1356E+06	-.1356E+06	-.1356E+06
=====													
MEAN-	.2006E+03	-.1260E+04	-.6930E+05	-.8973E+05	-.9052E+05	-.9062E+05	-.9063E+05	-.9063E+05	-.9063E+05	-.9065E+05	-.9070E+05	-.9070E+05	-.9070E+05
S.D.	.3378E+03	.1929E+04	.7229E+05	.9336E+05	.9419E+05	.9431E+05	.9431E+05	.9432E+05	.9432E+05	.9434E+05	.9441E+05	.9441E+05	.9441E+05

KAY POINT NODE 2, MEAN WATER LEVEL

PERCENTAGE DISTRIBUTION OF NET SEDIMENT TRANSPORT

[illegible]

RESULTS OF ALL WAVE CONDITIONS

KAY POINT NODE 1, MEAN WATER LEVEL

GROSS SEDIMENT TRANSPORT RATES (cu.m./m./yr)

Model	B(1)	B(2)	B(3)	B(4)	B(5)	B(6)	B(7)	B(8)	B(9)	B(10)	Total Transport(cu.m./yr.)
1											.5978E+05
2											.1257E+05
3											.6525E+05
4	.0000E+00	.0210E+02	.1077E+03	.1955E+02	.2707E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.9329E+04
5	.7796E+02	.1338E+04	.1013E+04	.2019E+03	.0308E+01	.3002E+00	.4433E-01	.5601E-02	.0000E+00	.0000E+00	.9610E+03
7	.0000E+00	.3620E+03	.0922E+03	.2644E+03	.4096E+01	.2750E-02	.6069E-06	.0000E+00	.0000E+00	.0000E+00	.0210E+05
8	.1763E+03	.3010E+04	.3038E+04	.7078E+03	.3616E+02	.2146E+01	.5079E+00	.3336E+00	.0000E+00	.0000E+00	.2079E+06
9	.2304E+02	.4006E+04	.3089E+04	.7994E+03	.2475E+02	.6282E+00	.7951E-01	.0612E-02	.0000E+00	.0000E+00	.3568E+06
10	.7759E+01	.3426E+03	.1452E+03	.2704E+02	.1903E+01	.0645E-01	.1272E-01	.1719E-02	.0000E+00	.0000E+00	.1530E+05
11	.3419E+01	.1607E+03	.1213E+03	.2920E+02	.1901E+01	.0635E-01	.1271E-01	.1717E-02	.0000E+00	.0000E+00	.1209E+05
12	.2474E+02	.0579E+03	.5079E+03	.1047E+03	.3411E+01	.9093E-01	.1705E-01	.1176E-01	.0000E+00	.0000E+00	.5532E+05
13	.7973E+01	.1909E+04	.1972E+04	.3060E+03	.9449E+01	.1693E+00	.2455E-01	.1314E-01	.0000E+00	.0000E+00	.1778E+06

MEAN	.3569E+02	.1342E+04	.1307E+04	.2024E+03	.1012E+02	.3909E+00	.7773E-01	.4179E-01	.0000E+00	.0000E+00	.1025E+06
S.D.	.5007E+02	.1305E+04	.1373E+04	.2949E+03	.1225E+02	.6063E+00	.1632E+00	.1095E+00	.0000E+00	.0000E+00	.1141E+06

KAY POINT NODE 1, MEAN WATER LEVEL

NET SEDIMENT TRANSPORT RATES (cu.ft./yr.)

Model	B (1)	B (2)	B (3)	B (4)	B (5)	B (6)	B (7)	B (8)	B (9)	B (10)	Total Transport (cu.m./yr.)
1											- .5978E+05
2											- .1257E+05
3											- .6510E+05
4	.0000E+00	-.8210E+02	-.1077E+03	-.1955E+02	-.2787E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	-.9329E+04
5	-.7796E+02	-.1338E+04	-.1013E+04	-.2019E+03	-.8308E+01	-.3002E+00	-.4433E-01	-.5601E-02	.0000E+00	.0000E+00	-.9610E+05
7	.0000E+00	-.3620E+03	-.0922E+03	-.2644E+03	-.4096E+01	-.2750E-02	-.6069E-06	.0000E+00	.0000E+00	.0000E+00	-.8210E+05
8	-.1763E+03	-.3810E+04	-.3038E+04	-.7079E+03	-.3616E+02	-.2146E+01	-.5079E+00	-.3336E+00	.0000E+00	.0000E+00	-.2879E+06
9	-.2304E+02	-.4006E+04	-.3089E+04	-.7994E+03	-.2475E+02	-.6202E+00	-.7951E-01	-.8612E-02	.0000E+00	.0000E+00	-.3568E+06
10	-.7759E+01	-.3426E+03	-.1452E+03	-.2704E+02	-.1903E+01	-.8645E-01	-.1272E-01	-.1719E-02	.0000E+00	.0000E+00	-.1530E+05
11	-.3419E+01	-.1607E+03	-.1213E+03	-.2920E+02	-.1901E+01	-.8635E-01	-.1271E-01	-.1717E-02	.0000E+00	.0000E+00	-.1209E+05
12	-.2474E+02	-.0579E+03	-.5079E+03	-.1047E+03	-.3411E+01	-.9093E-01	-.1705E-01	-.1176E-01	.0000E+00	.0000E+00	-.5532E+05
13	-.7973E+01	-.1909E+04	-.1972E+04	-.3860E+03	-.9449E+01	-.1693E+00	-.2455E-01	-.1314E-01	.0000E+00	.0000E+00	-.1778E+06

MEAN-	.3569E+02	-.1342E+04	-.1307E+04	-.2024E+03	-.1012E+02	-.3909E+00	-.7773E-01	-.4179E-01	.0000E+00	.0000E+00	-.1025E+06
S.D.	.5007E+02	.1305E+04	.1373E+04	.2949E+03	.1225E+02	.6063E+00	.1632E+00	.1095E+00	.0000E+00	.0000E+00	.1141E+06

KAY POINT NODE 1, MEAN WATER LEVEL

POSITIVE SEDIMENT TRANSPORT RATES (clockwise wrt. beach normal)

[illegible]

KP-38

KAY POINT NODE 1, MEAN WATER LEVEL

NEGATIVE SEDIMENT TRANSPORT RATES (counter clockwise wrt. beach normal)

Model	B(1)	B(2)	B(3)	B(4)	B(5)	B(6)	B(7)	B(8)	B(9)	B(10)	Total Transport (cu.m./yr.)
1											.5978E+05
2											.1257E+05
3											.6510E+05
4	.0000E+00	.0210E+02	.1077E+03	.1955E+02	.2787E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.9329E+04
5	.7796E+02	.1338E+04	.1013E+04	.2019E+03	.8308E+01	.3002E+00	.4433E-01	.5601E-02	.0000E+00	.0000E+00	.9610E+05
7	.0000E+00	.3620E+03	.0922E+03	.2644E+03	.4096E+01	.2750E-02	.6069E-06	.0000E+00	.0000E+00	.0000E+00	.0210E+05
8	.1763E+03	.3010E+04	.3030E+04	.7078E+03	.3616E+02	.2146E+01	.5079E+00	.3336E+00	.0000E+00	.0000E+00	.2879E+06
9	.2304E+02	.4006E+04	.3009E+04	.7994E+03	.2475E+02	.6282E+00	.7951E-01	.0612E-02	.0000E+00	.0000E+00	.3568E+06
10	.7759E+01	.3426E+03	.1452E+03	.2704E+02	.1903E+01	.0645E-01	.1272E-01	.1719E-02	.0000E+00	.0000E+00	.1530E+05
11	.3419E+01	.1607E+03	.1213E+03	.2920E+02	.1901E+01	.0635E-01	.1271E-01	.1717E-02	.0000E+00	.0000E+00	.1209E+05
12	.2474E+02	.0579E+03	.5079E+03	.1047E+03	.3411E+01	.9893E-01	.1705E-01	.1176E-01	.0000E+00	.0000E+00	.5532E+05
13	.7973E+01	.1909E+04	.1972E+04	.3060E+03	.9449E+01	.1693E+00	.2455E-01	.1314E-01	.0000E+00	.0000E+00	.1778E+06

MEAN	.3569E+02	.1342E+04	.1307E+04	.2024E+03	.1012E+02	.3909E+00	.7773E-01	.4179E-01	.0000E+00	.0000E+00	.1025E+06
S.D.	.5007E+02	.1305E+04	.1373E+04	.2949E+03	.1225E+02	.6063E+00	.1632E+00	.1095E+00	.0000E+00	.0000E+00	.1141E+06

KAY POINT NODE 1, MEAN WATER LEVEL

CUMULATIVE DISTRIBUTION OF NET SEDIMENT TRANSPORT (cu.m./yr.)

Model	B(1)	B(2)	B(3)	B(4)	B(5)	B(6)	B(7)	B(8)	B(9)	B(10)
4	.0000E+00	-.0210E+03	-.7821E+04	-.9207E+04	-.9329E+04	-.9329E+04	-.9329E+04	-.9329E+04	-.9329E+04	-.9329E+04
5	-.4110E+03	-.1379E+05	-.7963E+05	-.9477E+05	-.9602E+05	-.9600E+05	-.9609E+05	-.9610E+05	-.9610E+05	-.9610E+05
7	.0000E+00	-.3620E+04	-.6161E+05	-.8145E+05	-.8218E+05	-.8218E+05	-.8218E+05	-.8218E+05	-.8218E+05	-.8218E+05
8	-.9297E+03	-.3103E+05	-.2205E+06	-.2016E+06	-.2070E+06	-.2075E+06	-.2077E+06	-.2079E+06	-.2079E+06	-.2079E+06
9	-.1215E+03	-.4010E+05	-.2929E+06	-.3529E+06	-.3566E+06	-.3567E+06	-.3568E+06	-.3568E+06	-.3568E+06	-.3568E+06
10	-.4091E+02	-.3466E+04	-.1290E+05	-.1499E+05	-.1520E+05	-.1529E+05	-.1530E+05	-.1530E+05	-.1530E+05	-.1530E+05
11	-.1803E+02	-.1705E+04	-.9591E+04	-.1170E+05	-.1207E+05	-.1200E+05	-.1209E+05	-.1209E+05	-.1209E+05	-.1209E+05
12	-.1305E+03	-.0709E+04	-.4692E+05	-.5477E+05	-.5520E+05	-.5530E+05	-.5531E+05	-.5532E+05	-.5532E+05	-.5532E+05
13	-.4204E+02	-.1913E+05	-.1473E+06	-.1763E+06	-.1777E+06	-.1777E+06	-.1778E+06	-.1778E+06	-.1778E+06	-.1778E+06

MEAN	-.1002E+03	-.1361E+05	-.9050E+05	-.1190E+06	-.1213E+06	-.1214E+06	-.1214E+06	-.1214E+06	-.1214E+06	-.1214E+06
S.D.	.3062E+03	.1402E+05	.1030E+06	.1250E+06	.1266E+06	.1267E+06	.1268E+06	.1268E+06	.1268E+06	.1268E+06

KAY POINT NODE 1, MEAN WATER LEVEL

PERCENTAGE DISTRIBUTION OF NET SEDIMENT TRANSPORT

Model	B(1)	B(2)	B(3)	B(4)	B(5)	B(6)	B(7)	B(8)	B(9)	B(10)
4	.00	39.16	51.37	9.33	.13	.00	.00	.00	.00	.00
5	2.95	50.69	38.38	7.65	.31	.01	.00	.00	.00	.00
7	.00	23.76	50.56	17.36	.32	.00	.00	.00	.00	.00
8	2.53	43.17	43.50	10.15	.52	.03	.01	.00	.00	.00
9	.26	45.02	44.40	9.14	.20	.01	.00	.00	.00	.00
10	1.48	65.21	27.63	5.30	.36	.02	.00	.00	.00	.00
11	1.05	51.97	37.37	8.99	.59	.03	.00	.00	.00	.00
12	1.57	54.34	37.24	6.63	.22	.01	.00	.00	.00	.00
13	.19	44.55	46.01	9.03	.22	.00	.00	.00	.00	.00

MEAN	1.11	46.52	42.74	9.29	.33	.01	.00	.00	.00	.00
S.D.	1.11	11.43	8.90	3.39	.14	.00	.00	.00	.00	.00

KAY POINT NODE 2, MEAN WATER LEVEL

.4907E+05

KEY POINT NODE 2, MEAN WATER LEVEL														
NET SEDIMENT TRANSPORT RATES (cu.m./m./yr.)														
Model	B(1)	B(2)	B(3)	B(4)	B(5)	B(6)	B(7)	B(8)	B(9)	B(10)	B(11)	B(12)	B(13)	Total Transport (cu.m./yr.)
1														-6907E+05
2														-2804E+05
3														-5843E+05
4	.0000E+00	.0000E+00	-.1405E+03	-.3849E+02	-.2541E+01	-.1853E-10	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	-.7207E+04
5	-.0655E+02	-.3790E+03	-.1250E+04	-.2713E+03	-.2302E+02	-.1560E+01	-.2343E+00	-.6800E-01	-.2442E-01	-.1590E-01	-.1209E-01	.0000E+00	.0000E+00	-.6802E+05
7	.0000E+00	.0000E+00	-.1277E+04	-.4345E+03	-.2805E+02	-.2391E+00	-.1310E-02	-.7576E-05	-.1028E-08	.0000E+00	.0000E+00	.0000E+00	.0000E+00	-.7360E+05
8	-.1945E+03	-.3955E+03	-.3919E+04	-.9095E+03	-.9426E+02	-.9530E+01	-.1825E-01	-.5707E+00	-.4515E+00	-.4135E+00	-.3920E+00	.0000E+00	.0000E+00	-.2146E+06
9	-.2579E+02	-.6805E+02	-.5854E+04	-.1156E+04	-.3803E+02	-.4822E+00	-.1265E+00	-.4174E-01	-.2632E-01	-.1962E-01	.0000E+00	.0000E+00	.0000E+00	-.2630E+06
10	-.0830E+01	-.1994E+02	-.1607E+03	-.3341E+02	-.4129E+01	-.4271E+00	-.6697E-01	-.1927E-01	-.7042E-02	-.4639E-02	-.3559E-02	.0000E+00	.0000E+00	-.8797E+04
11	-.3872E+01	-.0193E+01	-.1307E+03	-.3527E+02	-.4336E+01	-.4266E+00	-.6809E-01	-.1924E-01	-.7033E-02	-.4633E-02	-.3554E-02	.0000E+00	.0000E+00	-.7552E+04
12	-.2754E+02	-.5323E+02	-.7255E+03	-.1416E+03	-.1623E+02	-.6720E+00	-.7870E-01	-.1520E-01	-.1400E-01	-.1320E-01	.0000E+00	.0000E+00	.0000E+00	-.3709E+05
13	-.0977E+01	-.2917E+02	-.2627E+04	-.5830E+03	-.3701E+02	-.1255E+01	-.1305E+00	-.2870E-01	-.2027E-01	-.1779E-01	-.1643E-01	.0000E+00	.0000E+00	-.1356E+06

MEAN	-.3957E+02	-.1851E+03	-.1701E+04	-.4006E+03	-.3185E+02	-.1995E+01	-.3207E+00	-.9465E-01	-.6304E-01	-.5520E-01	-.5117E-01	.0000E+00	.0000E+00	-.8830E+05
S.D.	.6407E+02	.1614E+03	.1708E+04	.4243E+03	.3445E+02	.3067E+01	.5834E+00	.1829E+00	.1463E+00	.1347E+00	.1200E+00	.0000E+00	.0000E+00	.8335E+05

KAY POINT NOBE 2, MEAN WATER LEVEL

POSITIVE SEDIMENT TRANSPORT RATES (clockwise wrt. beach normal)

[illegible]

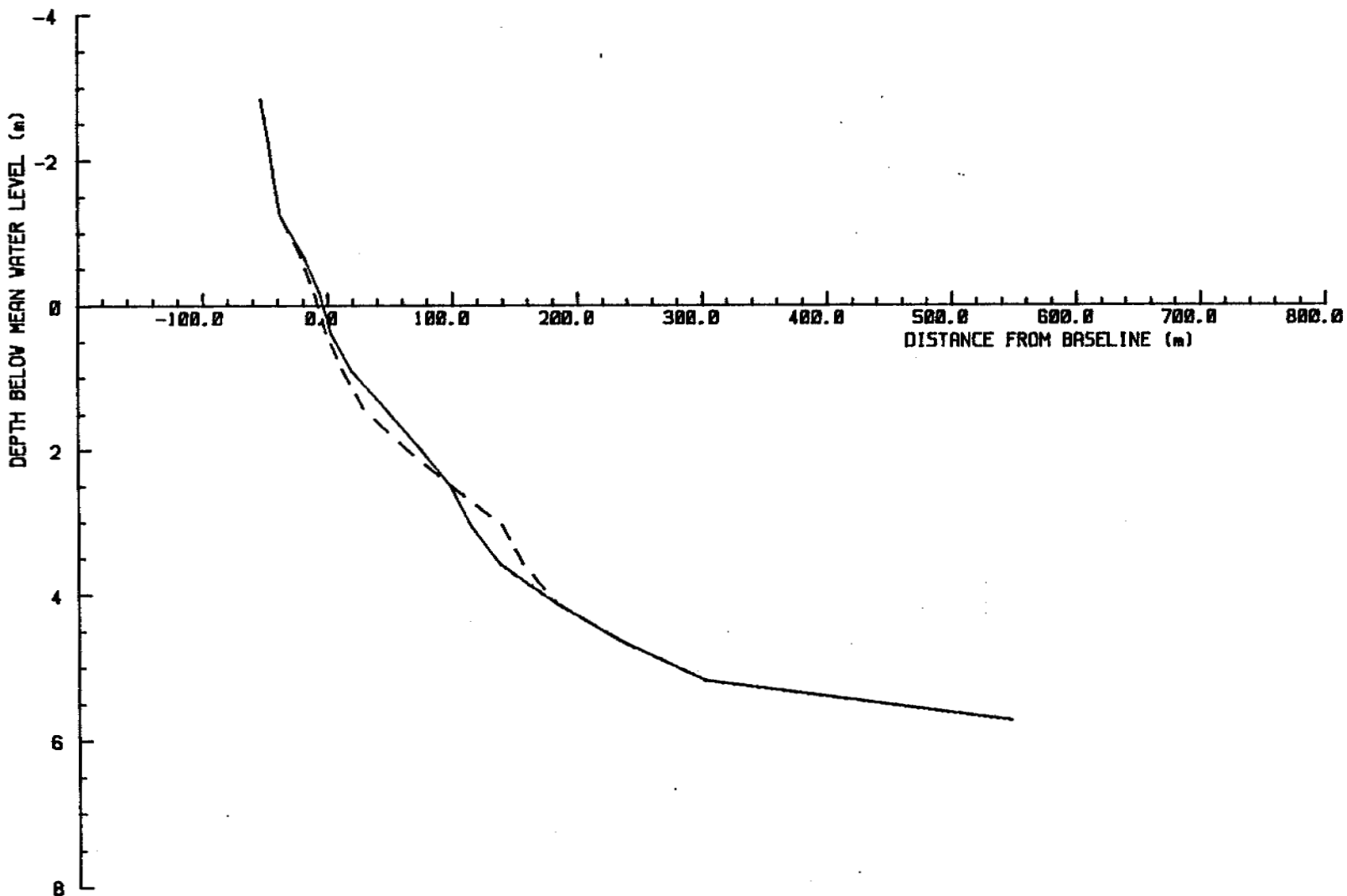
BEAUFORT SEA COASTAL SEDIMENT STUDY

NEARSHORE PROFILE ADJUSTMENT RESULTS - KAY POINT

NODE 2

Calibration Runs and Storm Surge Runs

KEITH PHILPOTT CONSULTING LTD
P.O. BOX 938
THORNHILL
ONTARIO L3T 4A5



LEGEND

———— Initial profile - - - - - End of run profile

CALIBRATION RUN 2

SUPPLEMENTARY DATA

Calibration run for 66 wave conditions
Total time all waves was 1364.0 hours

Shoreline retreat = 4.40 metres

KAY POINT PROFILE ADJUSTMENT

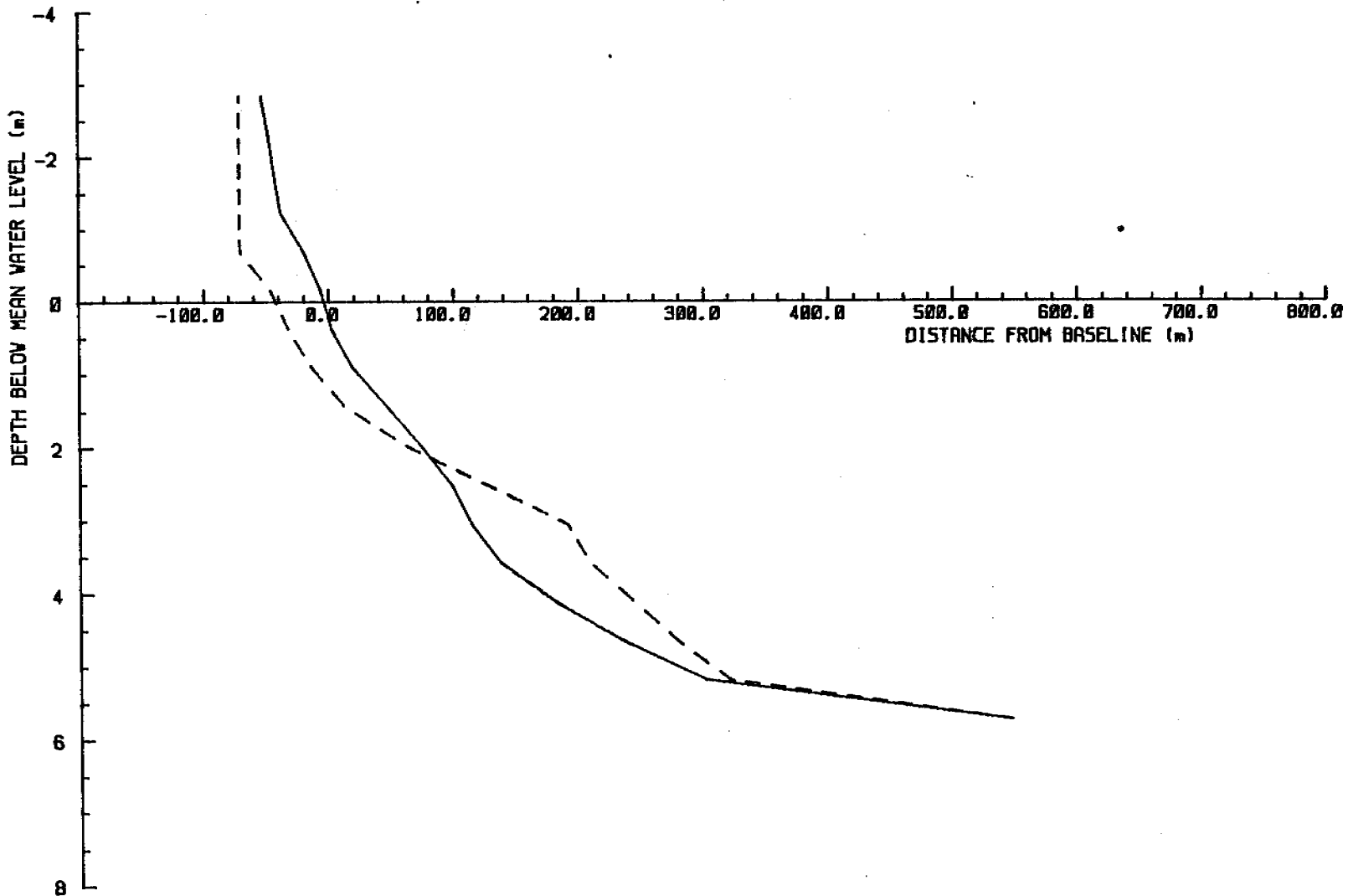
CALIBRATION RUN / WSKAL = 0.7 / MEASURED PROFILE

Date: 24 Apr 85

Scales as shown

Checked by:

Kaith Philippott
Consulting Limited



LEGEND

———— Initial profile - - - - - End of run profile

CALIBRATION RUN 1

SUPPLEMENTARY DATA

Calibration run for 66 wave conditions
Total time all waves was 1364.0 hours

Shoreline retreat = 38.27 metres

KAY POINT PROFILE ADJUSTMENT

CALIBRATION RUN / WSKARL = 1.0 / MEASURED PROFILE

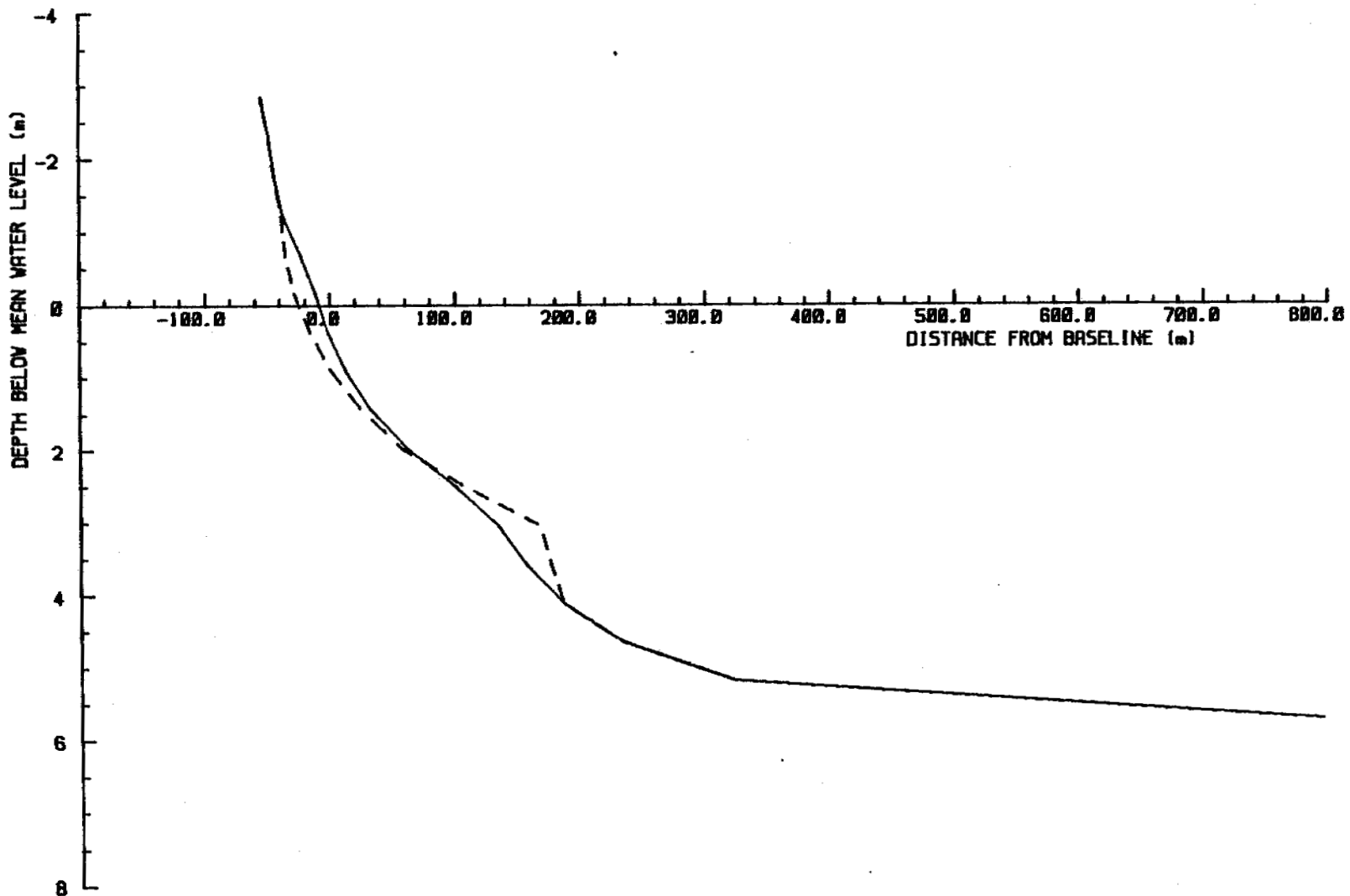
Date: 24 Apr 85

Scales as shown

Checked by:

Kaith Philpott

Consulting Limited



LEGEND

— Initial profile

- - - - - End of run profile

CALIBRATION RUN 3

SUPPLEMENTARY DATA

Calibration run for 66 wave conditions
Total time all waves was 1364.0 hours

Shoreline retreat = 15.69 metres

KAY POINT PROFILE ADJUSTMENT

Date: 24 Apr 85

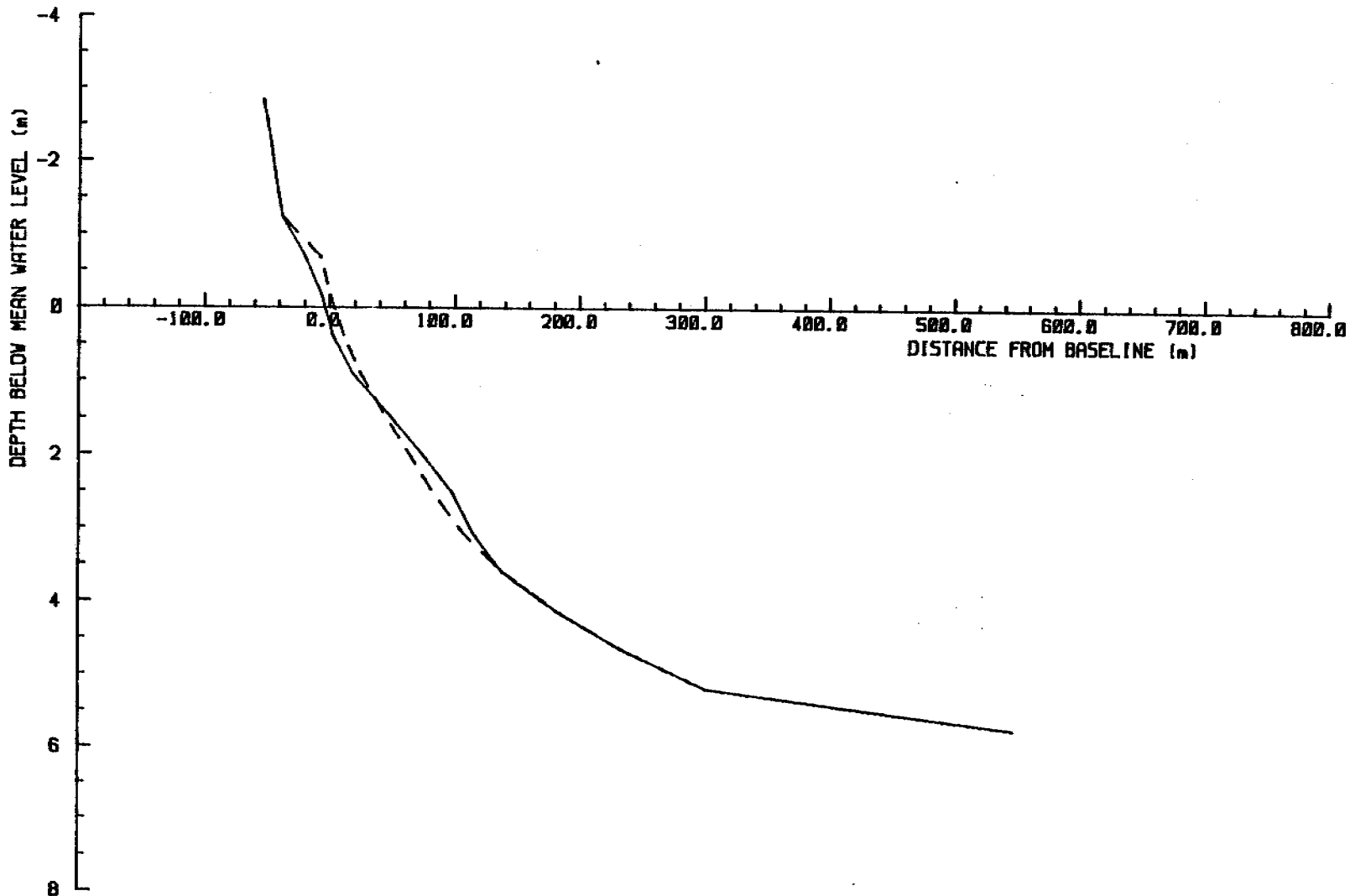
Scales as shown

Checked by:

CALIBRATION RUN / VSKARL = 0.7 / NEW PROFILE

Kaith Philpott

Consulting Limited



LEGEND

———— Initial profile

----- End of run profile

SUPPLEMENTARY DATA

Calibration run for 46 wave conditions
Total time all waves was 46.0 hours

Shoreline advance = 7.65 metres

KAY POINT PROFILE ADJUSTMENT

STORM SURGE RUN / VSKAAL = 0.7 / MEASURED PROFILE

NO SURGE

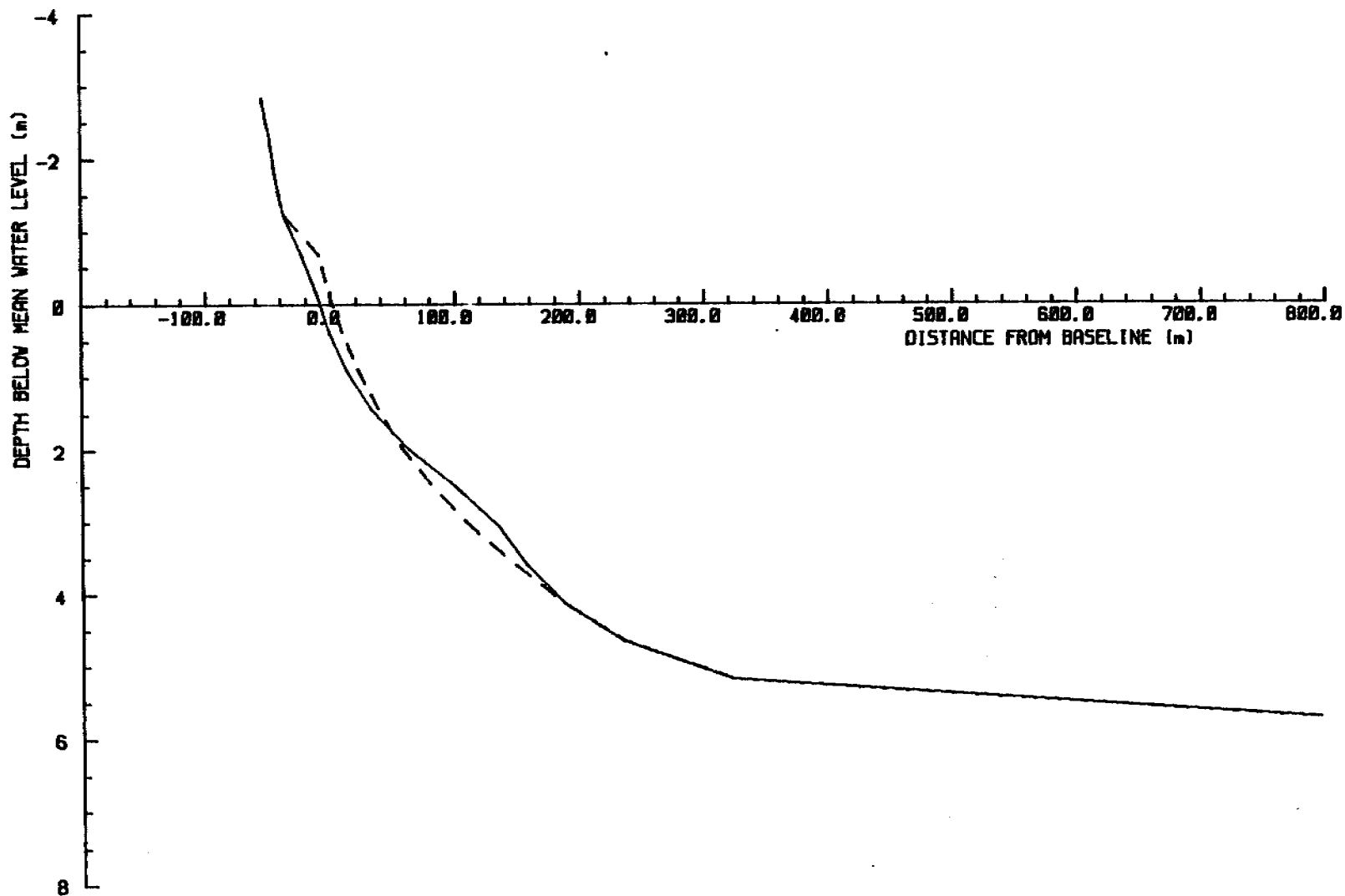
Date: 24 Apr 85

Scales as shown

Checked by:

Keith Philpott

Consulting Limited



LEGEND

———— Initial profile - - - - - End of run profile

SUPPLEMENTARY DATA

Calibration run for 46 wave conditions
Total time all waves was 46.0 hours

Shoreline advance = 10.07 metres

KEY POINT PROFILE ADJUSTMENT

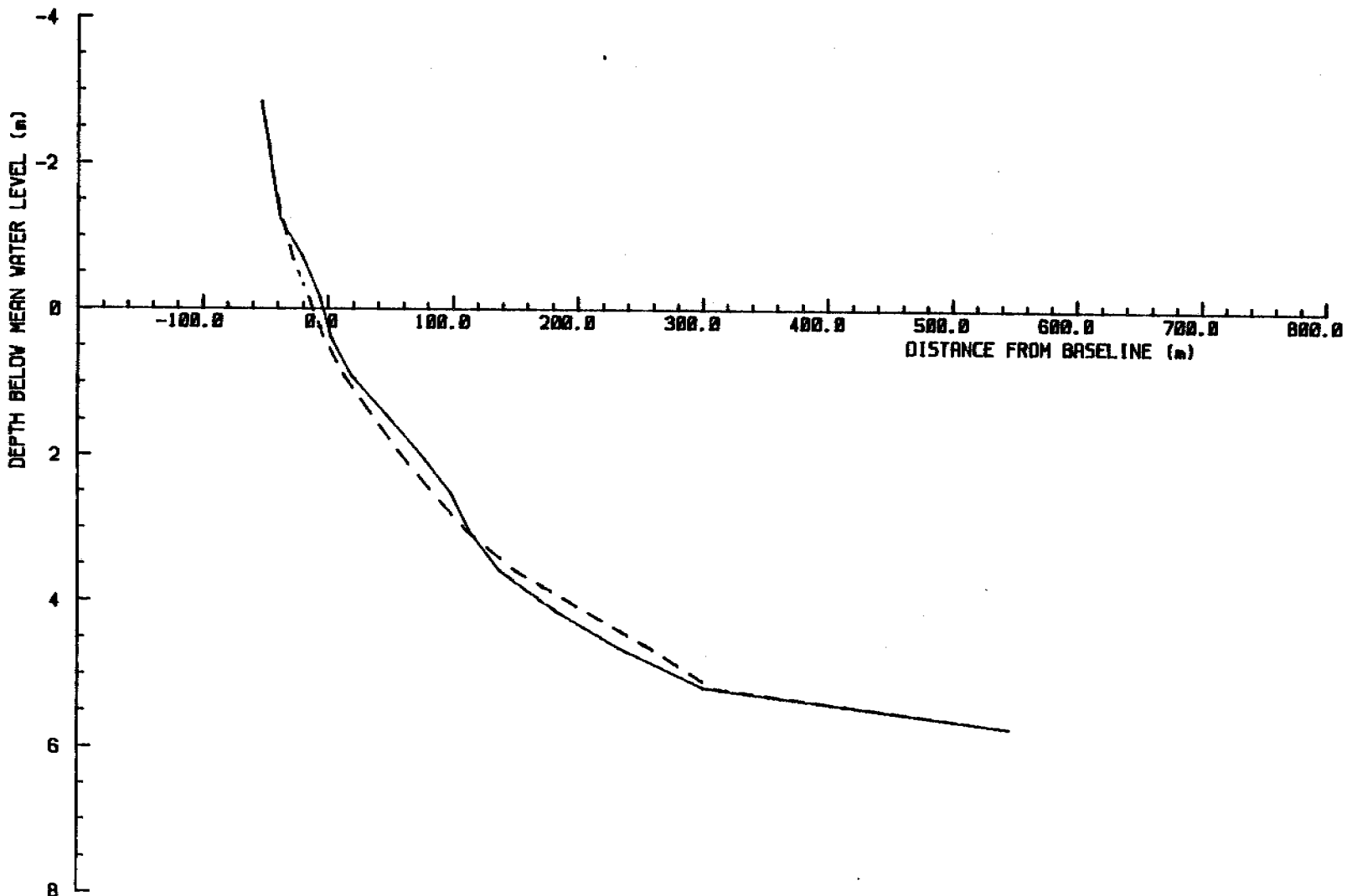
STORM SURGE RUN / WSKARL = 0.7 / NEW PROFILE / NO SURGE

Date: 24 Apr 85

Scales as shown

Checked by:

Kaith Philpott
Consulting Limited



LEGEND

———— Initial profile - - - - - End of run profile

SUPPLEMENTARY DATA

Calibration run for 46 wave conditions
Total time all waves was 46.0 hours

Shoreline retreat = 0.05 metres

KAY POINT PROFILE ADJUSTMENT

STORM SURGE RUN / VSKAAL = 0.7 / MEASURED PROFILE

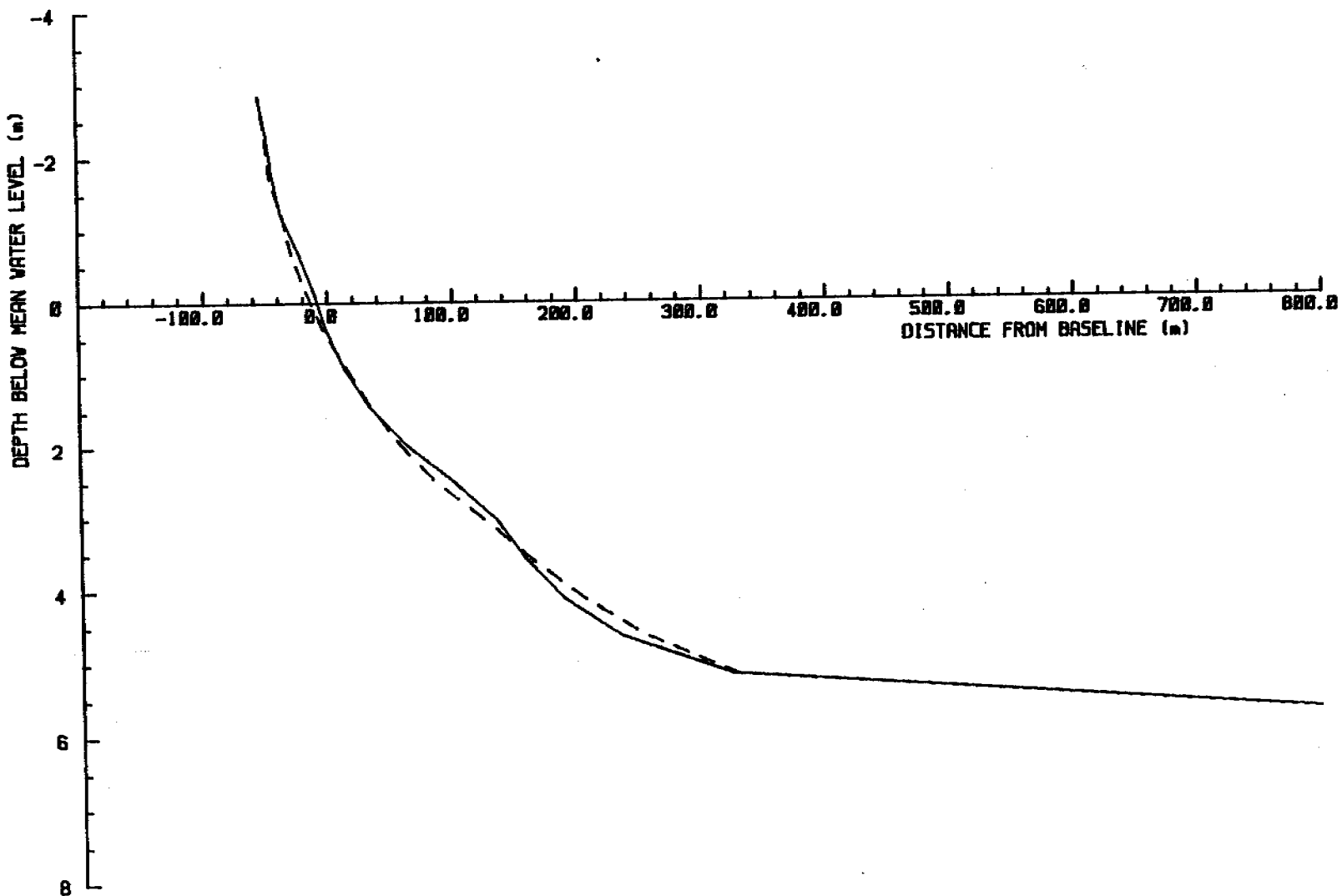
SURGE = 0.5 m

Date: 24 Apr 85

Scales as shown

Checked by:

Keith Philpott
Consulting Limited



LEGEND

———— Initial profile - - - - - End of run profile

SUPPLEMENTARY DATA

Calibration run for 46 wave conditions
Total time all waves was 46.0 hours

Shoreline retreat = 5.07 metres

KEY POINT PROFILE ADJUSTMENT

STORM SURGE RUN / VSKAL = 0.7 / NEW PROFILE

SURGE = 0.5 m

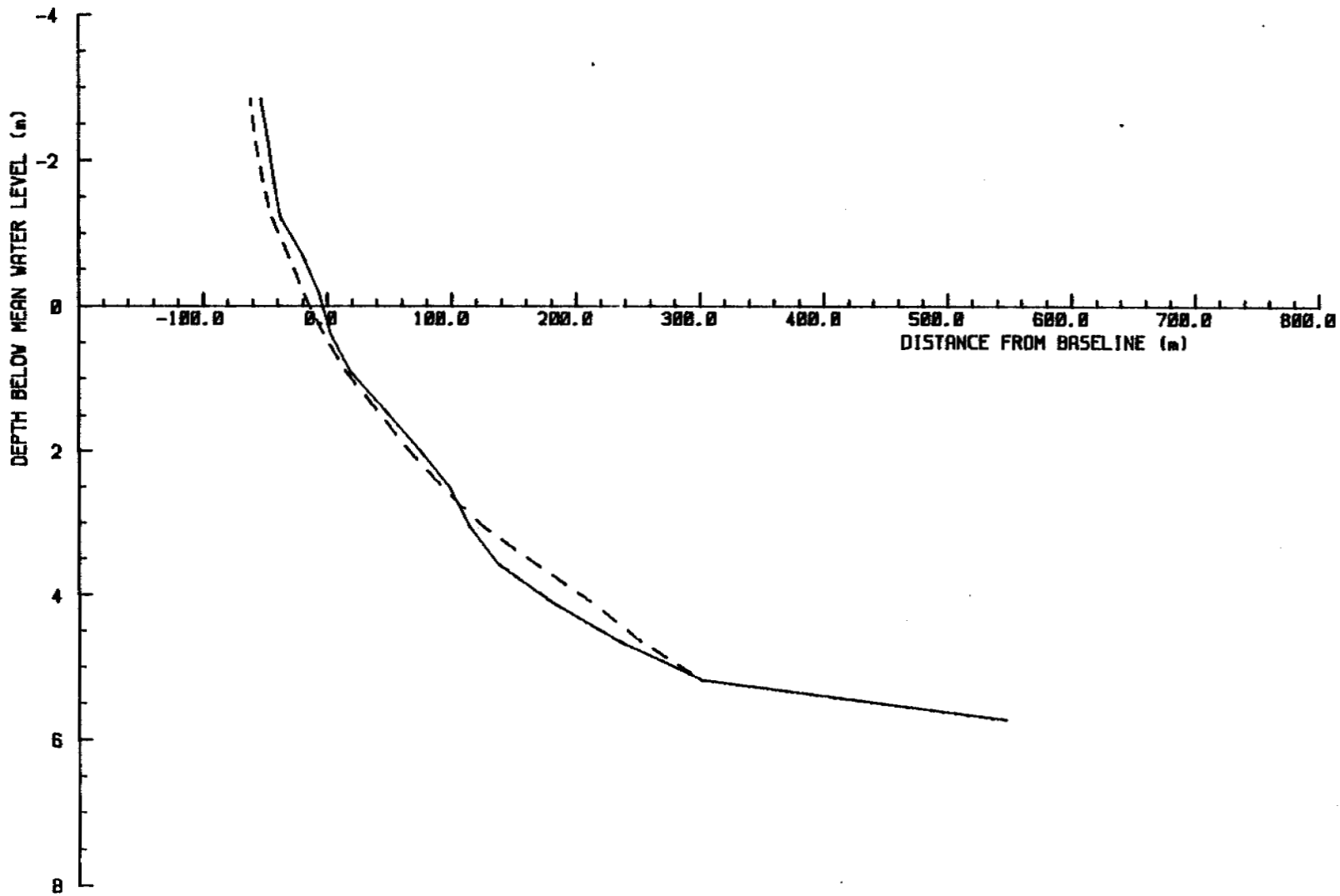
Date: 24 Apr 85

Scales as shown

Checked by:

Kelith Philpott

Consulting Limited



LEGEND

———— Initial profile - - - - - End of run profile

SUPPLEMENTARY DATA

Calibration run for 46 wave conditions
Total time all waves was 46.0 hours

Shoreline retreat = 10.25 metres

KAY POINT PROFILE ADJUSTMENT

SURGE RUN (SCHEMATIZED) / VSKAAL = 0.7 / MEASURED PROFILE

PEAK SURGE = 1.1 m

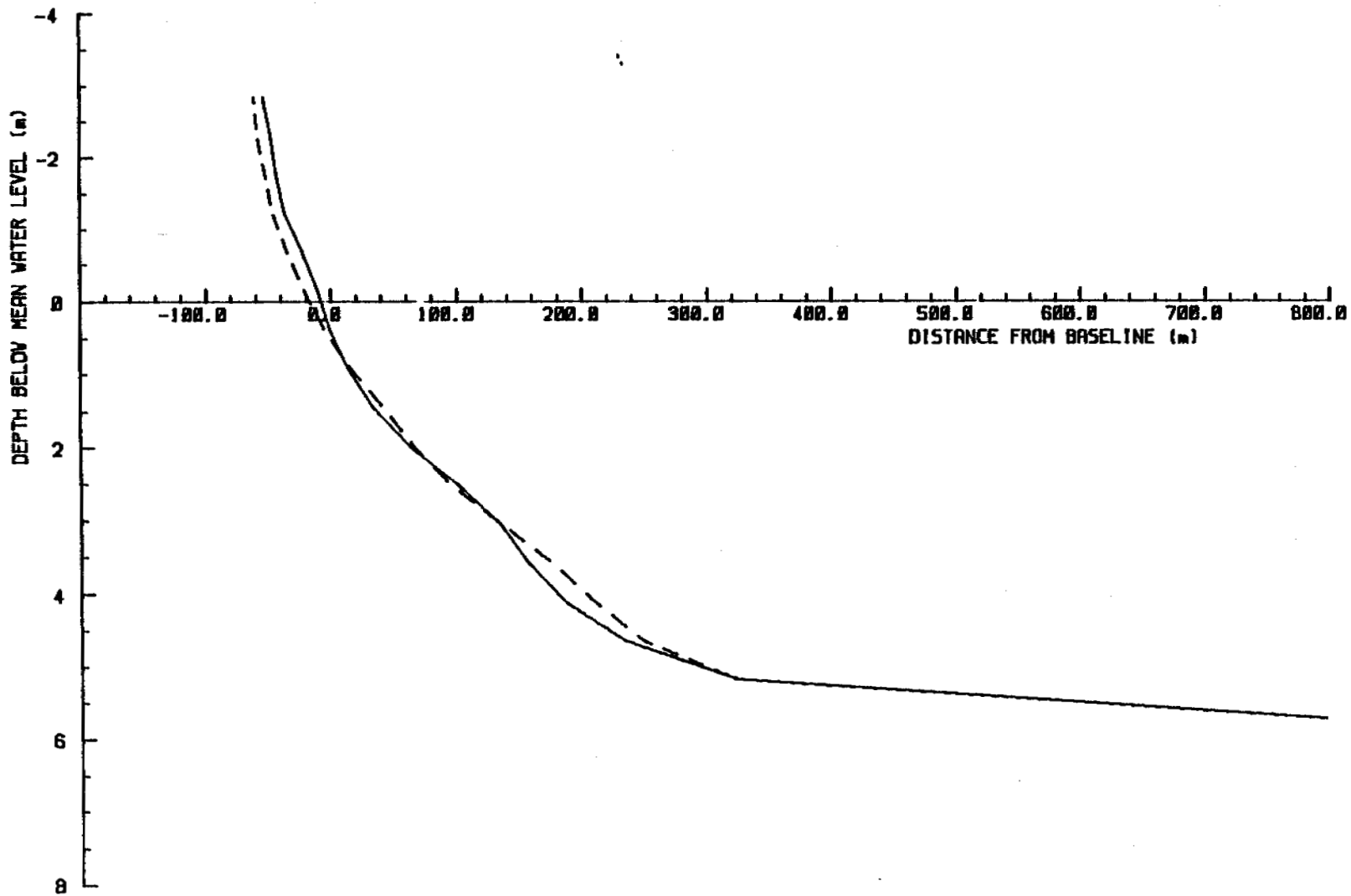
Date: 24 Apr 85

Scales as shown

Checked by:

Kaith Philippott

Consulting Limited



LEGEND

———— Initial profile - - - - - End of run profile

SUPPLEMENTARY DATA

Calibration run for 48 wave conditions
Total time all waves was 46.8 hours

Shoreline retreat = 8.97 metres

KEY POINT PROFILE ADJUSTMENT

SURGE RUN (SCHEMATIZED) / VSKAAL = 0.7 / NEW PROFILE

PEAK SURGE = 1.1 m

Date: 24 Apr 85

Scales as shown

Checked by:

Kalith Philpott
Consulting Limited

KAY POINT
Storm Wave Climate for Nearshore
Profile Adjustment Runs

Hs(m)	Tp(s)	HH	DD/MM/YY
.37	3.87	23	31/ 8/72
.56	3.67	8	1/ 9/72
.69	4.86	1	1/ 9/72
.76	4.33	2	1/ 9/72
.80	4.48	3	1/ 9/72
.59	3.82	4	1/ 9/72
.55	3.78	5	1/ 9/72
.26	2.96	6	1/ 9/72
.17	2.91	7	1/ 9/72
.53	3.45	9	1/ 9/72
.84	4.44	10	1/ 9/72
.93	4.73	11	1/ 9/72
.97	4.88	12	1/ 9/72
.77	4.23	13	1/ 9/72
.79	4.42	14	1/ 9/72
.79	4.49	15	1/ 9/72
.81	4.52	16	1/ 9/72
.81	4.55	17	1/ 9/72
.47	3.81	18	1/ 9/72
.48	3.79	19	1/ 9/72
.49	3.78	20	1/ 9/72
.59	3.79	21	1/ 9/72
.89	4.76	22	1/ 9/72
.91	4.78	23	1/ 9/72
.94	4.81	8	2/ 9/72
.98	4.93	1	2/ 9/72
1.02	5.07	2	2/ 9/72
.64	4.43	3	2/ 9/72
1.18	5.41	4	2/ 9/72
1.78	6.98	5	2/ 9/72
2.09	7.79	6	2/ 9/72
2.14	8.88	7	2/ 9/72
2.16	8.86	8	2/ 9/72
2.21	8.28	9	2/ 9/72
2.28	8.24	10	2/ 9/72
2.25	8.48	11	2/ 9/72
2.24	8.41	12	2/ 9/72
2.26	8.48	13	2/ 9/72
2.25	8.44	14	2/ 9/72
2.23	8.48	15	2/ 9/72
2.18	8.25	16	2/ 9/72
2.11	8.82	17	2/ 9/72
2.01	7.75	18	2/ 9/72
1.61	6.72	19	2/ 9/72
.88	4.49	20	2/ 9/72
.48	4.49	21	2/ 9/72

King Point Data Package

King Point

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King Point

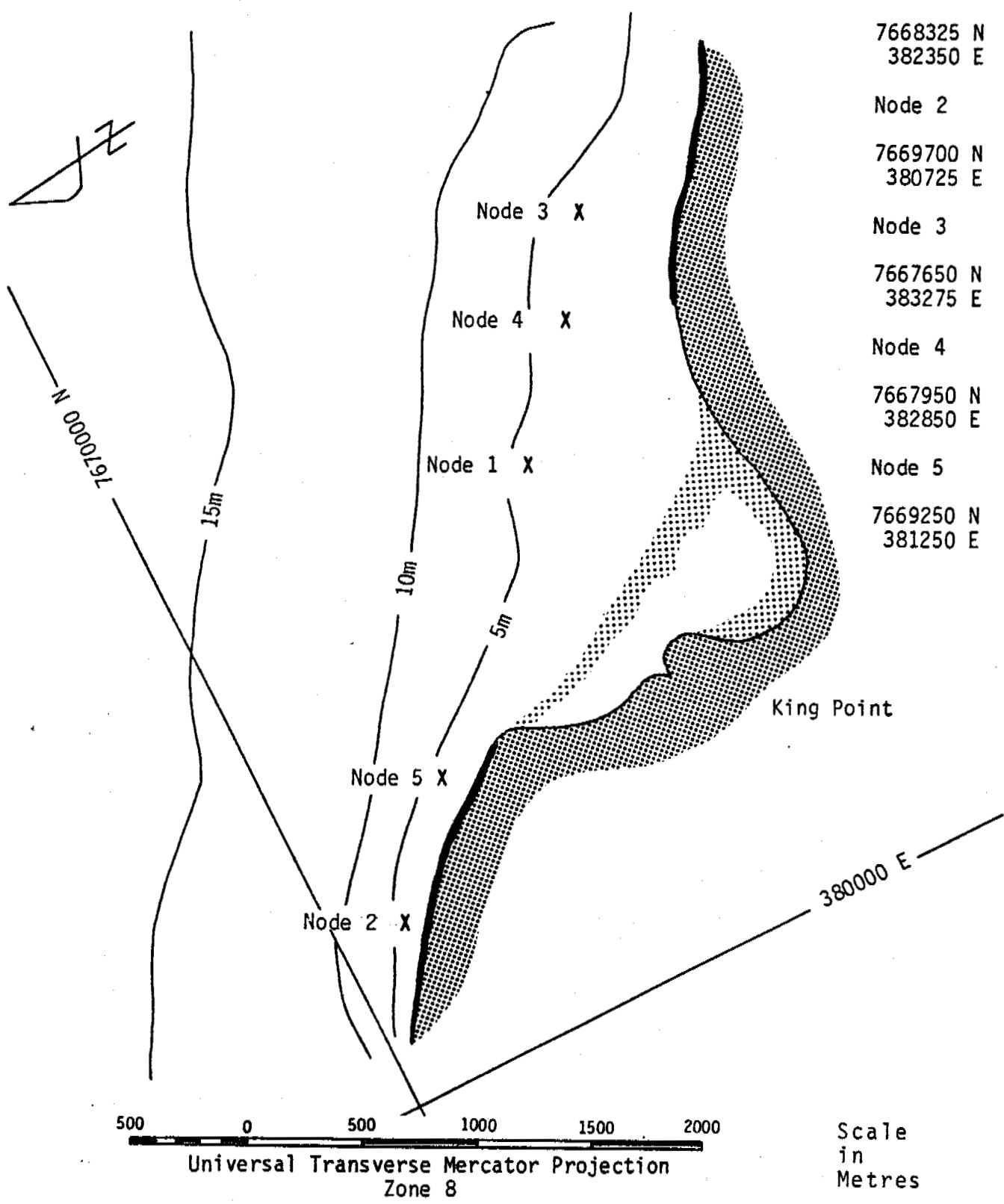
A. Description of Site

The King Point site includes a 50 m high ice-rich eroding cliff to the west and lagoon with barrier beach 2 km long at its eastern end. See Figure 2.3. Similar cliffs about 20 m high occur east of the lagoon. The lagoon was evidently formed by transgressive breaching of a lake. Its depth was about 3 metres in the nineteen fifties. According to airphotos the barrier was complete in 1970, but 16 years earlier it was a spit which extended from the west, about three-quarters of the distance across the mouth of the lagoon from King Point. The net eastward transport required to produce this change was estimated at about 20,000 m³ (Gillie, private communication). The barrier beach consists of sand and gravel, its crest about 2.5 metres above sea level. Recession rates for the bluffs for 10 to 20 km west from King Point have been estimated at about one metre per year. Harper et al., 1985. (R. Gillie, private communication). The barrier beach must have transgressed at a similar rate. The cliffs to the east, within about half a kilometre of the lagoon, were subject to higher recession rates, about 3 m/a and beyond that, further to the east, the rates were 1.5 - 2.5 m/a. (Gillie). Textural composition of the cliffs suggested that 5 - 10% of the material is coarse enough to remain in the littoral zone. There was no information on the depth and width of the beach deposit at the foot of the cliffs.

FIGURE

KI-2

CLIFF



- Node 1
7668325 N
382350 E
- Node 2
7669700 N
380725 E
- Node 3
7667650 N
383275 E
- Node 4
7667950 N
382850 E
- Node 5
7669250 N
381250 E

King Point

500 0 500 1000 1500 2000
Universal Transverse Mercator Projection
Zone 8

Scale
in
Metres

BEAUFORT SEA COASTAL SEDIMENT STUDY

King Point: Site Plan Showing Nodes

Date: 2 May 85
Scales as shown
Checked by:
Kaith Philpott Consulting Limited

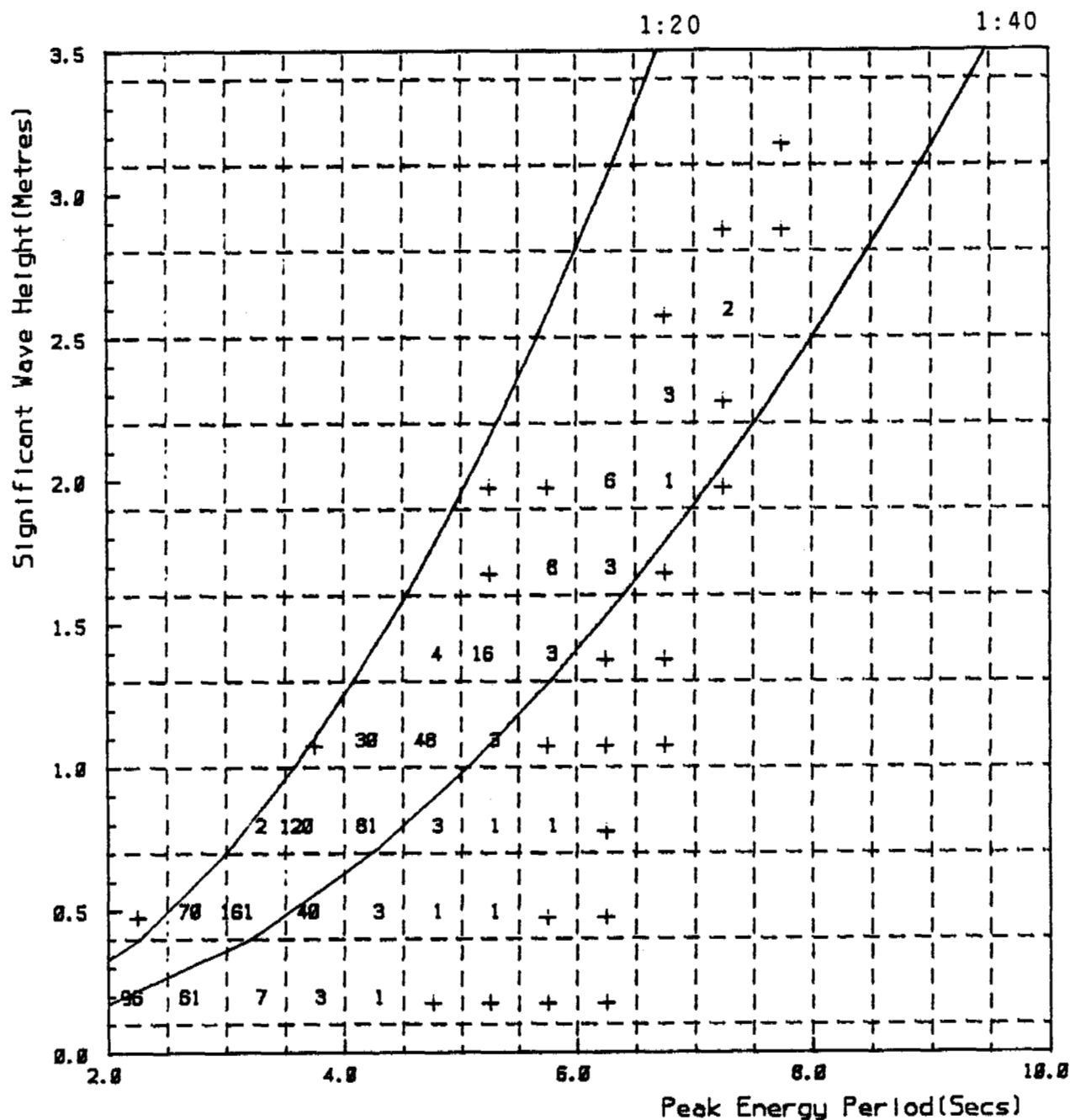
BEAUFORT SEA COASTAL SEDIMENT STUDY

DEEPWATER WAVE STATISTICS - KING POINT

WAVES 2/7/70 TO 7/9/83

SEASON: Summer, Fall

KEITH PHILPOTT CONSULTING LTD
P.O. BOX 938
THORNHILL
ONTARIO L3T 4A5



BEAUFORT SEA COASTAL SEDIMENT STUDY

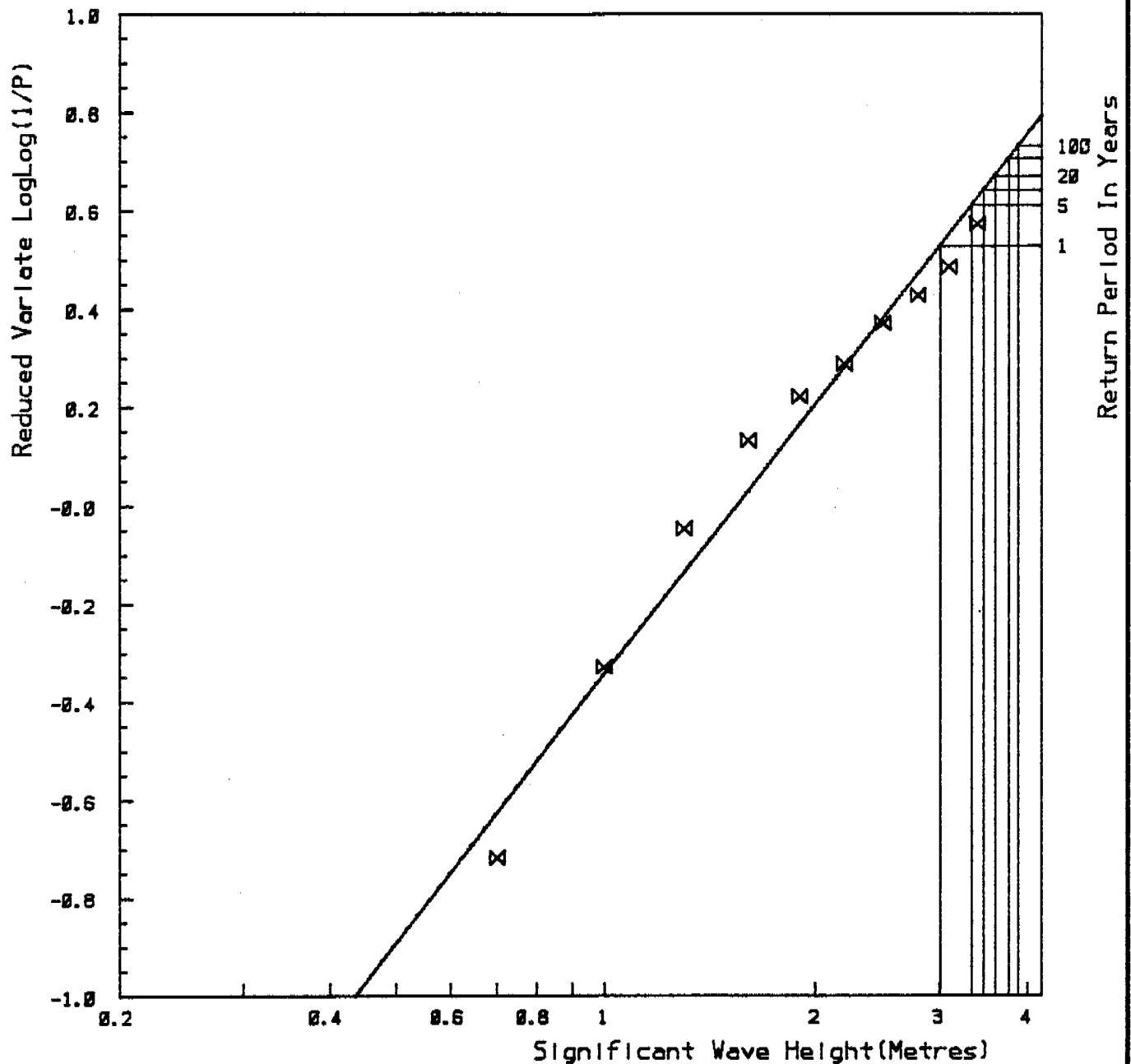
King Point: Scatter Diagram for Deep Water Wave Data
1970 - 1983

Date: 17 Feb 85

Scale as shown

Checked by:

Keith Philpott
Consulting Limited



Direction Limits: 0.0 TO 360.0

Calms: 16.2 %

Dates: 2/7/78 to 7/9/83

Season: Summer, Fall

Total No. of Records: 32736

Waves Hindcast Using Data from Tuktoyaktuk N.W.T.

BEAUFORT SEA COASTAL SEDIMENT STUDY

King Point: Weibull Long Term Distribution of
Wave Heights

Date: 18 Mar 85

Scales as shown

Checked by:

Keith Philpott
Consulting Limited

JERUFORT SEA COASTAL SEDIMENT STUDY

King Point

WAVES 2/ 7/70 TO 7/ 9/83

SEASON: Summer, Fall

WEIBULL PROBABILITY ANALYSIS

WHT LIMIT	CUM TOTAL	CUM PROB(P)	LOGLOG(1./P(H))	LOG(WHT)
0.4	32736	.999969	-4.377672	-.397940
0.7	21067	.643523	-.717976	-.154902
1.0	11126	.339860	-.329105	.000000
1.3	4151	.126798	-.047263	.113943
1.6	1453	.044384	.131225	.204120
1.9	711	.021719	.220936	.278754
2.2	379	.011577	.286995	.342423
2.5	148	.004521	.370102	.397940
2.8	69	.002108	.427517	.447158
3.1	29	.000886	.484676	.491362
3.4	6	.000183	.572510	.531479

LEAST SQUARES CURVE FIT ON LOGLOG(1/(1-P))

LOG(WHT)	LOGLOG(1./P(H))	CURVE FIT	RESIDUAL
-.39794	-4.37767	-.51204	-23.10410
-.15490	-.71798	.14179	98.01048
.00000	-.32911	.20291	59.55455
.11394	-.04726	.24721	35.91456
.20412	.13123	.27526	17.79970
.27875	.22094	.28937	2.47347
.34242	.28699	.29975	-9.35883
.39794	.37010	.31281	-17.80017
.44716	.42752	.32184	-25.06626
.49136	.48466	.33082	-30.90319
.53148	.57251	.34463	-34.96507

SLOPE= .15716

INTERCEPT=.25464

CORR COEFF=.84019

2 GROUPS TO BE OMITTED FROM NEXT FIT:

< .4 32736
< .7 21867

LEAST SQUARES CURVE FIT ON LOGLOG(1/(1-F))

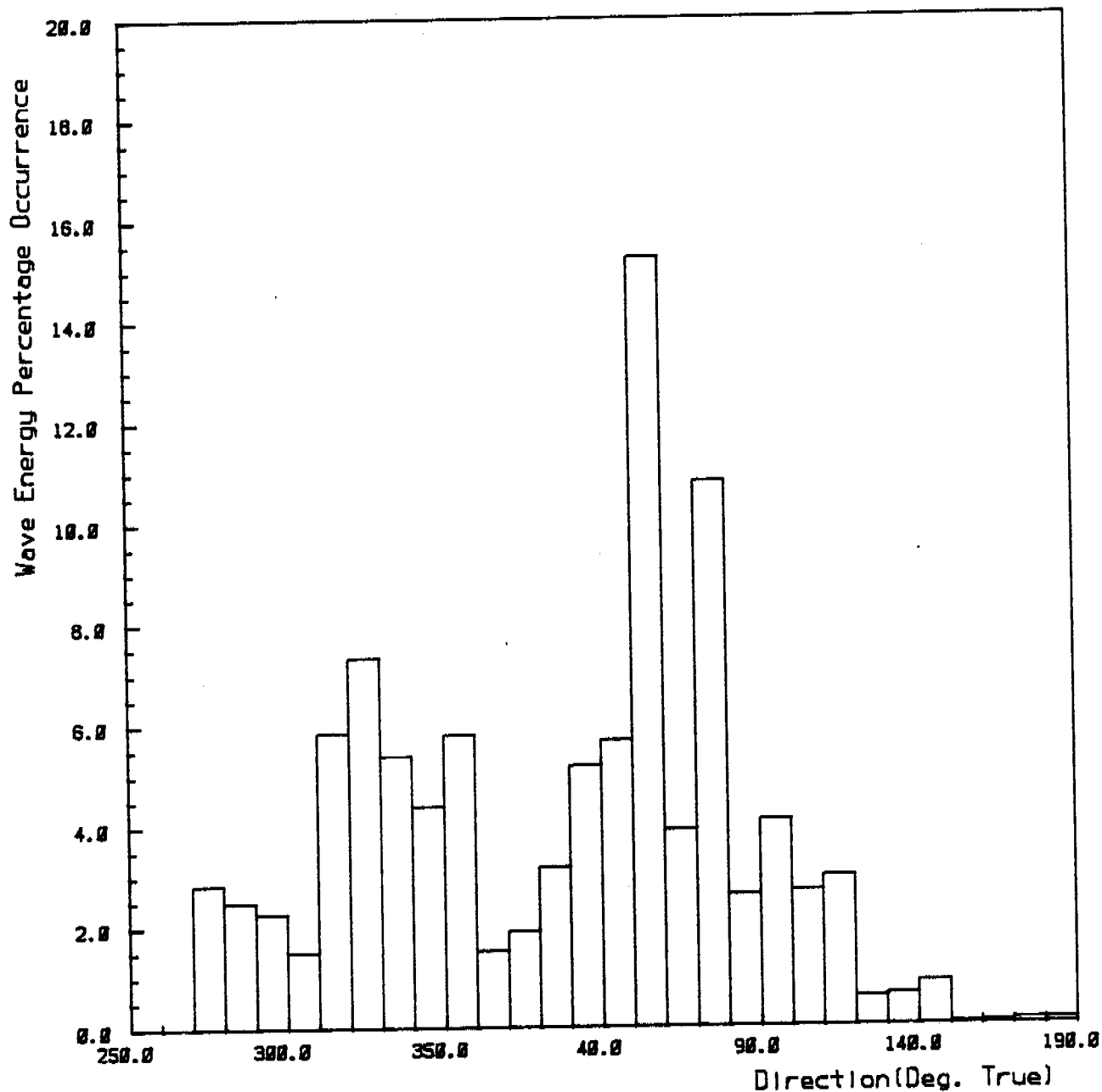
LOG(WHT)	LOGLOG(1./P(H))	CURVE FIT	RESIDUAL
.00000	-.32911	-.04056	-8.91699
.11394	-.04720	.13545	5.07721
.20412	.13123	.24692	10.35701
.27875	.22094	.30295	5.72856
.34242	.26699	.34420	.41010
.39794	.37010	.39610	-.42242
.44716	.42752	.43196	-3.43935
.49136	.46468	.46765	-5.31243
.53148	.57251	.52251	-2.04435

SLOPE= .62451 INTERCEPT=.16497 CORR COEFF=.98940

PREDICTED WAVE HEIGHTS FOR GIVEN RETURN PERIODS

RETURN PERIOD(YEARS) WAVE HEIGHT(HS)

1.0	3.1
5.0	3.5
10.0	3.7
20.0	3.8
50.0	4.0
100.0	4.2



Direction Limits: 270.0 TO 190.0

Cells: 19.4 %

Dates: 2/7/70 to 7/9/83

Season: Summer, Fall

Total No. of Records: 34065

Waves Hindcast Using Wind Data from Tuktoyaktuk N.W.T.

BEAUFORT SEA COASTAL SEDIMENT STUDY

King Point: Deep Water Wave Energy Distribution
1970 - 1983

Date: 17 Feb 85

Scales as shown

Checked by:

Keith Philpott
Consulting Limited

BEAUFORT SEA COASTAL SEDIMENT STUDY

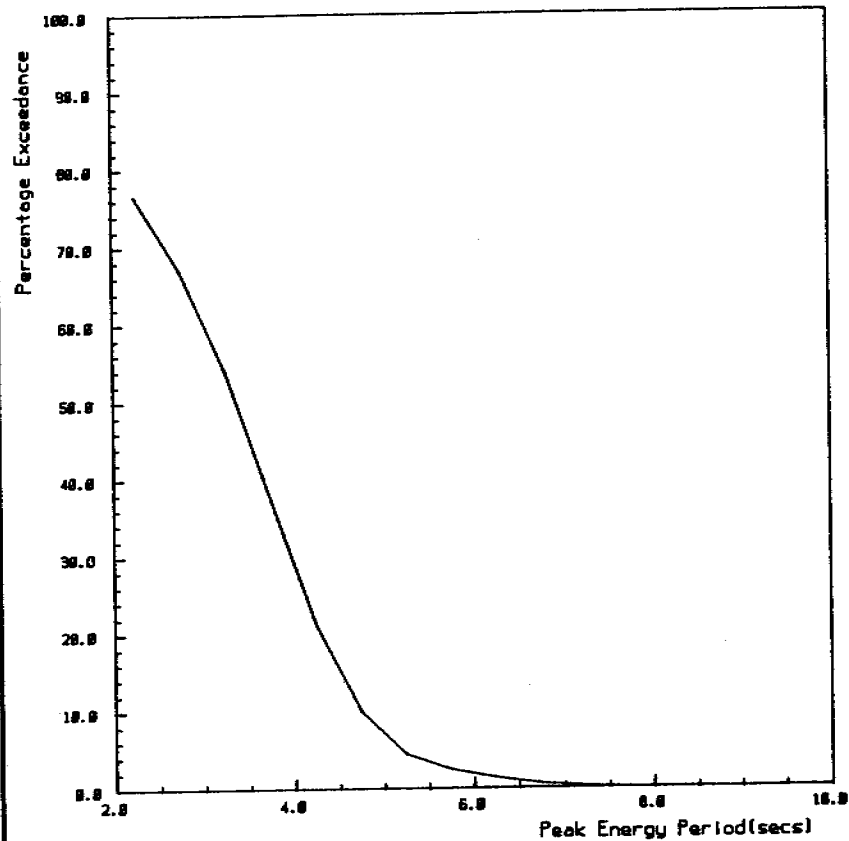
King Point

WAVES 2/ 7/70 TO 7/ 9/83
-----SEASON: Summer, Fall

PERCENTAGE WAVE POWER DISTRIBUTION

DIRECTION SECTOR	PERCENTAGE FREQUENCY	MEAN POWER (KW)	PERCENTAGE ENERGY
270. - 280.	4.44	.88	2.84
280. - 290.	3.90	.88	2.48
290. - 300.	4.16	.75	2.27
300. - 310.	2.96	.70	1.52
310. - 320.	5.33	1.51	5.86
320. - 330.	4.30	2.34	7.33
330. - 340.	3.13	2.37	5.40
340. - 350.	1.95	3.10	4.40
350. - 360.	3.33	2.40	5.81
360. - 10.	2.85	1.02	1.53
10. - 20.	2.47	1.06	1.90
20. - 30.	3.68	1.18	3.17
30. - 40.	3.93	1.81	5.18
40. - 50.	3.52	2.22	5.69
50. - 60.	6.10	3.43	15.25
60. - 70.	4.73	1.13	3.90
70. - 80.	8.93	1.66	10.81
80. - 90.	4.73	.76	2.60
90. - 100.	6.28	.90	4.89
100. - 110.	4.79	.77	2.69
110. - 120.	5.74	.71	2.96
120. - 130.	1.62	.48	.56
130. - 140.	2.24	.38	.62
140. - 150.	3.17	.37	.86
150. - 160.	.34	.13	.03
160. - 170.	.49	.13	.05
170. - 180.	.87	.15	.09
180. - 190.	.82	.16	.09

FIGURE



Direction Limits: 270.0 TO 190.0

Calcs: 19.4 %

Dates: 2/7/78 to 7/9/83

Season: Summer, Fall

Total No. of Records: 34865

Waves Hindcast Using Wind Data from Tuktoyaktuk N.W.T.

BEAUFORT SEA COASTAL SEDIMENT STUDY

King Point: Deep Water Wave Period Exceedance
1970 - 1983

Date: 17 Feb 85

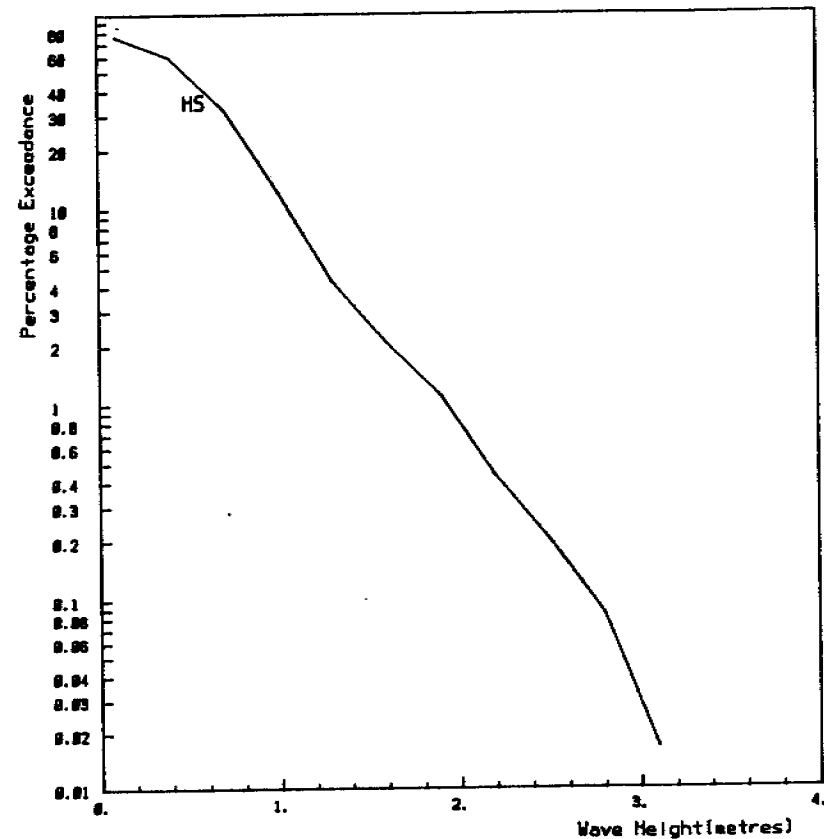
Scales as shown

Checked by:

Kaith Philpott

Consulting Limited

FIGURE



Direction Limits: 270.0 TO 190.0

Calcs: 19.4 %

Dates: 2/7/78 to 7/9/83

Season: Summer, Fall

Total No. of Records: 34865

Waves Hindcast Using Wind Data from Tuktoyaktuk N.W.T.

BEAUFORT SEA COASTAL SEDIMENT STUDY

King Point: Deep Water Wave Height Exceedance
1970 - 1983

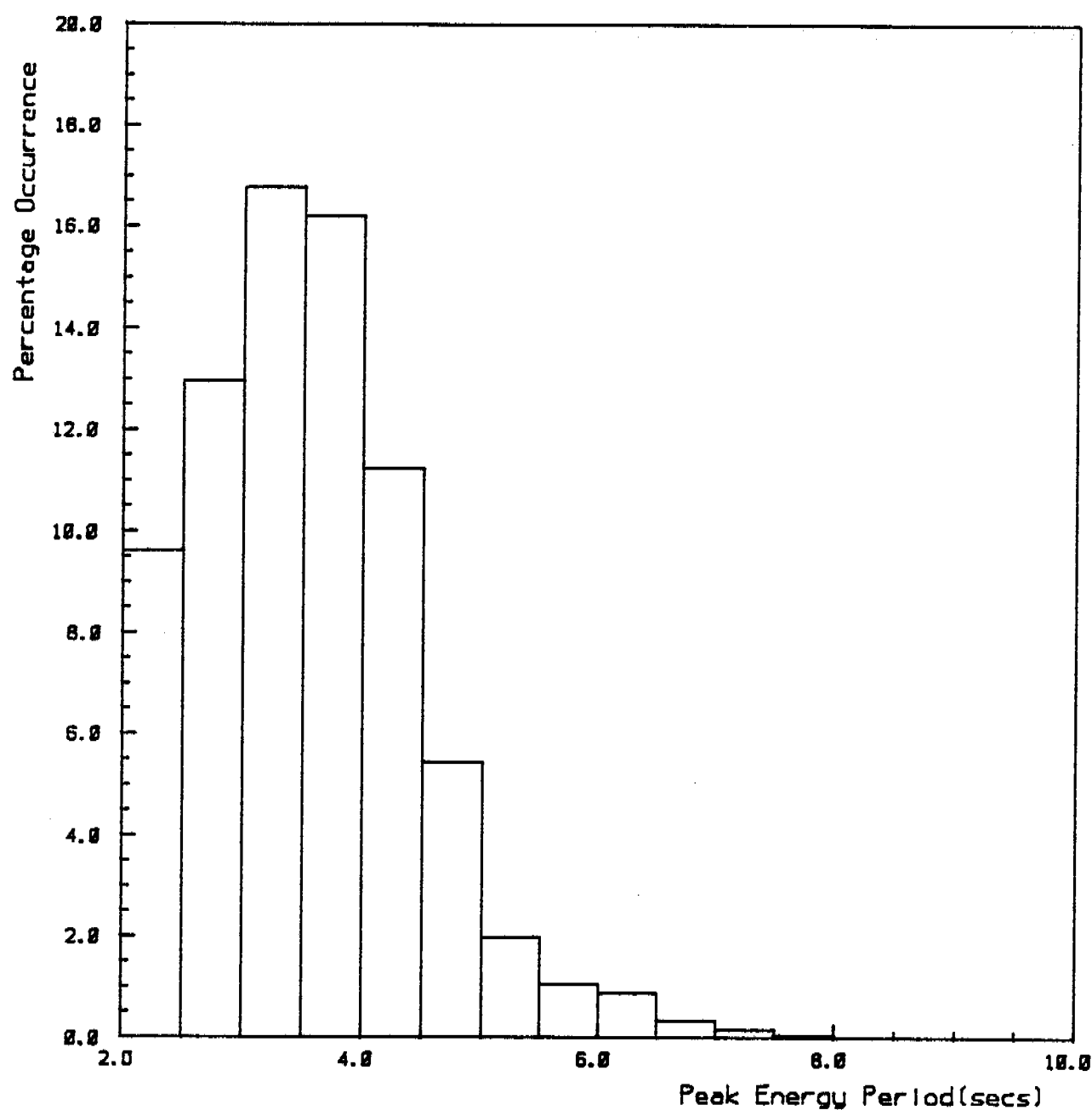
Date: 17 Feb 85

Scales as shown

Checked by:

Kaith Philpott

Consulting Limited



Direction Limits: 270.0 TO 190.0

Calms: 19.4 %

Dates: 2/7/78 to 7/9/83

Season: Summer, Fall

Total No. of Records: 34065

Waves Hindcast Using Wind Data from Tuktoyaktuk N.W.T.

BEAUFORT SEA COASTAL SEDIMENT STUDY

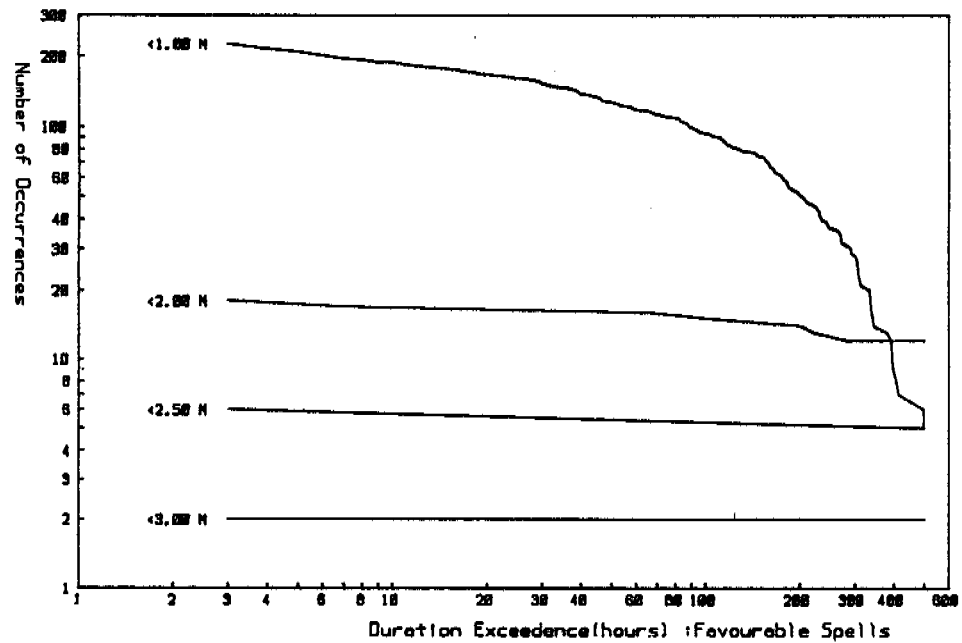
King Point: Deep Water Wave Period Occurrence
1970 - 1983

Date: 17 Feb 85

Scales as shown

Checked by:

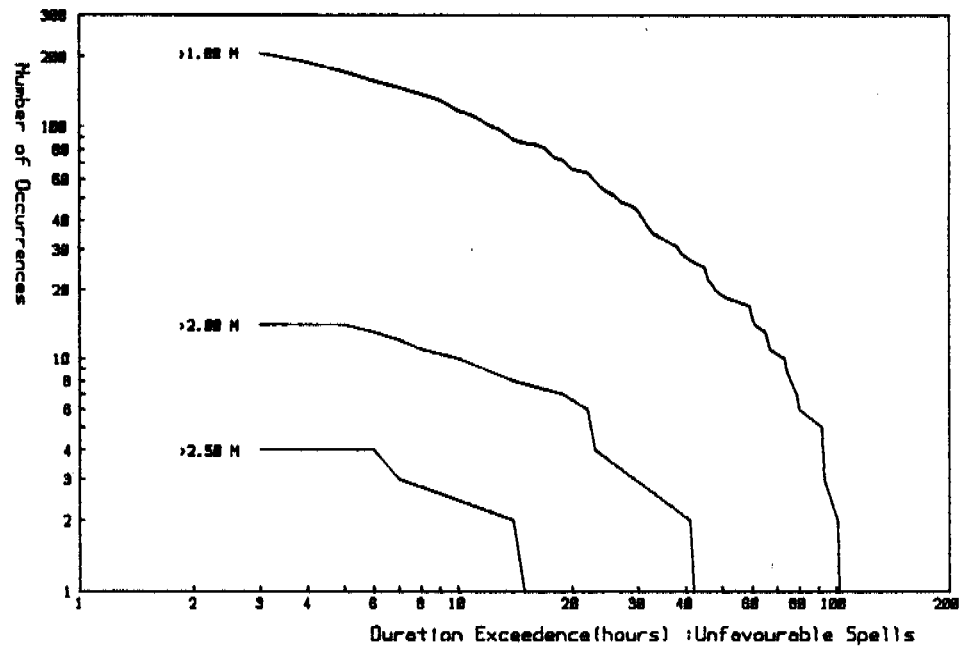
Keith Philpott
Consulting Limited



Dates: 2/7/78 to 7/9/83

Season: Summer, Fall

Waves Hindcast Using Wind Data from Tuktoyaktuk N.V.T.



Dates: 2/7/78 to 7/9/83

Season: Summer, Fall

Waves Hindcast Using Wind Data from Tuktoyaktuk N.V.T.

BEAUFORT SEA COASTAL SEDIMENT STUDY

King Point: Deep Water Wave Height Persistence
Favourable and Unfavourable Spells

Date: 17 May 85

Scales as shown

Checked by:

Keith Philpott
Consulting Limited

BEAUFORT SEA COASTAL SEDIMENT STUDY

King Point

WAVES 2/07/70 TO 7/09/83

ALL DIRECTIONS

WAVE Ht(M)	Wave Period(secs)										Total
	1	2	3	4	5	6	7	8	9	10	
.10	5308	303	37	0	3	0	0	0	0	0	5659
.40	2385	6824	111	34	2	0	0	0	0	0	9356
.70	0	4102	2809	41	1	0	0	0	0	0	6953
1.00	0	2	2593	94	6	0	0	0	0	0	2695
1.30	0	0	132	601	9	0	0	0	0	0	742
1.60	0	0	0	250	82	0	0	0	0	0	332
1.90	0	0	0	3	227	1	0	0	0	0	231
2.20	0	0	0	0	77	2	0	0	0	0	79
2.50	0	0	0	0	3	37	0	0	0	0	40
2.80	0	0	0	0	0	23	0	0	0	0	23
3.10	0	0	0	0	0	6	0	0	0	0	6
3.40	0	0	0	0	0	0	0	0	0	0	0
3.70	0	0	0	0	0	0	0	0	0	0	0
4.00	0	0	0	0	0	0	0	0	0	0	0
TOTAL	7693	11231	5682	1031	410	69	0	0	0	0	26116

SUMMARY :

 NO. IN TOTAL SECTOR = 32736
 NO. OUTSIDE TOTAL SECTOR = 1329
 NO. OF CALMS = 6620
 TOTAL NO. OF ALL RECORDS = 32736
 PERCENTAGE CALMS = 19.42

BEAUFORT SEA COASTAL SEDIMENT STUDY

King Point

WAVES 2/ 7/70 TO 7/ 9/83

DIRECTION 270 TO 280

WAVE Ht(M)	Wave Period(secs)										Total
	1	2	3	4	5	6	7	8	9	10	
.10	249	7	0	0	0	0	0	0	0	0	256
.40	107	399	0	0	0	0	0	0	0	0	506
.70	0	223	68	0	0	0	0	0	0	0	291
1.00	0	0	76	0	0	0	0	0	0	0	76
1.30	0	0	20	10	0	0	0	0	0	0	30
1.60	0	0	0	0	0	0	0	0	0	0	0
1.90	0	0	0	0	0	0	0	0	0	0	0
2.20	0	0	0	0	0	0	0	0	0	0	0
2.50	0	0	0	0	0	0	0	0	0	0	0
2.80	0	0	0	0	0	0	0	0	0	0	0
3.10	0	0	0	0	0	0	0	0	0	0	0
3.40	0	0	0	0	0	0	0	0	0	0	0
3.70	0	0	0	0	0	0	0	0	0	0	0
4.00	0	0	0	0	0	0	0	0	0	0	0
TOTAL	356	629	164	10	0	0	0	0	0	0	1159

DIRECTION 280 TO 290

WAVE Ht(M)	Wave Period(secs)										Total
	1	2	3	4	5	6	7	8	9	10	
.10	151	2	2	0	0	0	0	0	0	0	155
.40	94	389	0	0	0	0	0	0	0	0	483
.70	0	210	99	0	0	0	0	0	0	0	309
1.00	0	0	62	0	0	0	0	0	0	0	62
1.30	0	0	5	4	0	0	0	0	0	0	9
1.60	0	0	0	0	0	0	0	0	0	0	0
1.90	0	0	0	0	0	0	0	0	0	0	0
2.20	0	0	0	0	0	0	0	0	0	0	0
2.50	0	0	0	0	0	0	0	0	0	0	0
2.80	0	0	0	0	0	0	0	0	0	0	0
3.10	0	0	0	0	0	0	0	0	0	0	0
3.40	0	0	0	0	0	0	0	0	0	0	0
3.70	0	0	0	0	0	0	0	0	0	0	0
4.00	0	0	0	0	0	0	0	0	0	0	0
TOTAL	245	601	168	4	0	0	0	0	0	0	1018

King Point

BEAUFORT SEA COASTAL SEDIMENT STUDY

WAVES 2/ 7/70 TO 7/ 9/83

DIRECTION 290 TO 300

WAVE !	Wave Period(secs)												Total!					
INT(H)!																		
!	-----!												!					
!	>	12	-3	13	-4	14	-5	15	-6	16	-7	17	-8	18	-9	19	-10	-
1.10!	240!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	240!	
1.40!	128!	308!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	516!	
1.70!	0!	167!	92!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	259!	
1.00!	0!	0!	59!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	59!	
1.30!	0!	0!	1!	2!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	3!	
1.60!	0!	0!	0!	0!	1!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	1!	
1.90!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
2.20!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
2.50!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
2.80!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
3.10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
3.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
3.70!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
4.00!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
!	-----!												!					
TOTAL!	368!	563!	152!	3!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	1086!	

DIRECTION 300 TO 310

WAVE !	Wave Period(secs)																		Total!
INT(H)!																			
!	!	!	!	!	!	!	!	!	!	!	!	!	!	!	!	!	!	!	
!	>	12	-3	13	-4	14	-5	15	-6	16	-7	17	-8	18	-9	19	-10	-	
1.10!	187!	4!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	191!		
1.40!	91!	271!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	362!		
1.70!	0!	145!	51!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	196!		
1.00!	0!	0!	17!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	17!		
1.30!	0!	0!	1!	3!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	4!		
1.60!	0!	0!	0!	3!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	3!		
1.90!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!		
2.20!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!		
2.50!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!		
2.80!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!		
3.10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!		
3.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!		
3.70!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!		
4.00!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!		
TOTAL!	278!	420!	69!	6!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	773!		

King Point

BEAUFORT SEA COASTAL SEDIMENT STUDY

WAVES 2/ 7/70 TO 7/ 9/83

DIRECTION 310 TO 320

WAVE !	Wave Period(secs)																	Total!
INT(H)!																		
	>	12	-3	13	-4	14	-5	15	-6	16	-7	17	-8	18	-9	19	-10	-
1.10!	218!	30!	4!	1!	0!	0!	0!	0!	0!	0!	0!	0!	0!	253!				
1.40!	78!	325!	4!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	407!				
1.70!	0!	187!	213!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	400!				
1.00!	0!	0!	255!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	255!				
1.30!	0!	0!	6!	52!	0!	0!	0!	0!	0!	0!	0!	0!	0!	58!				
1.60!	0!	0!	0!	9!	0!	0!	0!	0!	0!	0!	0!	0!	0!	9!				
1.90!	0!	0!	0!	0!	7!	0!	0!	0!	0!	0!	0!	0!	0!	7!				
2.20!	0!	0!	0!	0!	0!	2!	0!	0!	0!	0!	0!	0!	0!	2!				
2.50!	0!	0!	0!	0!	0!	2!	0!	0!	0!	0!	0!	0!	0!	2!				
2.80!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!				
3.10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!				
3.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!				
3.70!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!				
4.00!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!				
TOTAL!	296!	542!	482!	62!	11!	0!	0!	0!	0!	0!	0!	0!	0!	1393!				

DIRECTION 320 TO 330

WAVE !	Wave Period(secs)												Total!					
INT(H)!																		
	>	12	-3	13	-4	14	-5	15	-6	16	-7	17	-8	18	-9	19	-10	-
1.10!	114!	17!	3!	4!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	138!		
1.40!	55!	192!	28!	26!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	381!		
1.70!	0!	110!	190!	21!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	329!		
1.00!	0!	0!	151!	16!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	167!		
1.30!	0!	0!	0!	97!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	97!		
1.60!	0!	0!	0!	50!	9!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	59!		
1.90!	0!	0!	0!	0!	29!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	29!		
2.20!	0!	0!	0!	0!	2!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	2!		
2.50!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!		
2.80!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!		
3.10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!		
3.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!		
3.70!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!		
4.00!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!		
TOTAL!	169!	319!	380!	214!	40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	1122!		

BEAUFORT SEA COASTAL SEDIMENT STUDY

King Point

WAVES 2/ 7/78 TO 7/ 9/83

DIRECTION 330 TO 340

WAVE !	Wave Period(secs)											Total!
INT(N)!												
>	12	13	14	15	16	17	18	19	20	21	22	-
.10!	110!	18!	2!	1!	3!	0!	0!	0!	0!	0!	0!	134!
.40!	48!	192!	5!	2!	2!	0!	0!	0!	0!	0!	0!	249!
.70!	0!	78!	107!	0!	1!	0!	0!	0!	0!	0!	0!	194!
1.00!	0!	0!	85!	6!	0!	0!	0!	0!	0!	0!	0!	91!
1.30!	0!	0!	2!	78!	0!	0!	0!	0!	0!	0!	0!	72!
1.60!	0!	0!	0!	45!	4!	0!	0!	0!	0!	0!	0!	49!
1.90!	0!	0!	0!	0!	14!	0!	0!	0!	0!	0!	0!	14!
2.20!	0!	0!	0!	0!	14!	0!	0!	0!	0!	0!	0!	14!
2.50!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.80!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.70!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.00!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
TOTAL!	150!	288!	201!	132!	38!	0!	0!	0!	0!	0!	0!	817!

DIRECTION 340 TO 350

WAVE !	Wave Period(secs)											Total!
INT(N)!												
>	12	13	14	15	16	17	18	19	20	21	22	-
.10!	97!	0!	1!	0!	0!	0!	0!	0!	0!	0!	0!	106!
.40!	28!	124!	2!	1!	0!	0!	0!	0!	0!	0!	0!	155!
.70!	0!	61!	57!	0!	0!	0!	0!	0!	0!	0!	0!	118!
1.00!	0!	1!	43!	2!	0!	0!	0!	0!	0!	0!	0!	46!
1.30!	0!	0!	1!	28!	0!	0!	0!	0!	0!	0!	0!	29!
1.60!	0!	0!	0!	5!	1!	0!	0!	0!	0!	0!	0!	6!
1.90!	0!	0!	0!	0!	14!	0!	0!	0!	0!	0!	0!	14!
2.20!	0!	0!	0!	0!	16!	0!	0!	0!	0!	0!	0!	16!
2.50!	0!	0!	0!	0!	1!	19!	0!	0!	0!	0!	0!	20!
2.80!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.70!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.00!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
TOTAL!	125!	194!	104!	36!	32!	19!	0!	0!	0!	0!	0!	510!

BEAUFORT SEA COASTAL SEDIMENT STUDY

King Point

WAVES 2/ 7/78 TO 7/ 9/83

DIRECTION 350 TO 360

WAVE !	Wave Period(secs)											Total!
INT(N)!												
>	12	13	14	15	16	17	18	19	20	21	22	-
.10!	180!	5!	0!	0!	0!	0!	0!	0!	0!	0!	0!	185!
.40!	71!	244!	9!	0!	0!	0!	0!	0!	0!	0!	0!	324!
.70!	0!	112!	97!	0!	0!	0!	0!	0!	0!	0!	0!	209!
1.00!	0!	1!	58!	2!	4!	0!	0!	0!	0!	0!	0!	65!
1.30!	0!	0!	3!	21!	3!	0!	0!	0!	0!	0!	0!	27!
1.60!	0!	0!	0!	7!	4!	0!	0!	0!	0!	0!	0!	11!
1.90!	0!	0!	0!	3!	13!	0!	0!	0!	0!	0!	0!	16!
2.20!	0!	0!	0!	0!	5!	0!	0!	0!	0!	0!	0!	5!
2.50!	0!	0!	0!	0!	0!	0!	4!	0!	0!	0!	0!	4!
2.80!	0!	0!	0!	0!	0!	17!	0!	0!	0!	0!	0!	17!
3.10!	0!	0!	0!	0!	0!	6!	0!	0!	0!	0!	0!	6!
3.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.70!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.00!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
TOTAL!	251!	362!	167!	33!	29!	27!	0!	0!	0!	0!	0!	869!

DIRECTION 360 TO 10

WAVE !	Wave Period(secs)											Total!
INT(N)!												
>	12	13	14	15	16	17	18	19	20	21	22	-
.10!	146!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	154!
.40!	32!	156!	2!	0!	0!	0!	0!	0!	0!	0!	0!	190!
.70!	0!	37!	77!	0!	0!	0!	0!	0!	0!	0!	0!	114!
1.00!	0!	0!	57!	9!	0!	0!	0!	0!	0!	0!	0!	66!
1.30!	0!	0!	0!	9!	0!	0!	0!	0!	0!	0!	0!	9!
1.60!	0!	0!	0!	3!	0!	0!	0!	0!	0!	0!	0!	3!
1.90!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.20!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.50!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.80!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.70!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.00!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
TOTAL!	178!	201!	136!	21!	0!	0!	0!	0!	0!	0!	0!	536!

BEAUFORT SEA COASTAL SEDIMENT STUDY

King Point

WAVES 2/ 7/78 TO 7/ 9/83

DIRECTION 18 TO 28

WAVE !	Wave Period(secs)												Total!
INT(N)!													
	12	13	14	15	16	17	18	19	20	21	22	23	
.10!	146!	7!	2!	1!	0!	0!	0!	0!	0!	0!	0!	0!	156!
.40!	34!	213!	3!	2!	0!	0!	0!	0!	0!	0!	0!	0!	252!
.70!	0!	65!	74!	0!	0!	0!	0!	0!	0!	0!	0!	0!	139!
1.00!	0!	0!	77!	4!	0!	0!	0!	0!	0!	0!	0!	0!	81!
1.30!	0!	0!	0!	13!	0!	0!	0!	0!	0!	0!	0!	0!	13!
1.60!	0!	0!	0!	4!	0!	0!	0!	0!	0!	0!	0!	0!	4!
1.90!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.20!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.50!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.80!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.70!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.00!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
TOTAL!	100!	285!	156!	24!	0!	0!	0!	0!	0!	0!	0!	0!	645!

DIRECTION 28 TO 38

WAVE !	Wave Period(secs)												Total!
INT(N)!													
	12	13	14	15	16	17	18	19	20	21	22	23	
.10!	232!	35!	0!	1!	0!	0!	0!	0!	0!	0!	0!	0!	268!
.40!	63!	279!	1!	3!	0!	0!	0!	0!	0!	0!	0!	0!	346!
.70!	0!	90!	110!	5!	0!	0!	0!	0!	0!	0!	0!	0!	213!
1.00!	0!	0!	82!	7!	0!	0!	0!	0!	0!	0!	0!	0!	89!
1.30!	0!	0!	0!	22!	0!	0!	0!	0!	0!	0!	0!	0!	22!
1.60!	0!	0!	0!	14!	1!	0!	0!	0!	0!	0!	0!	0!	15!
1.90!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.20!	0!	0!	0!	0!	1!	0!	0!	0!	0!	0!	0!	0!	1!
2.50!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.80!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.70!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.00!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
TOTAL!	295!	404!	201!	52!	10!	0!	0!	0!	0!	0!	0!	0!	962!

BEAUFORT SEA COASTAL SEDIMENT STUDY

King Point

WAVES 2/ 7/78 TO 7/ 9/83

DIRECTION 38 TO 48

WAVE !	Wave Period(secs)												Total!
INT(N)!													
	12	13	14	15	16	17	18	19	20	21	22	23	
.10!	211!	20!	2!	0!	0!	0!	0!	0!	0!	0!	0!	0!	233!
.40!	80!	257!	10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	355!
.70!	0!	106!	132!	4!	0!	0!	0!	0!	0!	0!	0!	0!	242!
1.00!	0!	0!	88!	19!	2!	0!	0!	0!	0!	0!	0!	0!	109!
1.30!	0!	0!	0!	41!	4!	0!	0!	0!	0!	0!	0!	0!	45!
1.60!	0!	0!	0!	5!	4!	0!	0!	0!	0!	0!	0!	0!	9!
1.90!	0!	0!	0!	0!	0!	1!	0!	0!	0!	0!	0!	0!	1!
2.20!	0!	0!	0!	0!	13!	2!	0!	0!	0!	0!	0!	0!	15!
2.50!	0!	0!	0!	0!	0!	5!	0!	0!	0!	0!	0!	0!	5!
2.80!	0!	0!	0!	0!	0!	4!	0!	0!	0!	0!	0!	0!	4!
3.10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.70!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.00!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
TOTAL!	291!	383!	240!	69!	31!	12!	0!	0!	0!	0!	0!	0!	1026!

DIRECTION 48 TO 58

WAVE !	Wave Period(secs)												Total!
INT(N)!													
	12	13	14	15	16	17	18	19	20	21	22	23	
.10!	180!	1!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	189!
.40!	44!	227!	1!	0!	0!	0!	0!	0!	0!	0!	0!	0!	272!
.70!	0!	95!	114!	0!	0!	0!	0!	0!	0!	0!	0!	0!	209!
1.00!	0!	0!	135!	3!	0!	0!	0!	0!	0!	0!	0!	0!	138!
1.30!	0!	0!	0!	48!	2!	0!	0!	0!	0!	0!	0!	0!	50!
1.60!	0!	0!	0!	16!	6!	0!	0!	0!	0!	0!	0!	0!	22!
1.90!	0!	0!	0!	0!	17!	0!	0!	0!	0!	0!	0!	0!	17!
2.20!	0!	0!	0!	0!	11!	0!	0!	0!	0!	0!	0!	0!	11!
2.50!	0!	0!	0!	0!	0!	9!	0!	0!	0!	0!	0!	0!	9!
2.80!	0!	0!	0!	0!	0!	2!	0!	0!	0!	0!	0!	0!	2!
3.10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.70!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.00!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
TOTAL!	232!	323!	250!	67!	36!	11!	0!	0!	0!	0!	0!	0!	919!

BEAUFORT SEA COASTAL SEDIMENT STUDY

King Point

WAVES 2/ 7/78 TO 7/ 9/83

DIRECTION 58 TO 68

WAVE !	Wave Period(secs)										Total!
HT(M)!											
	12	13	14	15	16	17	18	19	10	-	
.10!	121!	19!	11!	0!	0!	0!	0!	0!	0!	151!	
.40!	46!	247!	28!	0!	0!	0!	0!	0!	0!	321!	
.70!	0!	109!	282!	3!	0!	0!	0!	0!	0!	394!	
1.00!	0!	0!	308!	26!	0!	0!	0!	0!	0!	334!	
1.30!	0!	0!	1!	125!	0!	0!	0!	0!	0!	126!	
1.60!	0!	0!	0!	85!	53!	0!	0!	0!	0!	138!	
1.90!	0!	0!	0!	0!	117!	0!	0!	0!	0!	117!	
2.20!	0!	0!	0!	0!	13!	0!	0!	0!	0!	13!	
2.50!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
2.80!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
3.10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
3.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
3.70!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
4.00!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
TOTAL!	167!	375!	630!	239!	183!	0!	0!	0!	0!	1594!	

DIRECTION 68 TO 78

WAVE !	Wave Period(secs)										Total!
INT(M)!											

!> !2 -3 !3 -4 !4 -5 !5 -6 !6 -7 !7 -8 !8 -9 !9 -10!											- !

! .10!	224!	13!	0!	0!	0!	0!	0!	0!	0!	237!	
! .40!	89!	325!	2!	0!	0!	0!	0!	0!	0!	416!	
! .70!	0!	228!	139!	0!	0!	0!	0!	0!	0!	367!	
! 1.00!	0!	0!	198!	0!	0!	0!	0!	0!	0!	198!	
! 1.30!	0!	0!	9!	6!	0!	0!	0!	0!	0!	15!	
! 1.60!	0!	0!	0!	3!	0!	0!	0!	0!	0!	3!	
! 1.90!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
! 2.20!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
! 2.50!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
! 2.80!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
! 3.10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
! 3.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
! 3.70!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
! 4.00!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	

!TOTAL!	313!	566!	348!	9!	0!	0!	0!	0!	0!	1236!	

BEAUFORT SEA COASTAL SEDIMENT STUDY

King Point

WAVES 2/ 7/78 TO 7/ 9/83

DIRECTION 78 TO 88

WAVE !	Wave Period(secs)										Total!
HT(M)!											
	12	13	14	15	16	17	18	19	10!	-	
.10!	198!	21!	10!	0!	0!	0!	0!	0!	0!	229!	
.40!	136!	434!	0!	0!	0!	0!	0!	0!	0!	570!	
.70!	0!	441!	300!	0!	0!	0!	0!	0!	0!	741!	
1.00!	0!	0!	655!	0!	0!	0!	0!	0!	0!	655!	
1.30!	0!	0!	81!	49!	0!	0!	0!	0!	0!	130!	
1.60!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
1.90!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
2.20!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
2.50!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
2.80!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
3.10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
3.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
3.70!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
4.00!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
TOTAL!	334!	896!	1054!	49!	0!	0!	0!	0!	0!	2333!	

DIRECTION 88 TO 98

WAVE !	Wave Period(secs)										Total!
HT(M)!											
!>	!2	!3	!4	!5	!6	!7	!8	!9	!10	!	
! .10!	292!	20!	0!	0!	0!	0!	0!	0!	0!	312!	
! .40!	134!	310!	0!	0!	0!	0!	0!	0!	0!	444!	
! .70!	0!	318!	128!	0!	0!	0!	0!	0!	0!	446!	
! 1.00!	0!	0!	30!	0!	0!	0!	0!	0!	0!	30!	
! 1.30!	0!	0!	2!	1!	0!	0!	0!	0!	0!	3!	
! 1.60!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
! 1.90!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
! 2.20!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
! 2.50!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
! 2.80!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
! 3.10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
! 3.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
! 3.70!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
! 4.00!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
!TOTAL!	426!	648!	160!	1!	0!	0!	0!	0!	0!	1235!	

King Point

BEAUFORT SEA COASTAL SEDIMENT STUDY

WAVES 2/ 7/78 TO 7/ 9/83

DIRECTION 98 TO 100

WAVE !	Wave Period(secs)												Total!
INT(M)!													
	>	12	13	14	15	16	17	18	19	20	21	22	
.10!	277!	6!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	283!
.40!	158!	456!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	614!
.70!	0!	436!	212!	0!	0!	0!	0!	0!	0!	0!	0!	0!	648!
1.00!	0!	0!	95!	0!	0!	0!	0!	0!	0!	0!	0!	0!	95!
1.30!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
1.60!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
1.90!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.20!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.50!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.80!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.70!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.00!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
TOTAL!	435!	898!	387!	0!	0!	0!	0!	0!	0!	0!	0!	0!	1640!

DIRECTION 100 TO 110

WAVE !	Wave Period(secs)												Total!
INT(M)!													
	>	12	13	14	15	16	17	18	19	20	21	22	
.10!	208!	19!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	227!
.40!	120!	449!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	569!
.70!	0!	328!	93!	0!	0!	0!	0!	0!	0!	0!	0!	0!	421!
1.00!	0!	0!	42!	0!	0!	0!	0!	0!	0!	0!	0!	0!	42!
1.30!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
1.60!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
1.90!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.20!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.50!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.80!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.70!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.00!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
TOTAL!	328!	787!	135!	0!	0!	0!	0!	0!	0!	0!	0!	0!	1258!

King Point

BEAUFORT SEA COASTAL SEDIMENT STUDY

WAVES 2/ 7/78 TO 7/ 9/83

DIRECTION 110 TO 120

WAVE !	Wave Period(secs)												Total!
INT(M)!													
	>	12	13	14	15	16	17	18	19	20	21	22	
.10!	284!	32!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	316!
.40!	218!	442!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	660!
.70!	0!	360!	148!	0!	0!	0!	0!	0!	0!	0!	0!	0!	508!
1.00!	0!	0!	16!	0!	0!	0!	0!	0!	0!	0!	0!	0!	16!
1.30!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
1.60!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
1.90!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.20!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.50!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.80!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.70!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.00!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
TOTAL!	502!	834!	164!	0!	0!	0!	0!	0!	0!	0!	0!	0!	1500!

DIRECTION 120 TO 130

WAVE !	Wave Period(secs)												Total!
INT(M)!													
	>	12	13	14	15	16	17	18	19	20	21	22	
.10!	136!	1!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	137!
.40!	95!	135!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	230!
.70!	0!	58!	4!	0!	0!	0!	0!	0!	0!	0!	0!	0!	62!
1.00!	0!	0!	4!	0!	0!	0!	0!	0!	0!	0!	0!	0!	4!
1.30!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
1.60!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
1.90!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.20!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.50!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.80!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.70!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.00!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
TOTAL!	221!	194!	8!	0!	0!	0!	0!	0!	0!	0!	0!	0!	423!

BEAUFORT SEA COASTAL SEDIMENT STUDY

King Point

WAVES 2/ 7/70 TO 7/ 9/83

DIRECTION 130 TO 140

WAVE !	Wave Period(secs)																Total!
HT(M)!																	
>	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	-
.10!	233!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	233!
.40!	124!	174!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	298!
.70!	0!	53!	1!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	54!
1.00!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
1.30!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
1.60!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
1.90!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.20!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.50!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.80!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.70!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.00!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
TOTAL!	357!	227!	1!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	585!

DIRECTION 140 TO 150

WAVE !	Wave Period(secs)																Total!
HT(M)!																	
>	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	-
.10!	359!	2!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	361!
.40!	178!	200!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	378!
.70!	0!	85!	5!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	90!
1.00!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
1.30!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
1.60!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
1.90!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.20!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.50!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.80!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.70!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.00!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
TOTAL!	537!	287!	5!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	829!

BEAUFORT SEA COASTAL SEDIMENT STUDY

King Point

WAVES 2/ 7/70 TO 7/ 9/83

DIRECTION 150 TO 160

WAVE !	Wave Period(secs)																Total!
HT(M)!																	
>	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	-
.10!	73!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	73!
.40!	15!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	15!
.70!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
1.00!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
1.30!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
1.60!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
1.90!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.20!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.50!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.80!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.70!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.00!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
TOTAL!	88!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	88!

DIRECTION 160 TO 170

WAVE !	Wave Period(secs)																Total!
HT(M)!																	
>	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	-
.10!	105!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	105!
.40!	19!	4!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	23!
.70!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
1.00!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
1.30!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
1.60!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
1.90!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.20!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.50!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.80!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.70!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.00!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
TOTAL!	124!	4!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	128!

King Point

BEAUFORT SEA COASTAL SEDIMENT STUDY

WAVES 2/ 7/78 TO 7/ 9/83

DIRECTION 170 TO 180

WAVE !	Wave Period(secs)										Total!
HT(N)!											
	1	2	3	4	5	6	7	8	9	10	
.10!	174!	0!	0!	0!	0!	0!	0!	0!	0!	0!	174!
.40!	52!	1!	0!	0!	0!	0!	0!	0!	0!	0!	53!
.70!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
1.00!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
1.30!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
1.60!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
1.90!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.20!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.50!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.80!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.70!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.00!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
TOTAL!	226!	1!	0!	0!	0!	0!	0!	0!	0!	0!	227!

DIRECTION 180 TO 190

WAVE !	Wave Period(secs)										Total!
HT(N)!											
	1	2	3	4	5	6	7	8	9	10	
.10!	155!	0!	0!	0!	0!	0!	0!	0!	0!	0!	155!
.40!	58!	0!	0!	0!	0!	0!	0!	0!	0!	0!	58!
.70!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
1.00!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
1.30!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
1.60!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
1.90!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.20!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.50!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.80!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.70!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.00!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
TOTAL!	213!	0!	0!	0!	0!	0!	0!	0!	0!	0!	213!

BEAUFORT SEA COASTAL SEDIMENT STUDY

OFFSHORE TO ONSHORE WAVE TRANSFORMATION FUNCTIONS

KING POINT

KEITH PHILPOTT CONSULTING LTD.
P.O. Box 938
THORNHILL
ONTARIO L3T 4A5

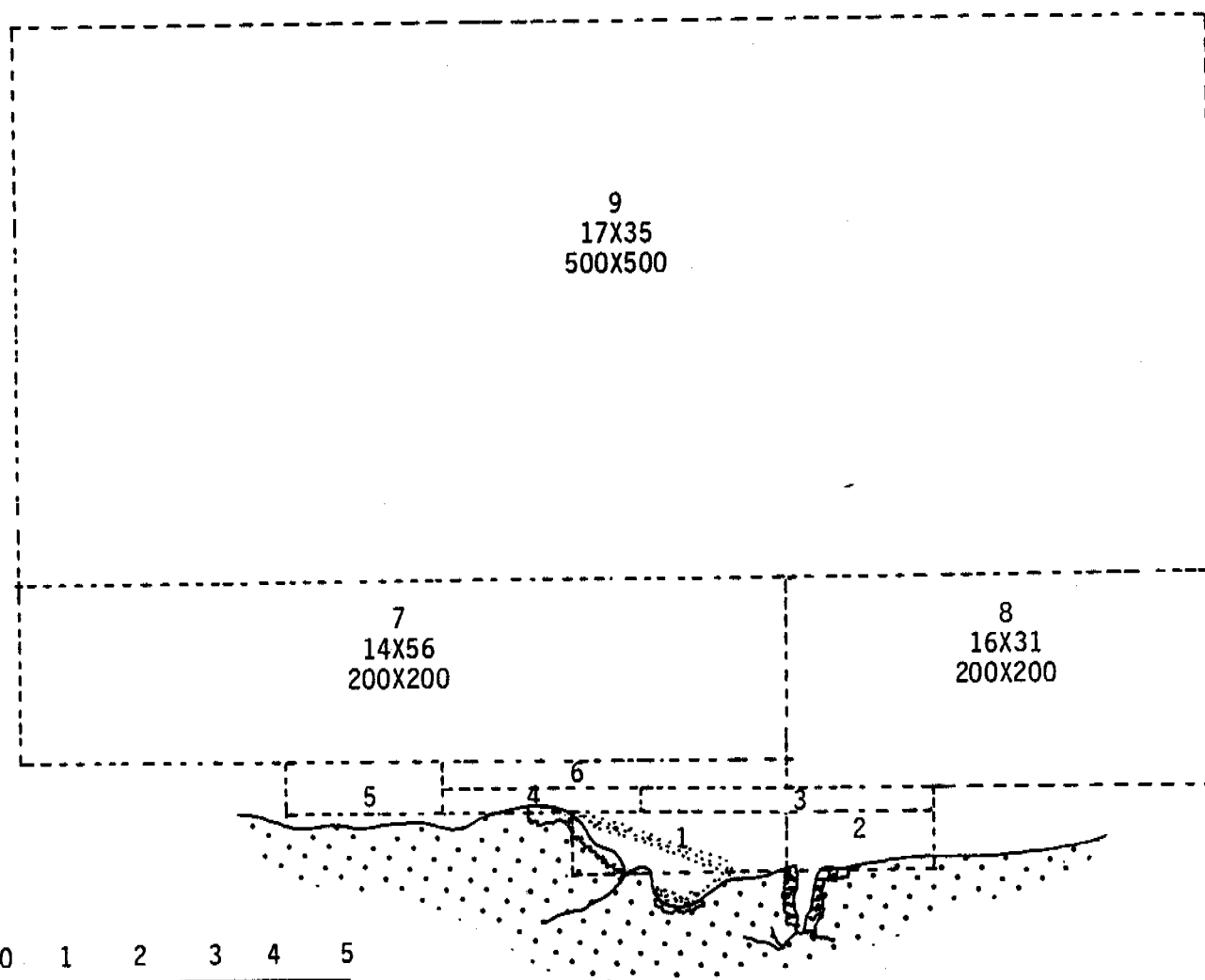
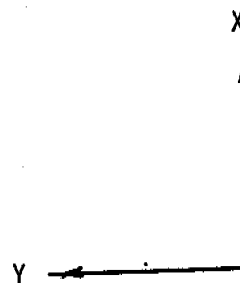
KEY

Grid Number

Nodal Dimensions (XxY)

Mesh Size

1	4
19X61	9X61
50X50	50X50
2	5
10X22	9X23
100X100	100X100
3	6
5X41	5X51
100X100	100X100



0 1 2 3 4 5

X 1000 Metres

BEAUFORT SEA COASTAL SEDIMENT STUDY

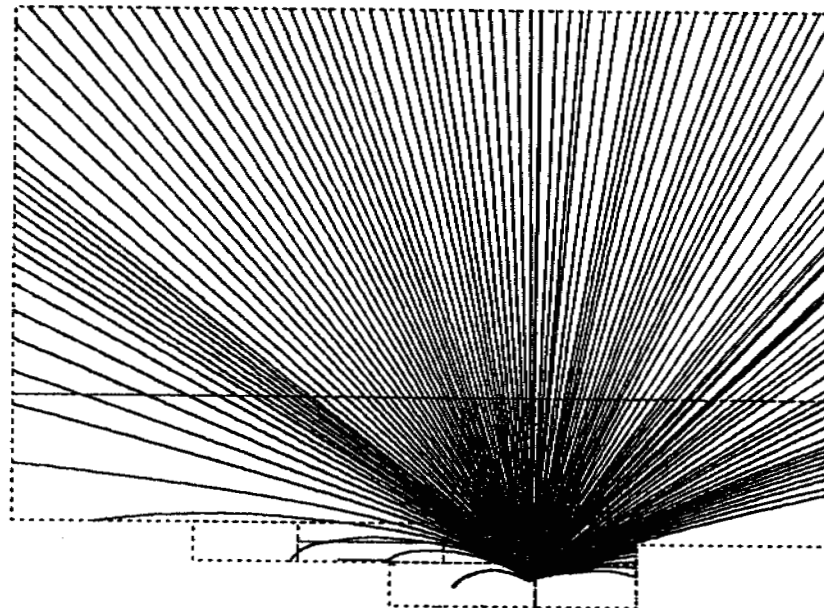
King Point: Nodal Dimensions and Mesh Size of
Refraction Model Grids

Date: 14 May 85

Scales as shown

Checked by:

Keith Philpott
Consulting Limited



WAVE RAY DETAILS

Tide Level= 0.50 m.

Wave Period= 5.0 secs

Position No:4

Bathymetry information used for
grids obtained from the following
sources:

- C.N.S. Field Sheets numbered:
V.R. 10070 (1970)
V.R. 10071 (1970)
- Soundings taken by Peter Kievitt
Construction Co. Ltd. (1984).
Original notes by Bonnie McDona
& a scaled version by Dave Frobe



BEAUFORT COASTAL SEDIMENT STUDY

Wave Refraction Analysis for

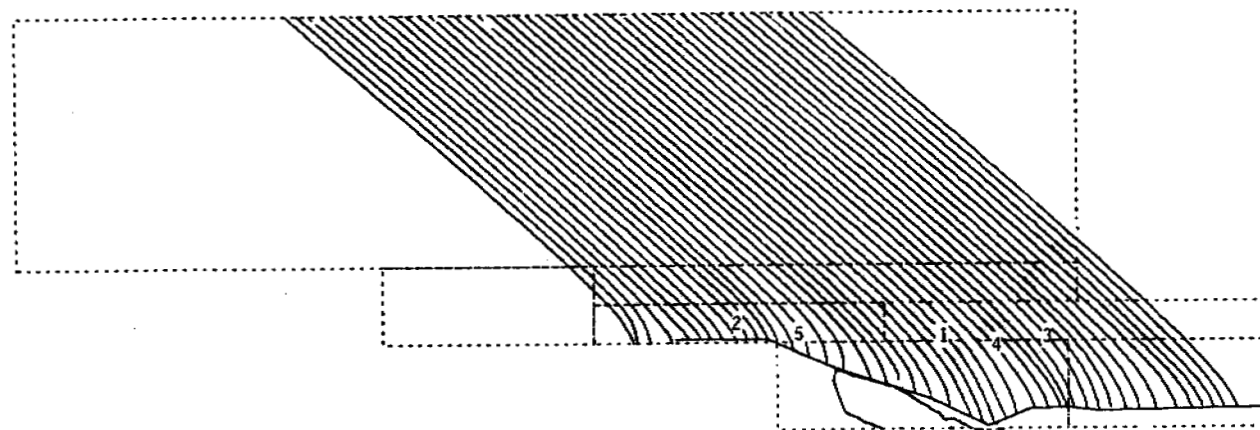
King Point - Beaufort Sea

Date: 8 Mar 85

Scale 1:100000

Checked by:

Keith Philpott
Consulting Limited



WAVE RAY DETAILS

Tide Level= 0.50 m.

Wave Period= 5.0 secs

Direction= 229.0 Degrees True

Bathymetry Information used for grids obtained from the following sources:

- C.M.S. Field Sheets numbered:
V.A. 18878 (1978)
V.A. 18871 (1978)
- Soundings taken by Peter Kaevitt
Construction Co. Ltd. (1984).
Original notes by Bonnie McDona
& a scaled version by Dave Proba



BEAUFORT COASTAL SEDIMENT STUDY

Wave Refraction Analysis for

King Point - Beaufort Sea
showing Node Locations

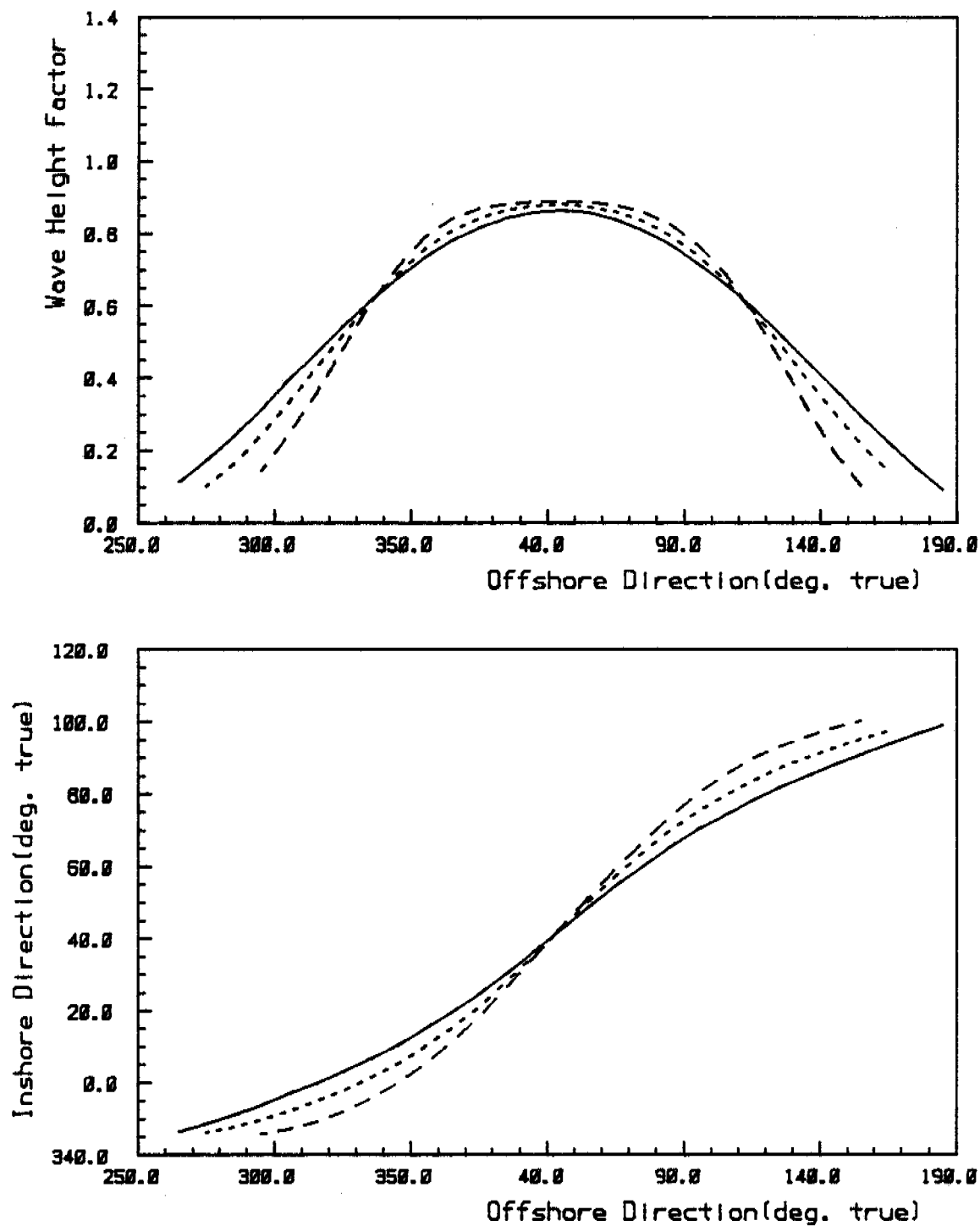
Date: 31 Jan 85

Scale 1:50000

Checked by:

Keith Philpott

Consulting Limited



Node No: 1

Spreading Index:

2

Tide Level: 0.50 m.

4

Peak Period: 3.2 secs

10

BEAUFORT SEA COASTAL SEDIMENT STUDY

Date: 15 Apr 85

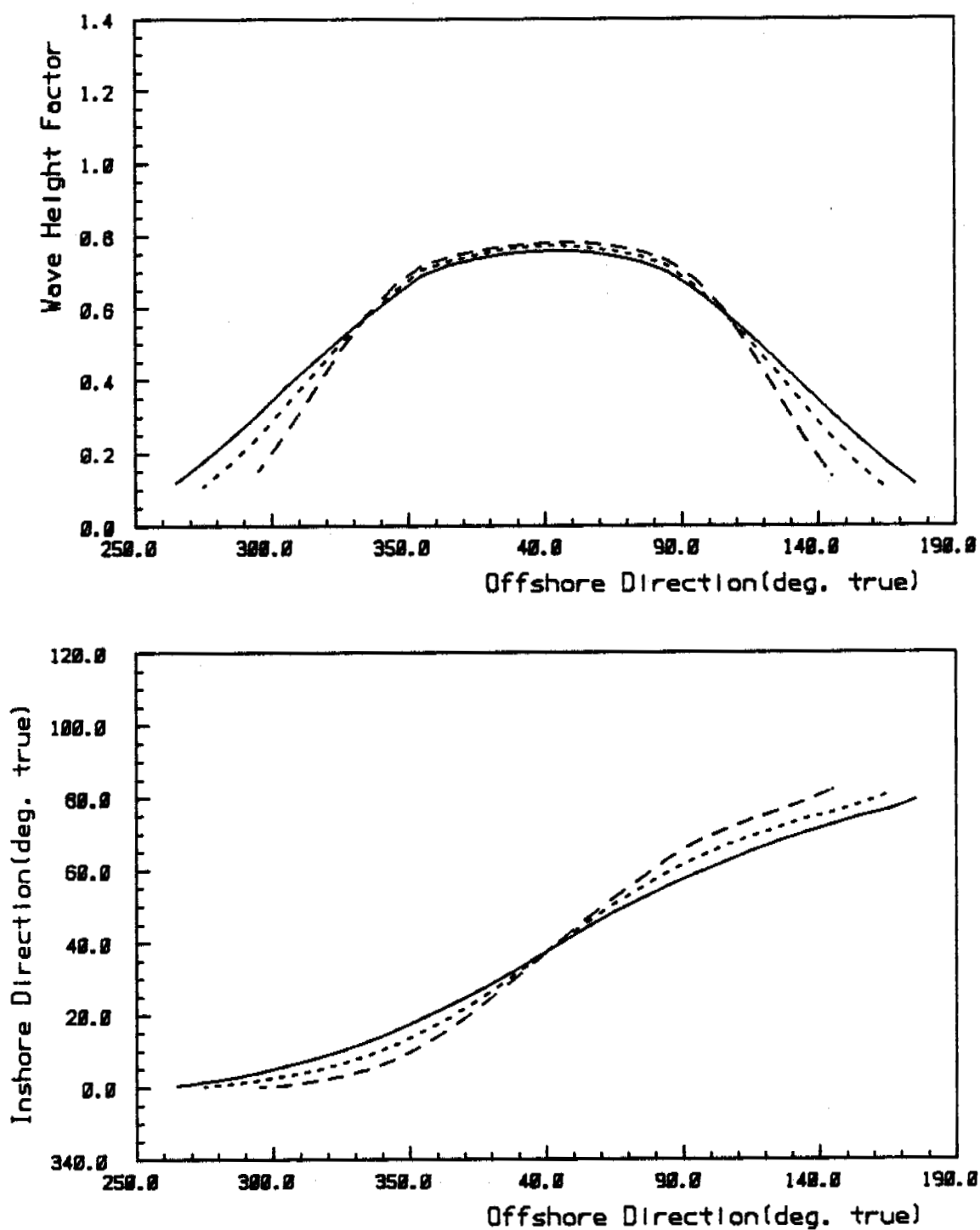
Scale as shown

Checked by:

Keith Philpott

Consulting Limited

King Point: Wave Spectrum Transformation Results for
Node Number 01



Node No: 1

Spreading Index:

2

Tide Level: 0.50 m.

4

Peak Period: 5.0 secs

10

BEAUFORT SEA COASTAL SEDIMENT STUDY

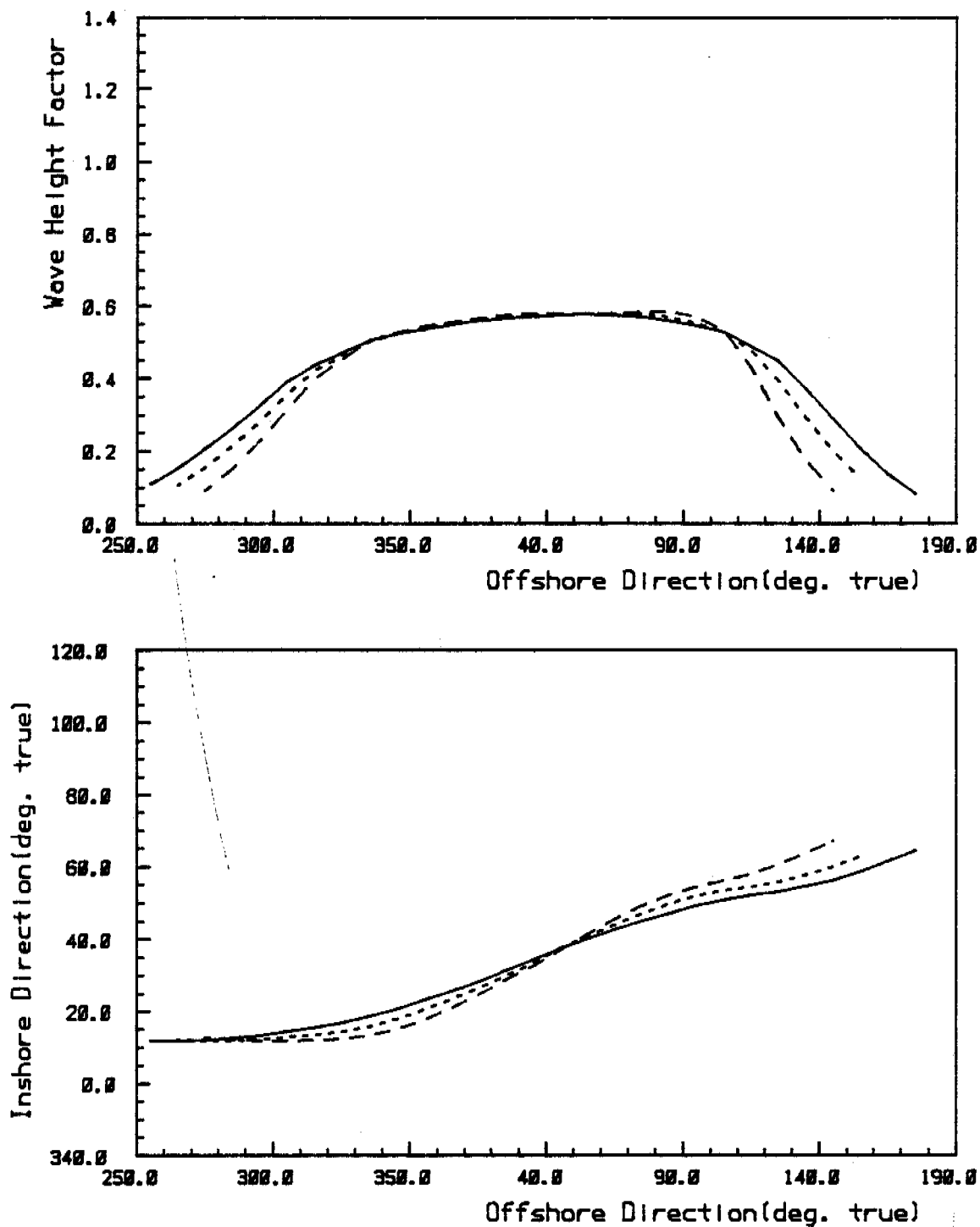
King Point: Wave Spectrum Transformation Results for
Node Number 01

Date: 15 Apr 85

Scales as shown

Checked by:

Keith Philpott
Consulting Limited



Node No: 1

Spreading Index:

2

Tide Level: 0.50 m.

4

Peak Period: 7.9 secs

10

BEAUFORT SEA COASTAL SEDIMENT STUDY

Date: 15 Apr 85

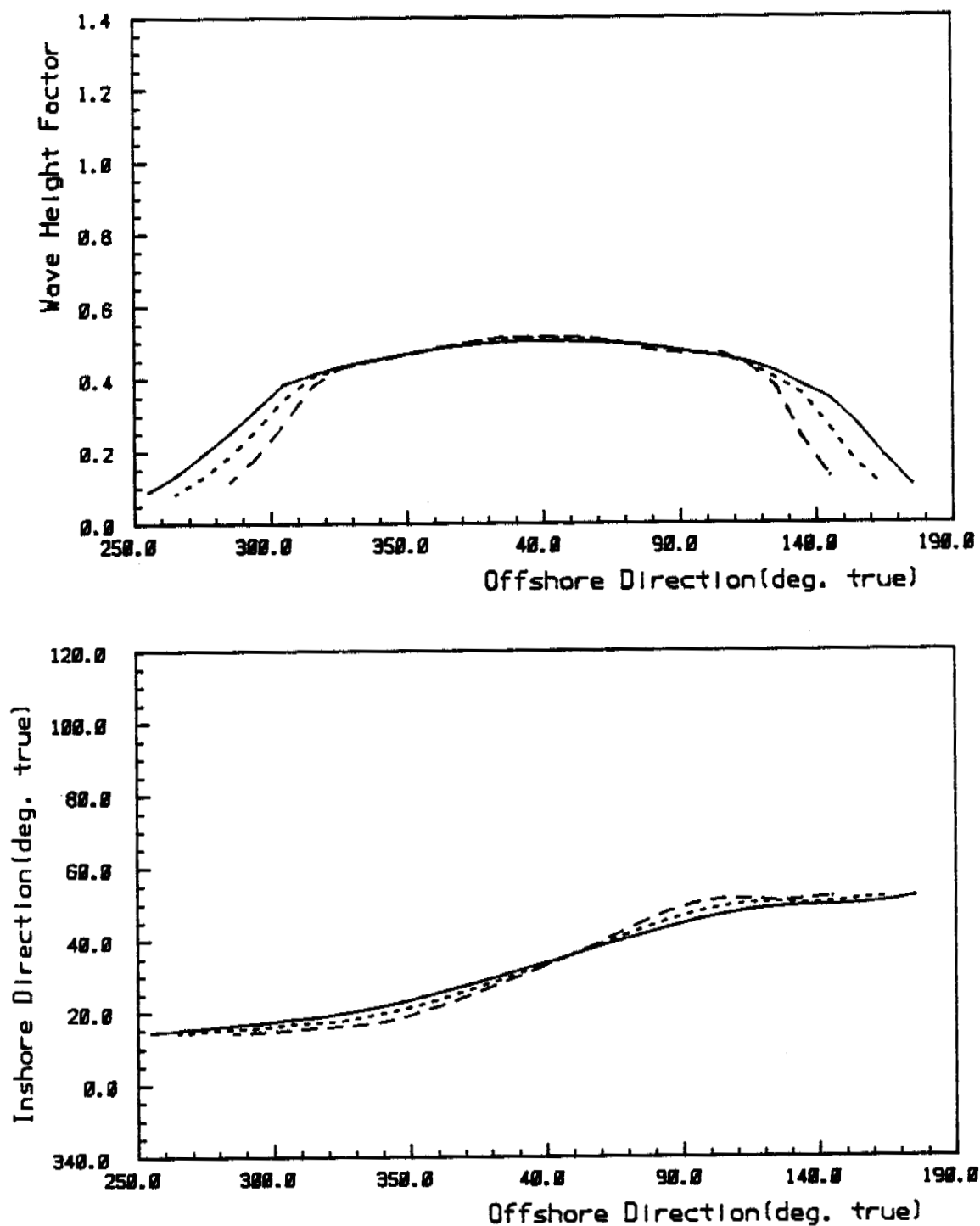
Scale as shown

Checked by:

Keith Philpott

Consulting Limited

King Point: Wave Spectrum Transformation Results for
Node Number 01



Node No: 1

Spreading Index:

2

Tide Level: 0.50 m.

4

Peak Period: 10.0 secs

10

BEAUFORT SEA COASTAL SEDIMENT STUDY

Date: 15 Apr 85

Scales as shown

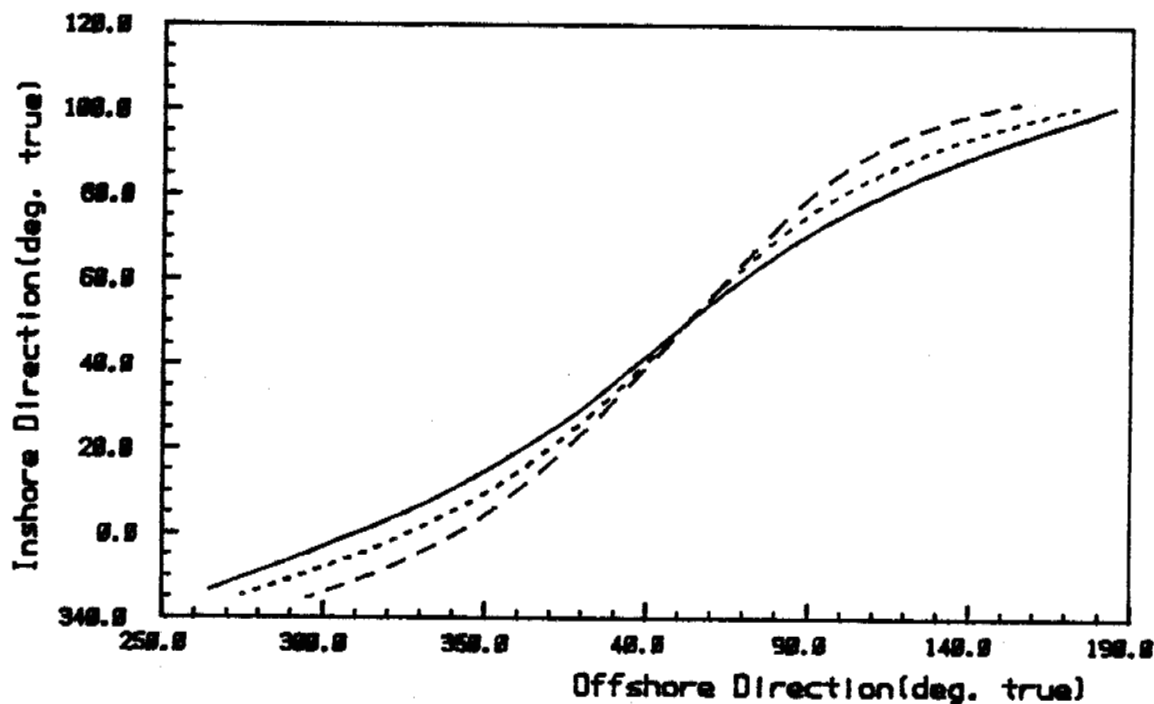
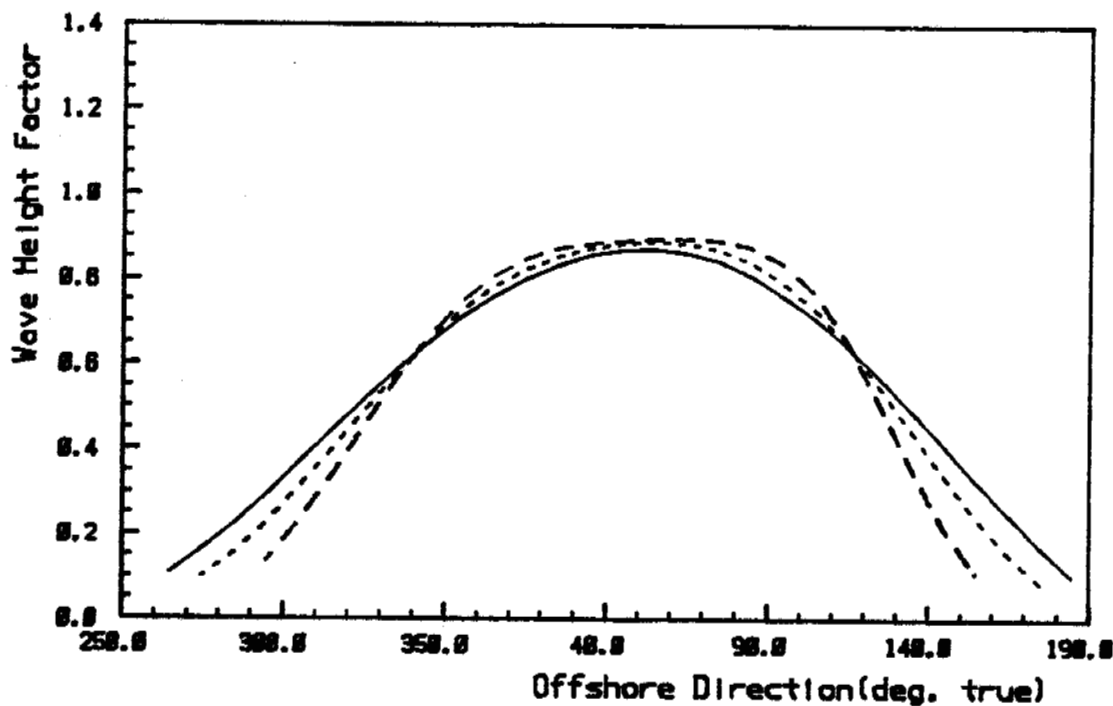
King Point: Wave Spectrum Transformation Results for
Node Number 01

Checked by:

Keith Philpott

Consulting Limited

FIGURE



Node No: 1

Tide Level: 2.25 m.

Peak Period: 3.2 secs

Spreading Index:

2

4

18

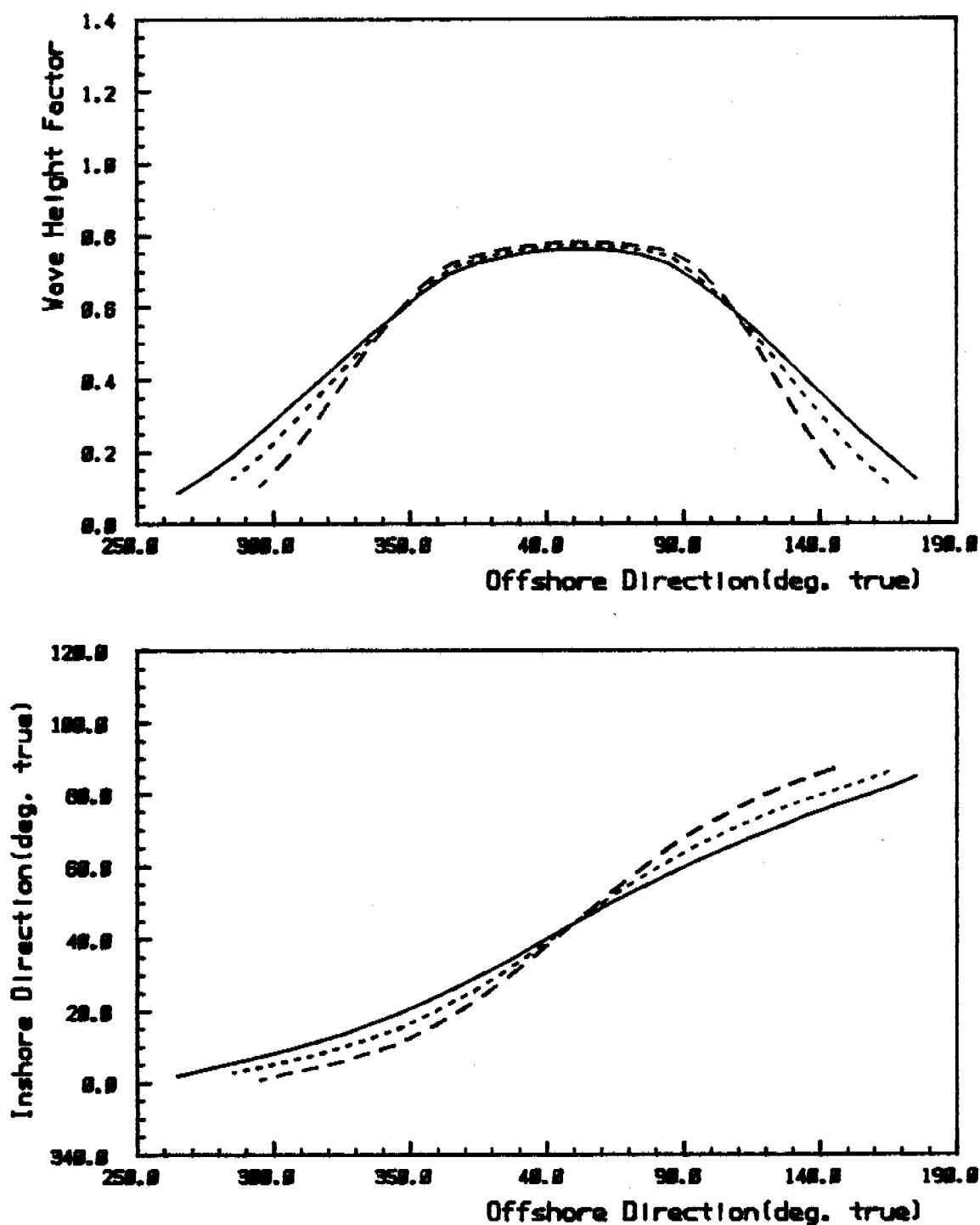
BEAUFORT SEA COASTAL SEDIMENT SYUDY

Date: 27 Mar 85

Scale as shown

Checked by:

Keith Philpott
Consulting LimitedKing Point: Wave Spectrum Transformation Results for
Node Number 01



Node No: 1

Spreading Index:

2

Tide Level: 2.25 m.

4

Peak Period: 5.0 secs

10

BEAUFORT SEA COASTAL SEDIMENT STUDY

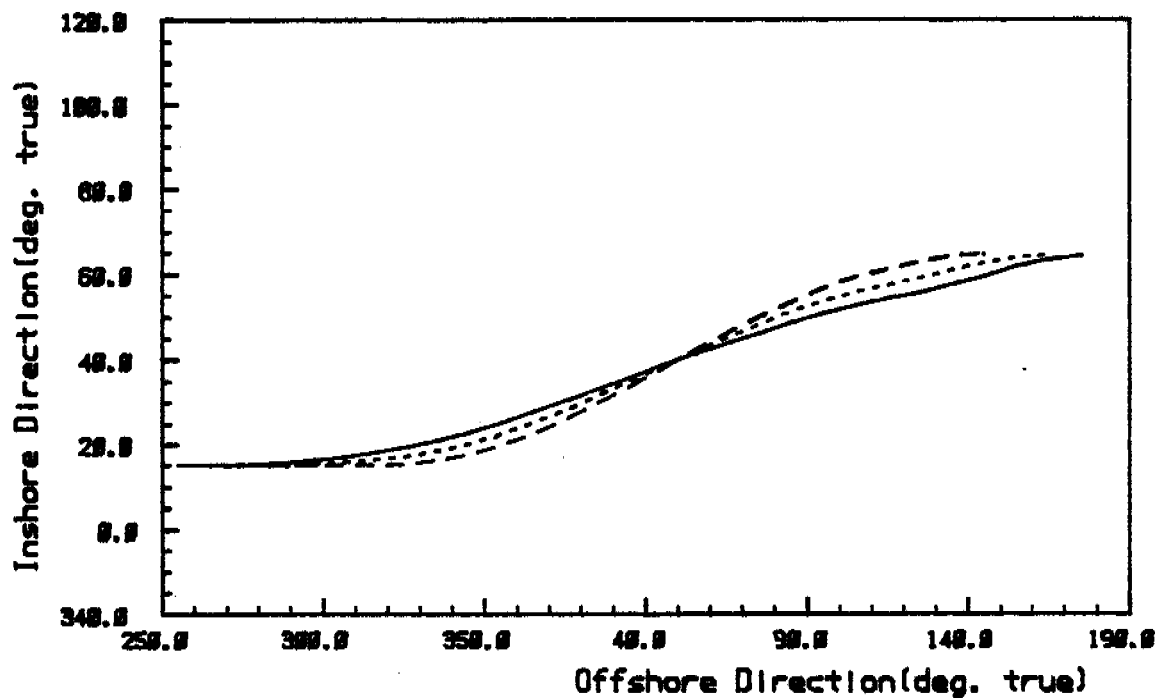
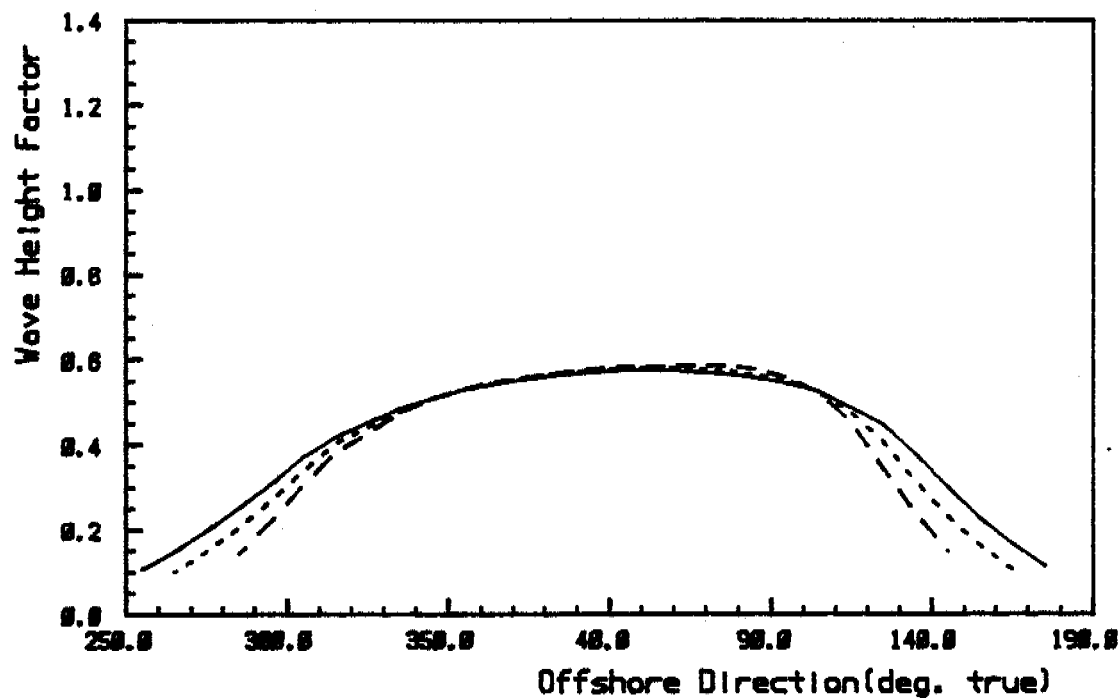
Date: 27 Mar 85

Scale as shown

King Point: Wave Spectrum Transformation Results for
Node Number 01

Checked by:

Keith Philpott
Consulting Limited



Node No: 1

Spreading Index:

2

Tide Level: 2.25 m.

4

Peak Period: 7.9 secs

10

BEAUFORT SEA COASTAL SEDIMENT STUDY

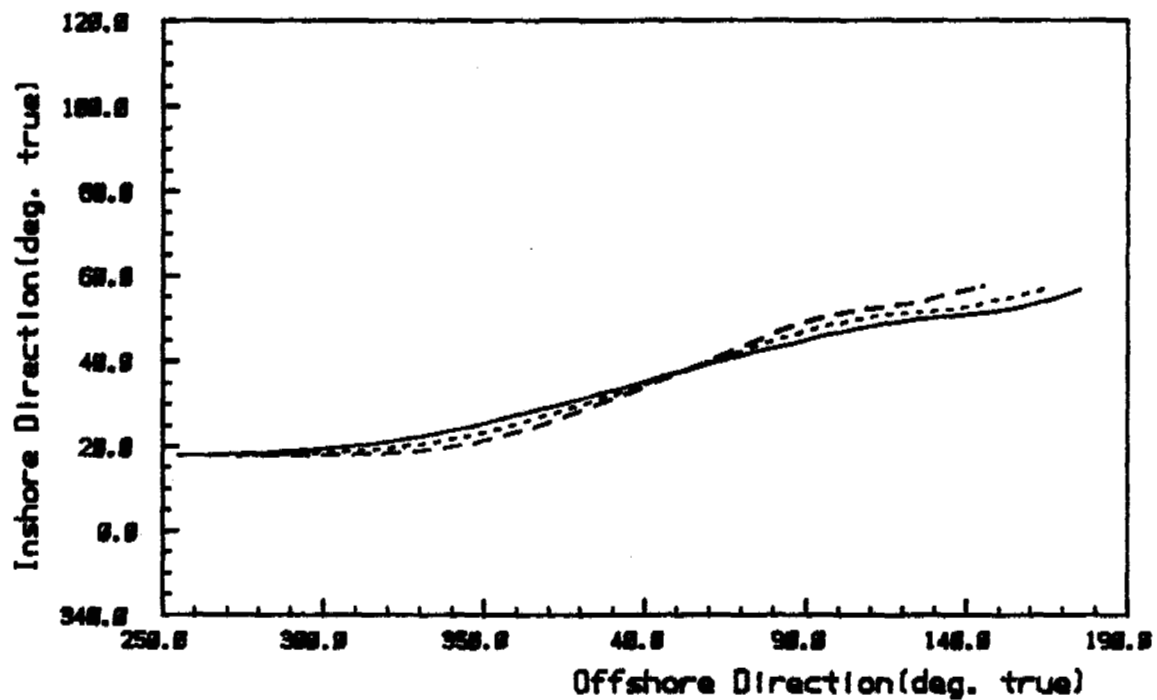
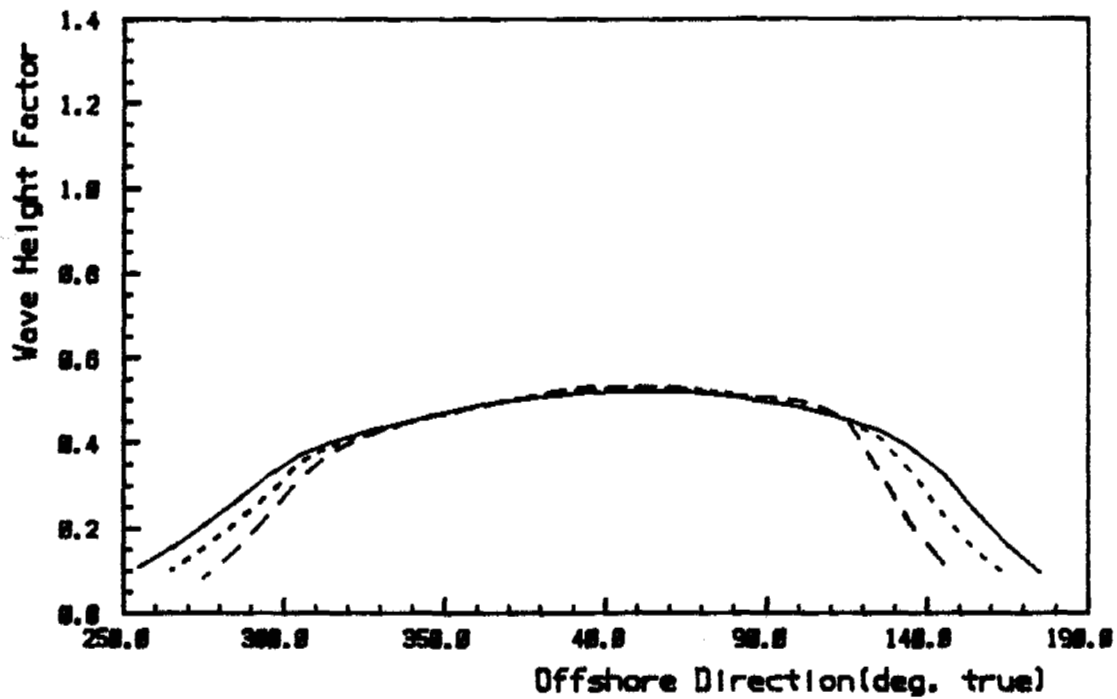
Date: 27 Mar 85

Scales as shown

Checked by:

Keith Philpott
Consulting LimitedKing Point: Wave Spectrum Transformation Results for
Node Number 01

FIGURE



Node No: 1

Spreading Index:

2

Tide Level: 2.25 m.

4

Peak Period: 10.0 secs

10

BEAUFORT SEA COASTAL SEDIMENT STUDY

Date: 27 Mar 85

Scales as shown

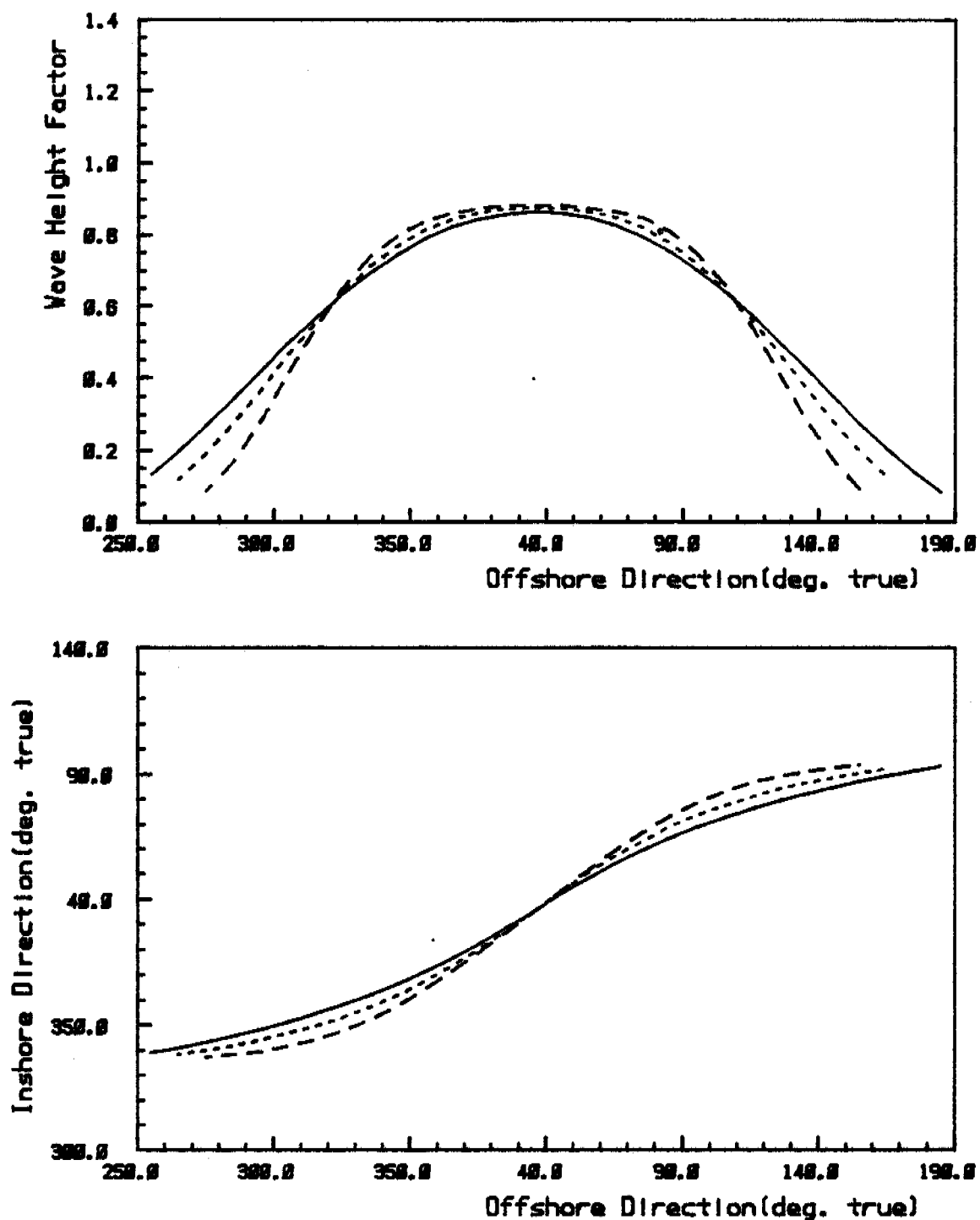
King Point: Wave Spectrum Transformation Results for

Checked by:

Node Number 01

Keith Philpott
Consulting Limited

FIGURE



Node No: 2

Spreading Index:

2

Tide Level: 0.50 m.

4

Peak Period: 3.2 secs

10

BEAUFORT SEA COASTAL SEDIMENT STUDY

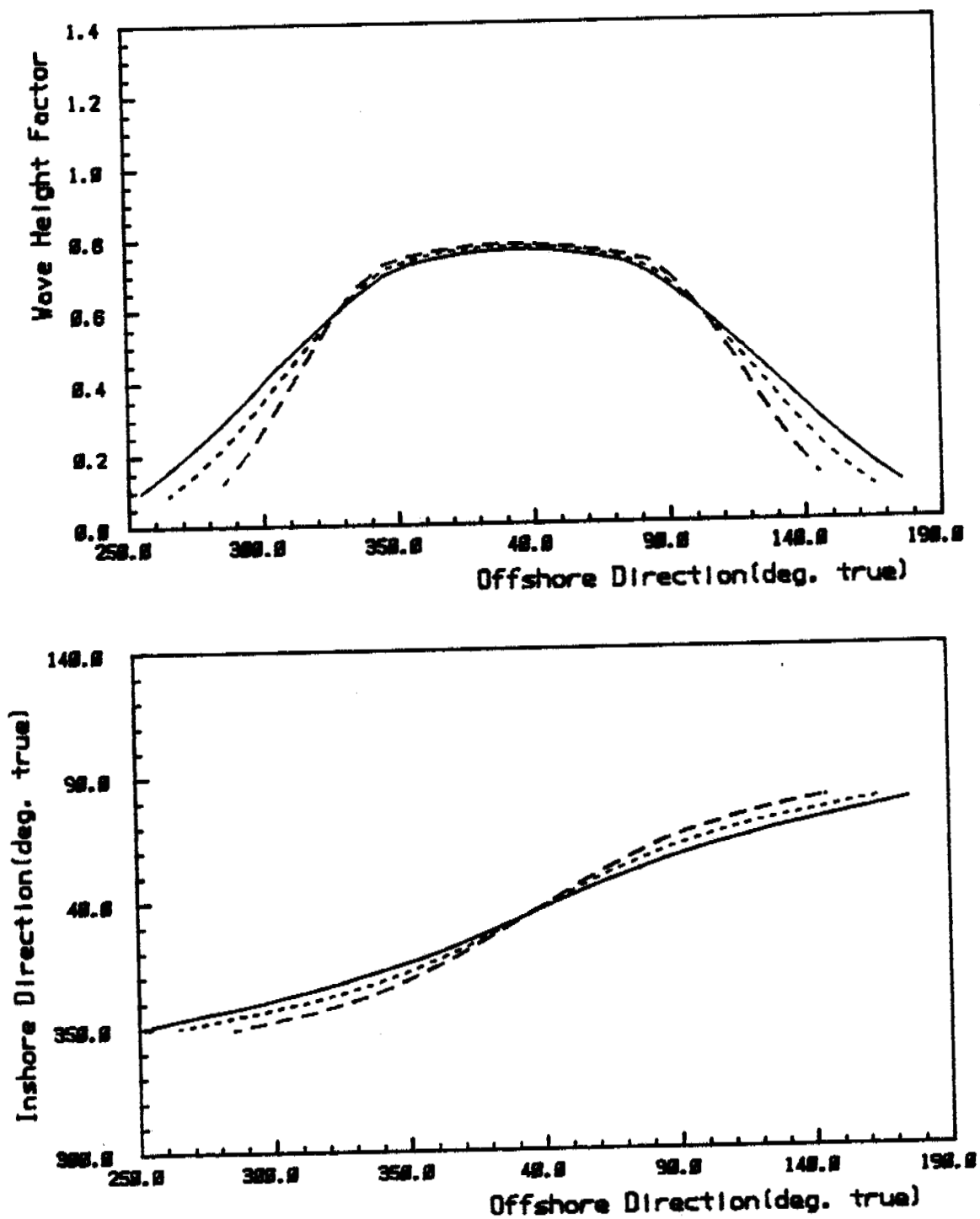
Date: 27 Mar 85

Scales as shown

King Point: Wave Spectrum Transformation Results for
Node Number 02

Checked by:

Keith Philpott
Consulting Limited



Node No: 2

Tide Level: 0.50 m.

Peak Period: 5.0 secs

Spreading Index:

2

4

10

BEAUFORT SEA COASTAL SEDIMENT STUDY

King Point: Wave Spectrum Transformation Results for
Node Number 02

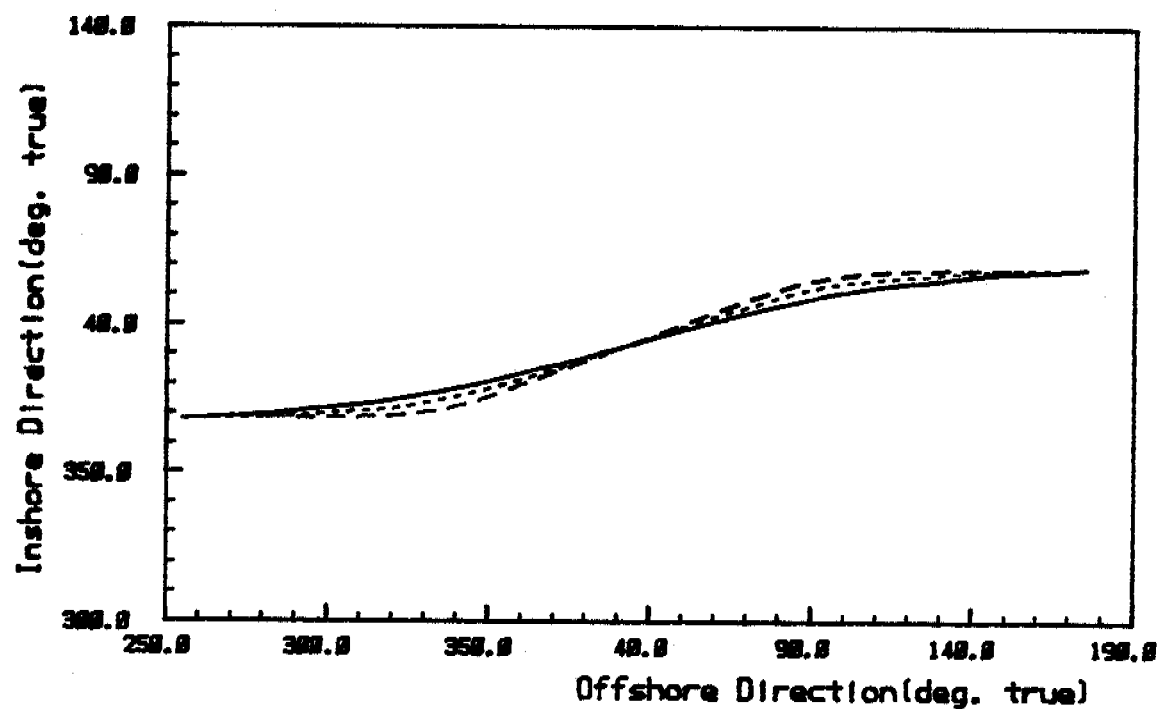
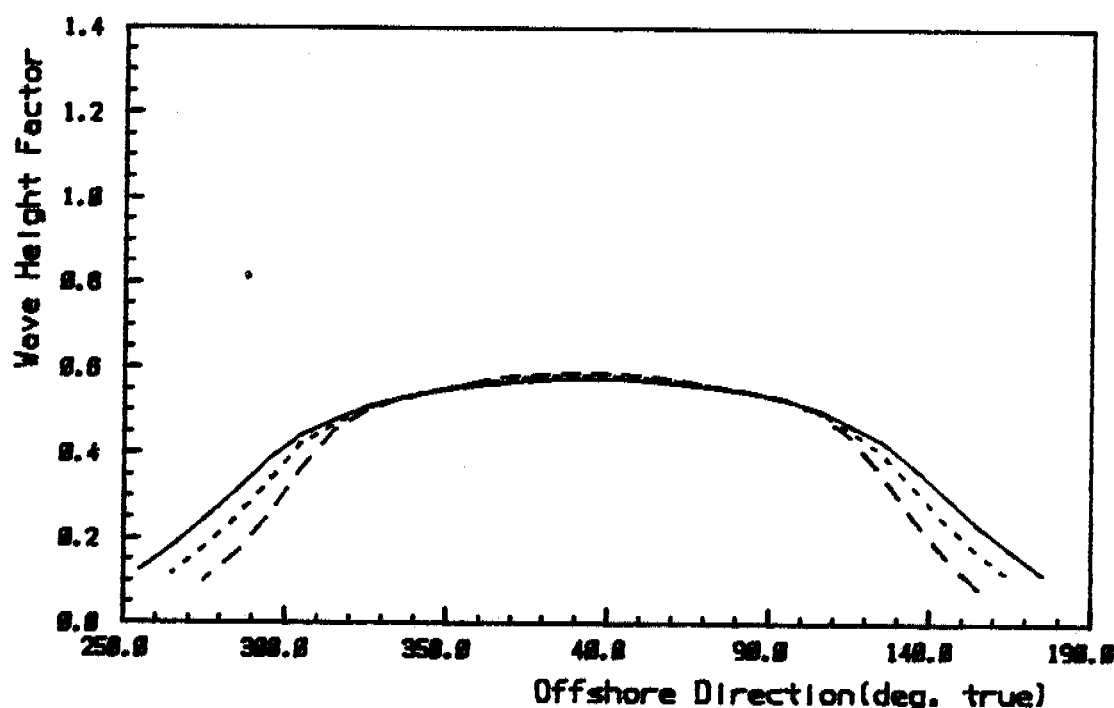
Date: 27 Mar 85

Scales as shown

Checked by:

Keith Philpott
Consulting Limited

FIGURE



Node No: 2

Spreading Index:

2

Tide Level: 0.50 m.

4

Peak Period: 7.9 secs

18

BEAUFORT SEA COASTAL SEDIMENT STUDY

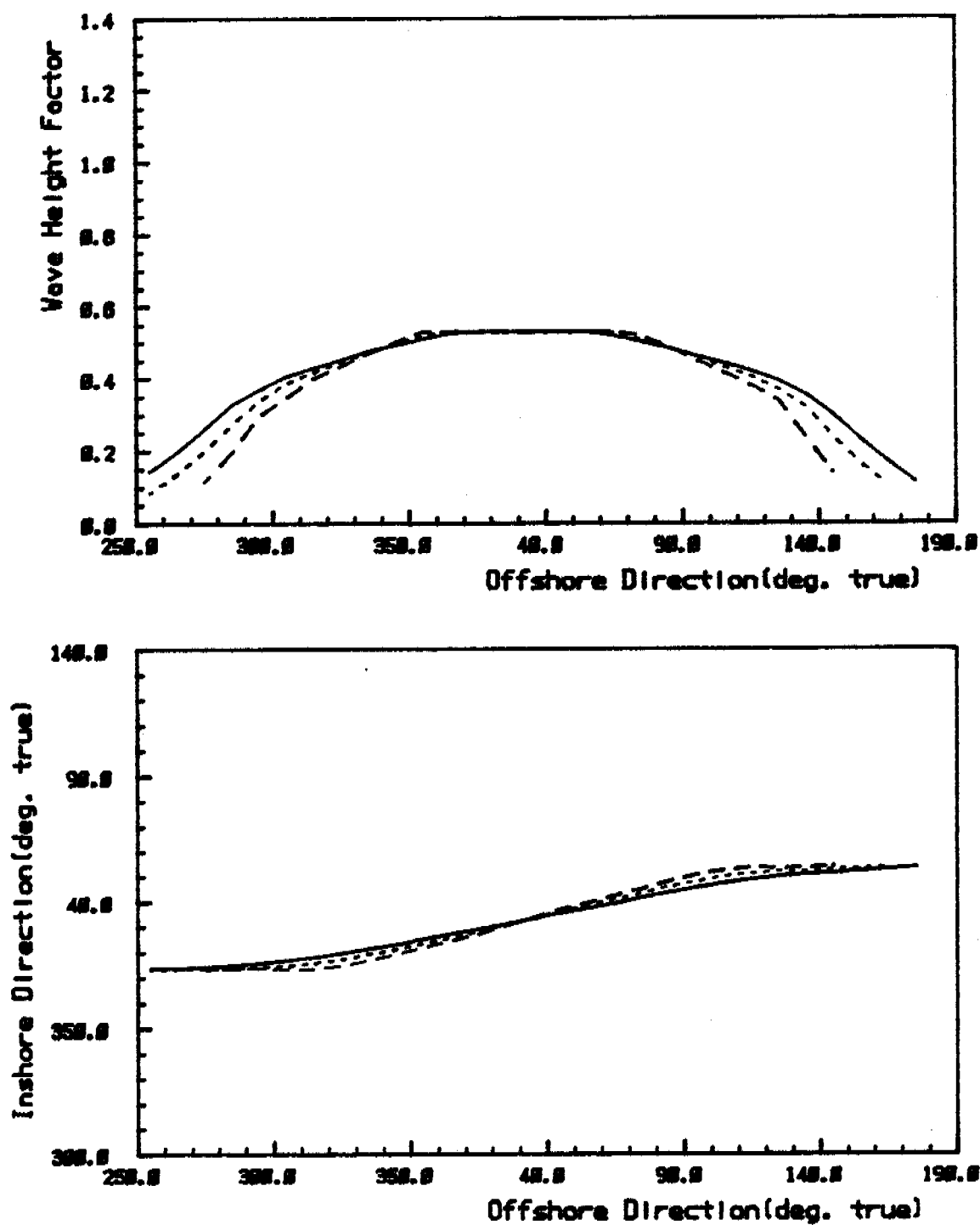
King Point: Wave Spectrum Transformation Results for
Node Number 02

Date: 27 Mar 85

Scale as shown

Checked by:

Keith Philpott
Consulting Limited



Node No: 2

Tide Level: 0.50 m.

Peak Period: 10.0 secs

Spreading Index:

2

4

10

BEAUFORT SEA COASTAL SEDIMENT STUDY

King Point: Wave Spectrum Transformation Results for
Node Number 02

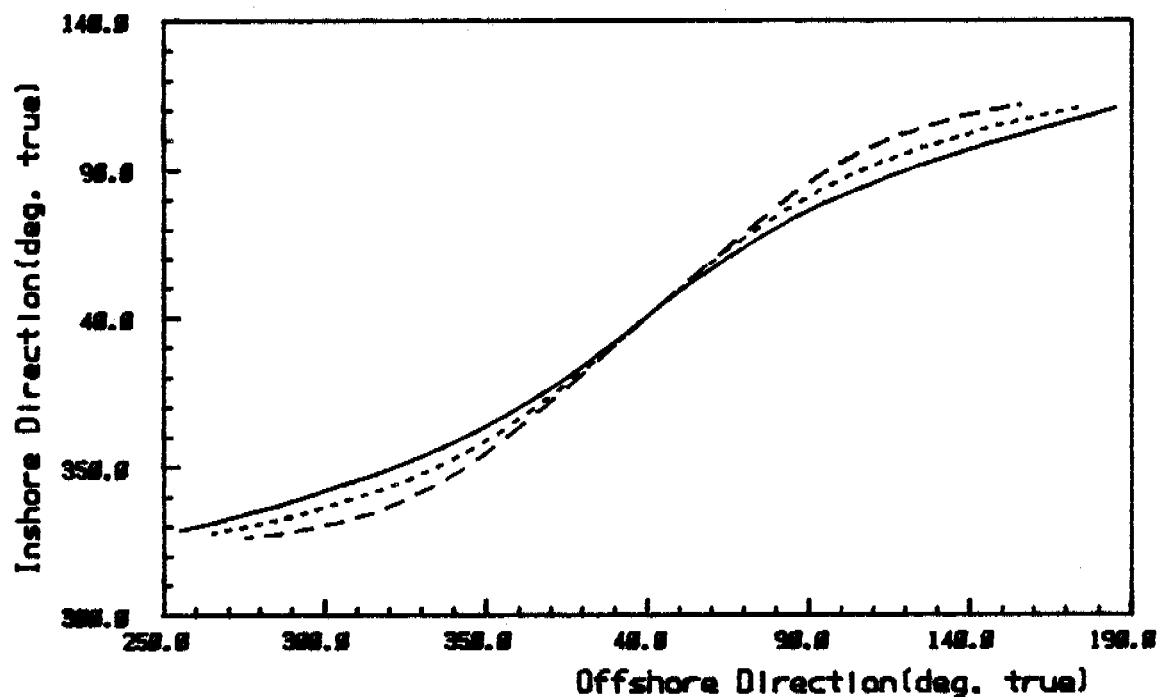
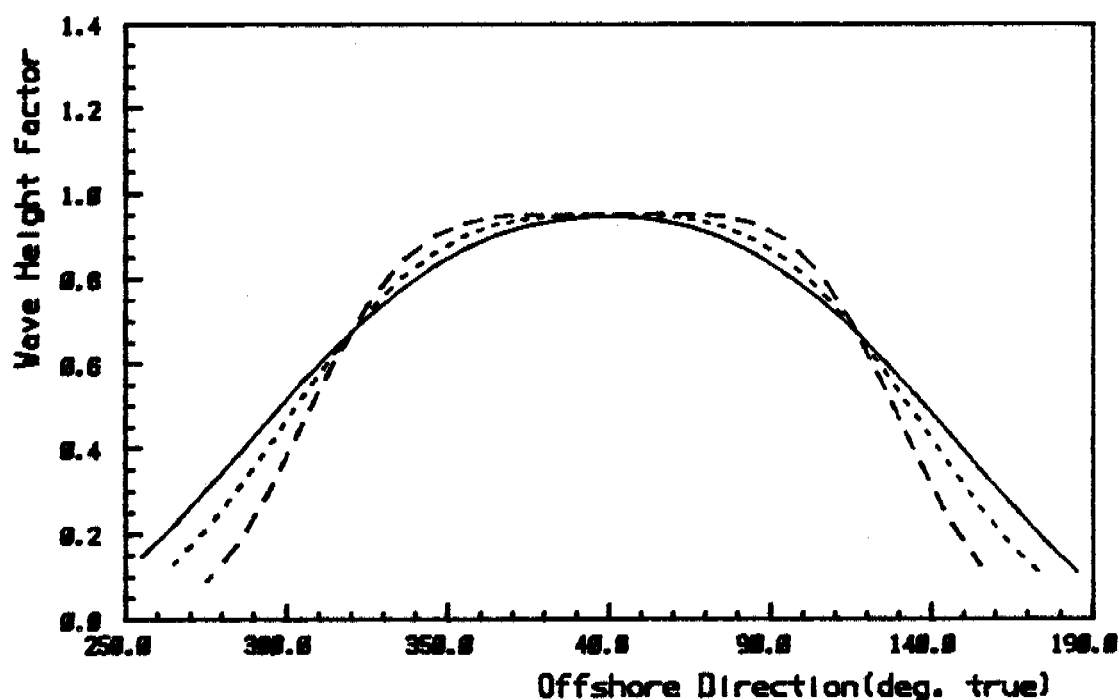
Date: 27 Mar 05

Scales as shown

Checked by:

Keith Philpott
Consulting Limited

FIGURE



Node No: 3

Spreading Index:

2

Tide Level: 0.50 m.

4

Peak Period: 3.2 secs

18

BEAUFORT SEA COASTAL SEDIMENT STUDY

Date: 27 Mar 85

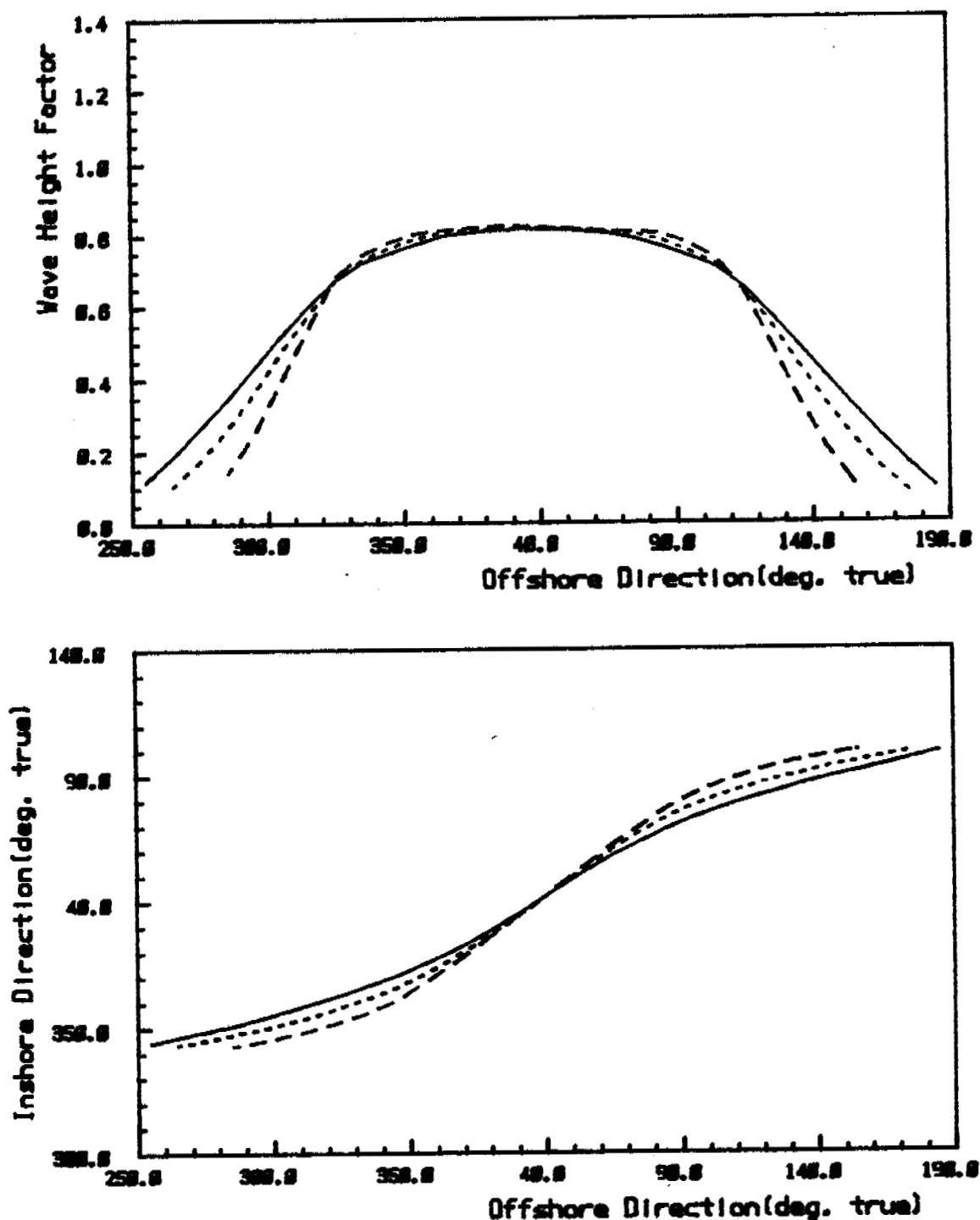
Scale as shown

King Point: Wave Spectrum Transformation Results for
Node Number 03

Checked by:

Keith Philpott

Consulting Limited



Node No: 3

Tide Level: 0.50 m.

Peak Period: 5.0 secs

Spreading Index:

2

4

10

BEAUFORT SEA COASTAL SEDIMENT STUDY

King Point: Wave Spectrum Transformation Results for
Node Number 03

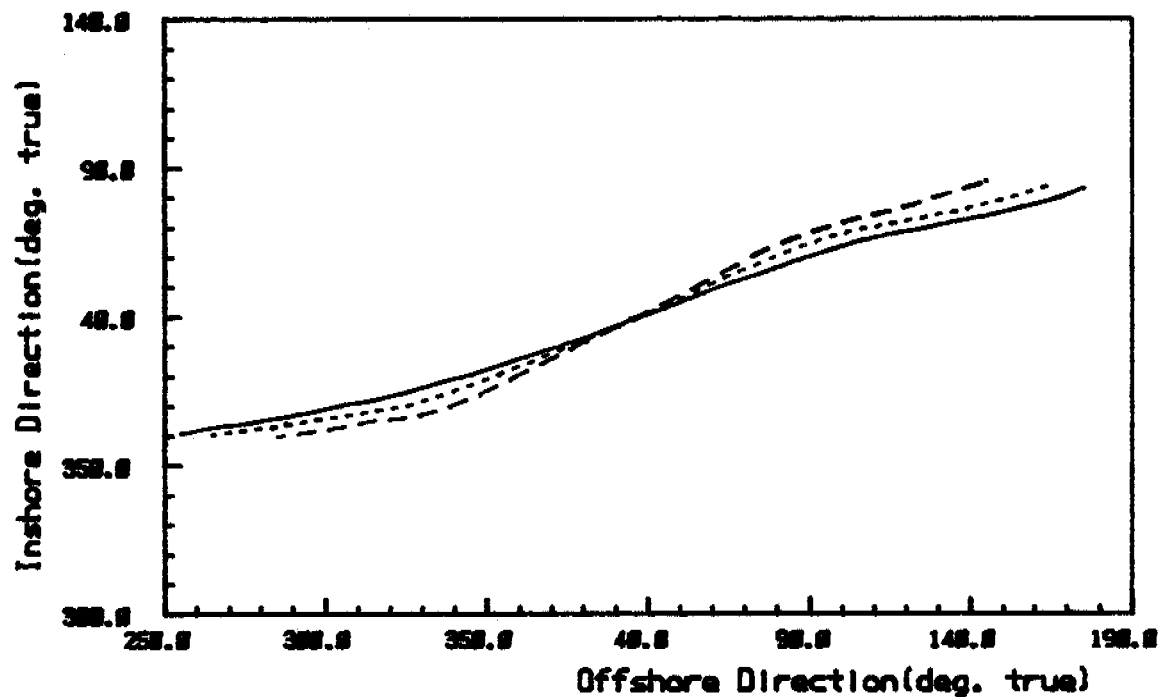
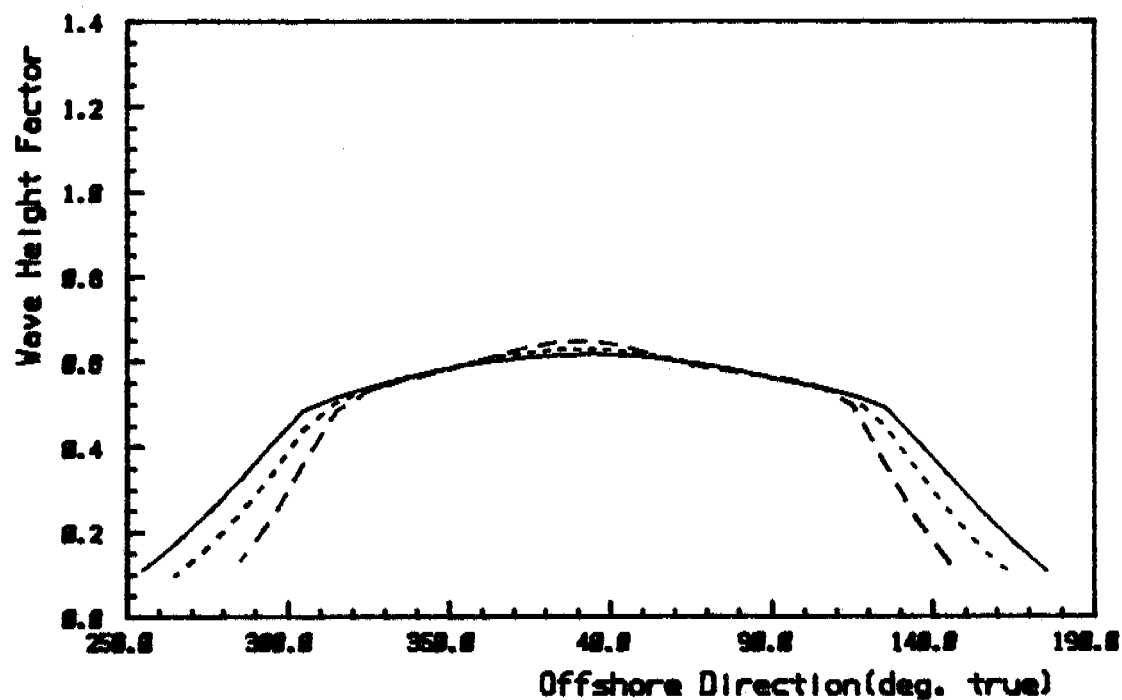
Date: 27 Mar 85

Scale as shown

Checked by:

Keith Philpott
Consulting Limited

FIGURE



Node No: 3

Spreading Index:

2

Tide Level: 8.50 m.

4

Peak Period: 7.9 secs

10

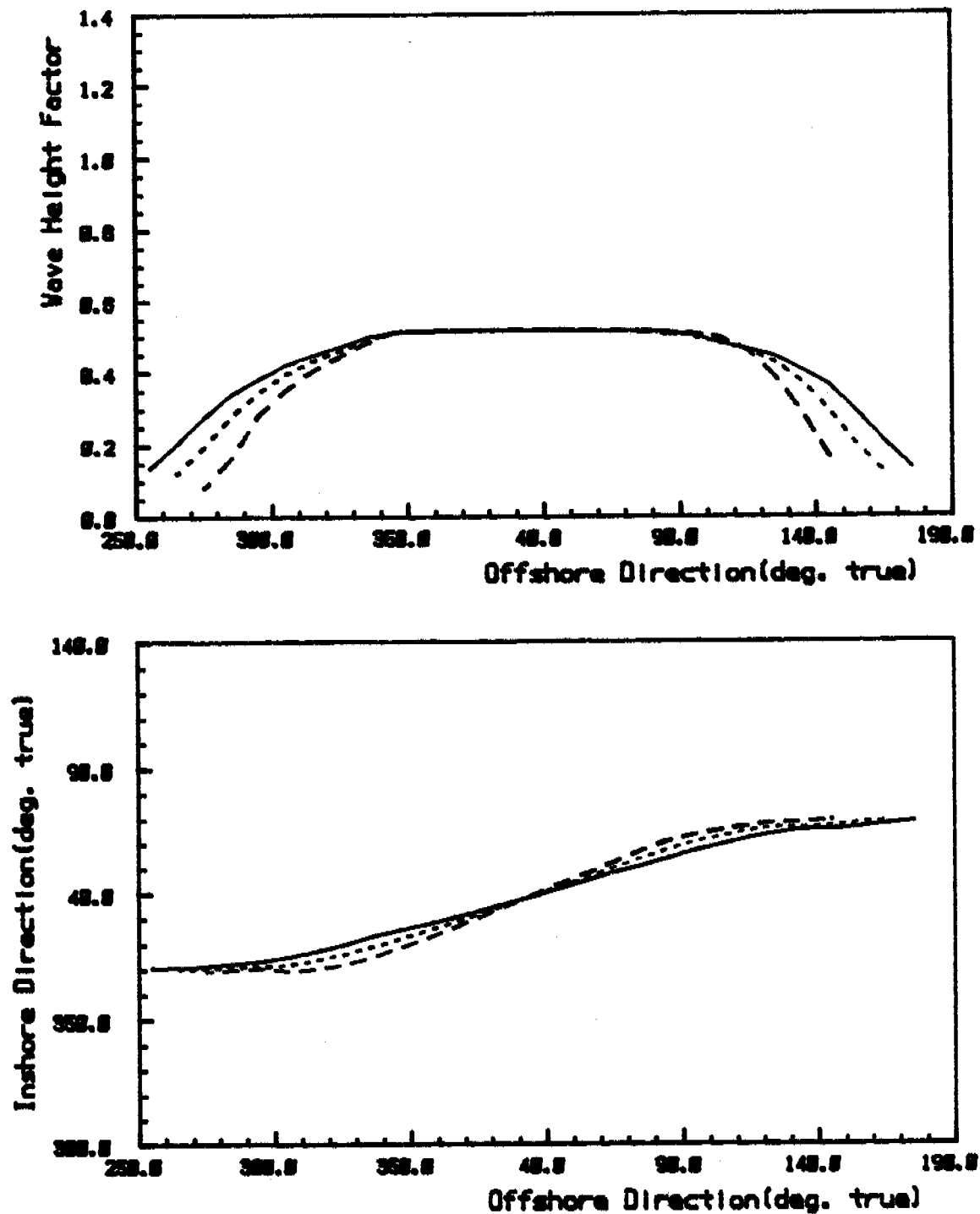
BEAUFORT SEA COASTAL SEDIMENT STUDY

Date: 27 Mar 85

Scale: as shown

Checked by:

Keith Philpott
Consulting LimitedKing Point: Wave Spectrum Transformation Results for
Node Number 03



Node No: 3

Spreading Index:

2

Tide Level: 0.50 m.

4

Peak Period: 10.0 secs

10

BEAUFORT SEA COASTAL SEDIMENT STUDY

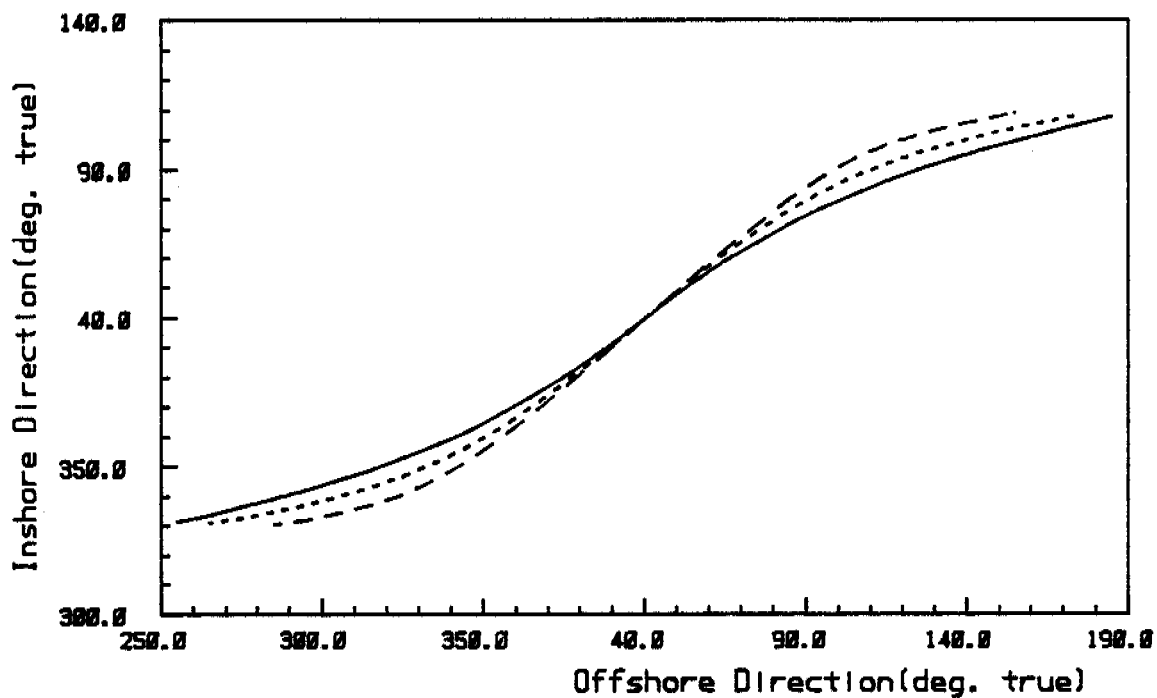
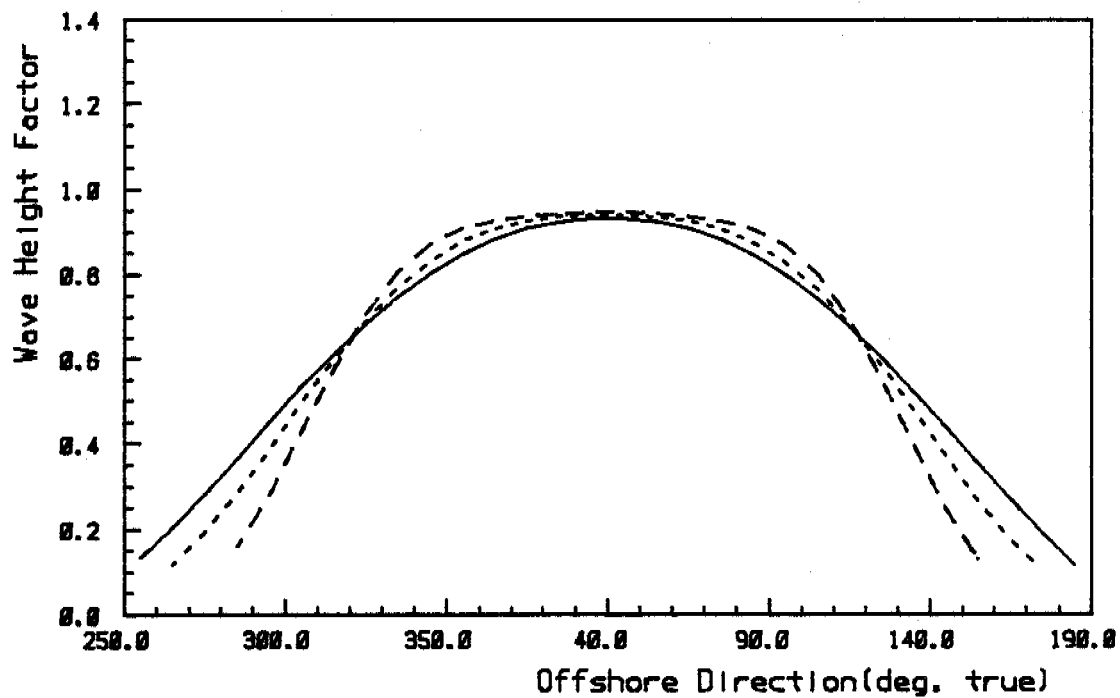
Date: 27 Mar 85

Scales as shown

King Point: Wave Spectrum Transformation Results for
Node Number 03

Checked by:

Keith Philpott
Consulting Limited



Node No: 4

Spreading Index:

2

Tide Level: 0.50 m.

4

Peak Period: 3.2 secs

10

BEAUFORT SEA COASTAL SEDIMENT STUDY

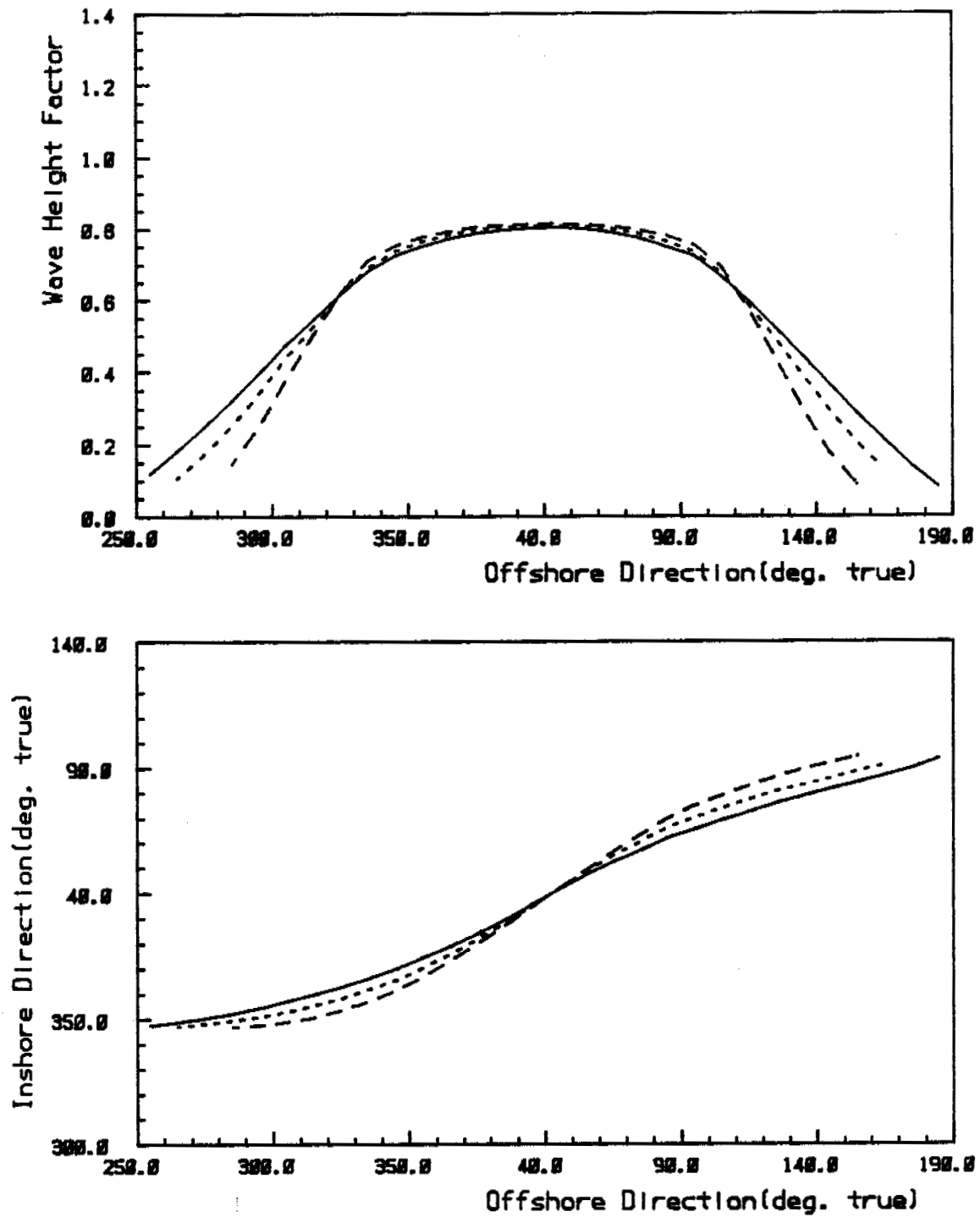
Date: 27 Mar 85

Scales as shown

King Point: Wave Spectrum Transformation Results for
Node Number 04

Checked by:

Keith Philpott
Consulting Limited



Node No: 4

Spreading Index:

2

Tide Level: 0.50 m.

4

Peak Period: 5.0 secs

10

BEAUFORT SEA COASTAL SEDIMENT STUDY

Date: 27 Mar 85

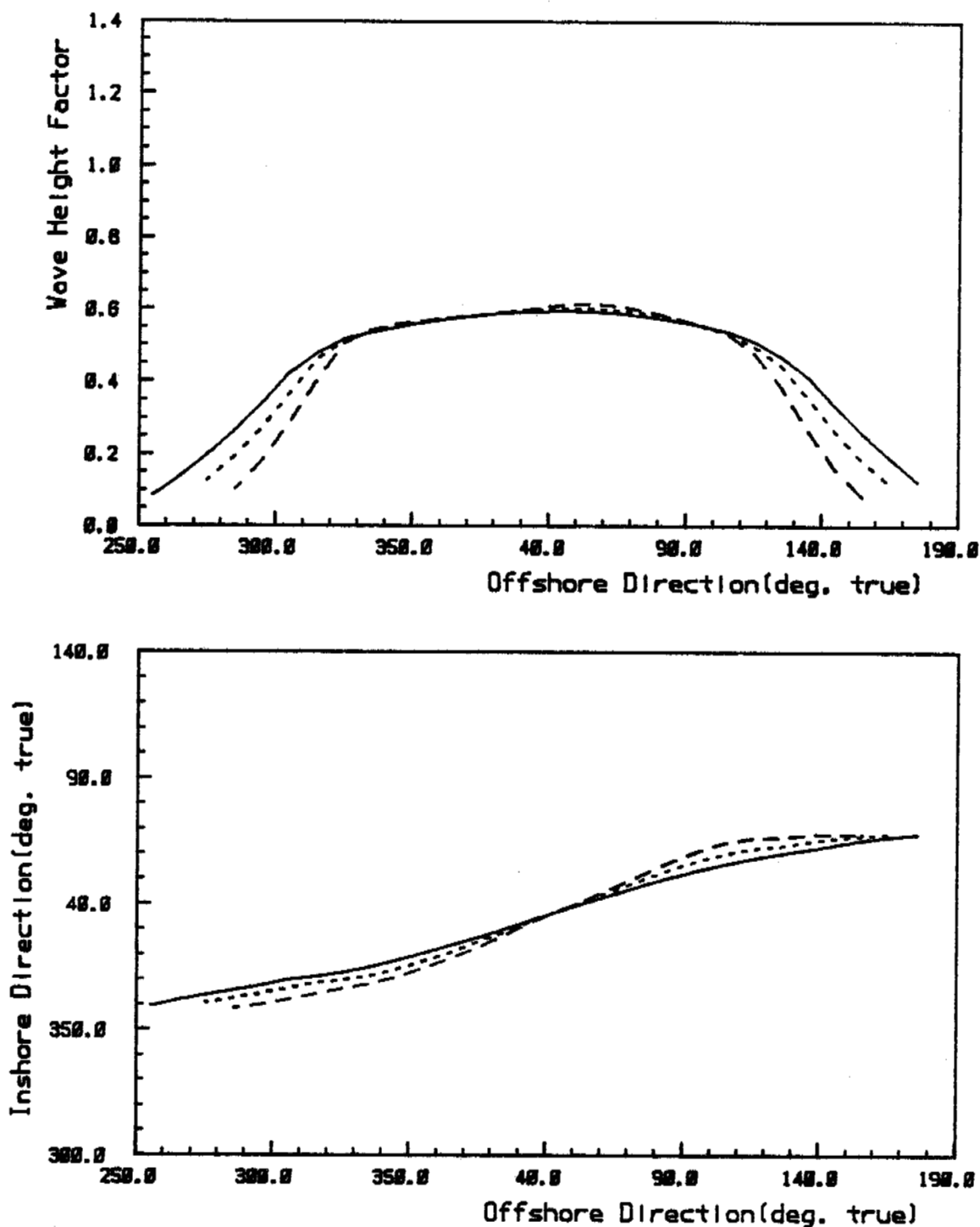
Scales as shown

King Point: Wave Spectrum Transformation Results for

Checked by:

Node Number 04

Keith Philpott
Consulting Limited



Node No: 4

Spreading Index:

2

Tide Level: 8.58 m.

4

Peak Period: 7.9 secs

18

BEAUFORT SEA COASTAL SEDIMENT STUDY

Date: 27 Mar 85

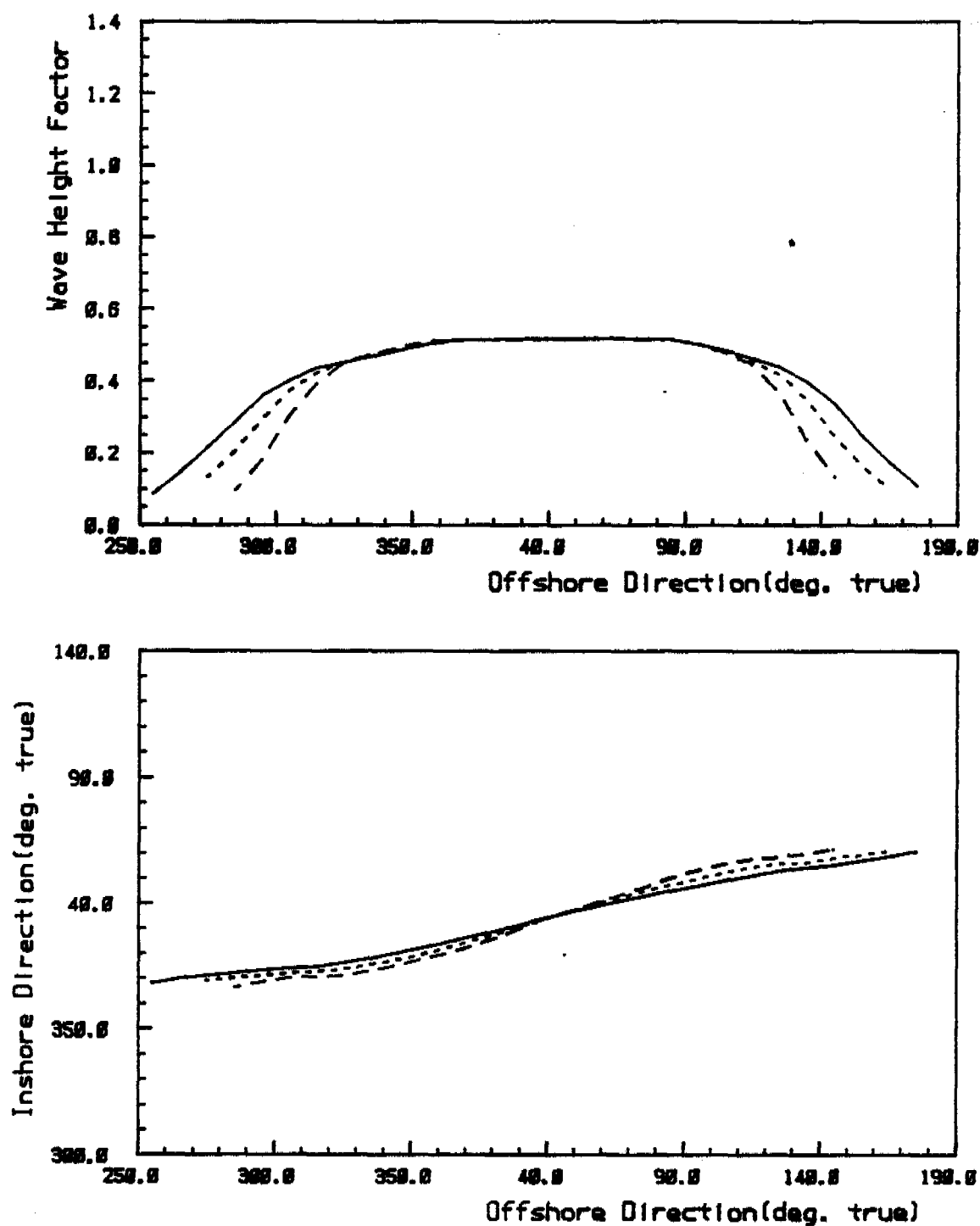
Scales as shown

Checked by:

Keith Philpott

Consulting Limited

King Point: Wave Spectrum Transformation Results for
Node Number 04



Node No: 4

Tide Level: 0.50 m.

Peak Period: 10.0 secs

Spreading Index:

2

4

10

BEAUFORT SEA COASTAL SEDIMENT STUDY

King Point: Wave Spectrum Transformation Results for
Node Number 04

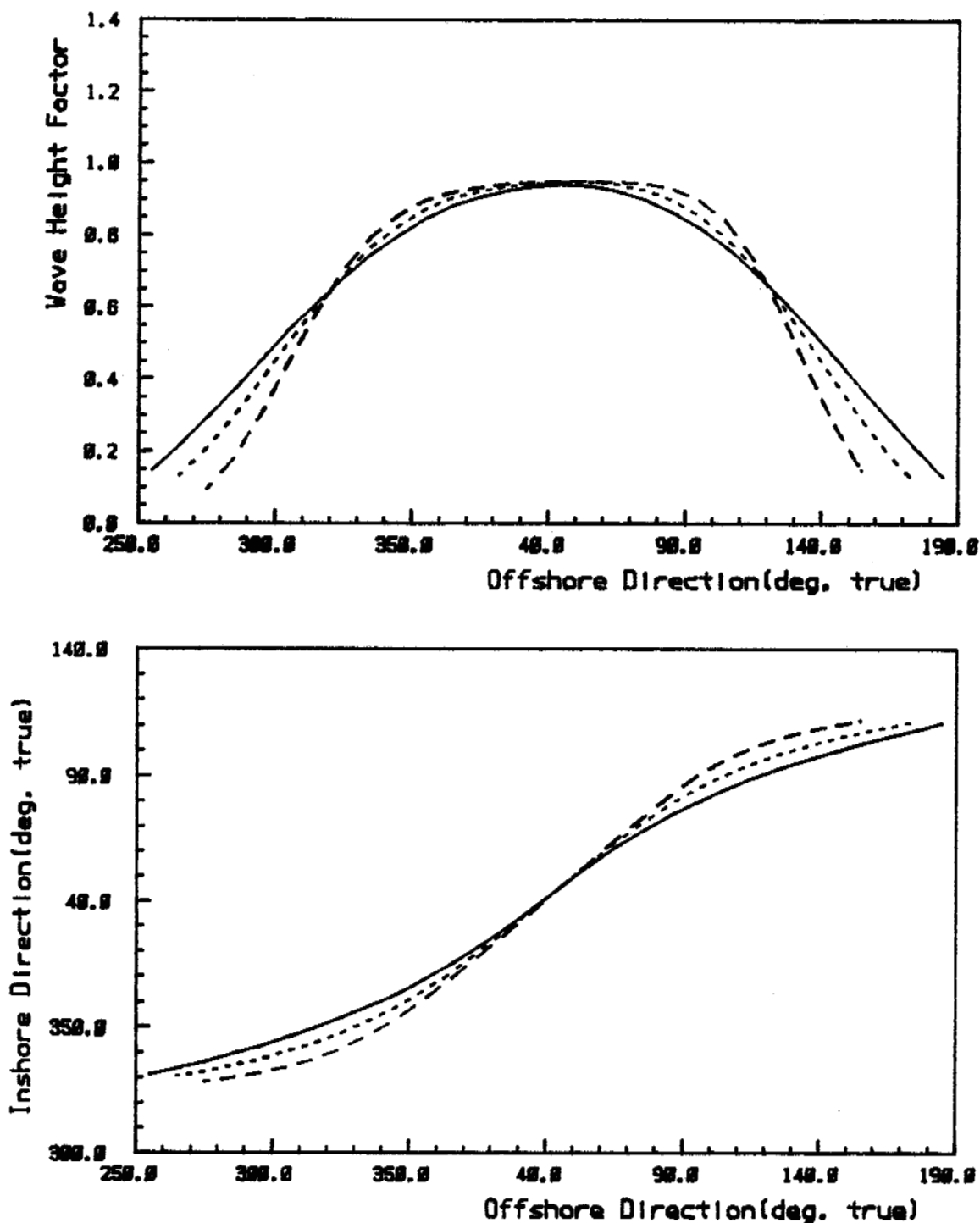
Date: 27 Mar 85

Scales as shown

Checked by:

Keith Philpott
Consulting Limited

FIGURE



Node No: 5

Spreading Index:

2

Tide Level: 0.50 m.

4

Peak Period: 3.2 secs

10

BEAUFORT SEA COASTAL SEDIMENT STUDY

Date: 27 Mar 85

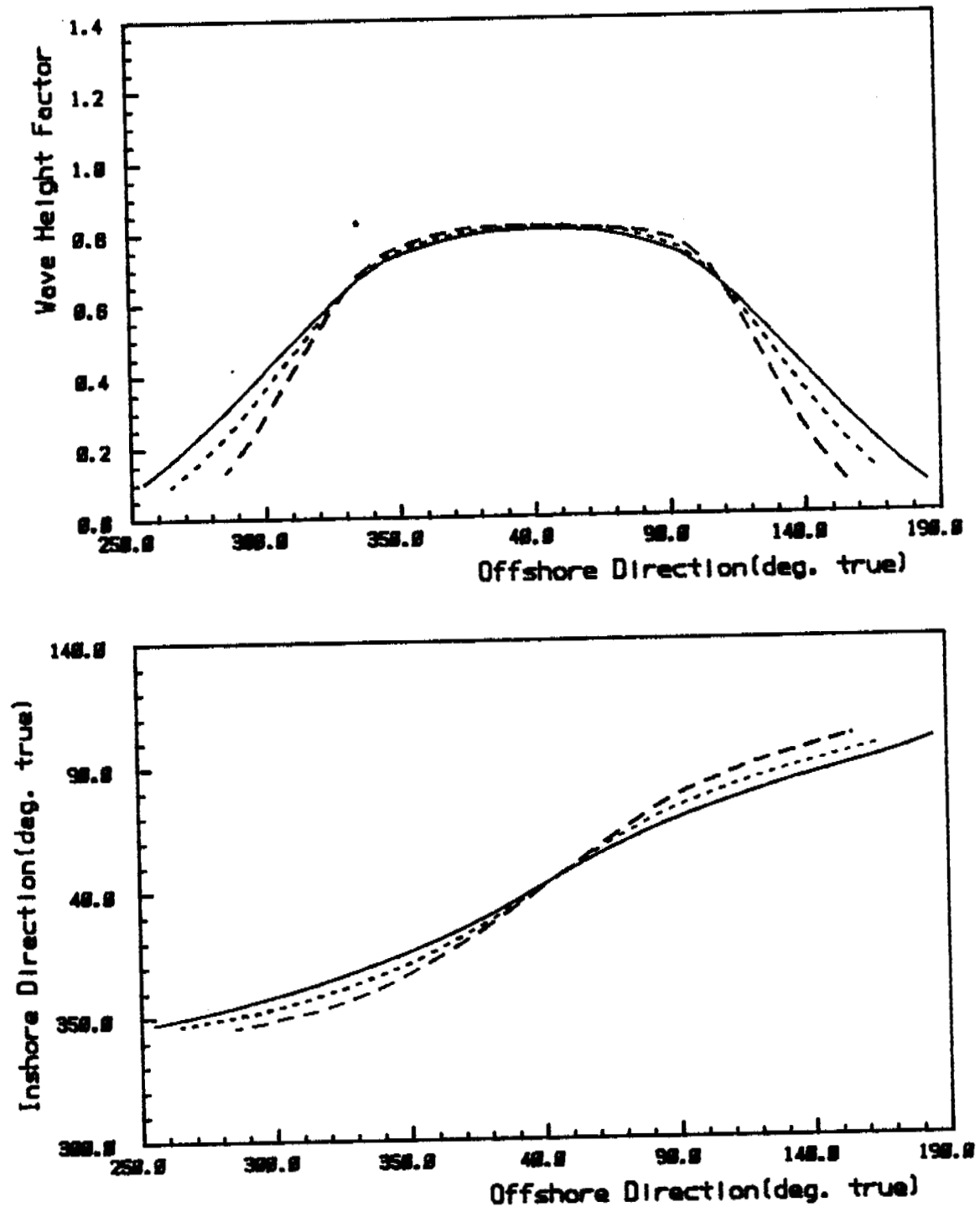
Scale as shown

Checked by:

Keith Philpott

Consulting Limited

King Point: Wave Spectrum Transformation Results for
Node Number 05



Node No: 5

Tide Level: 0.50 m.

Peak Period: 5.0 secs

Spreading Index:

2

4

10

BEAUFORT SEA COASTAL SEDIMENT STUDY

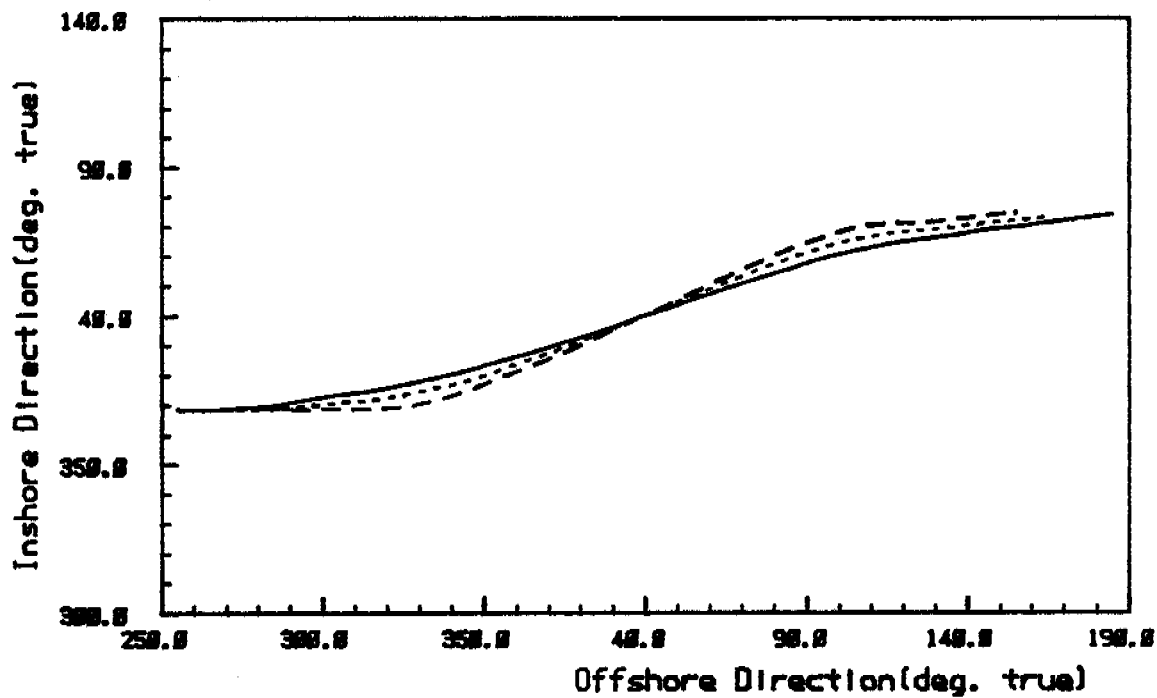
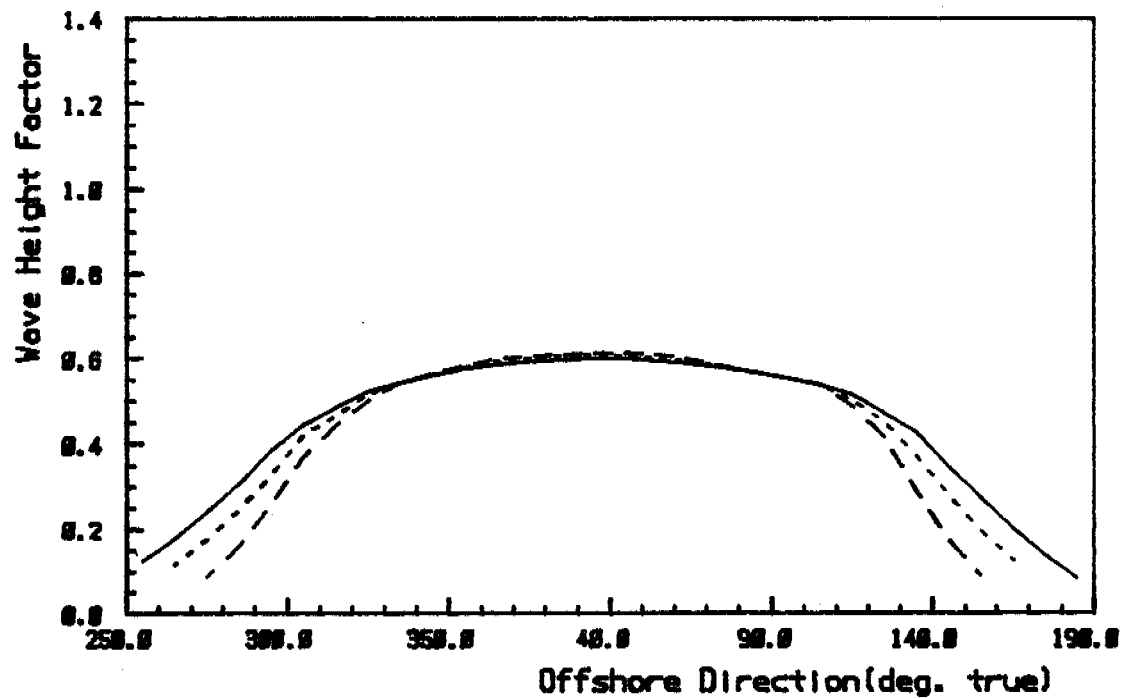
King Point: Wave Spectrum Transformation Results for
Node Number 05

Date: 27 Mar 85

Scale: as shown

Checked by:

Keith Philpott
Consulting Limited



Node No: 5

Tide Level: 0.50 m.

Peak Period: 7.9 secs

Spreading Index:

2

4

10

BEAUFORT SEA COASTAL SEDIMENT STUDY

Date: 27 Mar 85

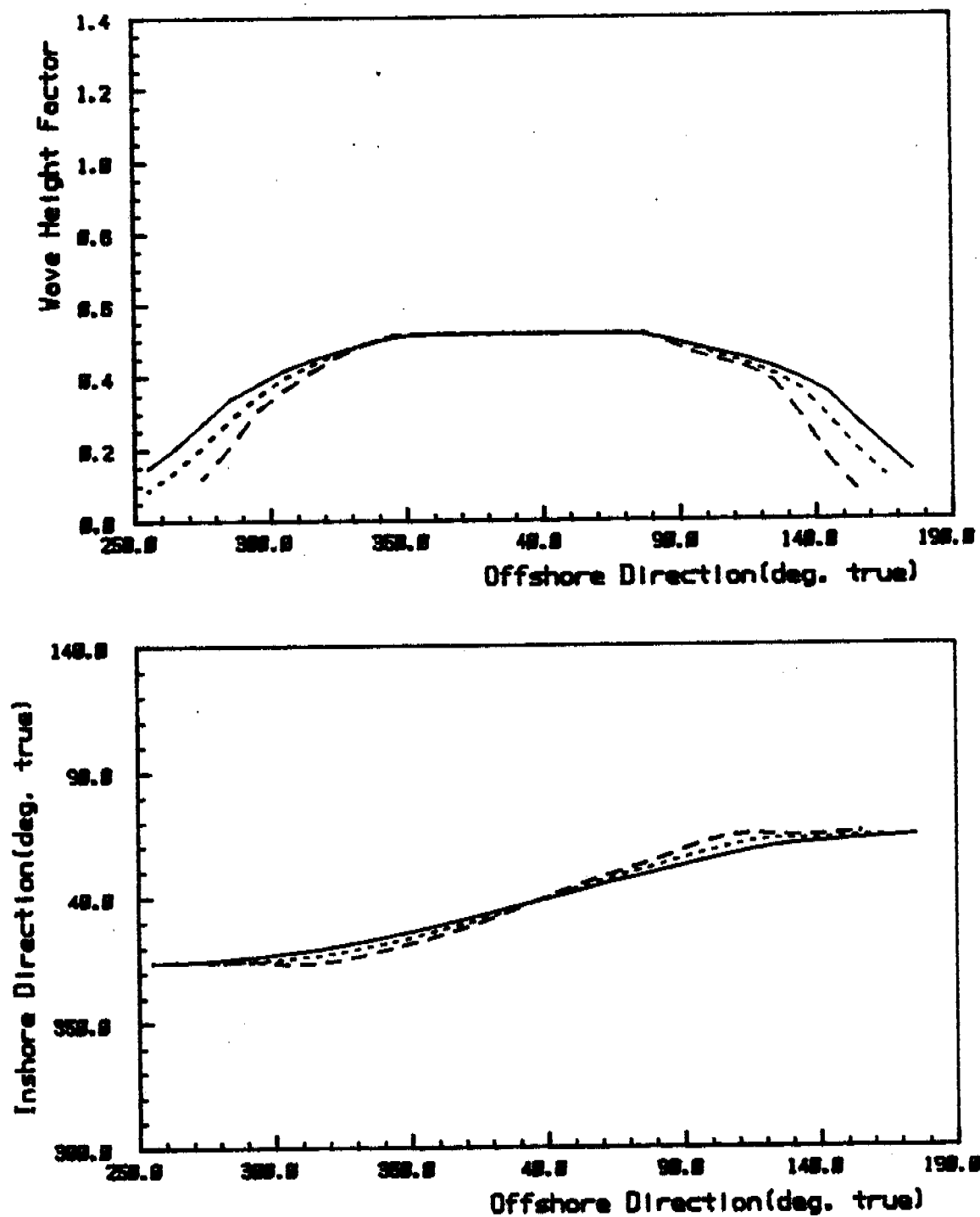
Scales as shown

Checked by:

Keith Philpott

Consulting Limited

King Point: Wave Spectrum Transformation Results for
Node Number 05



Node No: 5

Tide Level: 0.50 m.

Peak Period: 18.0 secs

Spreading Index:

2

4

18

BEAUFORT SEA COASTAL SEDIMENT STUDY

King Point: Wave Spectrum Transformation Results for
Node Number 05

Date: 27 Mar 85

Scale as shown

Checked by:

Keith Philpott
Consulting Limited

BEAUFORT SEA COASTAL SEDIMENT STUDY

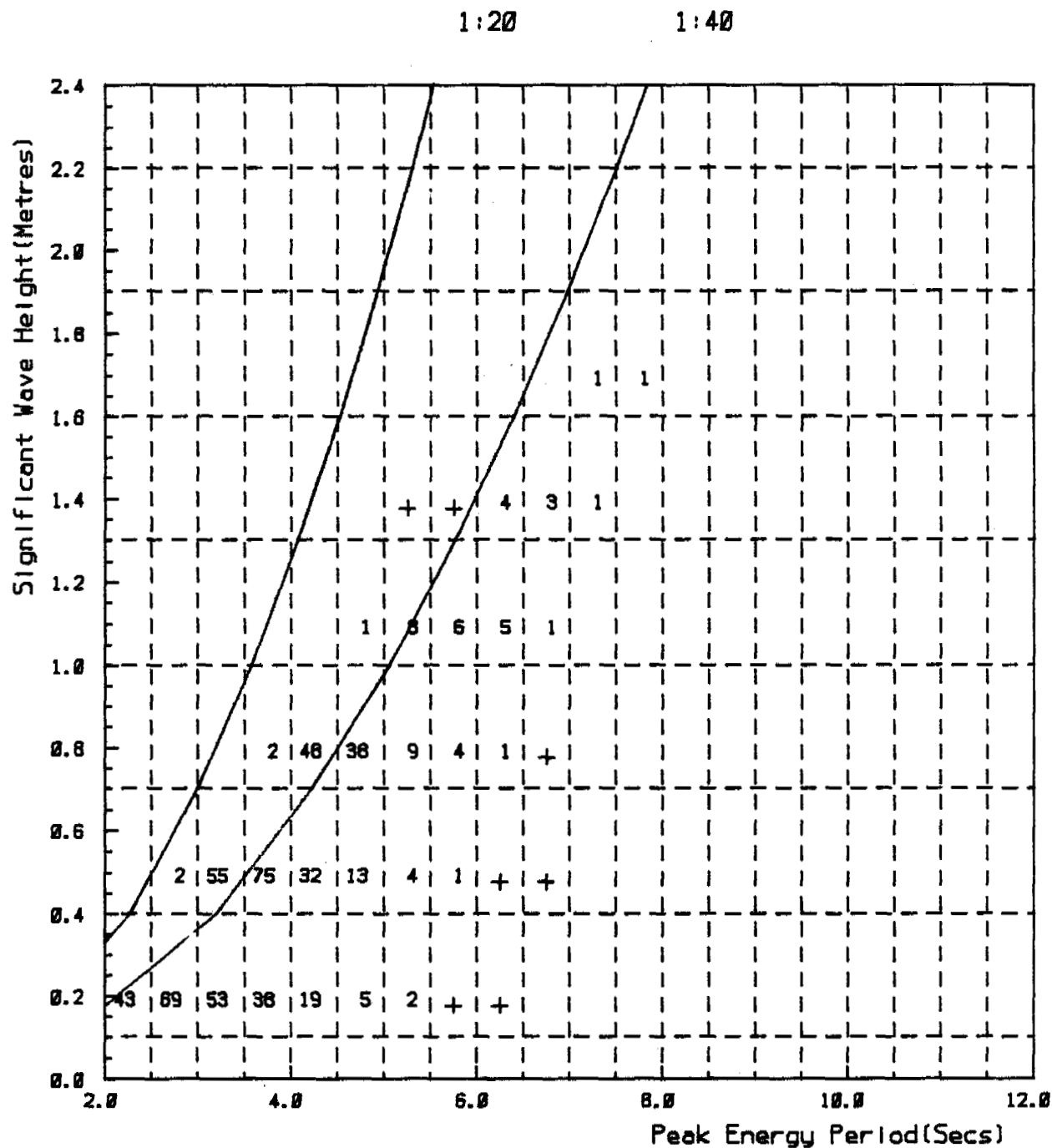
INSHORE WAVE STATISTICS - KING POINT

NODE 1

WAVES 2/7/70 TO 7/9/83

SEASON: Summer, Fall

KEITH PHILPOTT CONSULTING LTD
P.O. BOX 938
THORNHILL
ONTARIO L3T 4A5



Direction Limits: 0.0 TO 360.0

Values in parts per : 1000

Coms: 47.0 %

+- Values less than 1 ppt

Dates: 2/7/70 to 7/9/83

Season: Summer, Fall

Total No. of Records: 32736

Waves Hindcast Using Data from Tuktoyaktuk N.W.T.

BEAUFORT SEA COASTAL SEDIMENT STUDY

Date: 4 Jul 85

Scales as shown

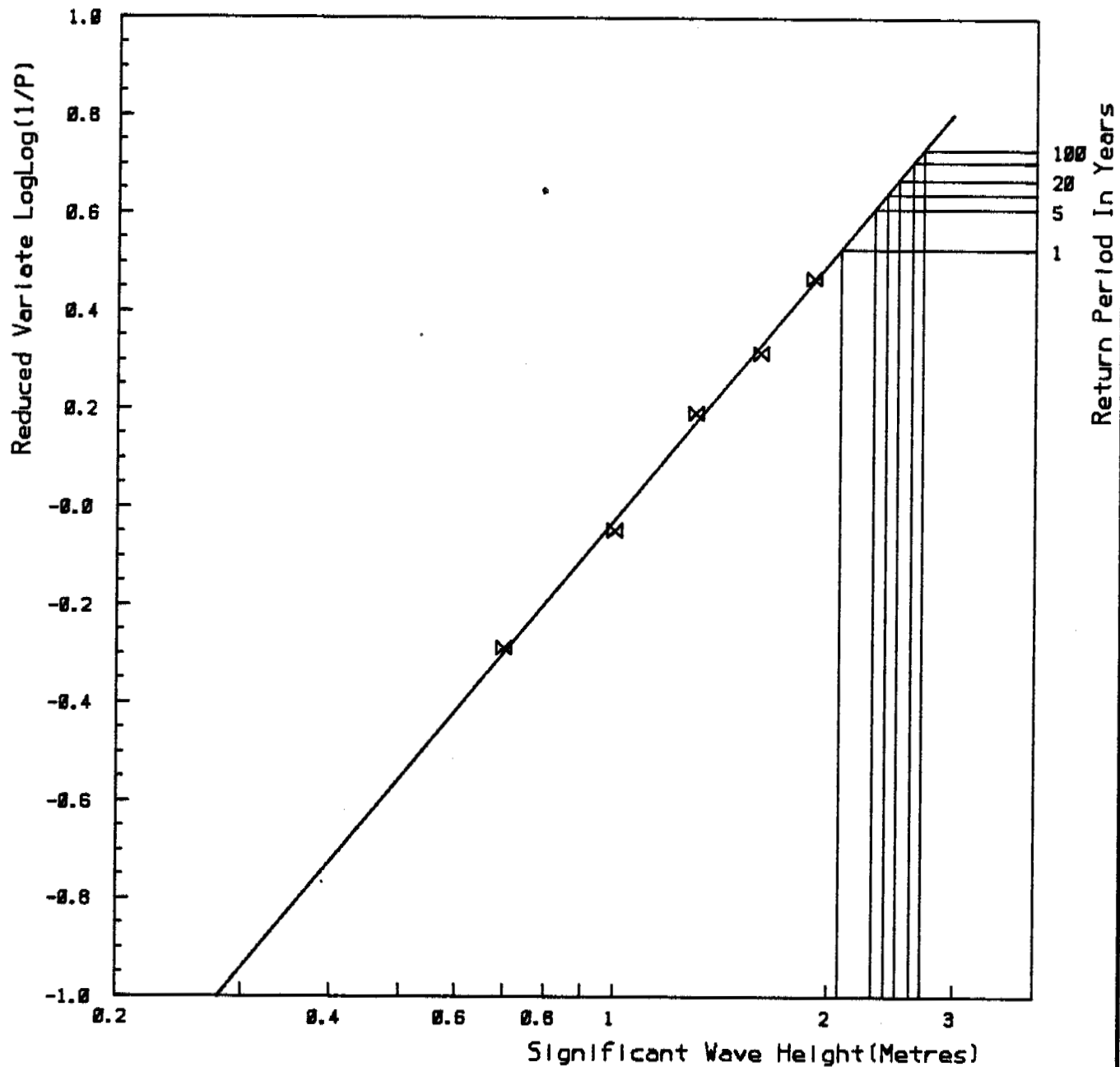
King Point: Scatter Diagram for Inshore Wave

Checked by:

Data 1970 - 1983

Keith Philpott

Consulting Limited



Direction Limits: 0.0 TO 360.0

Calms: 47.0 %

Dates: 2/7/70 to 7/9/83

Season: Summer, Fall

Total No. of Records: 32736

Waves Hindcast Using Data from Tuktoyaktuk N.W.T.

BEAUFORT SEA COASTAL SEDIMENT STUDY

King Point: Node 1 Inshore Weibull Distribution of
Wave Heights

Date: 4 Jul 85

Scales as shown

Checked by:

Keith Philpott
Consulting Limited

BEAUFORT SEA COASTAL SEDIMENT STUDY

KING POINT

WAVES 2/ 7/70 TO 7/ 9/83

SEASON: Summer, Fall

WEIBULL PROBABILITY ANALYSIS

WHT LIMIT	CUM TOTAL	CUM PROB(P)	LOGLOG(1./P(H))	LOG(WHT)
< .4	32736	.999969	-4.877672	-.397940
< .7	9983	.304945	-.287537	-.154902
< 1.0	4150	.126768	-.047212	.000000
< 1.3	912	.027858	.191743	.113943
< 1.6	283	.008645	.314552	.204120
< 1.9	37	.001130	.469356	.278754

LEAST SQUARES CURVE FIT ON LOGLOG(1/(1-P))

LOG(WHT)	LOGLOG(1./P(H))	CURVE FIT	RESIDUAL
-.39794	-4.87767	-.43131	-7.39659
-.15490	-.28754	.05134	60.78532
.00000	-.04721	.07661	19.29299
.11394	.19174	.10174	-2.77054
.20412	.31455	.11465	-18.61679
.27875	.46936	.13093	-28.84933

SLOPE= .10515 INTERCEPT= .00150 CORR COEFF= .86432

PREDICTED WAVE HEIGHTS FOR GIVEN RETURN PERIODS

RETURN PERIOD(YEARS)	WAVE HEIGHT(HS)
1.0	1.4
5.0	1.4
10.0	1.4
20.0	1.4
50.0	1.4
100.0	1.4

AVERAGE NUMBER OF RECORDS PER YEAR= 2338.3

GROUPS TO BE OMITTED FROM NEXT FIT:

.4

32736

LEAST SQUARES CURVE FIT ON LOGLOG(1/(1-P))

LOG(WHT)	LOGLOG(1./P(H))	CURVE FIT	RESIDUAL
-.15490	-.28754	-.14891	1.38837
.00000	-.04721	-.01173	-2.66548
.11394	.19174	.12467	2.49951
.20412	.31455	.19477	-2.13071
.27875	.46936	.28313	1.01287

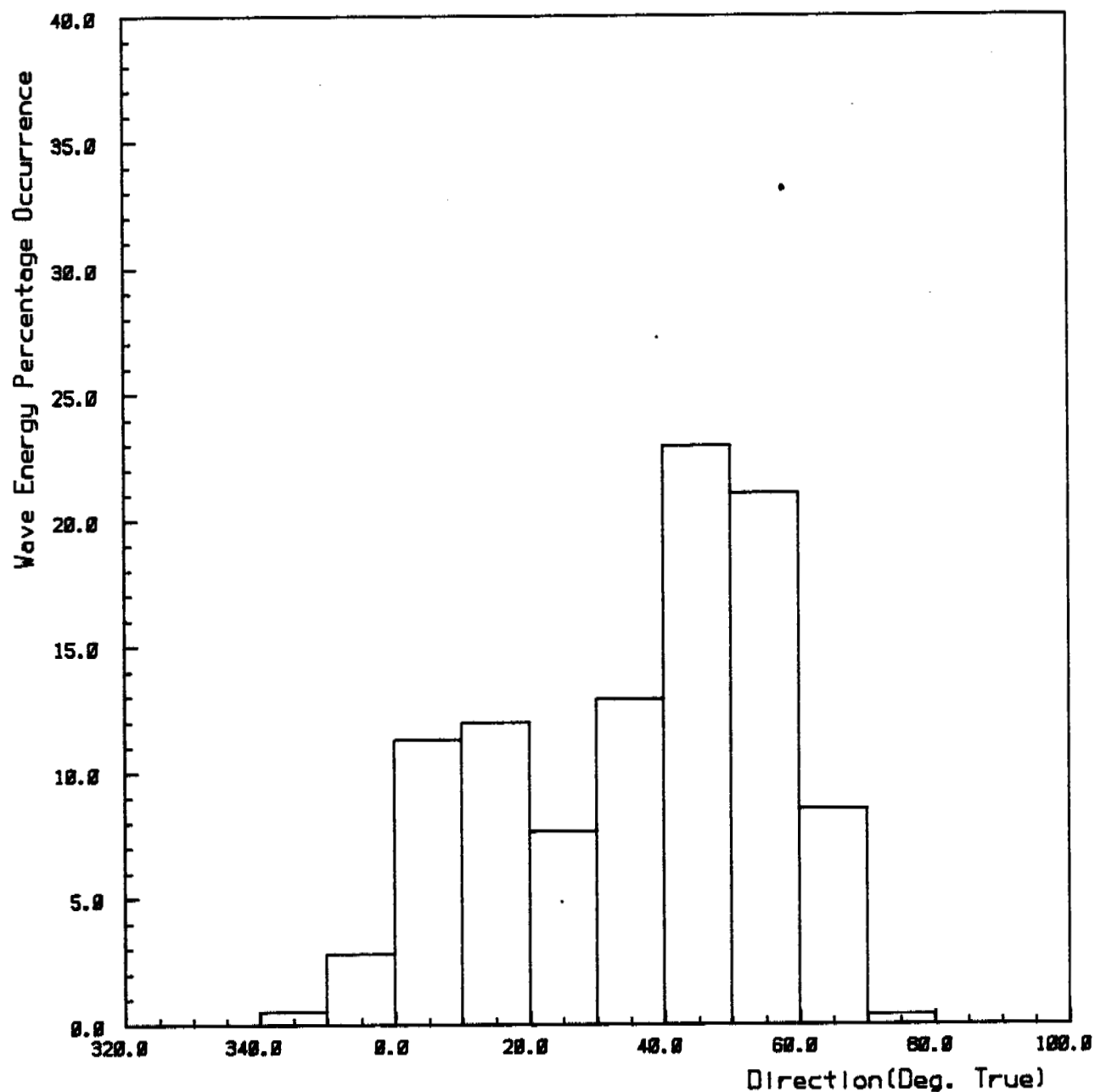
SLOPE= .57081 INTERCEPT= .01522 CORR COEFF= .99831

PREDICTED WAVE HEIGHTS FOR GIVEN RETURN PERIODS

RETURN PERIOD(YEARS)	WAVE HEIGHT(HS)
----------------------	-----------------

1.0	2.1
5.0	2.3
10.0	2.4
20.0	2.5
50.0	2.6
100.0	2.7

AVERAGE NUMBER OF RECORDS PER YEAR= 2338.3



Direction Limits: 330.0 TO 100.0

Calms: 47.0 %

Dates: 2/7/78 to 7/9/83

Season: Summer, Fall

Total No. of Records: 32736

Waves Hindcast Using Data from Tuktoyaktuk N.W.T.

Total wave energy (MJ) equals percentage occurrence times 726.8

Analysis for water depth of 4.0 meters

BEAUFORT SEA COASTAL SEDIMENT STUDY

King Point: Node 1 Inshore Wave Energy Distribution
1970 - 1983

Date: 4 Jul 85

Scales as shown

Checked by:

Keith Philpott
Consulting Limited

BEAUFORT SEA COASTAL SEDIMENT STUDY

KING POINT

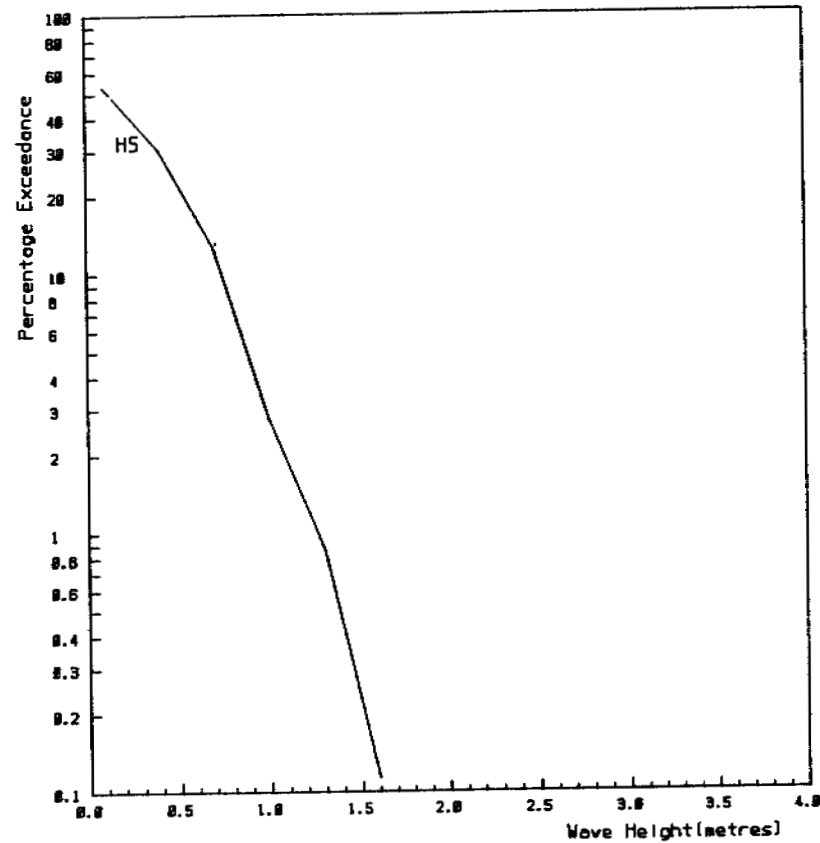
WAVES 2/ 7/78 TO 7/ 9/83

SEASON: Summer, Fall

PERCENTAGE WAVE POWER DISTRIBUTION

DIRECTION SECTOR	PERCENTAGE FREQUENCY	MEAN POWER (KW)	PERCENTAGE ENERGY
330. - 340.	.00	.00	.00
340. - 350.	3.20	.12	.50
350. - 0.	17.36	.12	2.80
0. - 10.	15.57	.64	11.30
10. - 20.	7.20	1.57	11.97
20. - 30.	7.64	.86	7.65
30. - 40.	8.80	1.33	12.89
40. - 50.	11.44	1.86	22.93
50. - 60.	14.85	1.22	21.06
60. - 70.	12.65	.53	8.53
70. - 80.	1.22	.22	.37
80. - 90.	.00	.00	.00
90. - 100.	.00	.00	.00

FIGURE

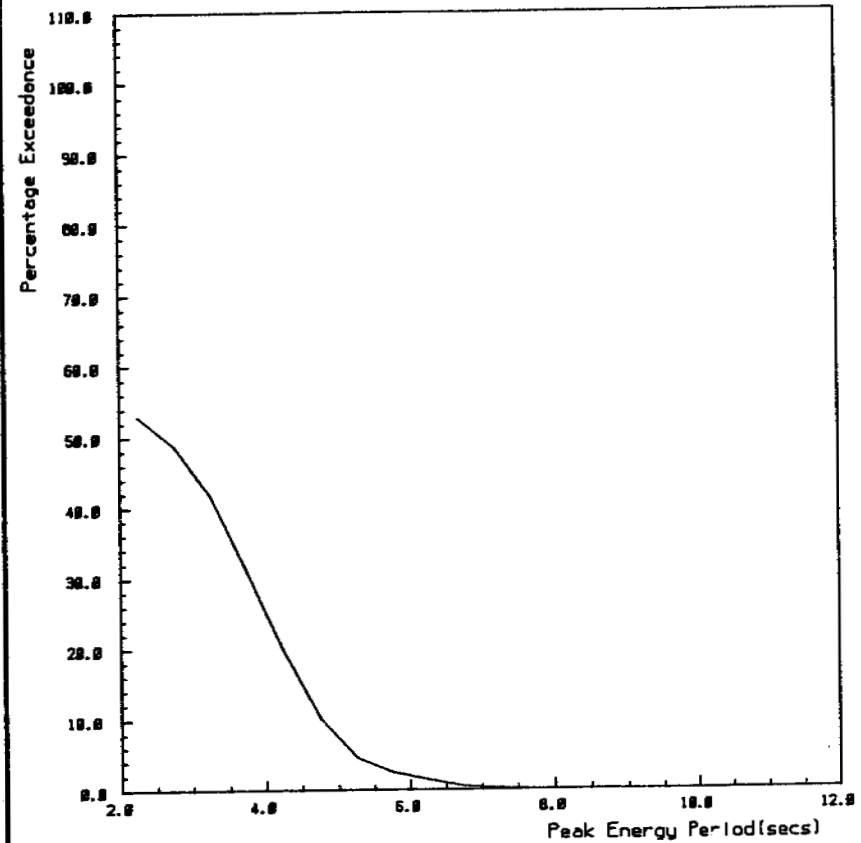


BEAUFORT SEA COASTAL SEDIMENT STUDY

 King Point: Node 1 Inshore Wave Height Exceedance
 1970 - 1983

 Date: 4 Jul 85
 Scales as shown
 Checked by:
 Keith Philpott
 Consulting Limited

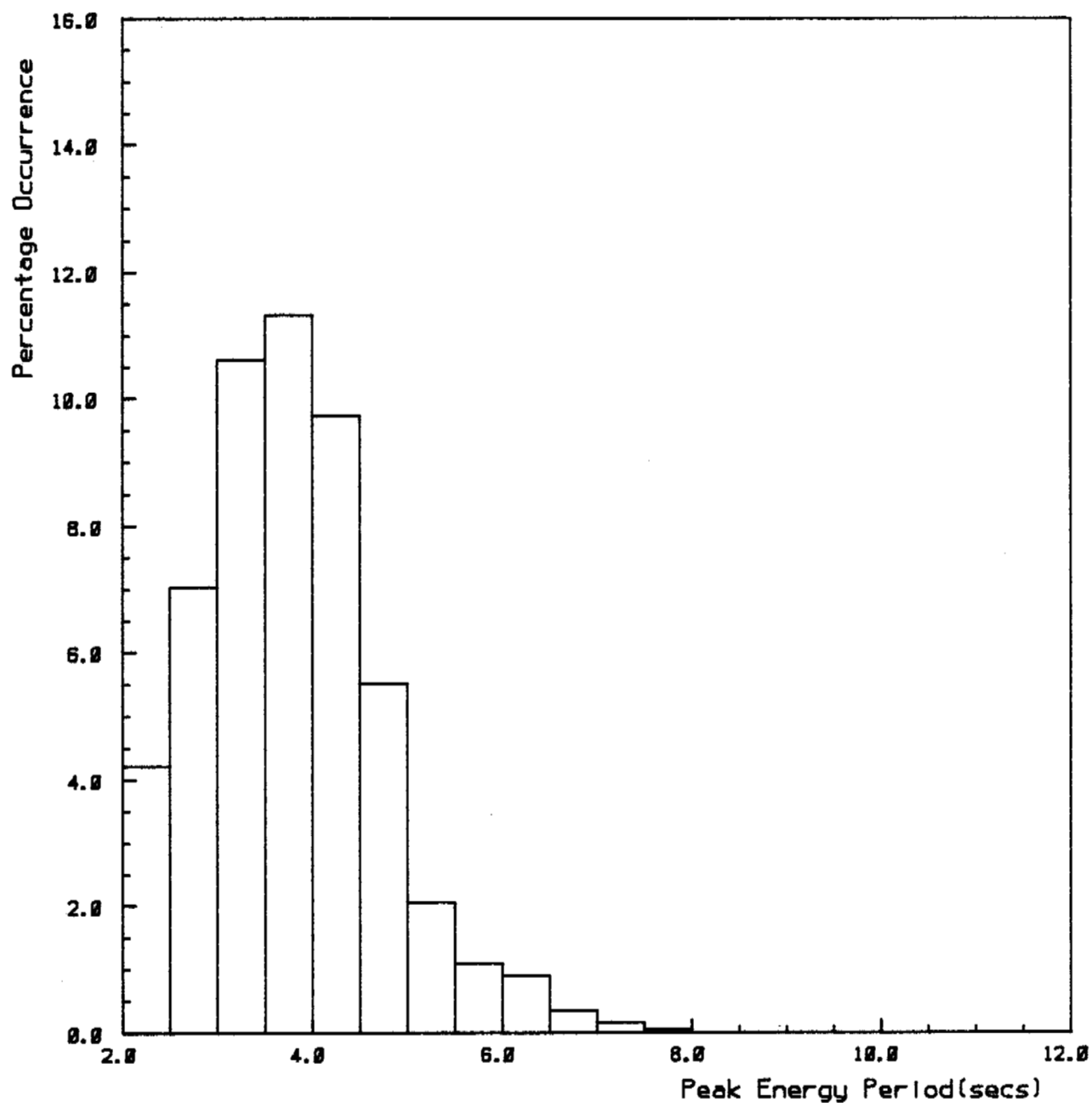
FIGURE



BEAUFORT SEA COASTAL SEDIMENT STUDY

 King Point: Node 1 Inshore Wave Period Exceedance
 1970 - 1983

 Date: 4 Jul 85
 Scales as shown
 Checked by:
 Keith Philpott
 Consulting Limited



Direction Limits: 0.0 TO 360.0

Calm: 47.0 %

Dates: 2/7/70 to 7/9/83

Season: Summer, Fall

Total No. of Records: 32736

Waves Hindcast Using Data from Tuktoyaktuk N.W.T.

BEAUFORT SEA COASTAL SEDIMENT STUDY

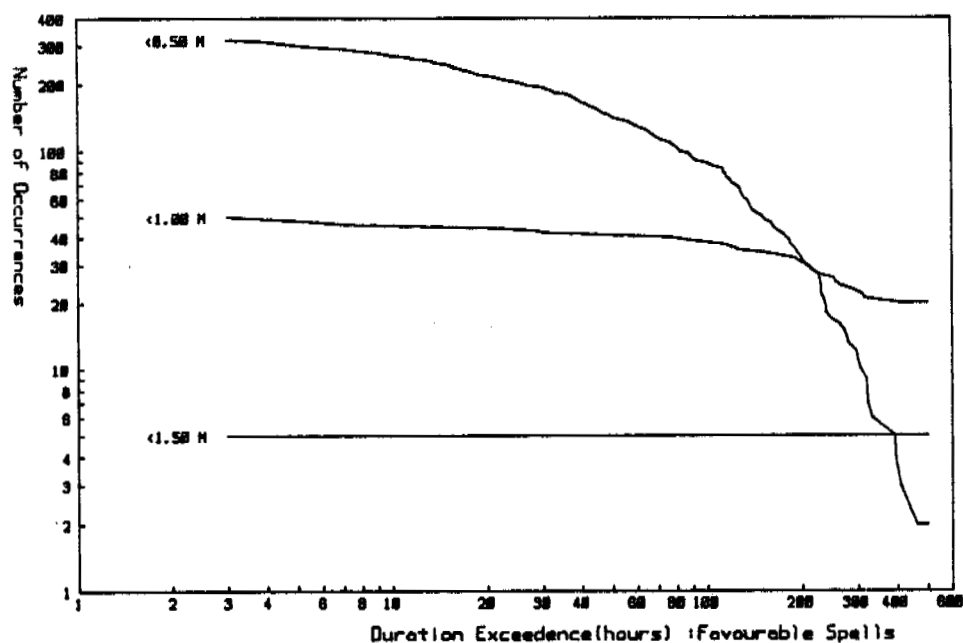
King Point: Node 1 Inshore Wave Period Occurrence
1970 - 1983

Date: 4 Jul 85

Scales as shown

Checked by:

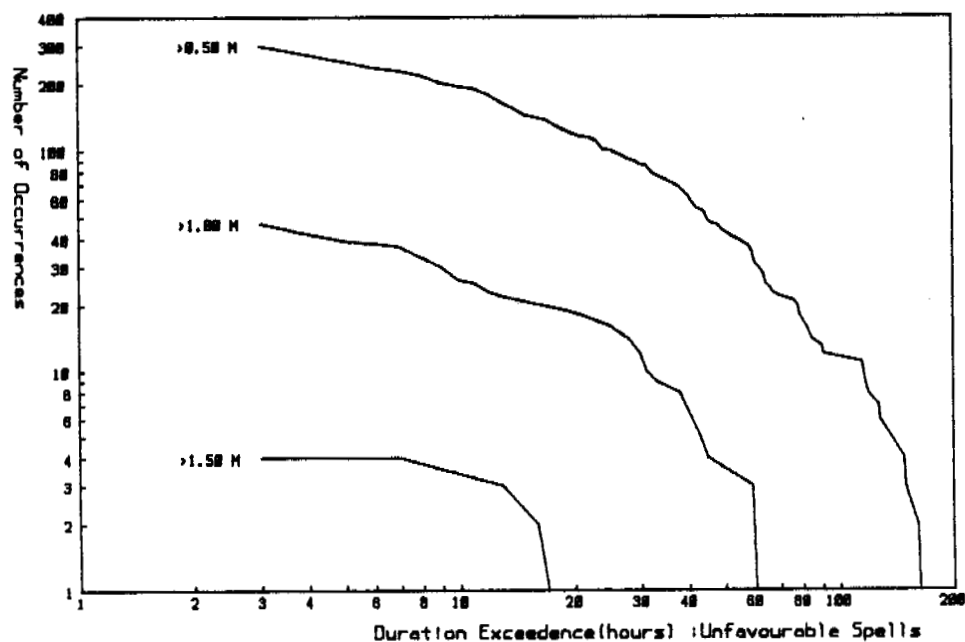
Keith Philpott
Consulting Limited



Dates: 2/7/78 to 7/9/83

Season: Summer, Fall

Waves Hindcast Using Data from Tuktoyaktuk N.V.T.



Dates: 2/7/78 to 7/9/83

Season: Summer, Fall

Waves Hindcast Using Data from Tuktoyaktuk N.V.T.

BEAUFORT SEA COASTAL SEDIMENT STUDY

King Point: Node 1 Inshore Wave Height Persistence
Favourable and Unfavourable Spells

Date: 4 Jul 85

Scales as shown

Checked by:

Keith Philpott

Consulting Limited

BEAUFORT SEA COASTAL SEDIMENT STUDY

KING POINT

WAVES 2/ 7/78 TO 7/ 9/83

ALL DIRECTIONS

WAVE !	Wave Period(secs)																			Total!
INT(H)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1.10	3618	2936	754	62	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7375
1.40	63	428	1437	129	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5833
1.70	0	43	2778	395	38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3238
1.80	0	0	27	439	163	0	0	0	0	0	0	0	0	0	0	0	0	0	0	629
1.30	0	0	0	0	5	209	32	0	0	0	0	0	0	0	0	0	0	0	0	246
1.60	0	0	0	0	0	0	37	0	0	0	0	0	0	0	0	0	0	0	0	37
1.90	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2.20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2.80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3.10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3.40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3.70	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4.30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4.60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4.90	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	3681	7188	4988	1838	418	69	0	0	0	0	0	0	0	0	0	0	0	0	0	17358

SUMMARY :

NO. IN TOTAL SECTOR = 32736
 NO. OUTSIDE TOTAL SECTOR = 0
 NO. OF CALMS = 15378
 TOTAL NO. OF ALL RECORDS = 32736
 PERCENTAGE CALMS = 47.02

BEAUFORT SEA COASTAL SEDIMENT STUDY

KING POINT

WAVES 2/ 7/78 TO 7/ 9/83

DIRECTION 330 TO 348

WAVE !	Wave Period(secs)																			Total!
INT(H)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1.10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1.40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1.70	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1.80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1.30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1.60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1.90	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2.20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2.80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3.10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3.40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3.70	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4.30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4.60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4.90	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

BEAUFORT SEA COASTAL SEDIMENT STUDY

KING POINT

WAVES 2/ 7/78 TO 7/ 9/83

DIRECTION 340 TO 350

WAVE !	Wave Period(secs)										Total!
INT(N)!											
	1	2	3	4	5	6	7	8	9	10	-
1.10!	124!	431!	0!	0!	0!	0!	0!	0!	0!	0!	555!
1.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
1.70!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
1.00!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
1.30!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
1.60!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
1.90!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.20!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.50!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.80!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.70!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.00!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.30!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.60!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.90!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
TOTAL!	124!	431!	0!	0!	0!	0!	0!	0!	0!	0!	555!

BEAUFORT SEA COASTAL SEDIMENT STUDY

KING POINT

WAVES 2/ 7/78 TO 7/ 9/83

DIRECTION 350 TO 0

WAVE !	Wave Period(secs)										Total!
INT(N)!											
	1	2	3	4	5	6	7	8	9	10	-
1.10!	654!	1756!	600!	4!	0!	0!	0!	0!	0!	0!	3014!
1.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
1.70!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
1.00!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
1.30!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
1.60!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
1.90!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.20!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.50!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.80!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.70!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.00!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.30!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.60!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.90!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
TOTAL!	654!	1756!	600!	4!	0!	0!	0!	0!	0!	0!	3014!

BEAUFORT SEA COASTAL SEDIMENT STUDY

KING POINT

WAVES 2/ 7/78 TO 7/ 9/83

DIRECTION 0 TO 18

WAVE !	Wave Period(secs)																Total!
HT(M)!																	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
1.10!	483!	378!	183!	51!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	1887!
1.40!	9!	424!	885!	128!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	1438!
1.70!	0!	1!	20!	219!	17!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	257!
1.90!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
1.30!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
1.60!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
1.90!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.20!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.50!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.80!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.70!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.00!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.30!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.60!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.90!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
TOTAL!	492!	795!	1888!	390!	17!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	2782!

BEAUFORT SEA COASTAL SEDIMENT STUDY

KING POINT

WAVES 2/ 7/78 TO 7/ 9/83

DIRECTION 18 TO 20

WAVE !	Wave Period(secs)																Total!
HT(M)!																	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
1.10!	237!	65!	9!	1!	5!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	317!
1.40!	0!	315!	167!	0!	2!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	484!
1.70!	0!	1!	164!	74!	9!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	248!
1.90!	0!	0!	1!	34!	87!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	122!
1.30!	0!	0!	0!	3!	30!	26!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	59!
1.60!	0!	0!	0!	0!	0!	20!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	20!
1.90!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.20!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.50!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.80!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.70!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.00!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.30!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.60!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.90!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
TOTAL!	237!	381!	341!	132!	133!	46!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	1250!

BEAUFORT SEA COASTAL SEDIMENT STUDY

KING POINT

WAVES 2/ 7/78 TO 7/ 9/83

DIRECTION 20 TO 30

WAVE HT(M)	Wave Period(secs)										Total
	1	2	3	4	5	6	7	8	9	10	
1.10	361	78	3	3	0	0	0	0	0	0	441
1.40	4	409	53	1	0	0	0	0	0	0	547
1.70	0	0	265	29	0	0	0	0	0	0	294
1.80	0	0	0	34	1	0	0	0	0	0	35
1.90	0	0	0	2	7	0	0	0	0	0	9
1.60	0	0	0	0	0	0	0	0	0	0	0
1.90	0	0	0	0	0	0	0	0	0	0	0
2.20	0	0	0	0	0	0	0	0	0	0	0
2.50	0	0	0	0	0	0	0	0	0	0	0
2.80	0	0	0	0	0	0	0	0	0	0	0
3.10	0	0	0	0	0	0	0	0	0	0	0
3.40	0	0	0	0	0	0	0	0	0	0	0
3.70	0	0	0	0	0	0	0	0	0	0	0
4.00	0	0	0	0	0	0	0	0	0	0	0
4.30	0	0	0	0	0	0	0	0	0	0	0
4.60	0	0	0	0	0	0	0	0	0	0	0
4.90	0	0	0	0	0	0	0	0	0	0	0
TOTAL	365	563	321	69	0	0	0	0	0	0	1326

BEAUFORT SEA COASTAL SEDIMENT STUDY

KING POINT

WAVES 2/ 7/78 TO 7/ 9/83

DIRECTION 30 TO 40

WAVE HT(M)	Wave Period(secs)										Total
	1	2	3	4	5	6	7	8	9	10	
1.10	377	72	6	3	0	0	0	0	0	0	458
1.40	12	466	77	5	1	0	0	0	0	0	561
1.70	0	0	296	35	4	0	0	0	0	0	335
1.80	0	0	0	102	11	0	0	0	0	0	113
1.90	0	0	0	0	51	6	0	0	0	0	57
1.60	0	0	0	0	0	17	0	0	0	0	17
1.90	0	0	0	0	0	0	0	0	0	0	0
2.20	0	0	0	0	0	0	0	0	0	0	0
2.50	0	0	0	0	0	0	0	0	0	0	0
2.80	0	0	0	0	0	0	0	0	0	0	0
3.10	0	0	0	0	0	0	0	0	0	0	0
3.40	0	0	0	0	0	0	0	0	0	0	0
3.70	0	0	0	0	0	0	0	0	0	0	0
4.00	0	0	0	0	0	0	0	0	0	0	0
4.30	0	0	0	0	0	0	0	0	0	0	0
4.60	0	0	0	0	0	0	0	0	0	0	0
4.90	0	0	0	0	0	0	0	0	0	0	0
TOTAL	389	538	379	145	67	23	0	0	0	0	1541

BEAUFORT SEA COASTAL SEDIMENT STUDY

KING POINT

WAVES 2/ 7/78 TO 7/ 9/83

DIRECTION 48 TO 58

WAVE !	Wave Period(secs)										Total!
HT(N)!	1	2	3	4	5	6	7	8	9	10	!
1	12	13	14	15	16	17	18	19	10	1	!
1	10!	267!	28!	21!	0!	0!	0!	0!	0!	0!	316!
1	40!	4!	442!	96!	3!	0!	0!	0!	0!	0!	545!
1	78!	0!	1!	681!	37!	0!	0!	0!	0!	0!	719!
1	1.00!	0!	0!	5!	216!	69!	0!	0!	0!	0!	285!
1	1.30!	0!	0!	0!	0!	121!	0!	0!	0!	0!	121!
1	1.60!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
1	1.90!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
1	2.20!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
1	2.50!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
1	2.80!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
1	3.10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
1	3.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
1	3.70!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
1	4.00!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
1	4.30!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
1	4.60!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
1	4.90!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
TOTAL!	271!	471!	803!	256!	185!	0!	0!	0!	0!	0!	1986!

BEAUFORT SEA COASTAL SEDIMENT STUDY

KING POINT

WAVES 2/ 7/78 TO 7/ 9/83

DIRECTION 58 TO 68

WAVE !	Wave Period(secs)										Total!
HT(N)!	1	2	3	4	5	6	7	8	9	10	!
1	12	13	14	15	16	17	18	19	10	1	!
1	10!	371!	41!	12!	0!	0!	0!	0!	0!	0!	424!
1	40!	21!	777!	27!	0!	0!	0!	0!	0!	0!	825!
1	78!	0!	39!	1215!	0!	0!	0!	0!	0!	0!	1254!
1	1.00!	0!	0!	21!	53!	0!	0!	0!	0!	0!	74!
1	1.30!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
1	1.60!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
1	1.90!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
1	2.20!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
1	2.50!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
1	2.80!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
1	3.10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
1	3.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
1	3.70!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
1	4.00!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
1	4.30!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
1	4.60!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
1	4.90!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
TOTAL!	392!	857!	1275!	53!	0!	0!	0!	0!	0!	0!	2577!

BEAUFORT SEA COASTAL SEDIMENT STUDY

KING POINT

WAVES 2/ 7/78 TO 7/ 9/83

DIRECTION 60 TO 70

WAVE INT(H)	Wave Period(secs)										Total
	1	2	3	4	5	6	7	8	9	10	
1.10	495	01	01	01	01	01	01	01	01	01	486
1.40	11	1236	132	01	01	01	01	01	01	01	1379
1.70	01	1	129	11	01	01	01	01	01	01	131
1.00	01	01	01	01	01	01	01	01	01	01	01
1.30	01	01	01	01	01	01	01	01	01	01	01
1.60	01	01	01	01	01	01	01	01	01	01	01
1.90	01	01	01	01	01	01	01	01	01	01	01
2.20	01	01	01	01	01	01	01	01	01	01	01
2.50	01	01	01	01	01	01	01	01	01	01	01
2.80	01	01	01	01	01	01	01	01	01	01	01
3.10	01	01	01	01	01	01	01	01	01	01	01
3.40	01	01	01	01	01	01	01	01	01	01	01
3.70	01	01	01	01	01	01	01	01	01	01	01
4.00	01	01	01	01	01	01	01	01	01	01	01
4.30	01	01	01	01	01	01	01	01	01	01	01
4.60	01	01	01	01	01	01	01	01	01	01	01
4.90	01	01	01	01	01	01	01	01	01	01	01
TOTAL	616	1318	261	1	01	01	01	01	01	01	2196

BEAUFORT SEA COASTAL SEDIMENT STUDY

KING POINT

WAVES 2/ 7/78 TO 7/ 9/83

DIRECTION 70 TO 80

WAVE INT(H)	Wave Period(secs)										Total
	1	2	3	4	5	6	7	8	9	10	
1.10	139	18	01	01	01	01	01	01	01	01	157
1.40	21	521	01	01	01	01	01	01	01	01	541
1.70	01	01	01	01	01	01	01	01	01	01	01
1.00	01	01	01	01	01	01	01	01	01	01	01
1.30	01	01	01	01	01	01	01	01	01	01	01
1.60	01	01	01	01	01	01	01	01	01	01	01
1.90	01	01	01	01	01	01	01	01	01	01	01
2.20	01	01	01	01	01	01	01	01	01	01	01
2.50	01	01	01	01	01	01	01	01	01	01	01
2.80	01	01	01	01	01	01	01	01	01	01	01
3.10	01	01	01	01	01	01	01	01	01	01	01
3.40	01	01	01	01	01	01	01	01	01	01	01
3.70	01	01	01	01	01	01	01	01	01	01	01
4.00	01	01	01	01	01	01	01	01	01	01	01
4.30	01	01	01	01	01	01	01	01	01	01	01
4.60	01	01	01	01	01	01	01	01	01	01	01
4.90	01	01	01	01	01	01	01	01	01	01	01
TOTAL	141	701	01	01	01	01	01	01	01	01	211

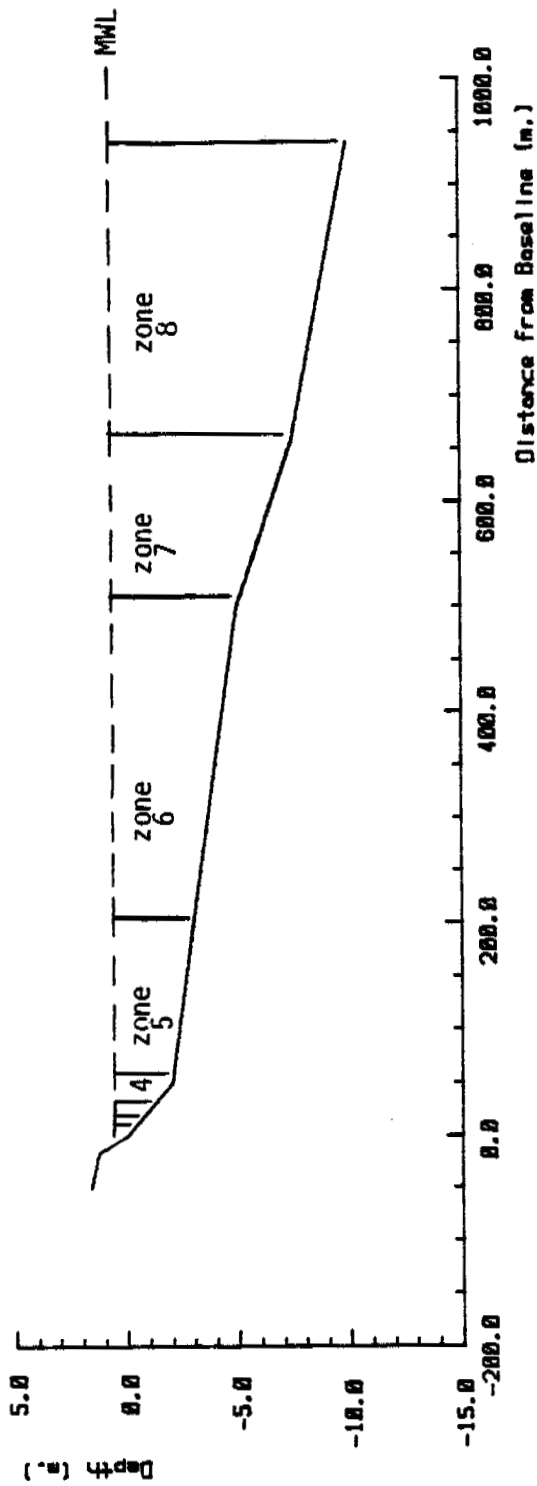
BEAUFORT SEA COASTAL SEDIMENT STUDY

ALONGSHORE SEDIMENT TRANSPORT RESULTS

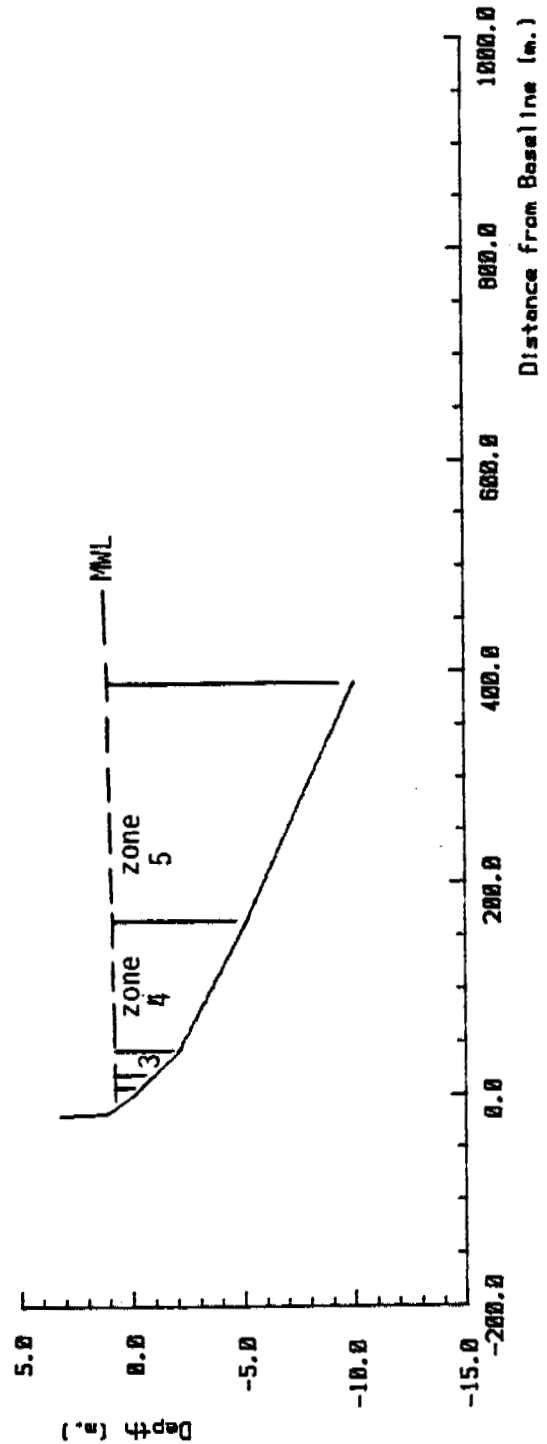
FOURTEEN YEAR AVERAGES

(1970 - 1983)

KEITH PHILPOTT CONSULTING LTD.
P.O. Box 938
THORNHILL
ONTARIO L3T 4A5



(a) Profile at Node 1



(b) Profile at Node 2

BEAUFORT SEA COASTAL SEDIMENT STUDY		Date: 15 Mar 85
King Point: Beach Profiles used in Sediment Transport Predictions		Scales as shown
		Checked by:
		Keith Philippott Consulting Limited

BEAUFORT SEA COASTAL SEDIMENT STUDY

Current date is 02/27/85

Current time is 17:45:45.45

14 YEAR AVERAGE SEDIMENT TRANSPORT HINDCAST

WAVE DATA IS HINDCAST FROM TUKTOYAKTUK N.W.T. WINDS

This run used the following sediment transport models

- 1 CERC formula
- 2 Queen's modified CERC (March 1985)
- 3 Swart modified CERC
- 4 Bijker formula
- 5 Engelund and Hansen (by Swart)
- 7 Swart model
- 8 Willis model
- 9 Van Der Graaf and Overeen model
- 10 Nielsen model (breaking waves)
- 11 Nielsen model (non breaking waves)
- 12 Fleming model
- 13 Swart and Lenhoff model

KING POINT NODE 1 MEAN WATER LEVEL

Profile Data

Zone	1	2	3	4	5	6	7	8
Shoreline O/S to mid-zone	3.2	12.7	25.2	44.0	131.5	356.5	586.5	806.5
Sed. Transport Zone Width	6.5	12.5	12.5	25.0	150.0	300.0	160.0	280.0
Depth at Centre of Zone	.25	.75	1.25	2.00	3.00	4.50	6.75	9.25
Sediment Transport Switch	On	On	On	On	On	On	On	On

Input Grain Size Distribution (mm)

Zone	D16	D25	D35	D50	D65	D75	D84	D90	
1	.710	1.900	4.900	8.300	12.700	16.200	21.200	25.000	Roughness Based on 2090
2 to 8	.168	.210	.265	.380	.520	.730	1.045	1.390	Roughness Based on Ripple Height

refraction analysis was to a depth of 4.0 meters

beach normal azimuth = 43.5 degrees

weighted breaker depth = .67 meters

KING POINT NODE 2 MEAN WATER LEVEL

Profile Data

Zone	1	2	3	4	5
Shoreline O/S to mid-zone	3.6	12.3	32.3	107.3	282.3
Sed. Transport Zone Width	7.3	10.0	30.0	120.0	230.0
Depth at Centre of Zone	.25	.75	1.75	4.00	8.00
Sediment Transport Switch	On	On	On	On	On

Input Grain Size Distribution (mm)

Zone	D16	D25	D35	D50	D65	D75	D84	D90	
1	.710	1.900	4.900	8.300	12.700	16.200	21.200	25.000	Roughness Based on 2090
2 to 5	.168	.210	.265	.380	.520	.730	1.045	1.390	Roughness Based on Ripple Height

refraction analysis was to a depth of 4.0 meters

beach normal azimuth = 38.0 degrees

weighted breaker depth = .68 meters

RESULTS OF ALL WAVE CONDITIONS

KING POINT NODE 1, MEAN WATER LEVEL

GROSS SEDIMENT TRANSPORT RATES (cu.m./m./yr.)

Model	B(1)	B(2)	B(3)	B(4)	B(5)	B(6)	B(7)	B(8)	Total Transport (cu.m./yr.)
1									.4480E+05
2									.1652E+05
3									.4032E+05
4	.0000E+00	.1665E+02	.2080E+02	.7312E+00	.1191E-32	.0000E+00	.0000E+00	.0000E+00	.4864E+03
5	.2612E+02	.1645E+04	.7743E+03	.1353E+03	.7252E+01	.7803E-02	.0000E+00	.0000E+00	.3488E+05
7	.0000E+00	.7431E+02	.8427E+02	.1088E+02	.2021E-01	.0000E+00	.0000E+00	.0000E+00	.2257E+04
8	.6346E+02	.2204E+04	.1260E+04	.2943E+03	.3195E+02	.1877E+00	.0000E+00	.0000E+00	.5592E+05
9	.5236E+01	.2284E+04	.1159E+04	.1968E+03	.8007E+01	.7574E-02	.0000E+00	.0000E+00	.4920E+05
10	.2337E-01	.2308E+04	.1063E+04	.1916E+03	.1031E+02	.1386E-01	.0000E+00	.0000E+00	.4949E+05
11	.4850E+00	.9129E+03	.4555E+03	.1210E+03	.1030E+02	.1385E-01	.0000E+00	.0000E+00	.2168E+05
12	.1564E+02	.5127E+03	.2046E+03	.3531E+02	.2073E+01	.6996E-02	.0000E+00	.0000E+00	.1026E+05
13	.0000E+00	.1328E+04	.6859E+03	.1053E+03	.3234E+01	.8864E-02	.0000E+00	.0000E+00	.2829E+05

MEAN	.1233E+02	.1263E+04	.6343E+03	.1212E+03	.8128E+01	.2740E-01	.0000E+00	.0000E+00	.2951E+05
S.D.	.2125E+02	.9351E+03	.4703E+03	.9692E+02	.9813E+01	.0000E+00	.0000E+00	.0000E+00	.1919E+05

KING POINT NODE 1, MEAN WATER LEVEL

NET SEDIMENT TRANSPORT RATES (cu.m./m./yr.)

Model	B(1)	B(2)	B(3)	B(4)	B(5)	B(6)	B(7)	B(8)	Total Transport (cu.m./yr.)
1									.5809E+04
2									.5813E+04
3									.2855E+04
4	.0000E+00	.1108E+02	.2047E+02	.7312E+00	.1191E-32	.0000E+00	.0000E+00	.0000E+00	.4226E+03
5	-.5809E+01	.9136E+01	.4076E+03	.1209E+03	.7224E+01	.7803E-02	.0000E+00	.0000E+00	.9285E+04
7	.0000E+00	.2947E+02	.7583E+02	.1088E+02	.2021E-01	.0000E+00	.0000E+00	.0000E+00	.1591E+04
8	-.1655E+02	.2947E+02	.5898E+03	.2362E+03	.3177E+02	.1877E+00	.0000E+00	.0000E+00	.1836E+05
9	-.1422E+01	.1420E+03	.7478E+03	.1837E+03	.7985E+01	.7574E-02	.0000E+00	.0000E+00	.1691E+05
10	.4820E-02	.1925E+03	.6712E+03	.1812E+03	.1029E+02	.1386E-01	.0000E+00	.0000E+00	.1688E+05
11	-.9052E-01	.9124E+02	.2359E+03	.1106E+03	.1029E+02	.1385E-01	.0000E+00	.0000E+00	.8400E+04
12	-.3930E+01	-.6810E+01	.9634E+02	.2996E+02	.2063E+01	.6996E-02	.0000E+00	.0000E+00	.2154E+04
13	.0000E+00	.1349E+03	.4866E+03	.9951E+02	.3224E+01	.8864E-02	.0000E+00	.0000E+00	.1074E+05

MEAN	-.3809E+01	.7042E+02	.3702E+03	.1082E+03	.8097E+01	.2740E-01	.0000E+00	.0000E+00	.8201E+04
S.D.	.5429E+01	.7170E+02	.2735E+03	.8276E+02	.9759E+01	.0000E+00	.0000E+00	.0000E+00	.6376E+04

KING POINT NODE 1, MEAN WATER LEVEL

POSITIVE SEDIMENT TRANSPORT RATES (clockwise wrt. beach normal)

Model	B(1)	B(2)	B(3)	B(4)	B(5)	B(6)	B(7)	B(8)	Total Transport (cu.m./yr.)
1									.2491E+05
2									.1117E+05
3									.1304E+05
4	.0000E+00	.1426E+02	.2064E+02	.7312E+00	.1191E-32	.0000E+00	.0000E+00	.0000E+00	.4545E+03
5	.1052E+02	.8260E+03	.5909E+03	.1281E+03	.7238E+01	.7803E-02	.0000E+00	.0000E+00	.2288E+05
7	.0000E+00	.5189E+02	.8005E+02	.1087E+02	.2021E-01	.0000E+00	.0000E+00	.0000E+00	.1924E+04
8	.2345E+02	.1117E+04	.9249E+03	.2653E+03	.3186E+02	.1877E+00	.0000E+00	.0000E+00	.3714E+05
9	.1907E+01	.1213E+04	.9537E+03	.1902E+03	.7996E+01	.7574E-02	.0000E+00	.0000E+00	.3305E+05
10	.1410E-01	.1290E+04	.8673E+03	.1864E+03	.1030E+02	.1386E-01	.0000E+00	.0000E+00	.3318E+05
11	.1972E+00	.5021E+03	.3457E+03	.1158E+03	.1030E+02	.1385E-01	.0000E+00	.0000E+00	.1504E+05
12	.5854E+01	.2529E+03	.1505E+03	.3264E+02	.2060E+01	.6996E-02	.0000E+00	.0000E+00	.6209E+04
13	.0000E+00	.7315E+03	.5863E+03	.1024E+03	.3229E+01	.8864E-02	.0000E+00	.0000E+00	.1952E+05

MEAN	.4660E+01	.6666E+03	.5022E+03	.1147E+03	.8112E+01	.2740E-01	.0000E+00	.0000E+00	.1814E+05
S.D.	.7930E+01	.4901E+03	.3690E+03	.8969E+02	.9786E+01	.0000E+00	.0000E+00	.0000E+00	.1234E+05

KING POINT NODE 1, MEAN WATER LEVEL

NEGATIVE SEDIMENT TRANSPORT RATES (counter clockwise wrt. beach normal)

Model	B(1)	B(2)	B(3)	B(4)	B(5)	B(6)	B(7)	B(8)	Total Transport(cu.m./yr.)
1									.1990E+05
2									.5354E+04
3									.1019E+05
4	.0000E+00	.2387E+01	.1646E+00	.1533E-19	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.3190E+02
5	.1560E+02	.8177E+03	.1833E+03	.7167E+01	.1403E-01	.0000E+00	.0000E+00	.0000E+00	.1280E+05
7	.0000E+00	.2242E+02	.4223E+01	.5789E-02	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.3332E+03
8	.4000E+02	.1007E+04	.3352E+03	.2905E+02	.8962E-01	.0000E+00	.0000E+00	.0000E+00	.1878E+05
9	.3329E+01	.1071E+04	.2050E+03	.6543E+01	.1079E-01	.0000E+00	.0000E+00	.0000E+00	.1615E+05
10	.9276E-02	.1098E+04	.1961E+03	.5211E+01	.8780E-02	.0000E+00	.0000E+00	.0000E+00	.1631E+05
11	.2070E+00	.4108E+03	.1098E+03	.5209E+01	.8774E-02	.0000E+00	.0000E+00	.0000E+00	.6641E+04
12	.9785E+01	.2598E+03	.5412E+02	.2675E+01	.5058E-02	.0000E+00	.0000E+00	.0000E+00	.4054E+04
13	.0000E+00	.5966E+03	.9961E+02	.2074E+01	.5153E-02	.0000E+00	.0000E+00	.0000E+00	.0775E+04

MEAN	.7669E+01	.5962E+03	.1320E+03	.6526E+01	.1500E-01	.0000E+00	.0000E+00	.0000E+00	.9942E+04
S.D.	.1333E+02	.4467E+03	.1089E+03	.8034E+01	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.6895E+04

KING POINT NODE 1, MEAN WATER LEVEL

CUMULATIVE DISTRIBUTION OF NET SEDIMENT TRANSPORT (cu.m./yr.)

Model	B(1)	B(2)	B(3)	B(4)	B(5)	B(6)	B(7)	B(8)
4	.0000E+00	.1404E+03	.4043E+03	.4226E+03	.4226E+03	.4226E+03	.4226E+03	.4226E+03
5	-.3288E+02	.8132E+02	.5176E+04	.8200E+04	.9283E+04	.9285E+04	.9285E+04	.9285E+04
7	.0000E+00	.3604E+03	.1316E+04	.1508E+04	.1591E+04	.1591E+04	.1591E+04	.1591E+04
8	-.1069E+03	.2614E+03	.7633E+04	.1354E+05	.1830E+05	.1836E+05	.1836E+05	.1836E+05
9	-.9189E+01	.1766E+04	.1111E+05	.1571E+05	.1690E+05	.1691E+05	.1691E+05	.1691E+05
10	.3115E-01	.2407E+04	.1080E+05	.1533E+05	.1687E+05	.1688E+05	.1688E+05	.1688E+05
11	-.5049E+00	.1140E+04	.4089E+04	.6853E+04	.8396E+04	.8400E+04	.8400E+04	.8400E+04
12	-.2540E+02	-.1105E+03	.1094E+04	.1843E+04	.2152E+04	.2154E+04	.2154E+04	.2154E+04
13	.0000E+00	.1686E+04	.7769E+04	.1026E+05	.1074E+05	.1074E+05	.1074E+05	.1074E+05

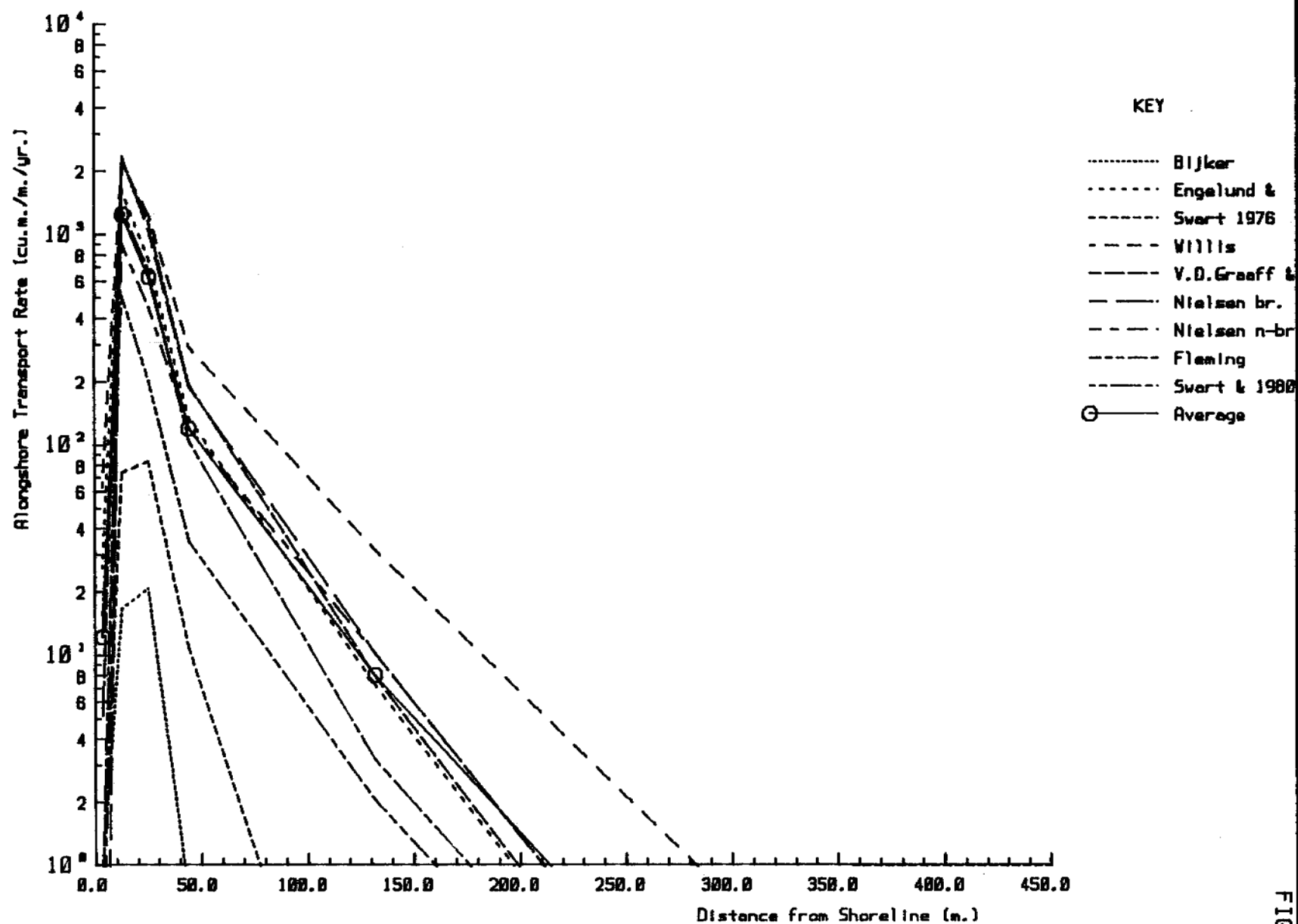
MEAN	-.1944E+02	.8608E+03	.5480E+04	.8193E+04	.9407E+04	.9415E+04	.9415E+04	.9415E+04
S.D.	.3500E+02	.9102E+03	.4096E+04	.5902E+04	.6967E+04	.6977E+04	.6977E+04	.6977E+04

KING POINT NODE 1, MEAN WATER LEVEL

PERCENTAGE DISTRIBUTION OF NET SEDIMENT TRANSPORT

Model	B(1)	B(2)	B(3)	B(4)	B(5)	B(6)	B(7)	B(8)
4	.00	35.90	61.89	2.21	.00	.00	.00	.00
5	-.94	1.69	75.51	22.40	1.34	.00	.00	.00
7	.00	25.37	65.27	9.35	.02	.00	.00	.00
8	-1.90	3.38	67.72	27.12	3.65	.02	.00	.00
9	-.13	13.15	69.24	17.01	.74	.00	.00	.00
10	.00	18.24	63.61	17.17	.98	.00	.00	.00
11	-.02	20.37	52.67	24.68	2.30	.00	.00	.00
12	-3.34	-5.79	81.90	25.47	1.75	.01	.00	.00
13	.00	18.62	67.19	13.74	.45	.00	.00	.00

MEAN	-.70	14.55	67.22	17.68	1.25	.00	.00	.00
S.D.	1.18	12.96	8.26	8.26	1.18	.00	.00	.00



BEAUFORT SEA COASTAL SEDIMENT STUDY

King Point Node 1: Alongshore Transport Predictions

Annual Avg. 1970 - 1983

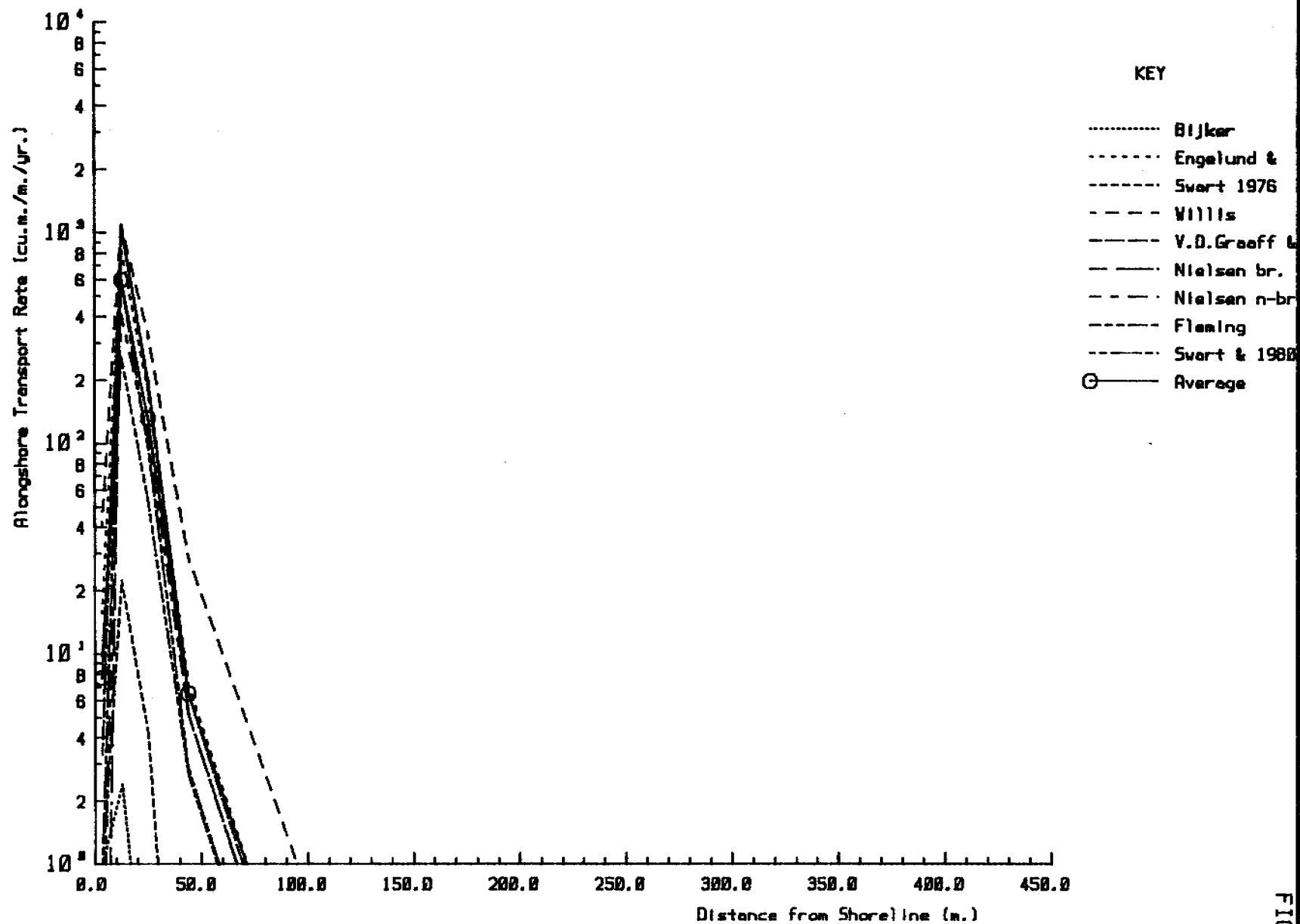
Date: 9 Apr 85

Scales as shown

Checked by:

Keith Philpott

Consulting Limited



BEAUFORT SEA COASTAL SEDIMENT STUDY

King Point Node 1: Alongshore Transport Predictions

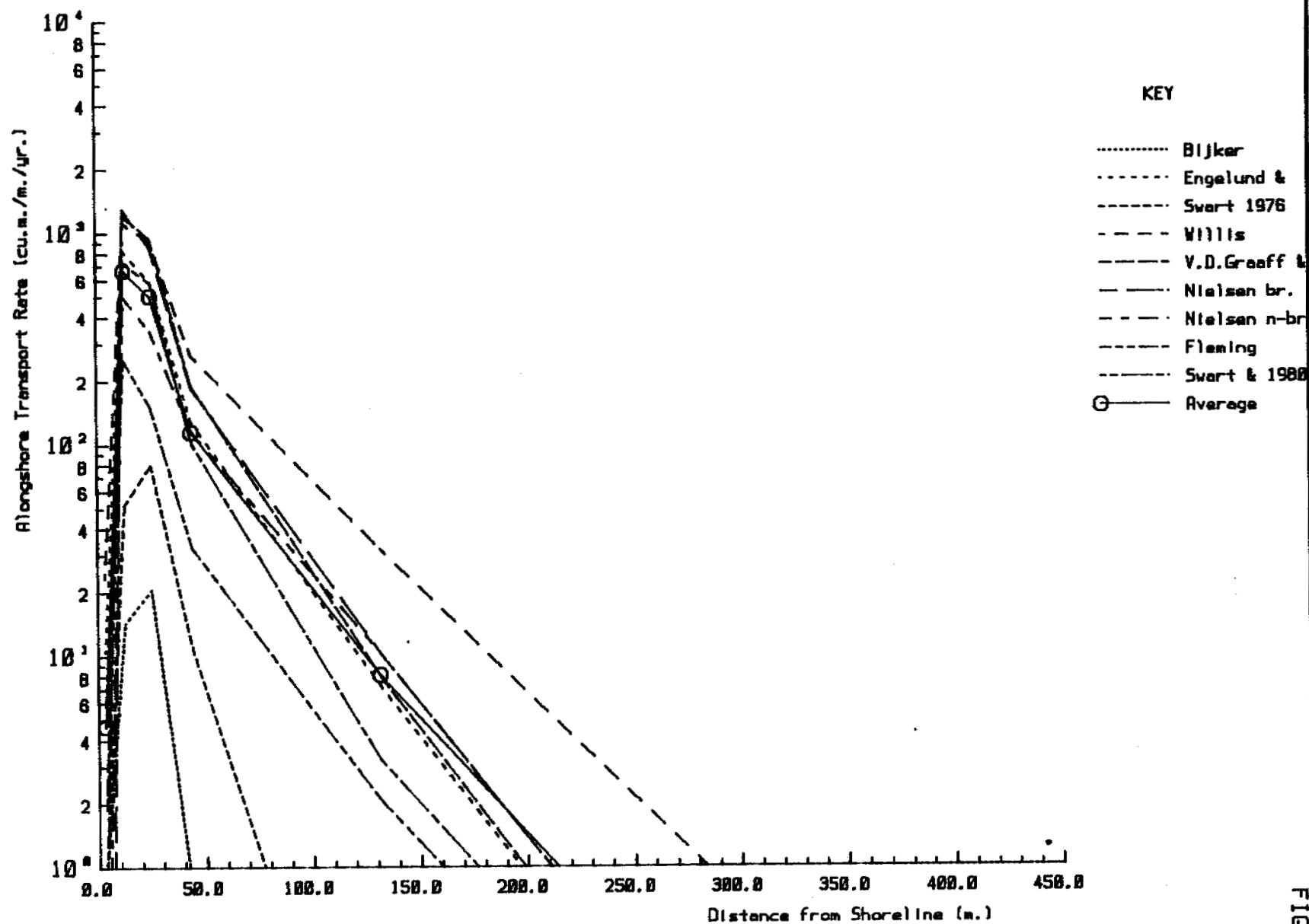
Annual Avg. 1970 - 1983

Date: 9 Apr 85

Scales as shown

Checked by:

Keith Philippot
Consulting Limited



BEAUFORT SEA COASTAL SEDIMENT STUDY

King Point Node 1: Alongshore Transport Predictions

Annual Avg. 1970 - 1983

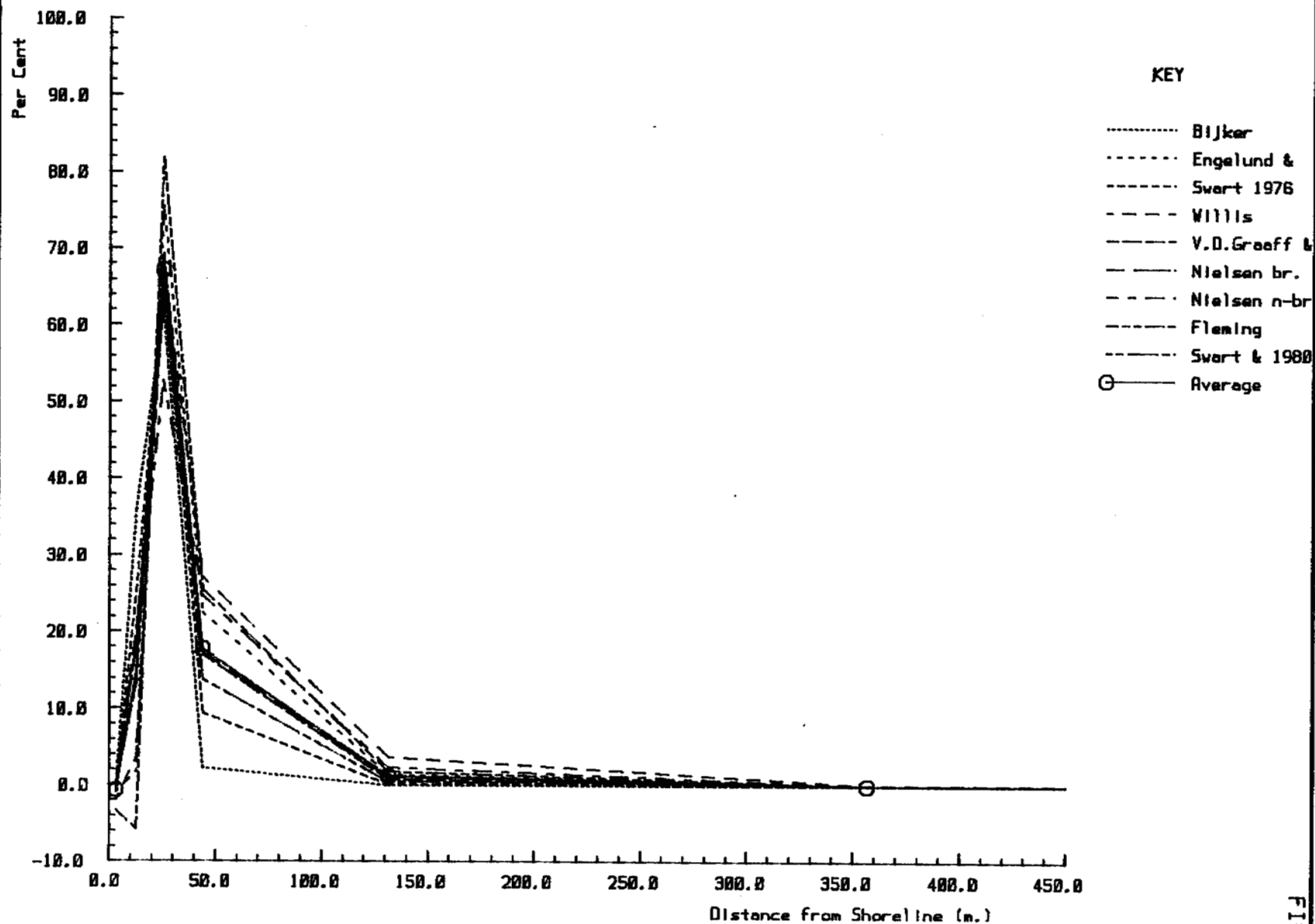
Date: 9 Apr 85

Scales as shown

Checked by:

Kelth Phillipott

Consulting Limited



BEAUFORT SEA COASTAL SEDIMENT STUDY

King Point Node 1: Alongshore Transport Predictions

Annual Avg. 1970 - 1983

Date: 9 Apr 85

Scales as shown

Checked by:

Keith Philpott
Consulting Limited

RESULTS OF ALL WAVE CONDITIONS

KING POINT NODE 2, MEAN WATER LEVEL

GROSS SEDIMENT TRANSPORT RATES (cu.m./m./yr)

Model	B(1)	B(2)	B(3)	B(4)	B(5)	Total Transport(cu.m./yr.)
1						.5054E+05
2						.2198E+05
3						.4510E+05
4	.0000E+00	.2095E+02	.5477E+01	.0000E+00	.0000E+00	.3738E+03
5	.2554E+02	.1733E+04	.2774E+03	.2301E+00	.0000E+00	.2586E+05
7	.0000E+00	.0300E+02	.3303E+02	.0000E+00	.0000E+00	.1821E+04
8	.6412E+02	.2318E+04	.5349E+03	.3448E+01	.0000E+00	.4011E+05
9	.5649E+01	.2424E+04	.4270E+03	.2101E+00	.0000E+00	.3711E+05
10	.2521E+01	.2499E+04	.4049E+03	.3542E+00	.0000E+00	.3718E+05
11	.5076E+00	.9550E+03	.2028E+03	.3539E+00	.0000E+00	.1568E+05
12	.1620E+02	.5336E+03	.6958E+02	.1396E+00	.0000E+00	.7558E+04
13	.0000E+00	.1419E+04	.2457E+03	.1697E+00	.0000E+00	.2158E+05

MEAN	.1245E+02	.1332E+04	.2445E+03	.5459E+00	.0000E+00	.2541E+05
S.D.	.2140E+02	.9844E+03	.1866E+03	.1096E+01	.0000E+00	.1688E+05

KING POINT NODE 2, MEAN WATER LEVEL

NET SEDIMENT TRANSPORT RATES (cu.m./m./yr.)

Model	B(1)	B(2)	B(3)	B(4)	B(5)	Total Transport(cu.m./yr.)
1						-.1217E+04
2						.3020E+04
3						-.3311E+04
4	.0000E+00	-.1949E+01	.2197E+01	.0000E+00	.0000E+00	.4641E+02
5	-.5405E+01	-.4497E+03	-.5811E+01	.1259E+00	.0000E+00	-.4696E+04
7	.0000E+00	-.1314E+02	.7558E+01	.0000E+00	.0000E+00	.9533E+02
8	-.1914E+02	-.5837E+03	-.3041E+02	.1765E+01	.0000E+00	-.6678E+04
9	-.1740E+01	-.5962E+03	.9754E+01	.1289E+00	.0000E+00	-.5666E+04
10	-.2900E+02	-.5708E+03	-.9234E+01	.2446E+00	.0000E+00	-.5955E+04
11	-.1197E+00	-.2091E+03	-.1809E+02	.2444E+00	.0000E+00	-.2630E+04
12	-.4049E+01	-.1395E+03	-.3689E+01	.6770E-01	.0000E+00	-.1533E+04
13	.0000E+00	-.3349E+03	.1294E+02	.8564E-01	.0000E+00	-.2950E+04

MEAN	-.3473E+01	-.3221E+03	-.3954E+01	.2958E+00	.0000E+00	-.2623E+04
S.D.	.6261E+01	.2413E+03	.1414E+02	.5581E+00	.0000E+00	.2880E+04

KING POINT NODE 2, MEAN WATER LEVEL

POSITIVE SEDIMENT TRANSPORT RATES (clockwise wrt. beach normal)

Model	B(1)	B(2)	B(3)	B(4)	B(5)	Total Transport(cu.m./yr.)
1						.2466E+05
2						.1250E+05
3						.1294E+05
4	.0000E+00	.9502E+01	.3037E+01	.0000E+00	.0000E+00	.2101E+03
5	.1007E+02	.6415E+03	.1358E+03	.1780E+00	.0000E+00	.1058E+05
7	.0000E+00	.3493E+02	.2030E+02	.0000E+00	.0000E+00	.9502E+03
8	.2249E+02	.0671E+03	.2523E+03	.2606E+01	.0000E+00	.1672E+05
9	.1955E+01	.9137E+03	.2184E+03	.1735E+00	.0000E+00	.1572E+05
10	.1116E+01	.9642E+03	.1978E+03	.2994E+00	.0000E+00	.1561E+05
11	.1939E+00	.3729E+03	.9197E+02	.2992E+00	.0000E+00	.6526E+04
12	.5675E+01	.1971E+03	.3295E+02	.1036E+00	.0000E+00	.3013E+04
13	.0000E+00	.5421E+03	.1293E+03	.1277E+00	.0000E+00	.9316E+04

MEAN	.4488E+01	.5040E+03	.1203E+03	.4209E+00	.0000E+00	.1073E+05
S.D.	.7598E+01	.3721E+03	.9039E+02	.0267E+00	.0000E+00	.7212E+04

KING POINT NODE 2, MEAN WATER LEVEL

NEGATIVE SEDIMENT TRANSPORT RATES (counter clockwise wrt. beach normal)

Model	B(1)	B(2)	B(3)	B(4)	B(5)	Total Transport(cu.m./yr.)
1						.2588E+05
2						.9480E+04
3						.1626E+05
4	.0000E+00	.1145E+02	.1640E+01	.0000E+00	.0000E+00	.1637E+03
5	.1547E+02	.1091E+04	.1416E+03	.5207E-01	.0000E+00	.1528E+05
7	.0000E+00	.4807E+02	.1274E+02	.0000E+00	.0000E+00	.8628E+03
8	.4163E+02	.1451E+04	.2827E+03	.8413E+00	.0000E+00	.2339E+05
9	.3695E+01	.1510E+04	.2086E+03	.4459E-01	.0000E+00	.2139E+05
10	.1406E-01	.1535E+04	.2071E+03	.5479E-01	.0000E+00	.2157E+05
11	.3137E+00	.5821E+03	.1109E+03	.5476E-01	.0000E+00	.9155E+04
12	.1052E+02	.3365E+03	.3663E+02	.3594E-01	.0000E+00	.4545E+04
13	.0000E+00	.8770E+03	.1164E+03	.4204E-01	.0000E+00	.1227E+05

MEAN	.7961E+01	.8269E+03	.1242E+03	.1251E+00	.0000E+00	.1335E+05
S.D.	.1381E+02	.6125E+03	.9667E+02	.2694E+00	.0000E+00	.8756E+04

KING POINT NODE 2, MEAN WATER LEVEL

CUMULATIVE DISTRIBUTION OF NET SEDIMENT TRANSPORT (cu.m./yr.)

Model	B(1)	B(2)	B(3)	B(4)	B(5)
4	.0000E+00	-.1949E+02	.4641E+02	.4641E+02	.4641E+02
5	-.3941E+02	-.4537E+04	-.4711E+04	-.4696E+04	-.4696E+04
7	.0000E+00	-.1314E+03	.9533E+02	.9533E+02	.9533E+02
8	-.1396E+03	-.5977E+04	-.6889E+04	-.6678E+04	-.6678E+04
9	-.1269E+02	-.5974E+04	-.5682E+04	-.5666E+04	-.5666E+04
10	-.2115E-01	-.5708E+04	-.5985E+04	-.5955E+04	-.5955E+04
11	-.8732E+00	-.2092E+04	-.2659E+04	-.2630E+04	-.2630E+04
12	-.3535E+02	-.1430E+04	-.1541E+04	-.1533E+04	-.1533E+04
13	.0000E+00	-.3349E+04	-.2960E+04	-.2950E+04	-.2950E+04

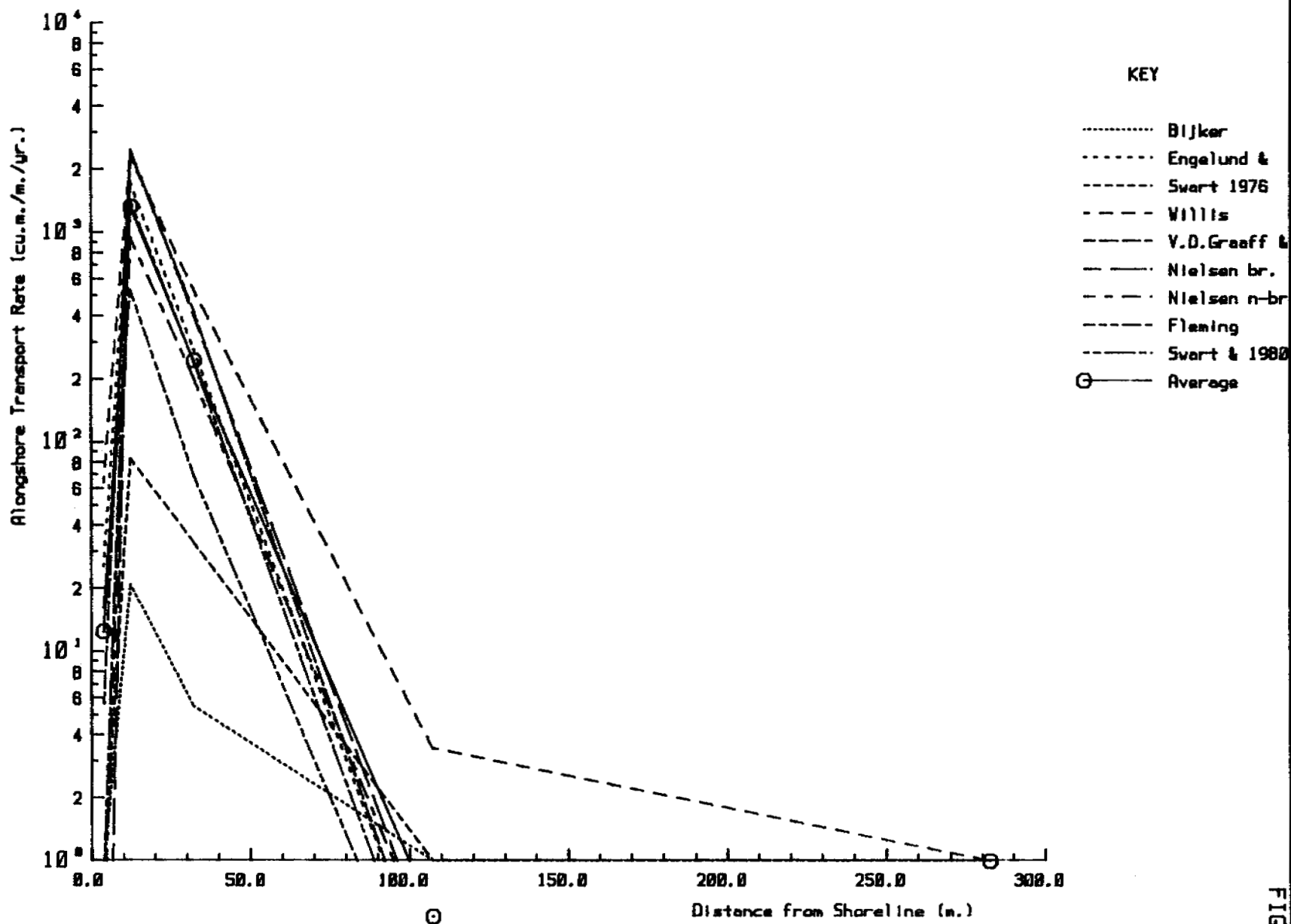
MEAN	-.2533E+02	-.3246E+04	-.3365E+04	-.3330E+04	-.3330E+04
S.D.	.4566E+02	.2434E+04	.2600E+04	.2560E+04	.2560E+04

KING POINT NODE 2, MEAN WATER LEVEL

PERCENTAGE DISTRIBUTION OF NET SEDIMENT TRANSPORT

Model	B(1)	B(2)	B(3)	B(4)	B(5)
4	.00	-787.19	887.19	.00	.00
5	1.17	97.59	1.26	-.03	.00
7	.00	235.38	-135.38	.00	.00
8	3.03	92.43	4.82	-.28	.00
9	.30	101.38	-1.66	-.02	.00
10	.00	98.45	1.59	-.04	.00
11	.05	91.77	8.29	-.11	.00
12	3.28	94.28	2.49	-.05	.00
13	.00	104.05	-4.02	-.03	.00

MEAN	.87	14.24	84.95	-.06	.00
S.D.	1.35	304.02	304.26	.00	.00



Gross Sediment Transport Distribution

BERUFORT SEA COASTAL SEDIMENT STUDY

King Point Node 2: Alongshore Transport Predictions

Annual Avg 1970 - 1983

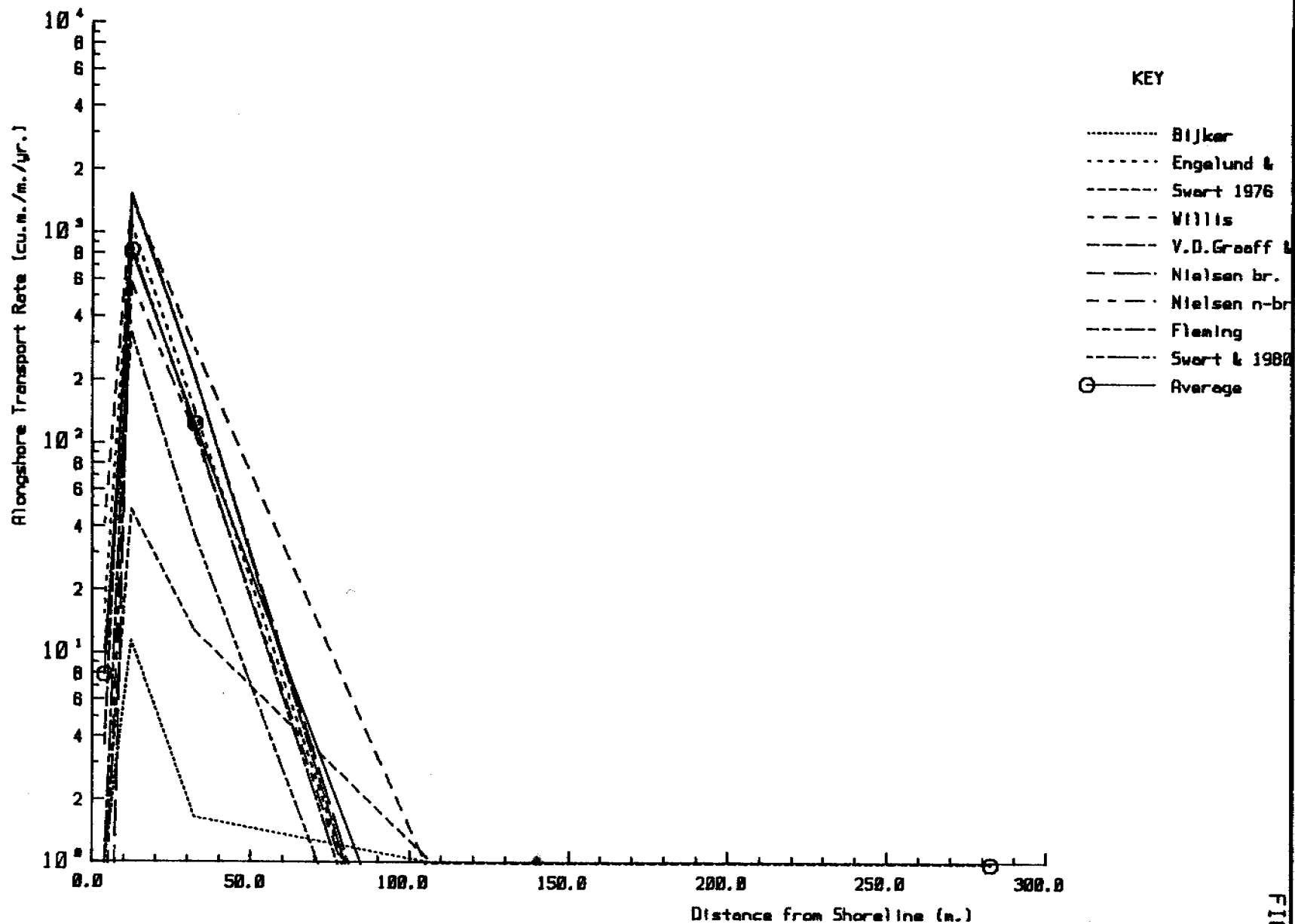
Date: 10 Apr 85

Scales as shown

Checked by:

Keith Philpott

Consulting Limited



BEAUFORT SEA COASTAL SEDIMENT STUDY

King Point Node 2: Alongshore Transport Predictions

Annual Avg 1970 - 1983

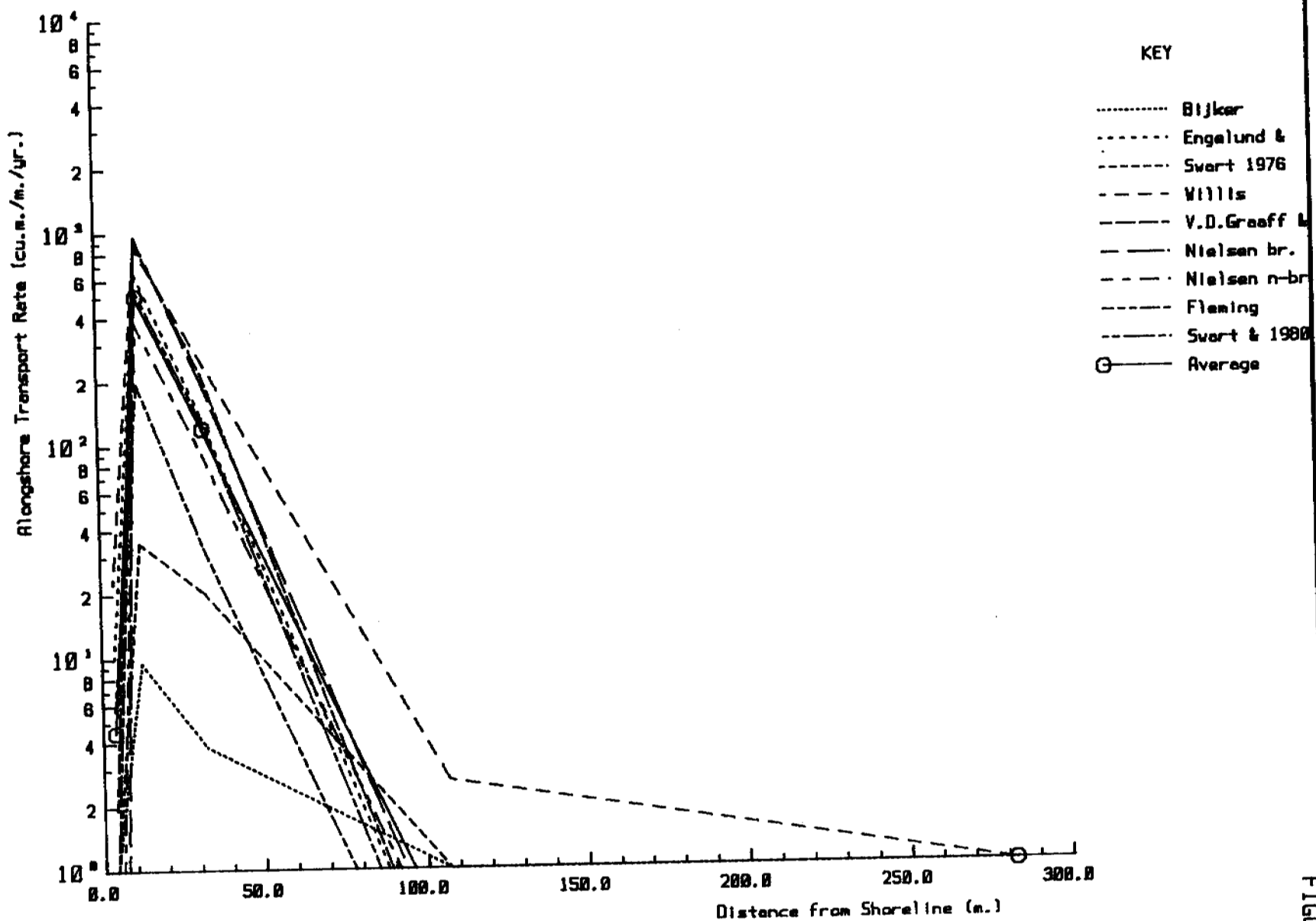
Date: 10 Apr 85

Scales as shown

Checked by:

Keith Philpott

Consulting Limited



North West Sediment Transport Distribution

BEAUFORT SEA COASTAL SEDIMENT STUDY

King Point Node 2: Alongshore Transport Predictions

Annual Avg 1970 - 1983

Date: 9 Apr 85

Scales as shown

Checked by:

Keith Philippot

Consulting Limited

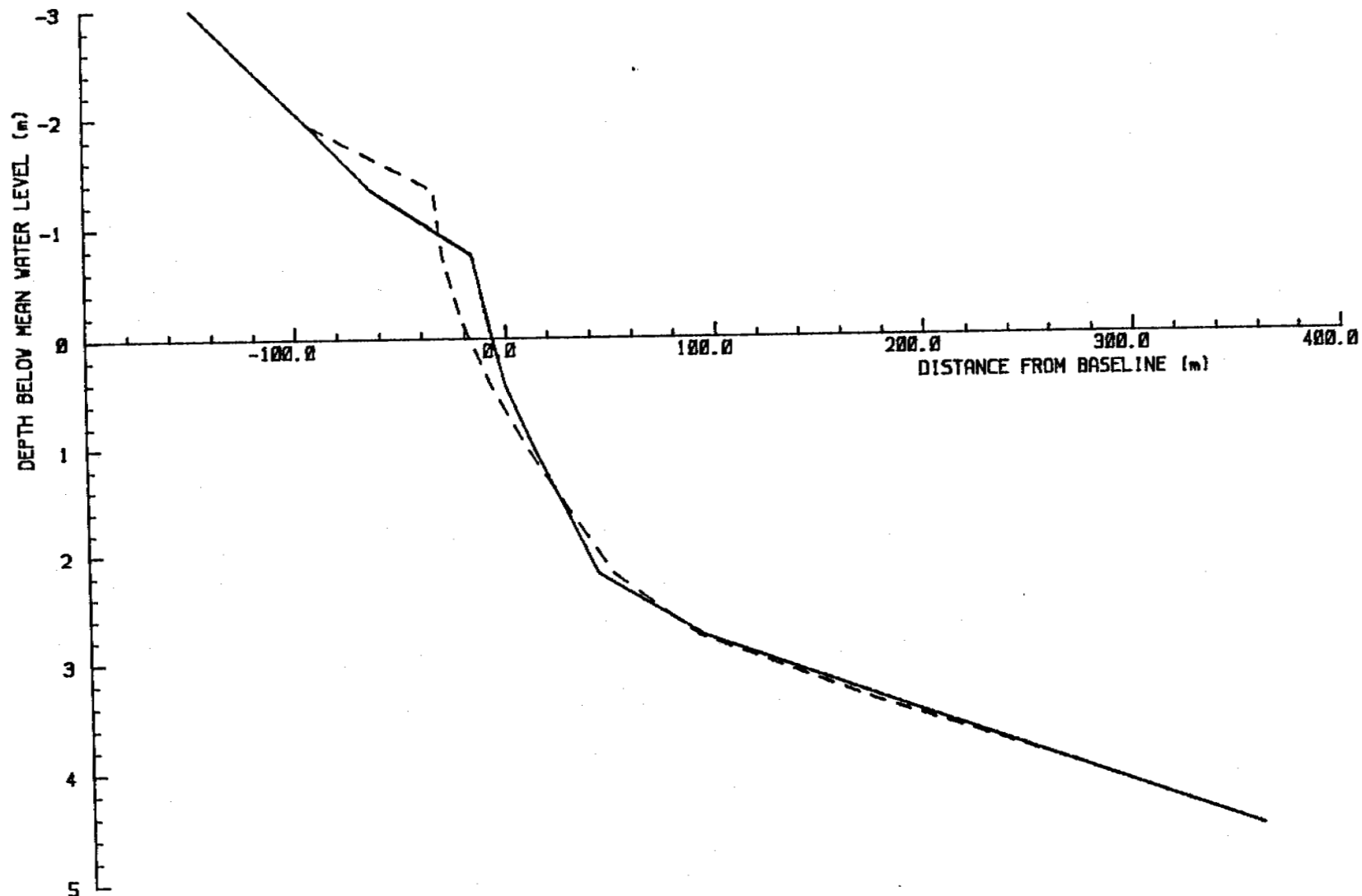
BEAUFORT SEA COASTAL SEDIMENT STUDY

NEARSHORE PROFILE ADJUSTMENT RESULTS - KING POINT

NODE 1

Calibration Runs and Storm Surge Runs

KEITH PHILPOTT CONSULTING LTD
P.O. BOX 938
THORNHILL
ONTARIO L3T 4A5

LEGEND

— Initial profile - - - - - End of run profile
 Wave 1 Equilibrium

CALIBRATION RUN 5

SUPPLEMENTARY DATA

Calibration run for 57 wave conditions
 Total time all waves was 600.0 hours

Shoreline retreat = 10.76 metres

KING POINT PROFILE ADJUSTMENT

CALIBRATION RUN / WSKAL = 0.7 / SLT = 0.3 / UNSHOALED

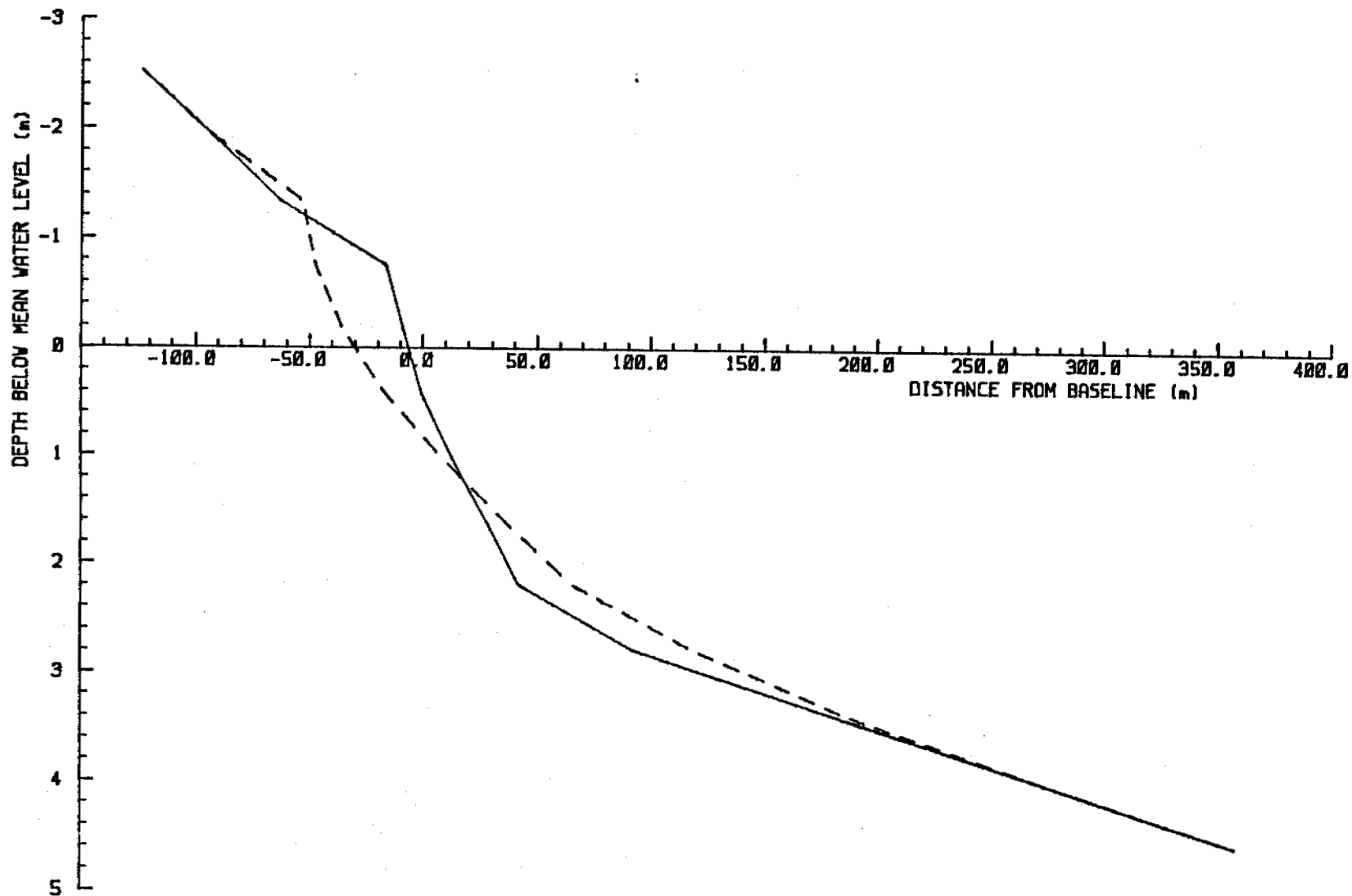
Date: 24 Apr 85

Scales as shown

Checked by:

Keith Philpott

Consulting Limited



LEGEND

———— Initial profile - - - - - End of run profile

CALIBRATION RUN 4

SUPPLEMENTARY DATA

Calibration run for 57 wave conditions
Total time all waves was 600.8 hours

Shoreline retreat = 23.58 metres

FIGURE

KING POINT PROFILE ADJUSTMENT

CALIBRATION RUN / WSKARL = 1.0 / SLT = 0.3 / UNSHOOLED

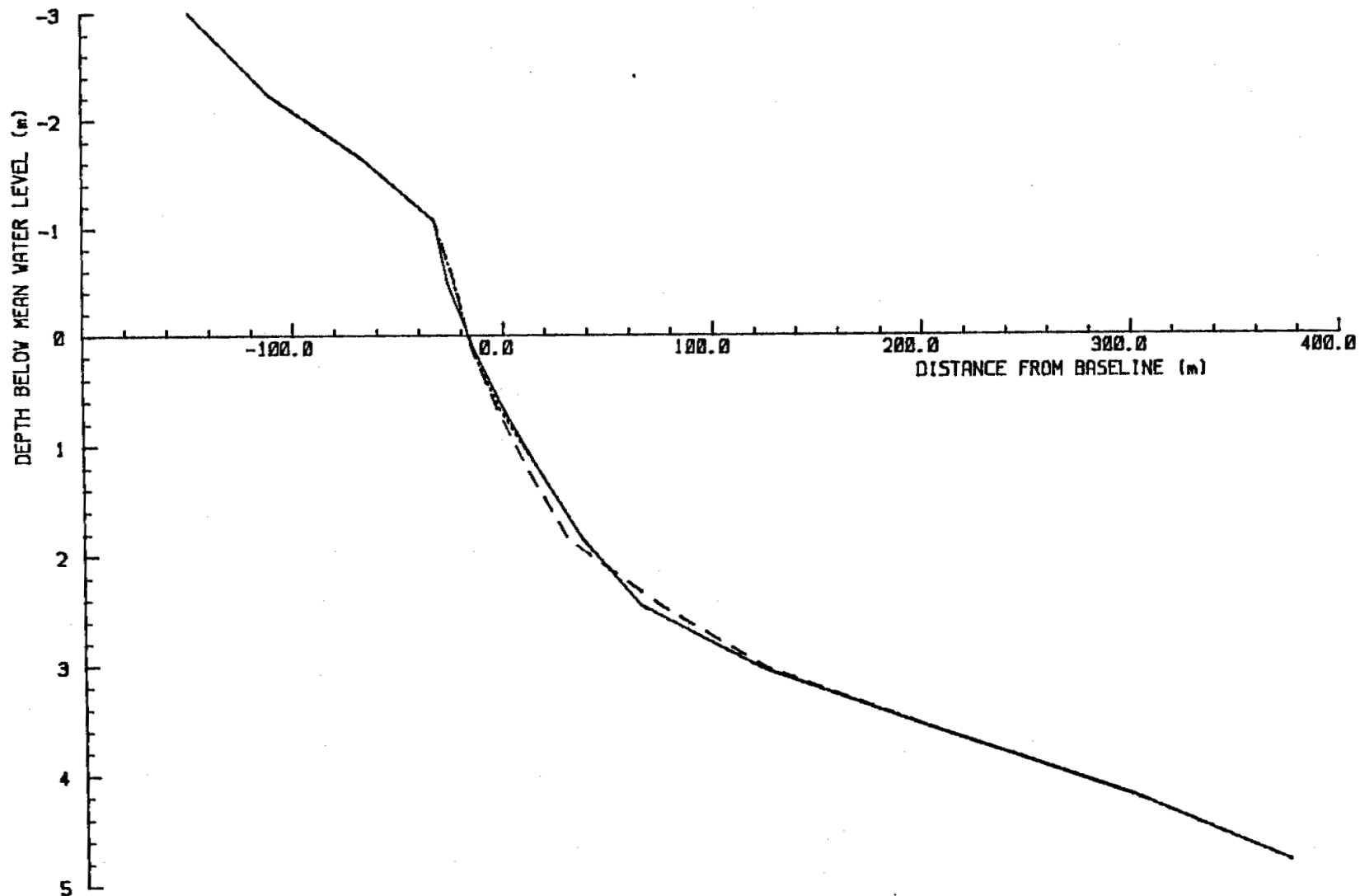
Date: 24 Apr 85

Scales as shown

Checked by:

Keith Philpott

Consulting Limited

LEGEND

— Initial profile - - - - - End of run profile
 Wave 1 Equilibrium

CALIBRATION RUN 7

SUPPLEMENTARY DATA

Calibration run for 57 wave conditions
 Total time all waves was 600.8 hours

Shoreline retreat = 0.19 metres

KING POINT PROFILE ADJUSTMENT

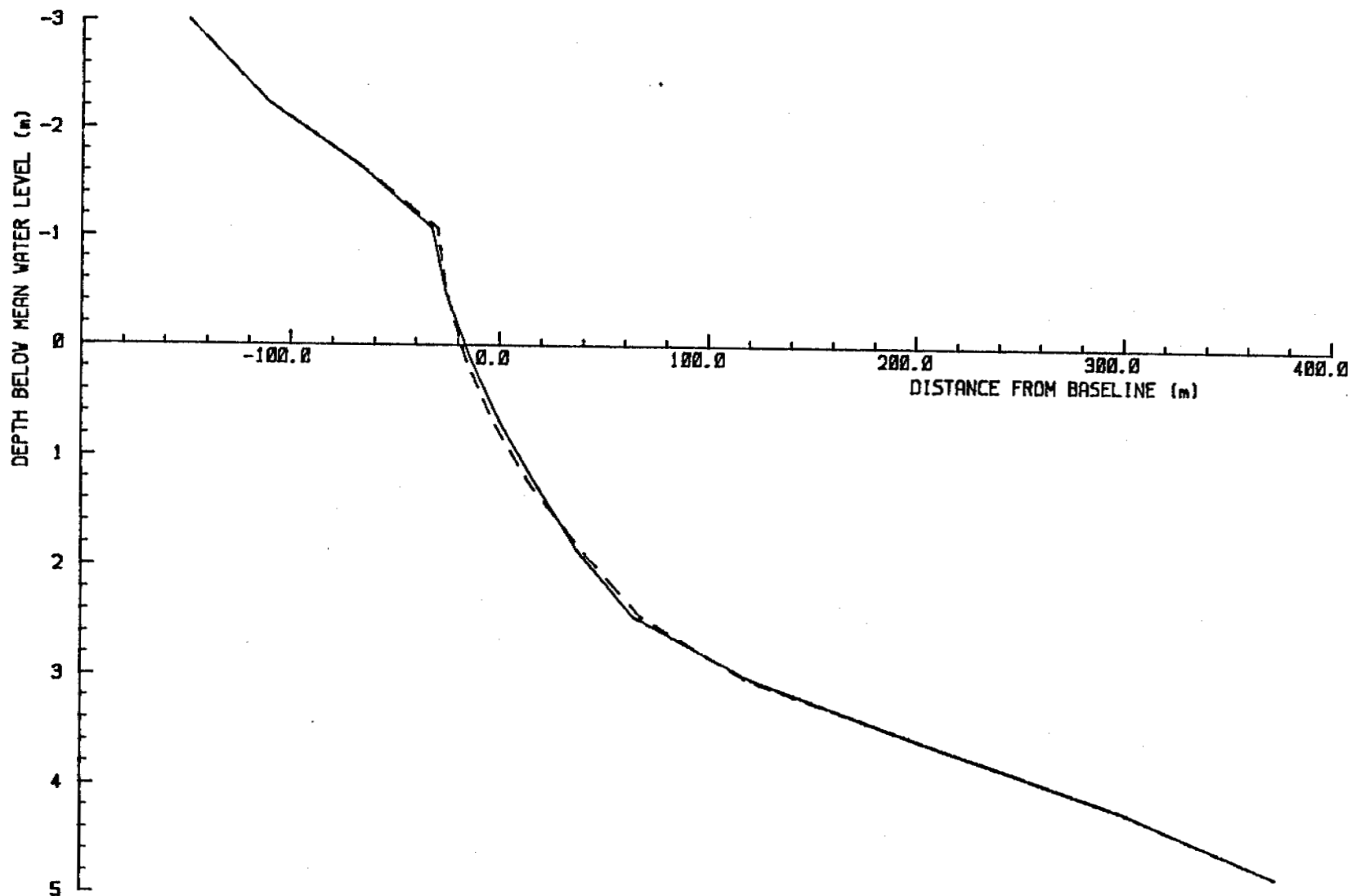
CALIBRATION RUN / NEW PROFILE / WSKARL = 0.7

Date: 24 Apr 85

Scales as shown

Checked by:

Keith Philpott
Consulting Limited



FIGURE

LEGEND

—— Initial profile

----- End of run profile

CALIBRATION RUN 8

SUPPLEMENTARY DATA

Calibration run for 57 wave conditions
 Total time all waves was 600.8 hours

Shoreline retreat = 1.70 metres

KING POINT PROFILE ADJUSTMENT

CALIBRATION RUN / ONE THIRD ROLL / VSKARL = 0.7

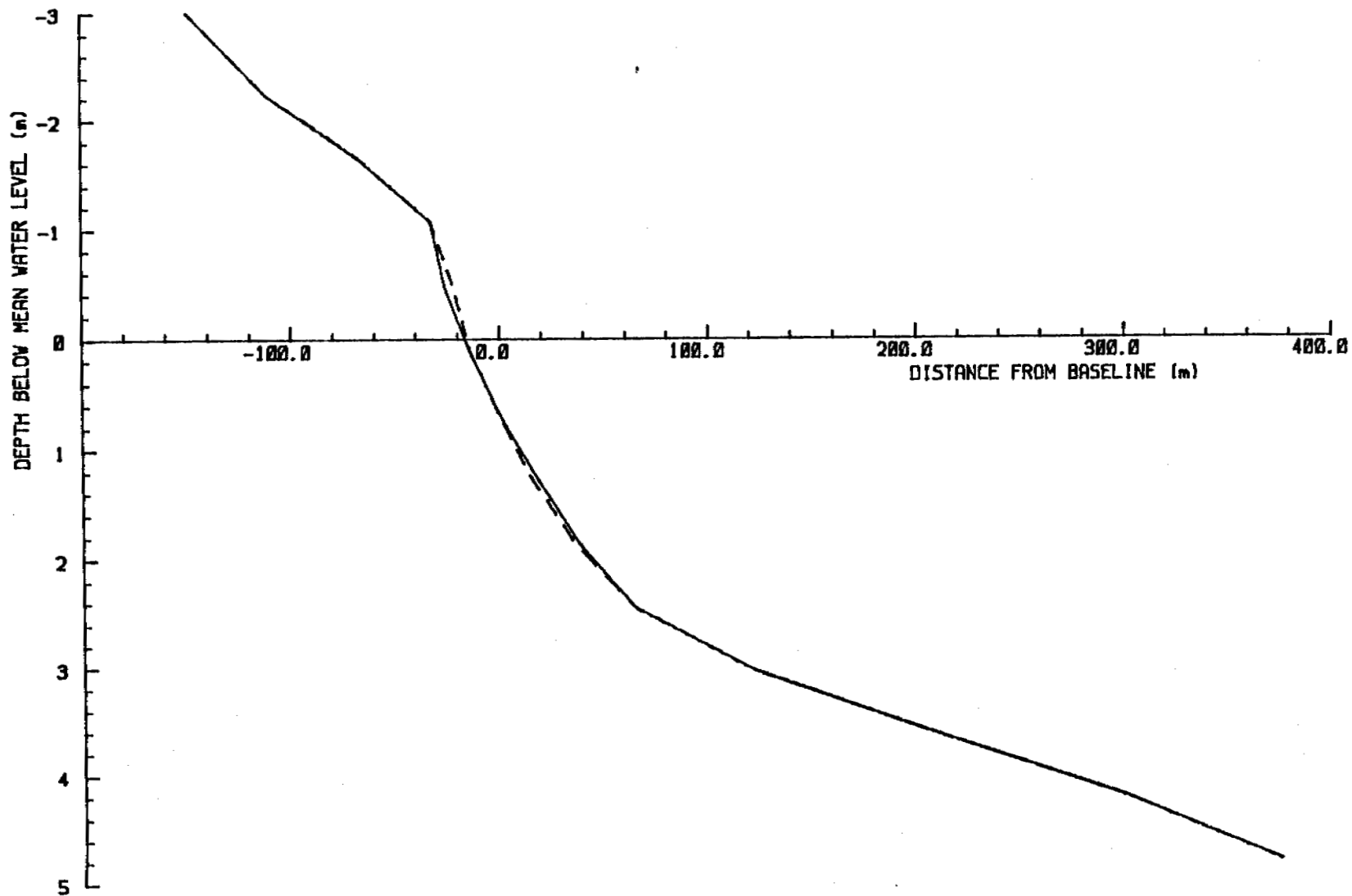
Date: 24 Apr 85

Scales as shown

Checked by:

Keith Philpott

Consulting Limited

LEGEND

———— Initial profile - - - - - End of run profile

SUPPLEMENTARY DATA

Calibration run for 42 wave conditions
Total time all waves was 42.0 hours

Shoreline advance = 1.17 metres

KING POINT PROFILE ADJUSTMENT

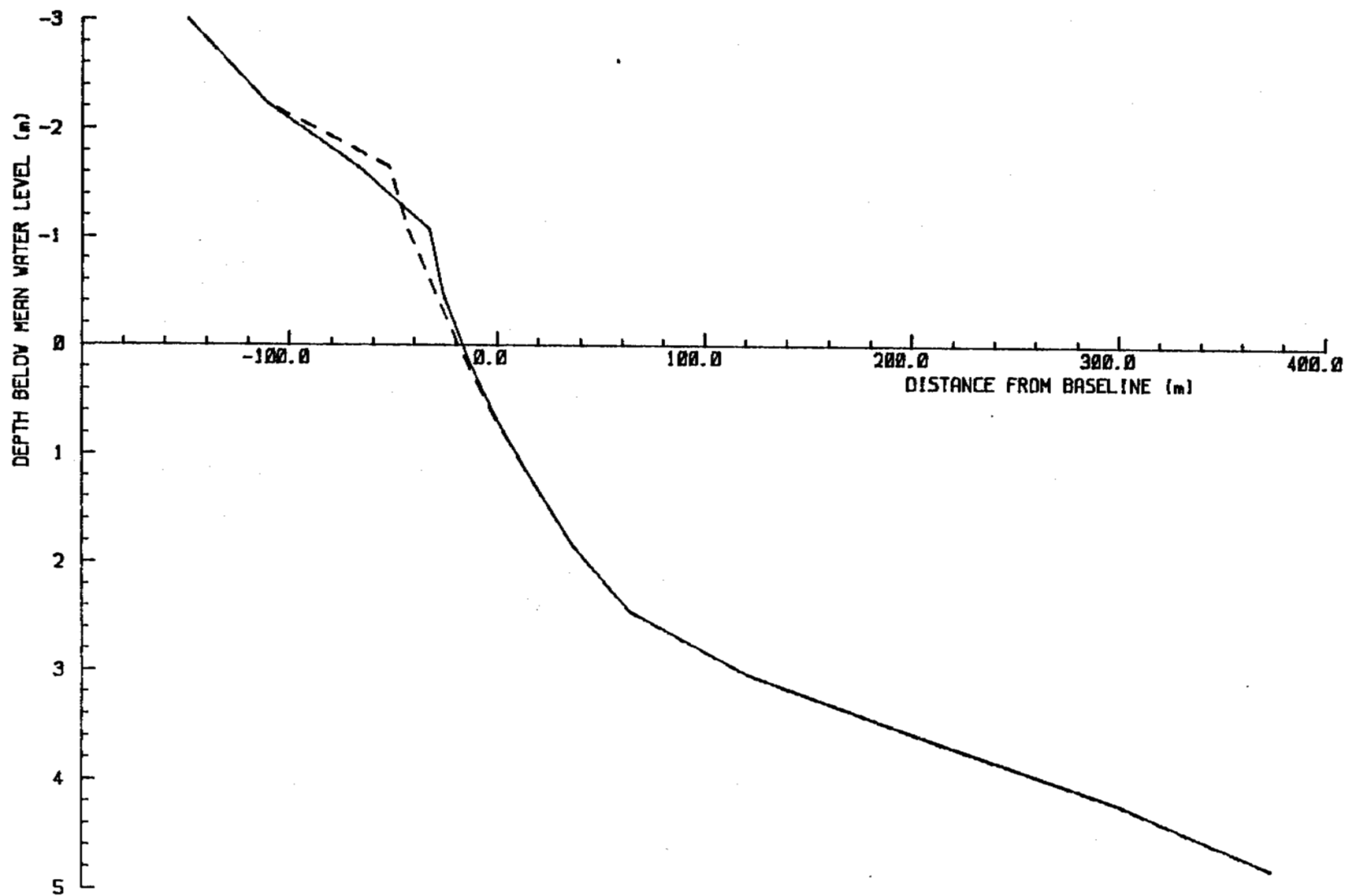
STORM SURGE RUN / NO SURGE / VSKRAL = 0.7

Date: 24 Apr 85

Scales as shown

Checked by:

Kelth Philpott
Consulting Limited



LEGEND

———— Initial profile - - - - - End of run profile

SUPPLEMENTARY DATA

Calibration run for 42 wave conditions
Total time all waves was 42.0 hours

Shoreline retreat = 1.60 metres

KING POINT PROFILE ADJUSTMENT

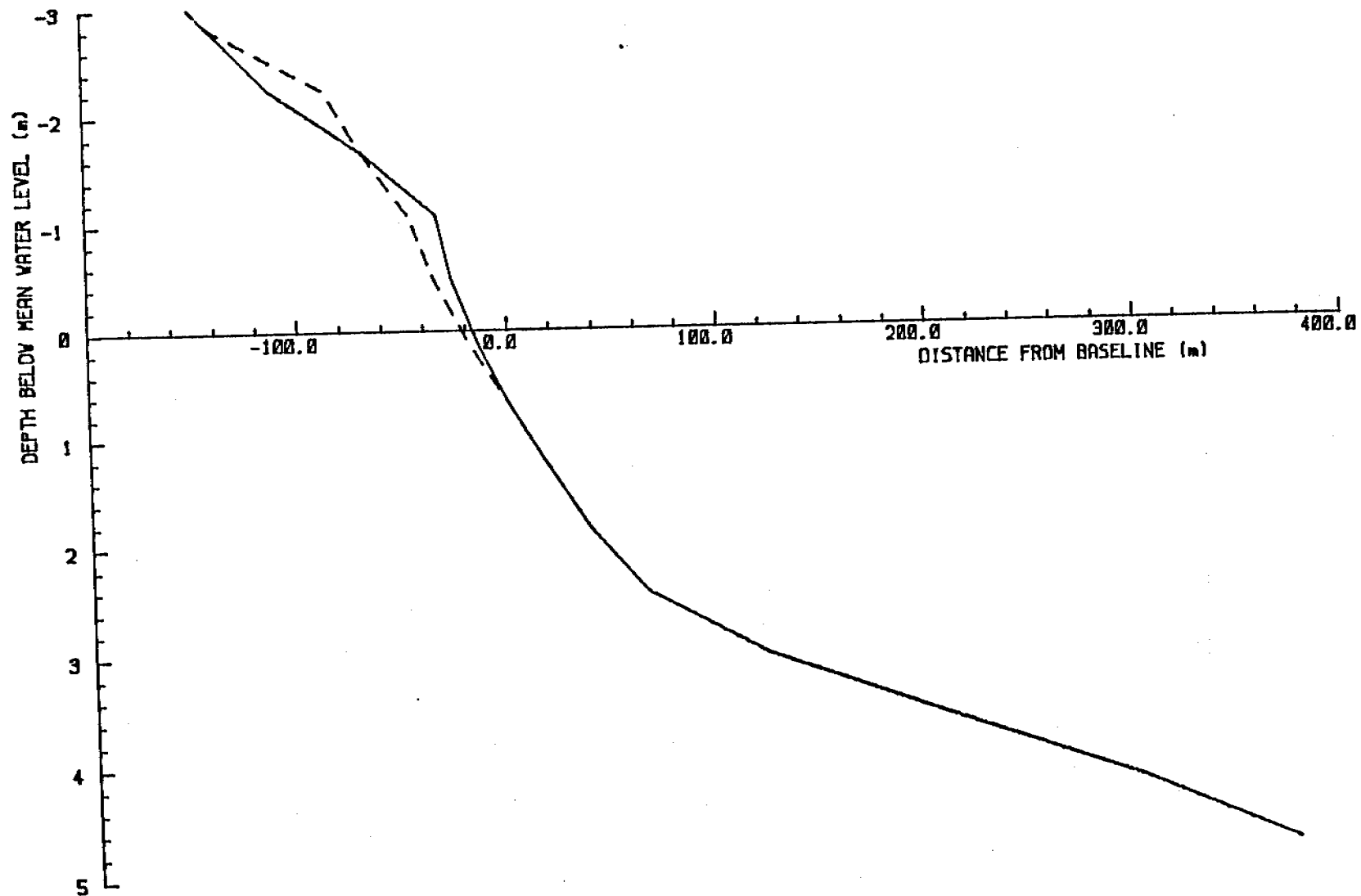
STORM SURGE RUN / SURGE = 1.0 m

Date: 24 Apr 85

Scales as shown

Checked by:

Kelth Philpott
Consulting Limited

LEGEND

— Initial profile

- - - - - End of run profile

SUPPLEMENTARY DATA

Calibration run for 42 wave conditions
 Total time all waves was 42.8 hours

Shoreline retreat = 4.74 metres

KING POINT PROFILE ADJUSTMENT

STORM SURGE RUN / SCHEMATIZED SURGE / VSKAAL = 0.7

PEAK SURGE = 1.65 m above MVL

Date: 24 Apr 85

Scales as shown

Checked by:

Kaith Philippott

Consulting Limited

KING POINT
Storm Wave Climate for Nearshore
Profile Adjustment Runs

Hs(m)	Tp(s)	HH	DD/MM/YY
.33	3.67	8	1/ 9/72
.48	4.86	1	1/ 9/72
.42	4.33	2	1/ 9/72
.44	4.48	3	1/ 9/72
.25	3.54	4	1/ 9/72
.28	3.51	5	1/ 9/72
.31	3.45	9	1/ 9/72
.49	4.44	18	1/ 9/72
.54	4.73	11	1/ 9/72
.57	4.88	12	1/ 9/72
.34	3.97	13	1/ 9/72
.23	4.46	14	1/ 9/72
.27	4.87	15	1/ 9/72
.27	4.77	16	1/ 9/72
.27	4.71	17	1/ 9/72
.27	4.67	18	1/ 9/72
.28	4.64	19	1/ 9/72
.29	4.62	20	1/ 9/72
.38	4.61	21	1/ 9/72
.31	4.61	22	1/ 9/72
.32	4.61	23	1/ 9/72
.42	4.61	8	2/ 9/72
.44	4.91	1	2/ 9/72
.43	5.17	2	2/ 9/72
.41	5.58	3	2/ 9/72
.68	5.68	4	2/ 9/72
1.11	6.98	5	2/ 9/72
1.12	6.95	6	2/ 9/72
1.86	6.74	7	2/ 9/72
1.19	6.65	8	2/ 9/72
.97	6.58	9	2/ 9/72
.94	6.35	18	2/ 9/72
.92	6.28	11	2/ 9/72
.89	6.28	12	2/ 9/72
.86	6.11	13	2/ 9/72
.83	6.81	14	2/ 9/72
.77	5.89	15	2/ 9/72
.74	5.78	16	2/ 9/72
.78	5.66	17	2/ 9/72
.67	5.52	18	2/ 9/72
.57	5.11	19	2/ 9/72
.32	4.25	20	2/ 9/72

BEAUFORT SEA COASTAL SEDIMENT STUDY

BEACH PLAN SHAPE EVOLUTION RESULTS

KING POINT

WITH AND WITHOUT A STRUCTURE

(1970 - 1983)

KEITH PHILPOTT CONSULTING LTD.
P.O. Box 938
THORNHILL
ONTARIO L3T 4A5

Table 8.1

Application of the Beach Plan Model at King Point

Conditions Without a Structure

Operating Conditions for Final Run 1970-1983

Beach Plan Shape Model Results - Without a Structure - Run KPBP7

No. of beach sections = 11

Initial beach offsets

at each section(1 to 11): 810.0, 900.0, 900.0, 900.0, 870.0, 780.0, 720.0, 640.0, 530.0, 720.0, 870.0

Length of each section(1 to 11): 650.0, 400.0, 300.0, 300.0, 400.0, 400.0, 300.0, 400.0, 200.0, 500.0, 300.0

Angle of baseline normal to true north = 47.0

Refraction data specified at

drift calculation points: 2, 4, 8, 10, 11

Refraction data given at 4.0 m. contour

Calibration height

(for sections 1 to 11): 50.0, 50.0, 50.0, 50.0, 5.0, 5.0, 25.0, 25.0, 25.0, 25.0, 25.0

Drift calculation point 1 is an open boundary

Drift calculation point 12 is an open boundary

- Notes: 1. Distances and heights are in metres; angles are in degrees.
2. Calibration beach height equals (actual height) X (height factor).

END OF YEAR, 23-Sep- 70

BEACH SECTION	DRIFT	BEACH LINE POSITION (metres)			LITTORAL DRIFT DURING YEAR			TOTAL	BEACH VOLUME CHANGE		DRIFT	BEACH SECTION
	CALC.							FEED	(Incl. Feed)		CALC.	
	POINT	TOTAL CHANGE			(cu.m.)				(cu.m.)		POINT	
		THIS YEAR	OVERALL	POSITION NOW	LEFT	RIGHT	NET DRIFT	THIS YEAR	THIS YEAR	OVERALL		
	1				-24984.0	17715.3	-7268.7				1	
1		-4.432E-01	-4.427E-01	809.56				.0	-1.440E+04	-1.440E+04		1
	2				-19251.4	26387.4	7136.0				2	
2		-7.202E-01	-7.211E-01	899.28				.0	-1.440E+04	-1.440E+04		2
	3				-17967.5	39508.3	21540.8				3	
3		6.915E-01	6.896E-01	900.69				.0	1.037E+04	1.037E+04		3
	4				-24034.1	35201.9	11167.7				4	
4		-9.230E-01	-9.230E-01	899.08				.0	-1.386E+04	-1.386E+04		4
	5				-16372.7	41397.0	25024.4				5	
5		-7.496E+00	-7.495E+00	862.51				.0	-1.499E+04	-1.499E+04		5
	6				-8638.8	48654.8	40016.0				6	
6		1.340E+00	1.341E+00	781.34				.0	2.679E+03	2.679E+03		6
	7				-7457.6	44794.4	37336.8				7	
7		-1.233E+00	-1.232E+00	718.77				.0	-9.245E+03	-9.245E+03		7
	8				-3781.8	50363.4	46581.6				8	
8		-1.263E+00	-1.264E+00	638.74				.0	-1.263E+04	-1.263E+04		8
	9				-3995.6	63204.1	59208.5				9	
9		2.051E+01	2.051E+01	550.51				.0	1.025E+05	1.025E+05		9
	10				-52291.6	8957.1	-43334.6				10	
10		-6.104E-01	-6.105E-01	719.38				.0	-7.730E+03	-7.730E+03		10
	11				-50150.0	14545.6	-35604.4				11	
11		-1.031E+00	-1.032E+00	868.97				.0	-7.730E+03	-7.730E+03		11
	12				-49190.0	21315.7	-27874.3				12	

END OF YEAR, 14-Oct- 71

BEACH SECTION	DRIFT	BEACH LINE POSITION (metres)			LITTORAL DRIFT DURING YEAR			TOTAL	BEACH VOLUME CHANGE		DRIFT	BEACH SECTION
	CALC.							FEED	(Incl. Feed)		CALC.	
	POINT	TOTAL CHANGE			(cu.m.)				(cu.m.)		POINT	
		THIS YEAR	OVERALL	POSITION NOW	LEFT	RIGHT	NET DRIFT	THIS YEAR	THIS YEAR	OVERALL		
	1				-27628.5	107748.1	80119.5				1	
1		-1.397E+00	-1.842E+00	808.16				.0	-4.541E+04	-5.981E+04		1
	2				-22884.4	148411.6	125527.1				2	
2		-2.270E+00	-2.991E+00	897.01				.0	-4.541E+04	-5.981E+04		2
	3				-19441.1	190376.0	170934.9				3	
3		2.122E-01	9.039E-01	900.90				.0	3.183E+03	1.356E+04		3
	4				-26362.6	194114.8	167752.3				4	
4		-1.109E+00	-2.031E+00	897.97				.0	-1.664E+04	-3.050E+04		4
	5				-16926.4	201319.2	184392.7				5	
5		-3.046E+00	-1.054E+01	859.46				.0	-6.093E+03	-2.108E+04		5
	6				-9695.7	200181.3	190485.6				6	
6		3.920E+00	5.259E+00	785.26				.0	7.841E+03	1.052E+04		6
	7				-7316.9	189961.8	182644.9				7	
7		-3.231E-01	-1.556E+00	718.44				.0	-2.423E+03	-1.167E+04		7
	8				-4441.0	189509.1	185068.1				8	
8		-1.979E+00	-3.242E+00	636.76				.0	-1.979E+04	-3.241E+04		8
	9				-8060.1	212914.0	204853.8				9	
9		3.417E+01	5.460E+01	584.68				.0	1.709E+05	2.734E+05		9
	10				-51253.4	85244.0	33990.6				10	
10		-1.247E+00	-9.867E+00	718.13				.0	-1.559E+04	-2.332E+04		10
	11				-55727.4	105310.1	49582.6				11	
11		-2.079E+00	-3.111E+00	866.89				.0	-1.559E+04	-2.332E+04		11
	12				-60339.1	125513.9	65174.7				12	

END OF YEAR, 4-Nov- 72

BEACH SECTION	DRIFT	BEACH LINE POSITION (metres)			LITTORAL DRIFT DURING YEAR			TOTAL	BEACH VOLUME CHANGE		DRIFT	BEACH SECTION
	CALC.							FEED	(Incl. Feed)		CALC.	
	POINT	TOTAL CHANGE			(cu.m.)				(cu.m.)		POINT	
		THIS YEAR	OVERALL	POSITION NOW	LEFT	RIGHT	NET DRIFT	THIS YEAR	THIS YEAR	OVERALL		
	1				-34458.2	33535.8	-922.4				1	
1		-2.185E-01	-2.061E+00	887.94				.0	-7.183E+03	-6.692E+04		1
	2				-36651.1	42831.4	6180.3				2	
2		-3.551E-01	-3.344E+00	896.66				.0	-7.183E+03	-6.692E+04		2
	3				-39623.4	52906.4	13282.9				3	
3		9.389E-01	1.835E+00	901.83				.0	1.396E+04	2.752E+04		3
	4				-58066.6	49385.3	-681.3				4	
4		-1.066E+00	-3.097E+00	896.90				.0	-1.599E+04	-4.649E+04		4
	5				-33864.0	49176.1	15312.1				5	
5		-5.812E+00	-1.635E+01	853.65				.0	-1.162E+04	-3.271E+04		5
	6				-19913.4	46849.2	26935.8				6	
6		-2.269E+00	2.992E+00	782.99				.0	-4.538E+03	5.982E+03		6
	7				-12633.0	44106.3	31473.3				7	
7		-1.533E+00	-3.089E+00	716.91				.0	-1.150E+04	-2.317E+04		7
	8				-6744.5	49715.1	42970.7				8	
8		6.088E-01	-2.632E+00	637.37				.0	6.088E+03	-2.632E+04		8
	9				-21695.8	58578.8	36883.0				9	
9		1.478E+01	6.938E+01	599.38				.0	-7.352E+04	3.469E+05		9
	10				-64360.5	27728.5	-36632.0				10	
10		1.209E-01	-1.745E+00	718.26				.0	1.511E+03	-2.181E+04		10
	11				-69015.0	30871.8	-38143.2				11	
11		2.015E-01	-2.909E+00	867.89				.0	1.511E+03	-2.181E+04		11
	12				-73711.0	34056.8	-39654.3				12	

END OF YEAR, 7-Oct- 73

BEACH SECTION	DRIFT CALC. POINT	BEACH LINE POSITION (metres)			LITTORAL DRIFT DURING YEAR			TOTAL FEED THIS YEAR	BEACH VOLUME CHANGE		DRIFT CALC. POINT	BEACH SECTION
									(Incl. Feed)			
		TOTAL CHANGE			(cu.m.)				(cu.m.)			
		THIS YEAR	OVERALL	POSITION NOW	LEFT	RIGHT	NET DRIFT		THIS YEAR	OVERALL		
	1	-1.799E-01	-2.240E+00	887.76	-14141.7	16174.9	2033.3	.0	-5.848E+03	-7.276E+04	1	1
1	2	-2.924E-01	-3.638E+00	896.36	-13278.4	21159.4	7881.0	.0	-5.848E+03	-7.276E+04	2	2
2	3	3.479E-01	2.182E+00	902.18	-13203.3	26932.0	13728.7	.0	5.219E+03	3.274E+04	3	3
3	4	-4.669E-01	-3.566E+00	896.43	-16435.0	24944.9	8509.9	.0	-7.004E+03	-5.349E+04	4	4
4	5	-1.822E+00	-1.818E+01	851.82	-7894.2	26252.1	19157.8	.0	-1.475E+03	4.508E+03	5	5
5	6	-7.373E-01	2.255E+00	782.25	-5103.8	25736.3	20632.5	.0	-5.580E+03	-2.875E+04	6	6
6	7	-7.440E-01	-3.833E+00	716.17	-3504.0	29716.8	26212.8	.0	1.623E+03	-2.470E+04	7	7
7	8	1.623E-01	-2.470E+00	637.53	-8285.8	32875.5	24589.7	.0	3.966E+04	3.866E+05	8	8
8	9	7.932E+00	7.732E+01	607.32	-24878.5	9808.8	-15069.6	.0	3.689E+03	-1.812E+04	9	9
9	10	2.951E-01	-1.449E+00	718.55	-28415.1	9656.3	-18758.8	.0	3.689E+03	-1.812E+04	10	10
10	11	4.919E-01	-2.415E+00	867.58	-32245.5	9797.6	-22447.9	.0			11	11
11	12										12	

END OF YEAR, 30-Sep- 74

BEACH SECTION	DRIFT CALC.	BEACH LINE POSITION (metres)			LITTORAL DRIFT DURING YEAR			TOTAL FEED	BEACH VOLUME CHANGE (Incl. Feed)		DRIFT CALC.	BEACH SECTION
	POINT	TOTAL CHANGE			(cu.m.)				(cu.m.)		POINT	
		THIS YEAR	OVERALL	POSITION NOW	LEFT	RIGHT	NET DRIFT	THIS YEAR	THIS YEAR	OVERALL		
1	1	-8.933E-02	-2.328E+00	807.67	-26161.5	297.7	-25863.8	.0	-2.903E+03	-7.567E+04	1	1
2	2	-1.452E-01	-3.782E+00	896.22	-24821.4	1860.7	-22960.7	.0	-2.903E+03	-7.567E+04	2	2
3	3	3.279E-01	2.509E+00	902.51	-24549.2	4491.6	-20057.6	.0	4.918E+03	3.766E+04	3	3
4	4	-1.050E+00	-4.617E+00	895.38	-30002.8	5027.3	-24975.5	.0	-1.575E+04	-6.925E+04	4	4
5	5	-4.534E+00	-2.271E+01	847.29	-17176.4	7953.1	-9223.2	.0	-9.069E+03	-4.542E+04	5	5
6	6	-2.876E+00	-6.220E-01	779.38	-9463.3	9309.0	-154.3	.0	-5.752E+03	-1.244E+03	6	6
7	7	-8.651E-01	-4.697E+00	715.30	-4341.7	9939.4	5597.7	.0	-6.488E+03	-3.523E+04	7	7
8	8	1.819E+00	-6.514E-01	639.35	-1815.7	13901.6	12085.8	.0	1.819E+04	-6.516E+03	8	8
9	9	7.827E+00	8.514E+01	615.14	-14750.4	8658.7	-6099.7	.0	3.913E+04	4.257E+05	9	9
10	10	6.320E-01	-8.185E-01	719.18	-45640.2	405.9	-45234.3	.0	7.900E+03	-1.022E+04	10	10
11	11	1.053E+00	-1.363E+00	868.64	-53274.5	139.8	-53134.7	.0	7.900E+03	-1.022E+04	11	11
	12				-61153.1	118.0	-61035.1				12	

END OF YEAR, 25-Sep- 75

BEACH SECTION	DRIFT CALC.	BEACH LINE POSITION (metres)			LITTORAL DRIFT DURING YEAR			TOTAL FEED	BEACH VOLUME CHANGE (Incl. Feed)		DRIFT CALC.	BEACH SECTION
	POINT	TOTAL CHANGE			(cu.m.)				(cu.m.)		POINT	
		THIS YEAR	OVERALL	POSITION NOW	LEFT	RIGHT	NET DRIFT	THIS YEAR	THIS YEAR	OVERALL		
1	1	-2.152E-01	-2.545E+00	807.45	-14627.3	4139.8	-10487.5	.0	-6.994E+03	-8.266E+04	1	1
2	2	-3.497E-01	-4.134E+00	895.87	-10429.2	6936.0	-3493.2	.0	-6.994E+03	-8.266E+04	2	2
3	3	7.127E-02	2.582E+00	902.58	-8105.6	11606.6	3501.0	.0	1.069E+03	3.873E+04	3	3
4	4	-6.842E-01	-5.301E+00	894.70	-9526.5	11950.6	2422.0	.0	-1.026E+04	-7.951E+04	4	4
5	5	-1.742E+00	-2.445E+01	845.55	-4244.1	16939.6	12695.5	.0	-3.485E+03	-4.891E+04	5	5
6	6	-9.924E-01	-1.615E+00	778.39	-2533.2	18713.5	16180.3	.0	-1.985E+03	-3.229E+03	6	6
7	7	-6.006E-01	-5.300E+00	714.70	-1652.7	19817.8	18165.1	.0	-4.505E+03	-3.974E+04	7	7
8	8	8.497E-01	1.983E-01	640.20	-943.6	23613.3	22669.7	.0	8.497E+03	1.980E+03	8	8
9	9	6.341E+00	9.148E+01	621.48	-4426.3	18599.2	14172.9	.0	3.171E+04	4.574E+05	9	9
10	10	7.093E-01	-1.074E-01	719.89	-22727.3	5194.4	-17532.9	.0	8.867E+03	-1.355E+03	10	10
11	11	1.182E+00	-1.810E-01	869.82	-30174.4	3774.9	-26399.5	.0	8.867E+03	-1.355E+03	11	11
	12				-37987.4	2721.4	-35266.0				12	

END OF YEAR, 14-Oct- 76

BEACH SECTION		DRIFT CALC. POINT	BEACH LINE POSITION (metres)			LITTORAL DRIFT DURING YEAR			TOTAL FEED THIS YEAR	BEACH VOLUME CHANGE (Incl. Feed) (cu.m.)		DRIFT CALC. POINT	BEACH SECTION
			TOTAL CHANGE			(cu.m.)							
			THIS YEAR	OVERALL	POSITION NOW	LEFT	RIGHT	NET DRIFT		THIS YEAR	OVERALL		
		1				-27642.8	6854.7	-20788.1				1	
1			-2.748E-01	-2.820E+00	807.18				.0	-8.932E+03	-9.159E+04		1
		2				-25293.0	13437.1	-11855.9				2	
2			-4.466E-01	-4.580E+00	895.42				.0	-8.932E+03	-9.159E+04		2
		3				-26176.8	23253.1	-2923.7				3	
3			2.676E-01	2.850E+00	902.85				.0	4.014E+03	4.274E+04		3
		4				-31556.4	24618.8	-6937.6				4	
4			-1.402E+00	-6.702E+00	893.30				.0	-2.103E+04	-1.005E+05		4
		5				-23119.0	37215.8	14096.8				5	
5			-4.071E+00	-2.852E+01	841.48				.0	-8.142E+03	-5.705E+04		5
		6				-17913.4	40152.6	22239.2				6	
6			-3.107E+00	-4.723E+00	775.28				.0	-6.214E+03	-9.443E+03		6
		7				-13409.6	41863.1	28453.5				7	
7			-1.094E+00	-6.392E+00	713.61				.0	-8.202E+03	-4.794E+04		7
		8				-9727.6	46382.8	36655.2				8	
8			2.445E+00	2.644E+00	642.64				.0	2.445E+04	2.643E+04		8
		9				-22253.2	34459.4	12206.2				9	
9			9.839E+00	1.013E+02	631.32				.0	4.919E+04	5.066E+05		9
		10				-45531.7	8544.8	-36986.9				10	
10			1.582E+00	1.475E+00	721.48				.0	1.978E+04	1.842E+04		10
		11				-61515.0	4751.6	-56763.4				11	
11			2.637E+00	2.456E+00	872.46				.0	1.978E+04	1.842E+04		11
		12				-78809.1	2269.3	-76539.8				12	

END OF YEAR, 20-Oct- 77

DRIFT		BEACH LINE POSITION (metres)			LITTORAL DRIFT DURING YEAR			TOTAL FEED		BEACH VOLUME CHANGE (Incl. Feed)		DRIFT CALC.		BEACH SECTION
BEACH SECTION	POINT	TOTAL CHANGE		POSITION NOW	(cu.m.)			THIS YEAR	(cu.m.)		POINT			
		THIS YEAR	OVERALL		LEFT	RIGHT	NET DRIFT		THIS YEAR	OVERALL				
	1				-68894.9	8958.2	-59936.7					1		
1		-6.846E-01	-3.504E+00	806.50				.0	-2.225E+04	-1.138E+05			1	
	2				-53729.6	16043.2	-37686.4					2		
2		-1.113E+00	-5.692E+00	894.31				.0	-2.225E+04	-1.138E+05			2	
	3				-43779.6	28343.6	-15436.1					3		
3		3.867E-02	2.889E+00	902.89				.0	5.801E+02	4.332E+04			3	
	4				-48260.6	32244.5	-16016.2					4		
4		-3.459E+00	-1.016E+01	889.84				.0	-5.188E+04	-1.524E+05			4	
	5				-27726.4	63591.4	35864.9					5		
5		-7.163E+00	-3.569E+01	834.31				.0	-1.433E+04	-7.137E+04			5	
	6				-20182.9	70373.6	50190.8					6		
6		-6.000E+00	-1.072E+01	769.28				.0	-1.200E+04	-2.144E+04			6	
	7				-14181.3	76372.1	62190.8					7		
7		-1.881E+00	-8.273E+00	711.73				.0	-1.411E+04	-6.205E+04			7	
	8				-9685.5	85987.5	76302.0					8		
8		6.686E+00	9.331E+00	649.33				.0	6.686E+04	9.329E+04			8	
	9				-32707.9	42227.9	9439.9					9		
9		1.899E+01	1.203E+02	650.31				.0	9.495E+04	6.016E+05			9	
	10				-98890.4	13382.0	-85508.4					10		
10		4.978E+00	6.452E+00	726.45				.0	6.222E+04	8.065E+04			10	
	11				-156522.3	8789.5	-147732.9					11		
11		8.297E+00	1.075E+01	880.75				.0	6.222E+04	8.065E+04			11	
	12				-216717.5	6760.1	-209957.2					12		

END OF YEAR, 4-Oct- 78

BEACH SECTION	DRIFT CALC. POINT	BEACH LINE POSITION (metres)			LITTORAL DRIFT DURING YEAR			TOTAL FEED	BEACH VOLUME CHANGE (Incl. Feed)		DRIFT CALC. POINT	BEACH SECTION
		TOTAL CHANGE			(cu.m.)				(cu.m.)			
		THIS YEAR	OVERALL	POSITION NOW	LEFT	RIGHT	NET DRIFT	THIS YEAR	THIS YEAR	OVERALL		
1	1	-5.276E+02	-3.557E+00	806.44	-34232.3	6407.3	-27825.0	.0	-1.715E+03	-1.156E+05	1	1
2	2	-8.573E+02	-5.777E+00	894.22	-35756.3	9646.0	-26110.4	.0	-1.715E+03	-1.156E+05	2	2
3	3	3.492E+01	3.237E+00	903.24	-39582.9	15187.1	-24395.8	.0	5.238E+03	4.856E+04	3	3
4	4	-1.476E+00	-1.164E+01	888.36	-46637.9	17003.8	-29634.0	.0	-2.214E+04	-1.746E+05	4	4
5	5	-3.805E+00	-3.949E+01	830.51	-31687.9	24196.6	-7491.3	.0	-7.610E+03	-7.898E+04	5	5
6	6	-3.332E+00	-1.405E+01	765.95	-24488.2	24606.9	118.7	.0	-6.664E+03	-2.811E+04	6	6
7	7	-1.001E+00	-9.356E+00	710.64	-18144.0	24927.0	6783.0	.0	-8.110E+03	-7.016E+04	7	7
8	8	3.242E+00	1.257E+01	652.57	-13488.9	28382.4	14893.5	.0	3.242E+04	1.257E+05	8	8
9	9	6.903E+00	1.272E+02	657.21	-37128.8	19603.8	-17525.9	.0	3.451E+04	6.361E+05	9	9
10	10	1.410E+00	7.861E+00	727.86	-59973.5	7934.8	-52038.7	.0	1.763E+04	9.828E+04	10	10
11	11	2.351E+00	1.310E+01	803.10	-74973.0	5303.4	-69669.6	.0	1.763E+04	9.828E+04	11	11
	12				-91007.8	3707.4	-87300.5				12	

END OF YEAR, 17-Oct- 79

BEACH SECTION	DRIFT CALC. POINT	BEACH LINE POSITION (metres)			LITTORAL DRIFT DURING YEAR			TOTAL FEED	BEACH VOLUME CHANGE (Incl. Feed)		DRIFT CALC. POINT	BEACH SECTION
		TOTAL CHANGE			(cu.m.)				(cu.m.)			
		THIS YEAR	OVERALL	POSITION NOW	LEFT	RIGHT	NET DRIFT	THIS YEAR	THIS YEAR	OVERALL		
1	1	-1.166E+01	-3.671E+00	806.33	-72391.6	5748.4	-66643.0	.0	-3.788E+03	-1.193E+05	1	1
2	2	-1.894E+01	-5.966E+00	894.03	-71697.3	8842.6	-62854.6	.0	-3.788E+03	-1.193E+05	2	2
3	3	3.294E+01	3.567E+00	903.57	-72558.8	13492.6	-59066.1	.0	4.941E+03	5.350E+04	3	3
4	4	-3.085E+00	-1.472E+01	885.28	-79350.5	15343.5	-64007.0	.0	-4.627E+04	-2.208E+05	4	4
5	5	-6.155E+00	-4.565E+01	824.35	-48005.6	30271.3	-17734.4	.0	-1.231E+04	-9.129E+04	5	5
6	6	-5.597E+00	-1.965E+01	760.35	-37259.4	31834.3	-5425.0	.0	-1.119E+04	-3.930E+04	6	6
7	7	-1.591E+00	-1.094E+01	709.06	-27582.6	33352.0	5769.5	.0	-1.193E+04	-8.209E+04	7	7
8	8	6.815E+00	1.939E+01	659.39	-20773.1	38473.6	17700.5	.0	6.815E+04	1.939E+05	8	8
9	9	1.182E+01	1.390E+02	669.04	-67576.5	17129.5	-50447.0	.0	5.912E+04	6.952E+05	9	9
10	10	3.576E+00	1.144E+01	731.44	-115751.4	6185.2	-109566.2	.0	4.470E+04	1.430E+05	10	10
11	11	5.960E+00	1.906E+01	889.06	-157136.4	2872.3	-154264.2	.0	4.470E+04	1.430E+05	11	11
	12				-200252.1	1290.1	-198962.0				12	

END OF YEAR, 10-Sep- 80

BEACH SECTION	DRIFT	BEACH LINE POSITION (metres)			LITTORAL DRIFT DURING YEAR			TOTAL	BEACH VOLUME CHANGE		DRIFT	BEACH SECTION
	CALC.							FEED	(Incl. Feed)		CALC.	
	POINT	TOTAL CHANGE			(cu.m.)				(cu.m.)		POINT	
		THIS YEAR	OVERALL	NOW	LEFT	RIGHT	NET DRIFT	THIS YEAR	THIS YEAR	OVERALL		
	1				-54533.3	14899.9	-40433.4				1	
1		-5.721E+01	-4.245E+00	885.76				.0	-1.859E+04	-1.379E+05		1
	2				-44386.9	22465.4	-21841.4				2	
2		-9.296E+01	-6.896E+00	893.18				.0	-1.859E+04	-1.379E+05		2
	3				-37436.8	34187.3	-3249.5				3	
3		-5.505E+01	3.817E+00	903.82				.0	-8.258E+03	4.524E+04		3
	4				-36628.1	41628.3	5008.2				4	
4		-2.648E+00	-1.737E+01	882.63				.0	-3.972E+04	-2.606E+05		4
	5				-19025.3	63754.4	44729.0				5	
5		-2.063E+00	-4.771E+01	822.29				.0	-4.127E+03	-9.542E+04		5
	6				-14494.5	63350.6	48856.0				6	
6		-1.713E+00	-2.136E+01	758.64				.0	-3.426E+03	-4.273E+04		6
	7				-10407.1	62689.4	52282.3				7	
7		-6.212E+01	-1.157E+01	788.43				.0	-4.659E+03	-8.675E+04		7
	8				-7642.6	64584.2	56941.6				8	
8		5.503E+00	2.489E+01	664.89				.0	5.503E+04	2.489E+05		8
	9				-34077.6	35989.5	1911.8				9	
9		9.639E+00	1.487E+02	678.68				.0	4.819E+04	7.434E+05		9
	10				-68721.0	22440.0	-46281.0				10	
10		5.792E+00	1.723E+01	737.23				.0	7.240E+04	2.154E+05		10
	11				-129684.3	11001.2	-118683.0				11	
11		9.654E+00	2.872E+01	898.72				.0	7.240E+04	2.154E+05		11
	12				-197875.0	6789.6	-191085.4				12	

END OF YEAR, 7-Oct- 81

BEACH SECTION	DRIFT	BEACH LINE POSITION (metres)			LITTORAL DRIFT DURING YEAR			TOTAL	BEACH VOLUME CHANGE		DRIFT	BEACH SECTION
	CALC.							FEED	(Incl. Feed)		CALC.	
	POINT	TOTAL CHANGE			(cu.m.)				(cu.m.)		POINT	
		THIS YEAR	OVERALL	NOW	LEFT	RIGHT	NET	THIS	THIS YEAR	OVERALL		
	1				-37691.8	28331.7	-9359.3				1	
1		-5.111E+01	-4.756E+00	885.24				.0	-1.661E+04	-1.545E+05		1
	2				-34640.4	41891.4	7251.0				2	
2		-8.305E+01	-7.727E+00	892.27				.0	-1.661E+04	-1.545E+05		2
	3				-35427.9	59289.2	23861.4				3	
3		-4.838E+01	2.612E+00	902.61				.0	-6.057E+03	3.918E+04		3
	4				-37019.8	66936.9	29917.9				4	
4		-1.773E+00	-1.914E+01	880.86				.0	-2.660E+04	-2.872E+05		4
	5				-22747.7	79265.2	56517.5				5	
5		-8.899E+01	-4.860E+01	821.40				.0	-1.780E+03	-9.720E+04		5
	6				-18387.2	76684.4	58297.2				6	
6		-4.579E+01	-2.182E+01	758.18				.0	-9.159E+02	-4.364E+04		6
	7				-14586.8	73799.8	59213.1				7	
7		-2.793E+01	-1.185E+01	788.15				.0	-2.094E+03	-8.885E+04		7
	8				-12590.4	73897.8	61307.5				8	
8		3.704E+00	2.859E+01	668.59				.0	3.704E+04	2.859E+05		8
	9				-35289.4	59554.4	24265.0				9	
9		7.077E+00	1.558E+02	685.76				.0	3.539E+04	7.788E+05		9
	10				-52590.1	41469.8	-11120.3				10	
10		5.050E+00	2.228E+01	742.28				.0	6.312E+04	2.785E+05		10
	11				-94732.2	20488.9	-74243.3				11	
11		8.416E+00	3.713E+01	907.13				.0	6.312E+04	2.785E+05		11
	12				-147366.0	9999.6	-137366.4				12	

END OF YEAR, 6-Oct- 82

BEACH SECTION	DRIFT CALC. POINT	BEACH LINE POSITION (metres)			LITTORAL DRIFT DURING YEAR			TOTAL FEED	BEACH VOLUME CHANGE (Incl. Feed)		DRIFT CALC. POINT	BEACH SECTION
		TOTAL CHANGE			(cu.m.)				(cu.m.)			
		THIS YEAR	OVERALL	POSITION NOW	LEFT	RIGHT	NET DRIFT	THIS YEAR	THIS YEAR	OVERALL		
	1				-56005.6	8255.8	-47749.9				1	
1		-1.025E-01	-4.859E+00	885.14				.0	-3.332E+03	-1.579E+05		1
	2				-56367.8	11950.1	-44417.7				2	
2		-1.666E-01	-7.895E+00	892.18				.0	-3.332E+03	-1.579E+05		2
	3				-57205.0	16119.2	-41085.7				3	
3		-4.005E-02	2.570E+00	902.57				.0	-6.128E+02	3.057E+04		3
	4				-58628.9	18155.9	-40473.0				4	
4		-2.197E+00	-2.134E+01	878.66				.0	-3.295E+04	-3.201E+05		4
	5				-37534.2	30010.6	-7523.6				5	
5		-4.841E+00	-5.264E+01	817.36				.0	-8.082E+03	-1.053E+05		5
	6				-29686.1	30244.2	558.2				6	
6		-3.353E+00	-2.518E+01	754.02				.0	-6.707E+03	-5.035E+04		6
	7				-22891.2	30156.3	7265.1				7	
7		-4.184E-01	-1.226E+01	707.74				.0	-3.138E+03	-9.198E+04		7
	8				-20533.1	30936.3	10403.2				8	
8		5.112E+00	3.371E+01	673.71				.0	5.112E+04	3.371E+05		8
	9				-57641.8	16921.1	-40720.6				9	
9		6.826E+00	1.626E+02	692.58				.0	3.413E+04	8.129E+05		9
	10				-83920.3	9071.5	-74848.8				10	
10		3.734E+00	2.602E+01	746.02				.0	4.668E+04	3.252E+05		10
	11				-125741.2	4211.9	-121529.3				11	
11		6.224E+00	4.336E+01	913.36				.0	4.668E+04	3.252E+05		11
	12				-171394.1	3184.6	-168209.5				12	

END OF YEAR, 4-Sep- 83

BEACH SECTION	DRIFT CALC. POINT	BEACH LINE POSITION (metres)			LITTORAL DRIFT DURING YEAR			TOTAL FEED	BEACH VOLUME CHANGE (Incl. Feed)		DRIFT CALC. POINT	BEACH SECTION
		TOTAL CHANGE			(cu.m.)				(cu.m.)			
		THIS YEAR	OVERALL	POSITION NOW	LEFT	RIGHT	NET DRIFT	THIS YEAR	THIS YEAR	OVERALL		
	1				-28781.6	13464.4	-15317.2				1	
1		-1.689E-01	-5.029E+00	804.97				.0	-5.488E+03	-1.634E+05		1
	2				-29141.2	19312.4	-9828.7				2	
2		-2.744E-01	-8.168E+00	891.83				.0	-5.488E+03	-1.634E+05		2
	3				-30600.7	26260.4	-4340.3				3	
3		-1.199E-01	2.451E+00	902.45				.0	-1.798E+03	3.677E+04		3
	4				-30552.2	28009.0	-2542.3				4	
4		-1.082E+00	-2.242E+01	877.58				.0	-1.623E+04	-3.363E+05		4
	5				-18810.1	32502.6	13692.5				5	
5		-1.033E+00	-5.367E+01	816.33				.0	-2.066E+03	-1.073E+05		5
	6				-15199.2	30957.3	15758.1				6	
6		-6.771E-01	-2.585E+01	754.15				.0	-1.354E+03	-5.171E+04		6
	7				-12122.8	29235.2	17112.3				7	
7		-1.281E-01	-1.239E+01	707.61				.0	-9.604E+02	-9.295E+04		7
	8				-11442.2	29515.0	18072.8				8	
8		2.369E+00	3.607E+01	676.07				.0	2.369E+04	3.607E+05		8
	9				-31769.7	26156.1	-5613.6				9	
9		3.709E+00	1.663E+02	696.29				.0	1.854E+04	8.314E+05		9
	10				-43847.9	19689.9	-24158.0				10	
10		2.448E+00	2.846E+01	748.46				.0	3.060E+04	3.558E+05		10
	11				-65001.9	10242.1	-54759.8				11	
11		4.080E+00	4.744E+01	917.44				.0	3.060E+04	3.558E+05		11
	12				-90806.5	5444.9	-85361.7				12	

Table 8.2

Application of the Beach Plan Model at King Point

Conditions With a Structure

Operating Conditions for Final Run 1970-1983

Beach Plan Shape Model Results - With a Structure - Run KPBPB

No. of beach sections = 11

Initial beach offsets

at each section(1 to 11): 810.0, 900.0, 900.0, 900.0, 870.0, 780.0, 720.0, 640.0, 530.0, 720.0, 870.0

Length of each section(1 to 11): 650.0, 400.0, 300.0, 300.0, 400.0, 400.0, 300.0, 400.0, 200.0, 500.0, 300.0.

Angle of baseline normal to true north = 47.0

Refraction data specified at

drift calculation points: 2, 4, 8, 10, 11

Refraction data given at 4.0 m. contour

Calibration height

(for sections 1 to 11): 5.0, 5.0, 5.0, 5.0, 5.0, 5.0, 25.0, 25.0, 25.0, 25.0, 25.0

Drift calculation point 1 is an open boundary

Drift calculation point 5 is a long groyne

Drift calculation point 12 is an open boundary

- Notes: 1. Distances and heights are in metres; angles in degrees.
 2. Calibration beach height equals (actual height) X (height factor).

END OF YEAR, 23-Sep- 70

BEACH	DRIFT	BEACH LINE POSITION (metres)	LITTORAL DRIFT DURING YEAR	TOTAL	BEACH VOLUME CHANGE	DRIFT	
SECTION	CALC.			FEED	(Incl. Feed)	CALC.	BEACH
POINT	TOTAL CHANGE		(cu.m.)		(cu.m.)	POINT	SECTION
	THIS YEAR	OVERALL	POSITION	NET			
			NOW	LEFT	RIGHT	DRIFT	YEAR
1	1	-3.829E+00 -3.830E+00	806.17	-23146.1	18114.6	-5031.6	.0
2	2	-6.222E+00 -6.222E+00	893.78	-19119.7	26533.2	7413.4	.0
3	3	5.798E+00 5.799E+00	905.80	-18688.9	38539.2	19858.4	.0
4	4	7.441E+00 7.442E+00	907.44	-23958.5	35120.1	11161.5	.0
5	5	-1.952E+01 -1.952E+01	850.48	.0	.0	.0	.0
6	6	8.655E-01 8.651E-01	780.87	-9016.8	48047.4	39030.7	.0
7	7	-1.238E+00 -1.237E+00	718.76	-7481.7	44781.4	37299.6	.0
8	8	-1.263E+00 -1.264E+00	638.74	-3781.9	50363.4	46581.5	.0
9	9	2.051E+01 2.051E+01	550.51	-3995.6	63204.1	59208.5	.0
10	10	-6.183E-01 -6.184E-01	719.38	-52291.6	8958.0	-4333.6	.0
11	11	-1.031E+00 -1.032E+00	868.97	-50150.0	14545.7	-3504.4	.0
12	12			-49190.0	21314.9	-27875.1	.0

END OF YEAR, 14-Oct- 71

BEACH	DRIFT	BEACH LINE POSITION (metres)	LITTORAL DRIFT DURING YEAR	TOTAL	BEACH VOLUME CHANGE	DRIFT	
SECTION	CALC.			FEED	(Incl. Feed)	CALC.	BEACH
POINT	TOTAL CHANGE		(cu.m.)		(cu.m.)	POINT	SECTION
	THIS YEAR	OVERALL	POSITION	NET			
			NOW	LEFT	RIGHT	DRIFT	YEAR
1	1	-6.700E+00 -1.053E+01	799.47	-17622.9	124315.0	106692.9	.0
2	2	-1.089E+01 -1.711E+01	882.89	-22150.3	150618.9	128468.4	.0
3	3	2.202E+01 2.782E+01	927.82	-27118.7	177362.9	150244.2	.0
4	4	7.814E+01 8.558E+01	985.58	-39740.9	156950.7	117209.8	.0
5	5	-8.247E+01 -1.020E+02	768.01	.0	.0	.0	.0
6	6	-7.994E+00 -7.129E+00	772.87	-15773.0	180720.9	164947.9	.0
7	7	-5.531E-01 -1.791E+00	718.21	-7644.3	188580.7	180936.4	.0
8	8	-1.977E+00 -3.240E+00	636.76	-4441.9	189527.0	185885.0	.0
9	9	3.417E+01 5.468E+01	584.68	-8059.8	212913.6	204853.6	.0
10	10	-1.247E+00 -1.867E+00	718.13	-51253.5	85243.8	33990.3	.0
11	11	-2.079E+00 -3.110E+00	866.89	-55727.4	105310.1	49582.6	.0
12	12			-60339.1	125514.1	65174.9	.0

END OF YEAR, 4-Nov- 72

BEACH	DRIFT	BEACH LINE POSITION (metres)	LITTORAL DRIFT DURING YEAR	TOTAL	BEACH VOLUME CHANGE	DRIFT					
SECTION	CALC.			FEED	(Incl. Feed)	CALC.	BEACH				
POINT	POINT	TOTAL CHANGE	POSITION	(cu.m.)	NET	POINT	SECTION				
		THIS YEAR	OVERALL	NOW	LEFT	RIGHT	DRIFT	THIS	THIS YEAR	OVERALL	
	1				-22691.5	39933.2	17241.7				1
1		3.071E+00	-7.459E+00	882.54				.0	9.981E+03	-2.424E+04	1
	2				-36065.2	43325.6	7260.4				2
2		4.991E+00	-1.212E+01	887.88				.0	9.981E+03	-2.424E+04	2
	3				-49458.2	46737.4	-2720.8				3
3		1.020E+01	3.802E+01	938.02				.0	1.530E+04	5.703E+04	3
	4				-68920.6	42897.7	-18022.8				4
4		-1.202E+01	7.357E+01	973.57				.0	-1.802E+04	1.103E+05	4
	5				.0	.0	.0				5
5		-2.830E+00	-1.040E+02	765.18				.0	-5.660E+03	-2.096E+05	5
	6				-36994.5	42654.2	5659.6				6
6		-1.033E+01	-1.746E+01	762.54				.0	-2.066E+04	-3.492E+04	6
	7				-16814.5	43137.1	26322.6				7
7		-2.204E+00	-3.995E+00	716.01				.0	-1.653E+04	-2.996E+04	7
	8				-6791.5	49642.9	42851.4				8
8		5.970E-01	-2.642E+00	637.36				.0	5.970E+03	-2.643E+04	8
	9				-21698.3	58580.1	36881.8				9
9		1.470E+01	6.938E+01	599.38				.0	7.351E+04	3.469E+05	9
	10				-64360.6	27728.5	-36632.2				10
10		1.209E-01	-1.745E+00	718.26				.0	1.511E+03	-2.181E+04	10
	11				-69015.3	30871.0	-38143.5				11
11		2.015E-01	-2.909E+00	867.89				.0	1.511E+03	-2.181E+04	11
	12				-73711.4	34056.0	-39654.7				12

END OF YEAR, 7-Oct- 73

BEACH	DRIFT	BEACH LINE POSITION (metres)	LITTORAL DRIFT DURING YEAR	TOTAL	BEACH VOLUME CHANGE	DRIFT					
SECTION	CALC.			FEED	(Incl. Feed)	CALC.	BEACH				
POINT	POINT	TOTAL CHANGE	POSITION	(cu.m.)	NET	POINT	SECTION				
		THIS YEAR	OVERALL	NOW	LEFT	RIGHT	DRIFT	THIS	THIS YEAR	OVERALL	
	1				-8160.5	19429.1	11268.6				1
1		9.232E-01	-6.536E+00	883.46				.0	3.000E+03	-2.124E+04	1
	2				-13076.3	21344.4	8268.1				2
2		1.580E+00	-1.062E+01	889.38				.0	3.001E+03	-2.124E+04	2
	3				-18006.1	23273.7	5267.6				3
3		3.030E+00	4.105E+01	941.05				.0	4.545E+03	6.158E+04	3
	4				-21035.2	21758.0	722.8				4
4		4.819E-01	7.405E+01	974.05				.0	7.228E+02	1.111E+05	4
	5				.0	.0	.0				5
5		-4.759E+00	-1.096E+02	760.42				.0	-9.518E+03	-2.192E+05	5
	6				-11937.5	21455.5	9518.0				6
6		-4.013E+00	-2.147E+01	758.53				.0	-8.025E+03	-4.295E+04	6
	7				-6274.4	23817.0	17543.4				7
7		-1.141E+00	-5.137E+00	714.86				.0	-8.557E+03	-3.852E+04	7
	8				-3542.9	29643.7	26100.8				8
8		1.514E-01	-2.491E+00	637.51				.0	1.514E+03	-2.491E+04	8
	9				-8286.6	32873.9	24587.2				9
9		7.931E+00	7.731E+01	607.31				.0	3.966E+04	3.866E+05	9
	10				-24078.5	9808.0	-15069.8				10
10		2.951E-01	-1.449E+00	718.55				.0	3.689E+03	-1.812E+04	10
	11				-28415.1	9656.3	-18758.8				11
11		4.919E-01	-2.415E+00	867.58				.0	3.689E+03	-1.812E+04	11
	12				-32245.4	9797.6	-22447.8				12

END OF YEAR, 30-Sep- 74

BEACH		BEACH LINE POSITION (metres)			LITTORAL DRIFT DURING YEAR			TOTAL		BEACH VOLUME CHANGE		DRIFT	
SECTION	POINT	TOTAL CHANGE			(cu.m.)			FEED	(Incl. Feed)	(cu.m.)		CALC.	BEACH
		POSITION						THIS				POINT	SECTION
		THIS YEAR	OVERALL	NOW	LEFT	RIGHT	NET	YEAR	THIS YEAR	OVERALL			
	1				-15645.5	1937.5	-13708.0					1	
1	2	2.754E+00	-3.781E+00	886.22				.0	8.952E+03	-1.229E+04			1
	2				-24597.6	1937.7	-22659.9					2	
2	3	4.476E+00	-6.143E+00	893.86				.0	8.952E+03	-1.229E+04			2
	3				-33563.7	1951.9	-31611.8					3	
3	4	1.935E+00	4.299E+01	942.99				.0	2.903E+03	6.448E+04			3
	4				-36860.2	2345.7	-34514.5					4	
4	5	-2.301E+01	5.104E+01	951.84				.0	-3.451E+04	7.656E+04			4
	5				.0	.0	.0					5	
5	6	7.926E+00	-1.017E+02	768.35				.0	1.585E+04	-2.033E+05			5
	6				-20734.0	4882.9	-15851.0					6	
6	7	-7.276E+00	-2.875E+01	751.25				.0	-1.455E+04	-5.750E+04			6
	7				-9343.2	8043.6	-1299.5					7	
7	8	-1.728E+00	-6.863E+00	713.14				.0	-1.296E+04	-5.148E+04			7
	8				-1961.4	13620.8	11659.4					8	
8	9	1.777E+00	-7.139E-01	639.29				.0	1.777E+04	-7.141E+03			8
	9				-14760.4	8640.1	-6112.4					9	
9	10	7.824E+00	8.514E+01	615.14				.0	3.912E+04	4.257E+05			9
	10				-45640.5	405.9	-45234.6					10	
10	11	6.320E-01	-0.104E-01	719.18				.0	7.900E+03	-1.022E+04			10
	11				-53274.5	139.8	-53134.7					11	
11	12	1.053E+00	-1.363E+00	868.64				.0	7.900E+03	-1.022E+04			11
	12				-61152.9	118.0	-61034.8					12	

END OF YEAR, 25-Sep- 75

	DRIFT	BEACH LINE POSITION (metres)			LITTORAL DRIFT DURING YEAR			TOTAL	BEACH VOLUME CHANGE		DRIFT	
BEACH	CALC.							FEED	(Incl. Feed)		CALC.	BEACH
SECTION	POINT	TOTAL CHANGE			(cu.m.)				(cu.m.)		POINT	SECTION
		THIS YEAR	OVERALL	POSITION NOW	LEFT	RIGHT	NET DRIFT	THIS YEAR	THIS YEAR	OVERALL		
	1				-7086.6	5919.9	-1166.7				1	
1		6.888E-01	-3.092E+00	886.91				.0	2.239E+03	-1.005E+04		1
	2				-10368.5	6963.1	-3405.4				2	
2		1.119E+00	-5.024E+00	894.98				.0	2.239E+03	-1.005E+04		2
	3				-13652.9	8000.7	-5644.2				3	
3		-2.389E+00	4.060E+01	940.60				.0	-3.583E+03	6.090E+04		3
	4				-11675.4	9614.5	-2060.9				4	
4		-1.374E+00	4.966E+01	949.66				.0	-2.061E+03	7.450E+04		4
	5				.0	.0	.0				5	
5		-3.424E+00	-1.051E+02	764.92				.0	-6.848E+03	-2.102E+05		5
	6				-5663.2	12511.3	6848.1				6	
6		-3.096E+00	-3.104E+01	748.16				.0	-6.192E+03	-6.369E+04		6
	7				-2590.0	15629.7	13039.7				7	
7		-1.233E+00	-0.096E+00	711.90				.0	-9.248E+03	-6.072E+04		7
	8				-994.9	23282.9	22288.1				8	
8		0.134E-01	9.991E-02	640.10				.0	8.134E+03	9.930E+02		8
	9				-4433.6	18588.0	14154.4				9	
9		6.330E+00	9.148E+01	621.48				.0	3.169E+04	4.574E+05		9
	10				-22727.9	5194.2	-17533.7				10	
10		7.093E-01	-1.075E-01	719.89				.0	8.866E+03	-1.355E+03		10
	11				-30174.5	3774.9	-26399.6				11	
11		1.182E+00	-1.810E-01	869.82				.0	8.866E+03	-1.355E+03		11
	12				-37987.0	2721.5	-35265.4				12	

END OF YEAR, 14-Oct- 76

BEACH SECTION	DRIFT CALC.	BEACH LINE POSITION (metres)	LITTORAL DRIFT DURING YEAR	TOTAL FEED	BEACH VOLUME CHANGE (Incl. Feed)	DRIFT CALC.	BEACH SECTION
POINT	TOTAL CHANGE	POSITION	(cu.m.)	NET DRIFT	THIS YEAR	POINT	SECTION
	THIS YEAR	OVERALL	NOW	LEFT	RIGHT		
1	1	1.742E+00 -1.349E+00	888.65	-17531.3	11227.0	-6304.3	1
1	2	2.831E+00 -2.193E+00	897.81	-25354.2	13388.2	-11966.0	2
2	3	-3.243E+00 3.735E+01	937.35	-33193.2	15565.4	-17627.8	3
3	4	-8.509E+00 4.115E+01	941.15	-33394.4	20630.4	-12764.0	4
4	5	-2.921E+00 -1.000E+02	762.00	.0	.0	.0	5
5	6	-5.894E+00 -3.774E+01	742.26	-22403.1	28245.4	5842.4	6
6	7	-2.392E+00 -1.049E+01	709.51	-16597.9	34228.5	17630.6	7
7	8	2.343E+00 2.441E+00	642.44	-10057.1	45638.5	35573.4	8
8	9	9.827E+00 1.013E+02	631.30	-22269.8	34411.0	12142.1	9
9	10	1.582E+00 1.475E+00	721.48	-45534.7	8543.3	-36991.4	10
10	11	2.636E+00 2.455E+00	872.46	-61514.8	4751.7	-56763.2	11
11	12			-78805.1	2270.1	-76535.1	12

END OF YEAR, 20-Oct- 77

BEACH SECTION	DRIFT CALC.	BEACH LINE POSITION (metres)	LITTORAL DRIFT DURING YEAR	TOTAL FEED	BEACH VOLUME CHANGE (Incl. Feed)	DRIFT CALC.	BEACH SECTION
POINT	TOTAL CHANGE	POSITION	(cu.m.)	NET DRIFT	THIS YEAR	POINT	SECTION
	THIS YEAR	OVERALL	NOW	LEFT	RIGHT		
1	1	5.000E-01 -8.401E-01	889.16	-48194.6	11057.3	-37137.3	1
1	2	8.255E-01 -1.366E+00	898.63	-54629.2	15040.9	-39788.3	2
2	3	-1.111E+01 2.624E+01	926.24	-61573.7	21134.3	-40439.3	3
3	4	-1.585E+01 2.531E+01	925.31	-53209.6	29438.2	-23771.4	4
4	5	-7.529E+00 -1.155E+02	754.47	.0	.0	.0	5
5	6	-9.690E+00 -4.743E+01	732.57	-29550.4	44608.9	15058.5	6
6	7	-4.980E+00 -1.547E+01	704.53	-20793.7	55232.6	34438.9	7
7	8	6.277E+00 8.720E+00	648.72	-10400.8	82193.3	71792.5	8
8	9	1.892E+01 1.202E+02	650.22	-32932.7	41956.6	9023.8	9
9	10	4.974E+00 6.448E+00	726.45	-98924.6	13370.9	-85553.7	10
10	11	8.290E+00 1.074E+01	880.74	-156521.7	8789.6	-147732.2	11
11	12			-216673.2	6762.3	-209910.6	12

END OF YEAR, 4-Oct- 78

BEACH	DRIFT	BEACH LINE POSITION (metres)			LITTORAL DRIFT DURING YEAR			TOTAL	BEACH VOLUME CHANGE		DRIFT	
SECTION	POINT	TOTAL CHANGE			(cu.m.)			FEED	(Incl. Feed)		CALC.	BEACH
		POSITION							(cu.m.)		POINT	SECTION
		THIS YEAR	OVERALL	NOW	LEFT	RIGHT	NET	THIS	THIS YEAR	OVERALL		
	1				-28753.3	6913.8	-21839.6				1	
1		1.428E+00	5.872E-01	810.59				.0	4.642E+03	1.907E+03		1
	2				-36053.7	9572.1	-26481.6				2	
2		2.321E+00	9.537E-01	900.95				.0	4.642E+03	1.906E+03		2
	3				-43532.9	12409.3	-31123.6				3	
3		1.574E+00	2.782E+01	927.82				.0	2.360E+03	4.173E+04		3
	4				-48274.2	14790.2	-33484.0				4	
4		-2.232E+01	2.985E+00	902.99				.0	-3.348E+04	4.477E+03		4
	5				.0	.0	.0				5	
5		7.107E+00	-1.004E+02	761.58				.0	1.421E+04	-2.168E+05		5
	6				-31800.4	17587.0	-14213.4				6	
6		-4.725E+00	-5.215E+01	727.85				.0	-9.451E+03	-1.043E+05		6
	7				-24031.0	19268.3	-4762.6				7	
7		-2.281E+00	-1.775E+01	702.25				.0	-1.711E+04	-1.331E+05		7
	8				-14694.2	27038.8	12344.7				8	
8		3.015E+00	1.173E+01	651.73				.0	3.015E+04	1.173E+05		8
	9				-37289.8	19487.4	-17802.5				9	
9		6.853E+00	1.271E+02	657.07				.0	3.427E+04	6.354E+05		9
	10				-59994.6	7926.6	-52068.0				10	
10		1.400E+00	7.855E+00	727.85				.0	1.760E+04	9.820E+04		10
	11				-74973.0	5303.5	-69669.5				11	
11		2.347E+00	1.309E+01	803.09				.0	1.760E+04	9.820E+04		11
	12				-90980.9	3709.8	-87271.1				12	

END OF YEAR, 17-Oct- 79

BEACH	DRIFT	BEACH LINE POSITION (metres)			LITTORAL DRIFT DURING YEAR			TOTAL	BEACH VOLUME CHANGE		DRIFT	
SECTION	POINT	TOTAL CHANGE			(cu.m.)			FEED	(Incl. Feed)		CALC.	BEACH
		POSITION							(cu.m.)		POINT	SECTION
		THIS YEAR	OVERALL	NOW	LEFT	RIGHT	NET	THIS	THIS YEAR	OVERALL		
	1				-66398.0	6038.2	-60360.5				1	
1		1.133E+00	1.719E+00	811.72				.0	3.681E+03	5.588E+03		1
	2				-72762.9	8721.5	-64041.4				2	
2		1.840E+00	2.793E+00	902.79				.0	3.681E+03	5.587E+03		2
	3				-79631.4	11909.1	-67722.3				3	
3		-1.156E+01	1.626E+01	916.26				.0	-1.733E+04	2.439E+04		3
	4				-69567.2	19178.6	-50388.5				4	
4		-3.359E+01	-3.061E+01	869.39				.0	-5.039E+04	-4.591E+04		4
	5				.0	.0	.0				5	
5		1.221E+01	-9.621E+01	773.79				.0	2.441E+04	-1.924E+05		5
	6				-46980.2	22567.5	-24412.7				6	
6		-3.740E+00	-5.590E+01	724.10				.0	-7.480E+03	-1.118E+05		6
	7				-39265.1	22332.3	-16932.8				7	
7		-3.756E+00	-2.151E+01	690.49				.0	-2.817E+04	-1.613E+05		7
	8				-23760.6	34998.8	11238.3				8	
8		6.252E+00	1.799E+01	657.99				.0	6.252E+04	1.799E+05		8
	9				-68195.2	16911.9	-51283.3				9	
9		1.168E+01	1.388E+02	668.75				.0	5.040E+04	6.938E+05		9
	10				-115857.1	6172.1	-109685.1				10	
10		3.566E+00	1.142E+01	731.42				.0	4.458E+04	1.428E+05		10
	11				-157135.7	2872.5	-154263.2				11	
11		5.944E+00	1.904E+01	889.04				.0	4.458E+04	1.428E+05		11
	12				-200133.9	1292.2	-198841.7				12	

END OF YEAR, 10-Sep- 80

BEACH SECTION	DRIFT CALC. POINT	BEACH LINE POSITION (metres) TOTAL CHANGE POSITION	LITTORAL DRIFT DURING YEAR (cu.m.) NET LEFT RIGHT DRIFT	TOTAL FEED THIS YEAR	BEACH VOLUME CHANGE (Incl. Feed) (cu.m.) THIS YEAR OVERALL	DRIFT CALC. POINT	BEACH SECTION
		THIS YEAR	OVERALL	NOW			
1	1	-6.490E+00 -4.770E+00 805.23	-57453.6 13518.8 -43934.9	.0	-2.109E+04 -1.550E+04	1	1
2	2	-1.855E+01 -7.753E+00 892.25	-45055.9 22212.7 -22843.2	.0	-2.109E+04 -1.550E+04	2	2
3	3	-1.644E+01 -1.817E-01 899.82	-36516.8 34765.2 -1751.6	.0	-2.467E+04 -2.730E+02	3	3
4	4	1.528E+01 -1.533E+01 804.67	-27006.5 49920.2 22913.7	.0	2.291E+04 -2.300E+04	4	4
5	5	-1.786E+01 -1.141E+02 755.93	.0 .0 .0	.0	-3.571E+04 -2.201E+05	5	5
6	6	8.036E-01 -5.509E+01 724.91	-18172.1 53885.2 35713.1	.0	1.607E+03 -1.102E+05	6	6
7	7	-2.072E+00 -2.358E+01 696.42	-16932.3 51038.1 34105.8	.0	-1.554E+04 -1.768E+05	7	7
8	8	4.908E+00 2.289E+01 662.89	-9845.2 59492.7 49647.6	.0	4.908E+04 2.289E+05	8	8
9	9	9.429E+00 1.402E+02 678.10	-34849.9 35418.4 568.5	.0	4.715E+04 7.409E+05	9	9
10	10	5.768E+00 1.719E+01 737.19	-68940.7 22363.0 -46577.7	.0	7.210E+04 2.149E+05	10	10
11	11	9.613E+00 2.865E+01 898.65	-129677.6 11002.9 -118674.6	.0	7.210E+04 2.149E+05	11	11
	12		-197577.8 6806.0 -190771.8			12	

END OF YEAR, 7-Oct- 81

BEACH SECTION	DRIFT CALC. POINT	BEACH LINE POSITION (metres) TOTAL CHANGE POSITION	LITTORAL DRIFT DURING YEAR (cu.m.) NET LEFT RIGHT DRIFT	TOTAL FEED THIS YEAR	BEACH VOLUME CHANGE (Incl. Feed) (cu.m.) THIS YEAR OVERALL	DRIFT CALC. POINT	BEACH SECTION
		THIS YEAR	OVERALL	NOW			
1	1	-5.074E+00 -9.845E+00 800.15	-37583.3 28905.3 -8678.0	.0	-1.649E+04 -3.199E+04	1	1
2	2	-8.245E+00 -1.600E+01 804.00	-34525.7 42338.2 7812.5	.0	-1.649E+04 -3.199E+04	2	2
3	3	-2.975E+00 -3.157E+00 896.84	-35155.3 59458.3 24303.1	.0	-4.463E+03 -4.736E+03	3	3
4	4	1.918E+01 3.845E+00 903.85	-36301.1 65067.2 28766.1	.0	2.877E+04 5.768E+03	4	4
5	5	-2.090E+01 -1.350E+02 735.03	.0 .0 .0	.0	-4.100E+04 -2.699E+05	5	5
6	6	-2.252E+00 -5.734E+01 722.66	-23953.1 65753.3 41800.3	.0	-4.504E+03 -1.147E+05	6	6
7	7	-1.210E+00 -2.400E+01 695.20	-10891.5 65195.3 46303.8	.0	-9.133E+03 -1.860E+05	7	7
8	8	3.249E+00 2.614E+01 666.14	-14437.6 69874.1 53436.4	.0	3.249E+04 2.614E+05	8	8
9	9	6.884E+00 1.551E+02 685.07	-35856.0 58801.8 22945.8	.0	3.442E+04 7.753E+05	9	9
10	10	5.020E+00 2.221E+01 742.21	-52730.8 41254.8 -11476.0	.0	6.275E+04 2.776E+05	10	10
11	11	8.367E+00 3.702E+01 907.02	-94722.5 20496.0 -74226.5	.0	6.275E+04 2.776E+05	11	11
	12		-147011.2 10034.1 -136977.3			12	

END OF YEAR, 6-Oct- 82

BEACH SECTION	DRIFT CALC.	BEACH LINE POSITION (metres)	LITTORAL DRIFT DURING YEAR	TOTAL FEED	BEACH VOLUME CHANGE (Incl. Feed)	DRIFT CALC.	BEACH SECTION
POINT	TOTAL CHANGE	POSITION	(cu.m.)	THIS YEAR	THIS YEAR	POINT	SECTION
	THIS YEAR	OVERALL	NOW	LEFT	RIGHT	NET DRIFT	
1	1			-51286.5	8752.8	-42454.5	1
1	2.645E+01	-9.580E+00	888.42				1
2	2			-55435.3	12121.8	-43314.3	2
2	4.299E+01	-1.557E+01	884.43				2
3	3			-59967.3	15793.2	-44174.1	3
3	1.648E+00	-1.510E+00	898.49				3
4	4			-63849.2	16402.7	-46646.5	4
4	-3.110E+01	-2.725E+01	872.75				4
5	5			.0	.0	.0	5
5	1.132E+01	-1.237E+02	746.35				5
6	6			-42749.1	28114.3	-22634.8	6
6	-6.927E+00	-6.427E+01	715.73				6
7	7			-31288.1	22427.1	-8781.0	7
7	-1.630E+00	-2.643E+01	693.57				7
8	8			-24865.8	27518.5	3445.5	8
8	4.562E+00	3.871E+01	678.71				8
9	9			-58982.8	16729.4	-42172.6	9
9	6.612E+00	1.617E+02	691.68				9
10	10			-84246.6	9812.3	-75234.3	10
10	3.783E+00	2.591E+01	745.91				10
11	11			-125736.2	4213.3	-121522.9	11
11	6.172E+00	4.319E+01	913.19				11
12	12			-171884.8	3193.3	-167811.5	12

END OF YEAR, 4-Sep- 83

BEACH SECTION	DRIFT CALC.	BEACH LINE POSITION (metres)	LITTORAL DRIFT DURING YEAR	TOTAL FEED	BEACH VOLUME CHANGE (Incl. Feed)	DRIFT CALC.	BEACH SECTION
POINT	TOTAL CHANGE	POSITION	(cu.m.)	THIS YEAR	THIS YEAR	POINT	SECTION
	THIS YEAR	OVERALL	NOW	LEFT	RIGHT	NET DRIFT	
1	1			-26985.3	14814.3	-12891.0	1
1	-1.161E+00	-1.874E+01	799.26				1
2	2			-28782.8	19585.1	-9117.8	2
2	-1.887E+00	-1.745E+01	882.55				2
3	3			-31276.8	25933.8	-5343.8	3
3	-3.555E+00	-5.864E+00	894.94				3
4	4			-29816.2	29885.2	-11.0	4
4	-7.363E+03	-2.726E+01	872.74				4
5	5			.0	.0	.0	5
5	-3.225E+00	-1.269E+02	743.12				5
6	6			-28459.4	26988.6	6449.2	6
6	-8.779E+01	-6.515E+01	714.85				6
7	7			-16916.1	25121.1	8205.8	7
7	-7.843E+01	-2.721E+01	692.79				7
8	8			-13468.5	27555.6	14087.1	8
8	2.868E+00	3.277E+01	672.77				8
9	9			-32382.6	25791.6	-6591.1	9
9	3.573E+00	1.653E+02	695.25				9
10	10			-44832.1	19578.3	-24453.9	10
10	2.424E+00	2.834E+01	748.34				10
11	11			-64997.8	18248.9	-54748.9	11
11	4.839E+00	4.723E+01	917.23				11
12	12			-98524.4	5488.5	-85043.9	12

North Head Data Package

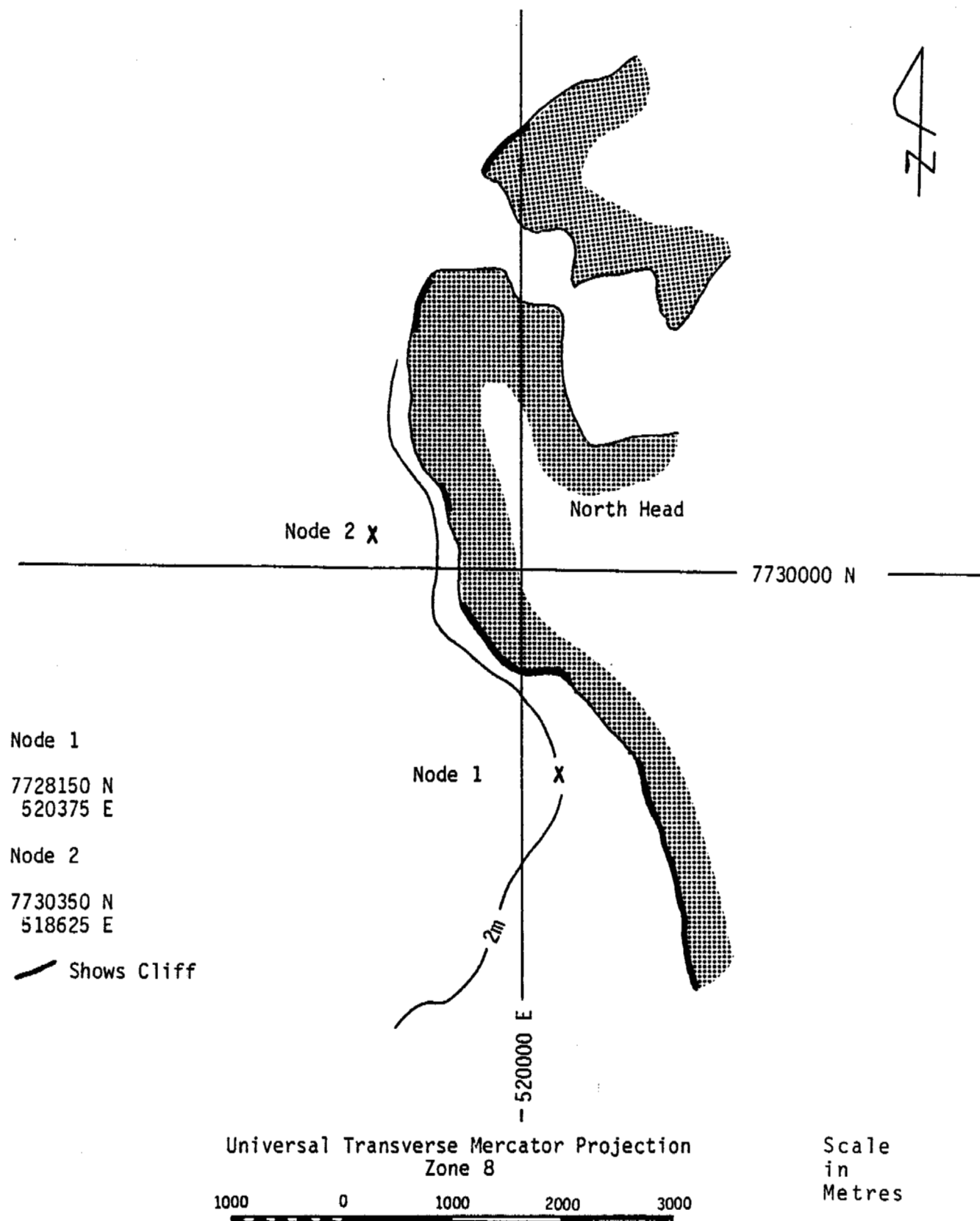
North Head

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North Head

A. Description of Site

Very little direct evidence was available for this site other than some recent nearshore borehole information. (K. Moran, private communication). A low cliff, largely composed of ice-rich, fine-grained sediment, bordering very shallow water. See Figure 2.4. Indications are that beach slopes are gentle although no profile data is available. There is some doubt that conventional sand-beach process models can be applied at this site. (Lussenburg, private communication). The extremity of North Head is known to be receding. From the geography of the area it is apparent that alongshore sediment transport must be southwards into a more sheltered area where accumulation must take place.



BEAUFORT SEA COASTAL SEDIMENT STUDY

North Head: Site Plan Showing Nodes

Date: 2 May 85

Scale as shown

Checked by:

Keith Philpott
Consulting Limited

BEAUFORT SEA COASTAL SEDIMENT STUDY

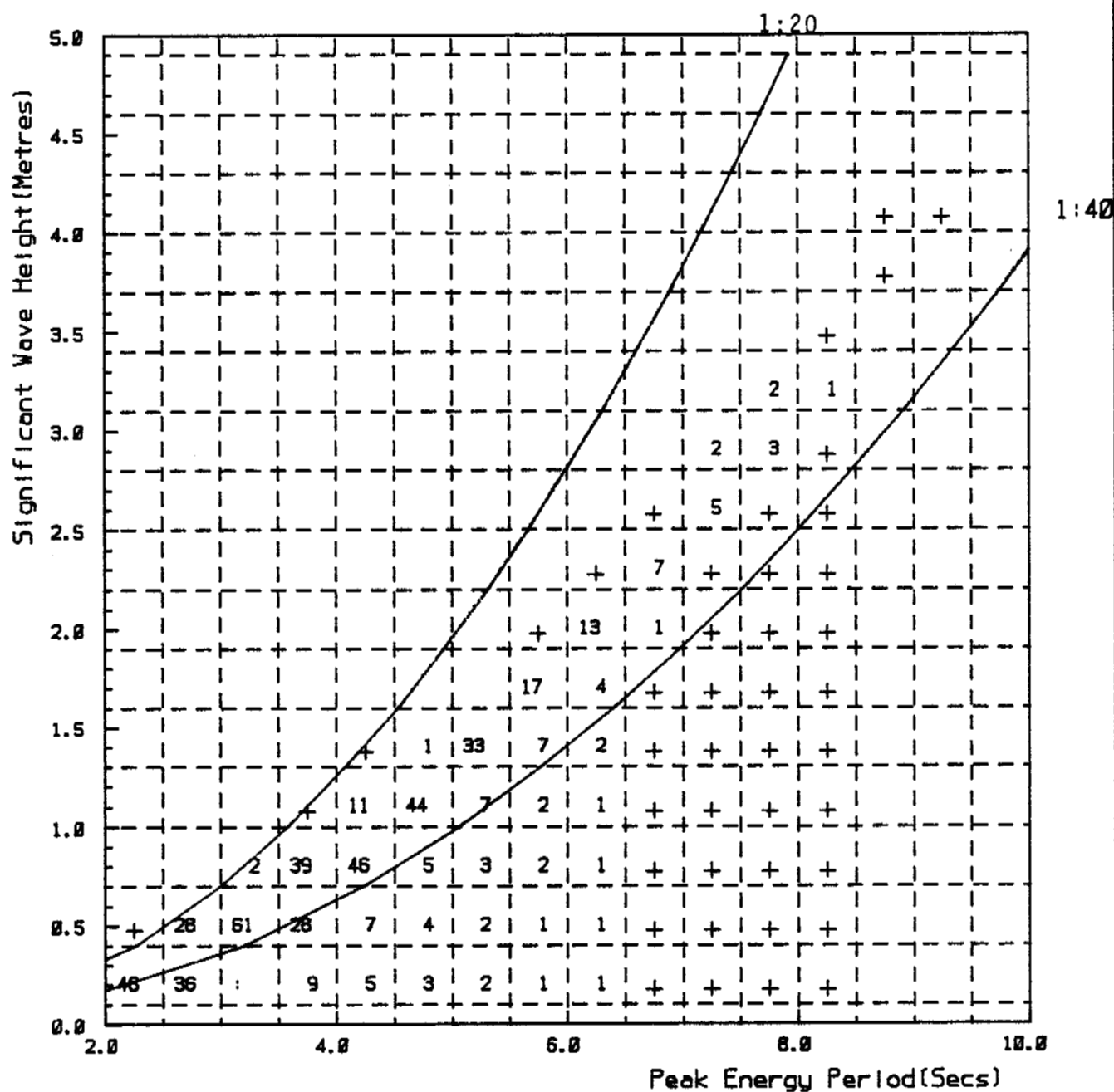
DEEPWATER WAVE STATISTICS - NORTH HEAD

WAVES 17/6/70 TO 28/9/83

SEASON: Summer, Fall

Note: This is one of two sets of "offshore" wave statistics as explained in Section 3.6.2 of Part I.

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P.O. BOX 938
THORNHILL
ONTARIO L3T 4A5



Direction Limits: 0.0 TO 360.0

Values in parts per : 1000

Calms: 50.4 %

+- Values less than 1 ppt

Dates: 17/6/70 to 28/9/83

Season: Summer, Fall

Total No. of Records: 32592

Waves Hindcast Using Wind Data from Tuktoyaktuk N.W.T.

BEAUFORT SEA COASTAL SEDIMENT STUDY

Date: 11 Mar 85

Scales as shown

North Head: Scatter Diagram for Deep Water Wave Data

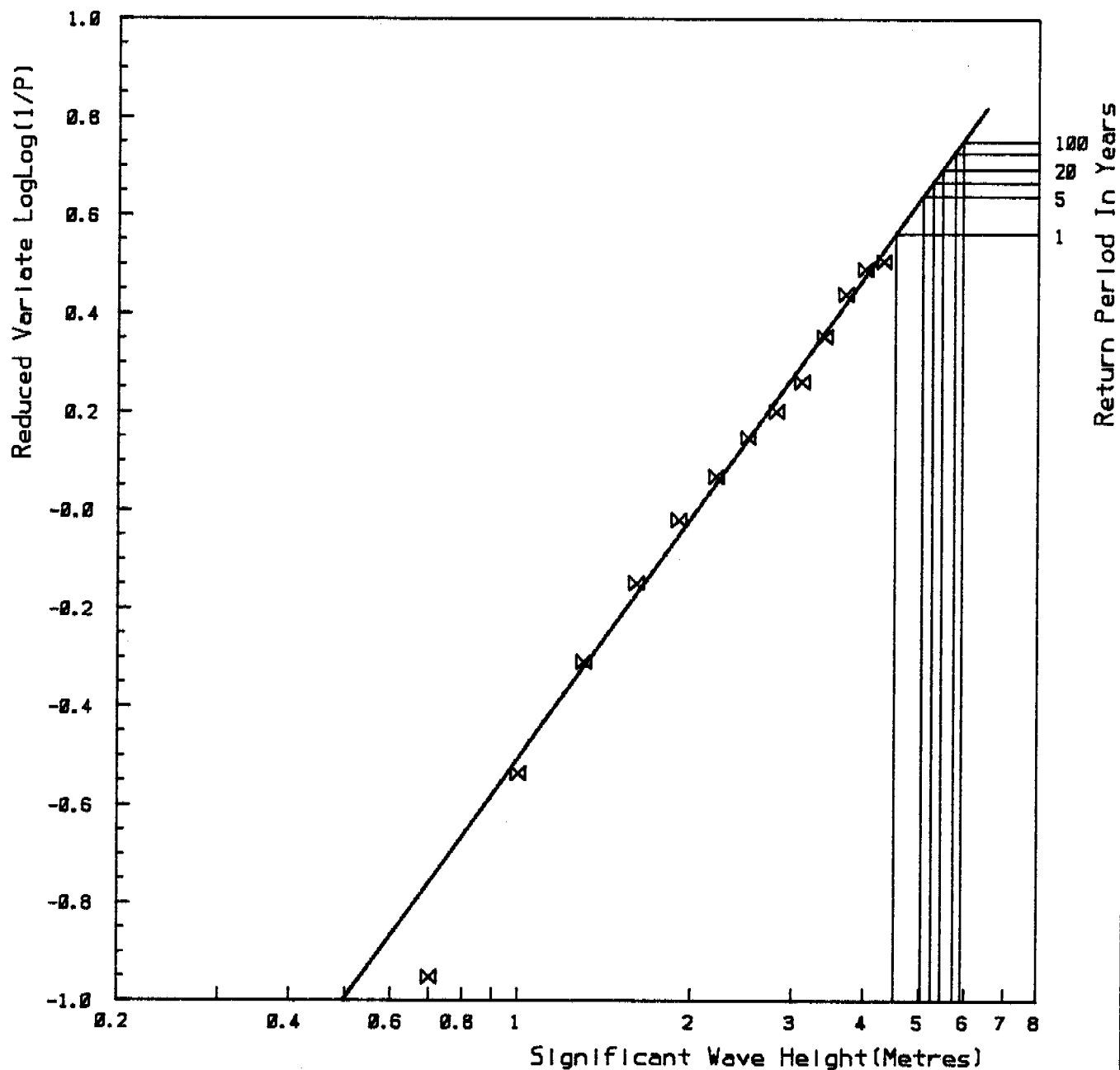
Checked by:

1970 - 1983

Keith Philpott

Consulting Limited

FIGURE



Direction Limits: 200.0 TO 60.0

Calms: 50.4 %

Dates: 17/6/70 to 28/9/83

Season: Summer, Fall

Total No. of Records: 16159

Waves Hindcast Using Wind Data from Tuktoyaktuk N.W.T.

BEAUFORT SEA COASTAL SEDIMENT STUDY

North Head: Weibull Long Term Distribution of
Wave Heights

Date: 11 Mar 85

Scales as shown

Checked by:

Keith Philpott
Consulting Limited

BEAUFORT SEA COASTAL SEDIMENT STUDY

North Head Distant

WAVES 17/ 6/70 TO 28/ 9/83

SEASON: Summer, Fall

WEIBULL PROBABILITY ANALYSIS

WHT LIMIT	CUM TOTAL	CUM PROB(P)	LOGLOG(1./P(H))	LOG(WHT)
< .4	16159	.999938	-4.570752	-.397940
< .7	12498	.773391	-.952333	-.154902
< 1.0	8273	.511943	-.536438	.000000
< 1.3	5217	.322834	-.308900	.113943
< 1.6	3145	.194616	-.148240	.204120
< 1.9	1795	.111077	-.020280	.278754
< 2.2	1101	.068131	.066942	.342423
< 2.5	636	.039356	.147671	.397940
< 2.8	419	.025928	.200365	.447158
< 3.1	241	.014913	.261602	.491362
< 3.4	89	.005507	.353926	.531479
< 3.7	29	.001795	.438707	.568202
< 4.0	13	.000804	.490590	.602060
< 4.3	10	.000619	.506294	.633468

LEAST SQUARES CURVE FIT ON LOGLOG(1/(1-P))

LOG(WHT)	LOGLOG(1./P(H))	CURVE FIT	RESIDUAL
-.39794	-4.57075	-.57206	-33.15321
-.15490	-.95233	.15651	104.83900
.00000	-.53644	.24034	73.91746
.11394	-.30890	.28621	48.68423
.20412	-.14824	.31859	30.15860
.27875	-.02028	.34439	16.31409
.34242	.06694	.36197	4.60314
.39794	.14767	.37824	-4.43472
.44716	.20037	.38806	-12.56130
.49136	.26160	.40121	-18.74624
.53148	.35393	.41982	-22.67208
.56820	.43871	.43690	-26.09004
.60206	.49059	.44736	-29.96700
.63347	.50629	.45053	-34.37643

SLOPE= .20157

INTERCEPT= .34847

CORR COEFF= .85382

PREDICTED WAVE HEIGHTS FOR GIVEN RETURN PERIODS

RETURN PERIOD(YEARS) WAVE HEIGHT(HS)

-----	-----
1.0	2.9
5.0	3.0
10.0	3.0
20.0	3.1
50.0	3.1
100.0	3.2

AVERAGE NUMBER OF RECORDS PER YEAR= 4343.2

2 GROUPS TO BE OMITTED FROM NEXT FIT:

< .4 16159
 < .7 12498

LEAST SQUARES CURVE FIT ON LOGLOG(1/(1-P))

LOG(WHT)	LOGLOG(1./P(H))	CURVE FIT	RESIDUAL
-----	-----	-----	-----
.00000	-.53644	-.01943	-4.37624
.11394	-.30090	.12027	1.46813
.20412	-.14024	.21892	3.46605
.27075	-.02028	.29748	4.40736
.34242	.06694	.35104	2.00375
.39794	.14767	.40061	.61583
.44716	.20037	.43296	-3.21632
.49136	.26160	.47056	-4.67709
.53148	.35393	.52725	-.96998
.56820	.43871	.57930	2.58870
.60206	.49059	.61116	2.11676
.63347	.50629	.62080	-2.87506

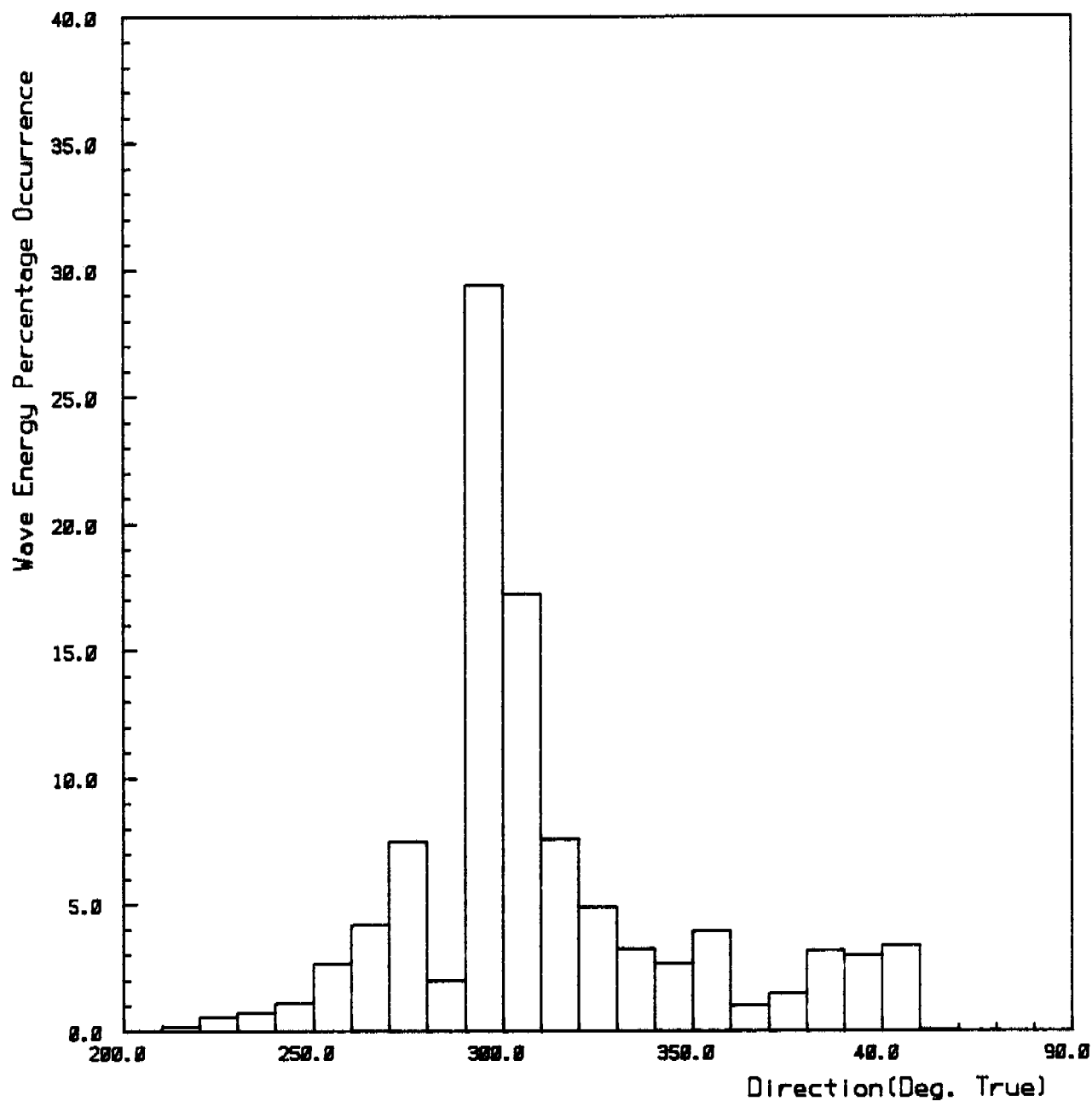
SLOPE=.61400 INTERCEPT= .30994 CORR COEFF= .99766

PREDICTED WAVE HEIGHTS FOR GIVEN RETURN PERIODS

RETURN PERIOD(YEARS) WAVE HEIGHT(HS)

-----	-----
1.0	4.5
5.0	5.0
10.0	5.2
20.0	5.4
50.0	5.7
100.0	5.9

AVERAGE NUMBER OF RECORDS PER YEAR= 4343.2



Direction Limits: 200.0 TO 60.0

Calms: 50.4 %

Dates: 17/6/70 to 28/9/83

Season: Summer, Fall

Total No. of Records: 32592

Waves Hindcast Using Wind Data from Tuktoyaktuk N.W.T.

BEAUFORT SEA COASTAL SEDIMENT STUDY

North Head: Deep Water Wave Energy Distribution
1970 - 1983

Date: 11 Mar 85

Scales as shown

Checked by:

Keith Philpott
Consulting Limited

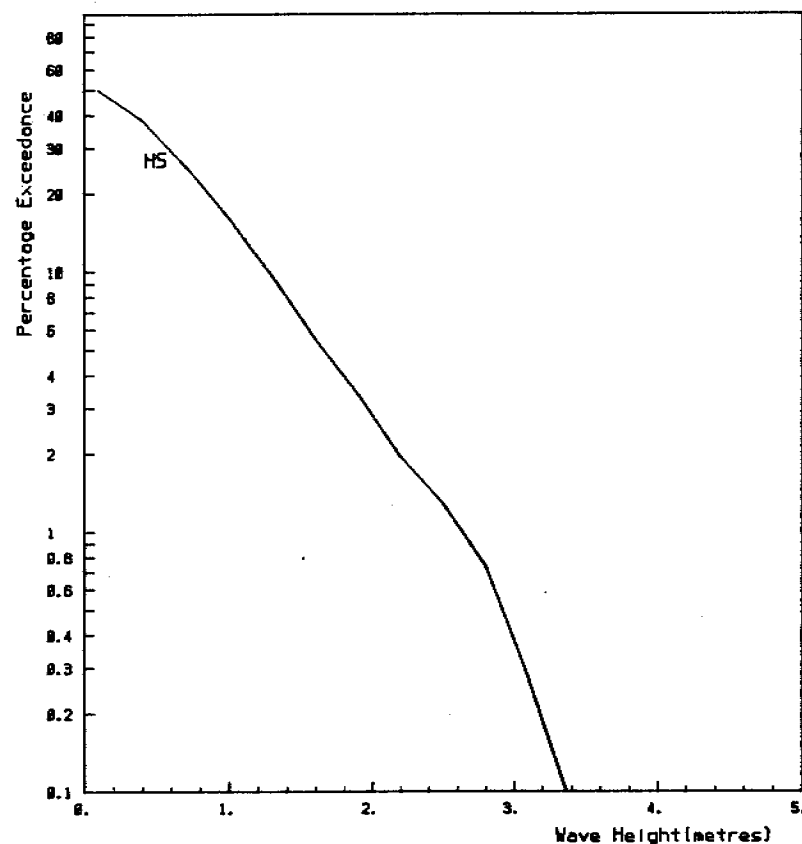
BEAUFORT SEA COASTAL SEDIMENT STUDY

WAVES 170670 TO 280903
-----SEASON: Summer, Fall

PERCENTAGE WAVE POWER DISTRIBUTION

DIRECTION SECTOR	PERCENTAGE FREQUENCY	MEAN POWER (KW)	PERCENTAGE ENERGY
200. - 210.	.30	.24	.02
210. - 220.	1.21	.54	.21
220. - 230.	1.73	1.04	.58
230. - 240.	2.05	1.11	.72
240. - 250.	2.01	1.73	1.11
250. - 260.	2.77	3.03	2.68
260. - 270.	3.74	3.49	4.18
270. - 280.	5.65	4.14	7.48
280. - 290.	3.77	1.66	2.01
290. - 300.	13.72	6.70	29.40
300. - 310.	8.99	6.01	17.26
310. - 320.	6.37	3.72	7.58
320. - 330.	5.69	2.68	4.87
330. - 340.	4.76	2.12	3.23
340. - 350.	2.90	2.89	2.68
350. - 360.	5.66	2.16	3.92
360. - 10.	3.52	.88	.99
10. - 20.	4.91	.94	1.47
20. - 30.	7.25	1.37	3.18
30. - 40.	5.90	1.58	2.98
40. - 50.	6.62	1.60	3.39
50. - 60.	.48	.41	.06

FIGURE



Direction Limits: 200.0 TO 60.0

Coles: 50.4 %

Dates: 17/6/70 to 20/9/83

Season: Summer, Fall

Total No. of Records: 32592

Waves Hindcast Using Wind Data from Tuktoyaktuk N.W.T.

BEAUFORT SEA COASTAL SEDIMENT STUDY

Date: 11 Mar 85

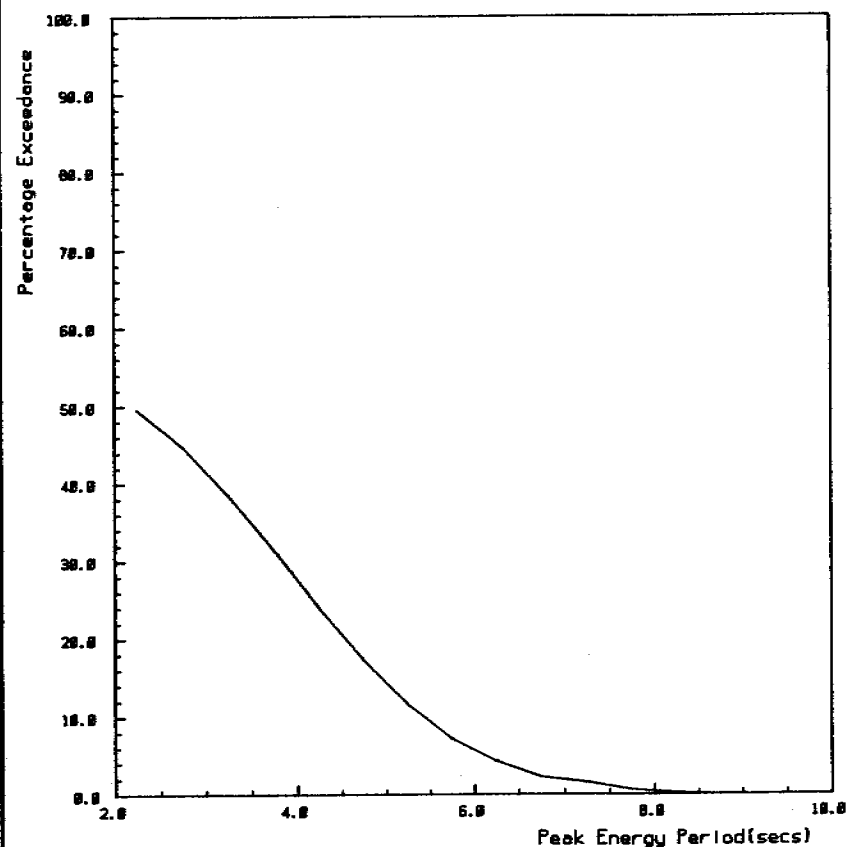
Scales as shown

Checked by:

Keith Philpott
Consulting Limited

North Head: Deep Water Wave Height Exceedance
1970 - 1983

FIGURE



Direction Limits: 200.0 TO 60.0

Coles: 50.4 %

Dates: 17/6/70 to 20/9/83

Season: Summer, Fall

Total No. of Records: 32592

Waves Hindcast Using Wind Data from Tuktoyaktuk N.W.T.

BEAUFORT SEA COASTAL SEDIMENT STUDY

Date: 11 Mar 85

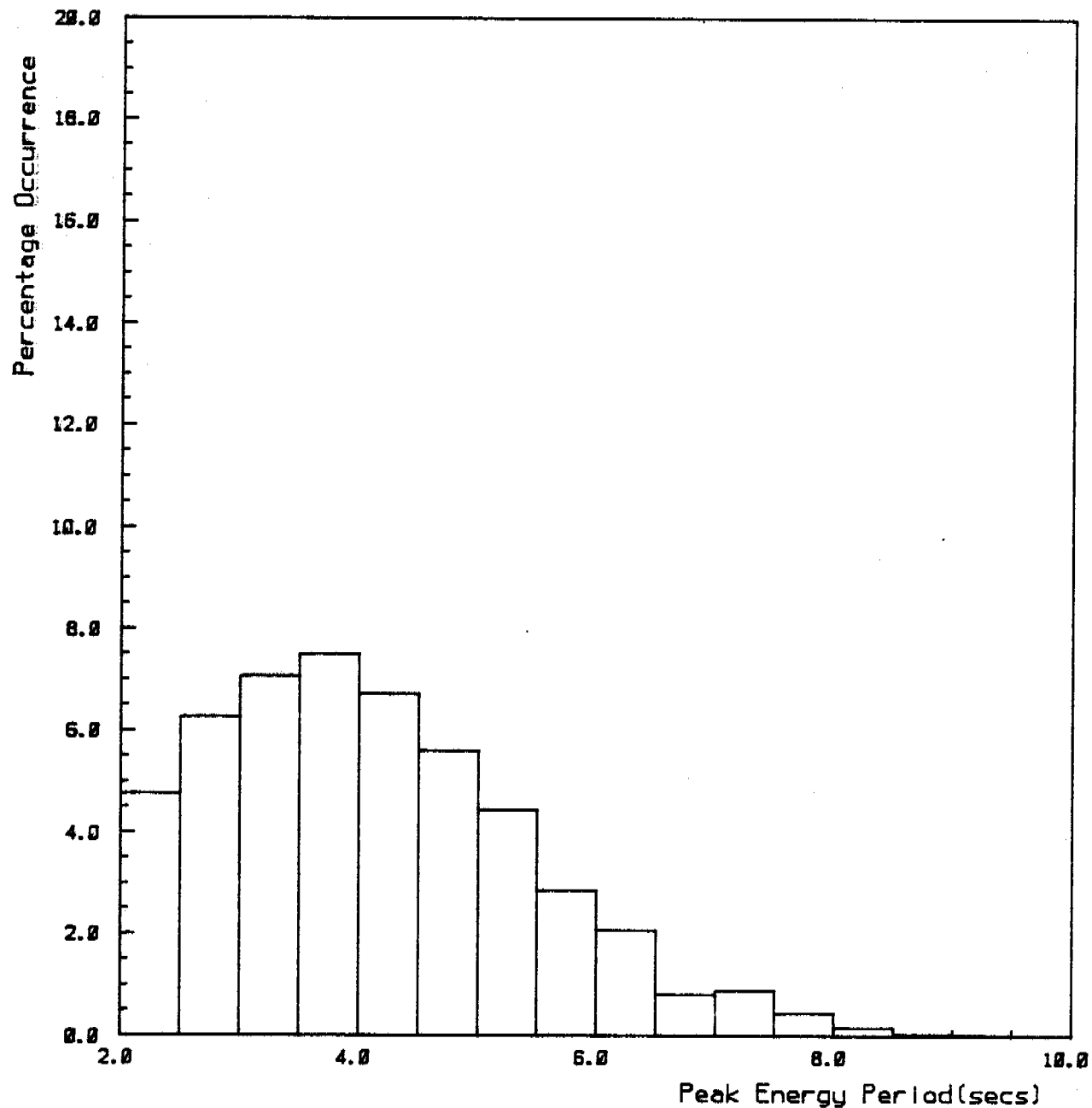
Scales as shown

Checked by:

Keith Philpott
Consulting Limited

North Head: Deep Water Wave Period Exceedance
1970 - 1983

FIGURE



Direction Limits: 200.0 TO 60.0

Calms: 50.4 %

Dates: 17/6/70 to 28/9/83

Season: Summer, Fall

Total No. of Records: 32592

Waves Hindcast Using Wind Data from Tuktoyaktuk N.W.T.

BEAUFORT SEA COASTAL SEDIMENT STUDY

North Head: Deep Water Wave Period Occurrence
1970 - 1983

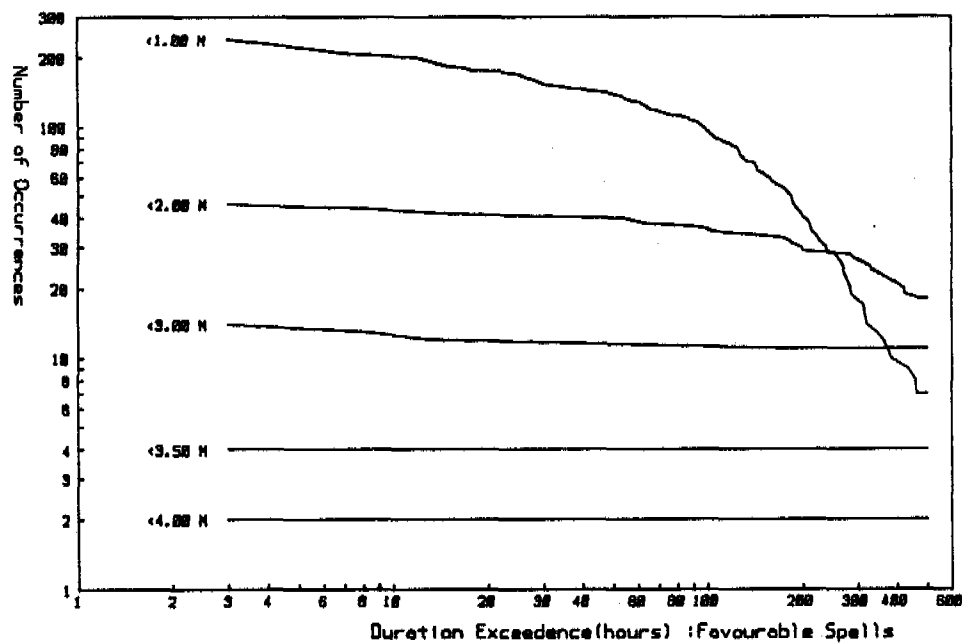
Date: 11 Mar 85

Scales as shown

Checked by:

Keith Philpott

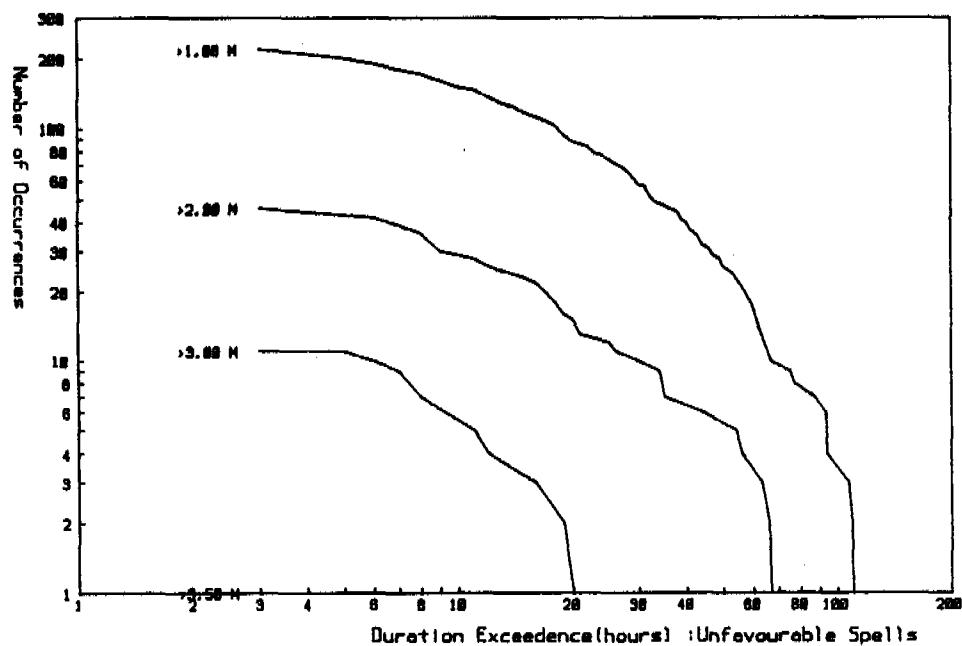
Consulting Limited



Dates: 17/6/78 to 28/9/83

Season: Summer, Fall

Waves Hindcast Using Wind Data from Tuktoyaktuk N.V.T.



Dates: 17/6/78 to 28/9/83

Season: Summer, Fall

Waves Hindcast Using Wind Data from Tuktoyaktuk N.V.T.

BEAUFORT SEA COASTAL SEDIMENT STUDY

North Head: Deep Water Wave Height Persistence
Favourable and Unfavourable Spells

Date: 17 May 85

Scales as shown

Checked by:

Keith Philpott

Consulting Limited

BEAUFORT SEA COASTAL SEDIMENT STUDY

North Head Distant

WAVES 17/ 6/78 TO 28/ 9/83

ALL DIRECTIONS

WAVE !	Wave Period(secs)												Total!
INT(N)!													
	12	13	14	15	16	17	18	19	20	21	22	23	
1.10!	2701!	588!	256!	85!	22!	8!	1!	0!	0!	3661!			
1.40!	895!	2862!	342!	89!	23!	12!	2!	0!	0!	4225!			
1.70!	0!	1289!	1619!	114!	23!	9!	2!	0!	0!	3856!			
1.80!	0!	2!	1778!	257!	26!	16!	1!	0!	0!	2872!			
1.30!	0!	0!	27!	1277!	35!	9!	2!	0!	0!	1350!			
1.60!	0!	0!	0!	554!	129!	10!	1!	0!	0!	694!			
1.90!	0!	0!	0!	1!	455!	7!	2!	0!	0!	465!			
2.20!	0!	0!	0!	0!	285!	11!	1!	0!	0!	217!			
2.50!	0!	0!	0!	0!	13!	163!	2!	0!	0!	178!			
2.80!	0!	0!	0!	0!	0!	151!	1!	0!	0!	152!			
3.10!	0!	0!	0!	0!	0!	37!	23!	0!	0!	60!			
3.40!	0!	0!	0!	0!	0!	0!	16!	0!	0!	16!			
3.70!	0!	0!	0!	0!	0!	0!	3!	0!	0!	3!			
4.00!	0!	0!	0!	0!	0!	0!	5!	5!	0!	10!			
4.30!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!			
4.60!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!			
TOTAL!	3596!	4741!	4814!	2377!	931!	433!	62!	5!	0!	16159!			

SUMMARY :

NO. IN TOTAL SECTOR = 32592
 NO. OUTSIDE TOTAL SECTOR = 0
 NO. OF CALMS = 16433
 TOTAL NO. OF ALL RECORDS = 32592
 PERCENTAGE CALMS = 50.4%

BEAUFORT SEA COASTAL SEDIMENT STUDY

North Head Distant

WAVES 17/ 6/78 TO 28/ 9/83

DIRECTION 200 TO 210

WAVE !	Wave Period(secs)												Total!
INT(N)!													
	12	13	14	15	16	17	18	19	20	21	22	23	
1.10!	32!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	32!	
1.40!	9!	6!	0!	0!	0!	0!	0!	0!	0!	0!	0!	15!	
1.70!	0!	1!	1!	0!	0!	0!	0!	0!	0!	0!	0!	2!	
1.80!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
1.30!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
1.60!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
1.90!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
2.20!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
2.50!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
2.80!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
3.10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
3.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
3.70!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
4.00!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
4.30!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
4.60!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
TOTAL!	41!	7!	1!	0!	0!	0!	0!	0!	0!	0!	0!	49!	

BEAUFORT SEA COASTAL SEDIMENT STUDY

North Head Distant

WAVES 17/ 6/78 TO 28/ 9/83

DIRECTION 210 TO 220

WAVE !	Wave Period(secs)																	Total!
HT(M)!																		
	> 12	-3	13	-4	14	-5	15	-6	16	-7	17	-8	18	-9	19	-10	10-11	-
.10!	84!		4!		2!		0!		0!		0!		0!		0!		0!	90!
.40!	21!		40!		2!		0!		0!		0!		0!		0!		0!	71!
.70!	0!		14!		10!		2!		0!		0!		0!		0!		0!	26!
1.00!	0!		0!		0!		1!		0!		0!		0!		0!		0!	9!
1.30!	0!		0!		0!		0!		0!		0!		0!		0!		0!	0!
1.60!	0!		0!		0!		0!		0!		0!		0!		0!		0!	0!
1.90!	0!		0!		0!		0!		0!		0!		0!		0!		0!	0!
2.20!	0!		0!		0!		0!		0!		0!		0!		0!		0!	0!
2.50!	0!		0!		0!		0!		0!		0!		0!		0!		0!	0!
2.80!	0!		0!		0!		0!		0!		0!		0!		0!		0!	0!
3.10!	0!		0!		0!		0!		0!		0!		0!		0!		0!	0!
3.40!	0!		0!		0!		0!		0!		0!		0!		0!		0!	0!
3.70!	0!		0!		0!		0!		0!		0!		0!		0!		0!	0!
4.00!	0!		0!		0!		0!		0!		0!		0!		0!		0!	0!
4.30!	0!		0!		0!		0!		0!		0!		0!		0!		0!	0!
4.60!	0!		0!		0!		0!		0!		0!		0!		0!		0!	0!
TOTAL!	105!		66!		22!		3!		0!		0!		0!		0!		0!	196!

BEAUFORT SEA COASTAL SEDIMENT STUDY

North Head Distant

WAVES 17/ 6/78 TO 28/ 9/83

DIRECTION 220 TO 230

WAVE !	Wave Period(secs)																	Total!	
HT(M)!																			
	>	12	-3	13	-4	14	-5	15	-6	16	-7	17	-8	18	-9	19	-10	10-11	-
.10!	105!	3!	1!	2!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	111!
.40!	15!	54!	4!	1!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	74!
.70!	0!	23!	26!	1!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	50!
1.00!	0!	0!	30!	1!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	31!
1.30!	0!	0!	2!	10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	12!
1.60!	0!	0!	0!	2!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	2!
1.90!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.20!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.50!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.80!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.70!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.00!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.30!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.60!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
TOTAL!	120!	90!	63!	17!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	280!

BEAUFORT SEA COASTAL SEDIMENT STUDY

North Head Distant

WAVES 17/ 6/78 TO 28/ 9/83

DIRECTION 238 TO 248

WAVE !	Wave Period(secs)											Total!
INT(M)!	1	2	3	4	5	6	7	8	9	10	11	-
>	12	13	14	15	16	17	18	19	20	21	22	-
1.10!	95!	6!	10!	0!	0!	0!	0!	0!	0!	0!	0!	111!
1.40!	33!	73!	12!	0!	0!	0!	0!	0!	0!	0!	0!	118!
1.70!	0!	24!	30!	0!	0!	0!	0!	0!	0!	0!	0!	54!
1.00!	0!	0!	26!	0!	0!	0!	0!	0!	0!	0!	0!	26!
1.30!	0!	0!	2!	13!	0!	0!	0!	0!	0!	0!	0!	15!
1.60!	0!	0!	0!	6!	0!	0!	0!	0!	0!	0!	0!	6!
1.90!	0!	0!	0!	0!	1!	0!	0!	0!	0!	0!	0!	1!
2.20!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.50!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.80!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.70!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.00!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.30!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.60!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
TOTAL!	128!	103!	88!	19!	1!	0!	0!	0!	0!	0!	0!	331!

BEAUFORT SEA COASTAL SEDIMENT STUDY

North Head Distant

WAVES 17/ 6/78 TO 28/ 9/83

DIRECTION 248 TO 258

WAVE !	Wave Period(secs)											Total!
INT(M)!	1	2	3	4	5	6	7	8	9	10	11	-
>	12	13	14	15	16	17	18	19	20	21	22	-
1.10!	66!	11!	2!	0!	0!	0!	0!	0!	0!	0!	0!	79!
1.40!	22!	82!	1!	1!	0!	0!	0!	0!	0!	0!	0!	106!
1.70!	0!	26!	20!	0!	0!	0!	0!	0!	0!	0!	0!	54!
1.00!	0!	0!	47!	3!	0!	0!	0!	0!	0!	0!	0!	50!
1.30!	0!	0!	0!	16!	0!	0!	0!	0!	0!	0!	0!	16!
1.60!	0!	0!	0!	14!	1!	0!	0!	0!	0!	0!	0!	15!
1.90!	0!	0!	0!	0!	2!	0!	0!	0!	0!	0!	0!	2!
2.20!	0!	0!	0!	0!	2!	0!	0!	0!	0!	0!	0!	2!
2.50!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.80!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.70!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.00!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.30!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.60!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
TOTAL!	88!	119!	78!	34!	5!	0!	0!	0!	0!	0!	0!	324!

BEAUFORT SEA COASTAL SEDIMENT STUDY

North Head Distant

WAVES 17/ 6/70 TO 28/ 9/83

DIRECTION 250 TO 260

WAVE !	Wave Period(secs)											Total
INT(M)!												
>	12	13	14	15	16	17	18	19	20	21	22	-
1.10!	64!	12!	0!	2!	0!	0!	0!	0!	0!	0!	0!	70!
1.40!	15!	102!	1!	1!	0!	0!	0!	0!	0!	0!	0!	119!
1.70!	0!	31!	34!	3!	0!	0!	0!	0!	0!	0!	0!	68!
1.80!	0!	0!	41!	8!	0!	0!	0!	0!	0!	0!	0!	49!
1.90!	0!	0!	2!	78!	0!	0!	0!	0!	0!	0!	0!	80!
1.60!	0!	0!	0!	36!	4!	0!	0!	0!	0!	0!	0!	40!
1.90!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.20!	0!	0!	0!	0!	2!	0!	0!	0!	0!	0!	0!	2!
2.50!	0!	0!	0!	0!	0!	2!	0!	0!	0!	0!	0!	2!
2.80!	0!	0!	0!	0!	0!	2!	0!	0!	0!	0!	0!	2!
3.10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.70!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.00!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.30!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.60!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
TOTAL!	79!	145!	70!	128!	14!	4!	0!	0!	0!	0!	0!	448!

BEAUFORT SEA COASTAL SEDIMENT STUDY

North Head Distant

WAVES 17/ 6/70 TO 28/ 9/83

DIRECTION 260 TO 270

WAVE !	Wave Period(secs)											Total!
INT(M)!												
>	12	13	14	15	16	17	18	19	20	21	22	-
1.10!	70!	4!	17!	0!	0!	0!	0!	0!	0!	0!	0!	91!
1.40!	20!	94!	10!	3!	0!	0!	0!	0!	0!	0!	0!	135!
1.70!	0!	45!	76!	6!	0!	0!	0!	0!	0!	0!	0!	127!
1.80!	0!	0!	95!	16!	0!	0!	0!	0!	0!	0!	0!	111!
1.90!	0!	0!	1!	54!	0!	0!	0!	0!	0!	0!	0!	55!
1.60!	0!	0!	0!	35!	4!	0!	0!	0!	0!	0!	0!	39!
1.90!	0!	0!	0!	0!	17!	0!	0!	0!	0!	0!	0!	17!
2.20!	0!	0!	0!	0!	18!	0!	0!	0!	0!	0!	0!	18!
2.50!	0!	0!	0!	0!	3!	1!	0!	0!	0!	0!	0!	4!
2.80!	0!	0!	0!	0!	0!	5!	0!	0!	0!	0!	0!	5!
3.10!	0!	0!	0!	0!	0!	2!	0!	0!	0!	0!	0!	2!
3.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.70!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.00!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.30!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.60!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
TOTAL!	90!	143!	207!	114!	42!	0!	0!	0!	0!	0!	0!	604!

BEAUFORT SEA COASTAL SEDIMENT STUDY

North Head Distant

WAVES 17/ 6/78 TO 28/ 9/83

DIRECTION 270 TO 280

WAVE !	Wave Period(secs)												Total!
INT(N)!													
	12	13	14	15	16	17	18	19	20	21	22	23	
1.10	77	32	16	4	1	0	0	0	0	0	0	0	132
1.40	34	117	15	4	1	0	0	0	0	0	0	0	171
1.70	0	61	96	6	1	0	0	0	0	0	0	0	164
2.00	0	0	175	15	1	0	0	0	0	0	0	0	191
2.30	0	0	4	107	1	0	0	0	0	0	0	0	112
2.60	0	0	0	43	4	0	0	0	0	0	0	0	47
2.90	0	0	0	0	46	0	0	0	0	0	0	0	46
3.20	0	0	0	0	23	1	0	0	0	0	0	0	24
3.50	0	0	0	0	21	7	0	0	0	0	0	0	9
3.80	0	0	0	0	0	11	0	0	0	0	0	0	11
4.10	0	0	0	0	0	6	0	0	0	0	0	0	6
4.40	0	0	0	0	0	0	0	0	0	0	0	0	0
4.70	0	0	0	0	0	0	0	0	0	0	0	0	0
5.00	0	0	0	0	0	0	0	0	0	0	0	0	0
5.30	0	0	0	0	0	0	0	0	0	0	0	0	0
5.60	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	111	210	306	181	80	25	0	0	0	0	0	0	913

BEAUFORT SEA COASTAL SEDIMENT STUDY

North Head Distant

WAVES 17/ 6/78 TO 28/ 9/83

DIRECTION 280 TO 290

WAVE !	Wave Period(secs)												Total!
INT(N)!													
	12	13	14	15	16	17	18	19	20	21	22	23	
1.10	74	23	3	3	0	0	0	0	0	0	0	0	103
1.40	35	101	10	2	0	0	0	0	0	0	0	0	148
1.70	0	109	86	2	0	0	0	0	0	0	0	0	197
2.00	0	0	103	13	0	0	0	0	0	0	0	0	116
2.30	0	0	4	24	0	0	0	0	0	0	0	0	28
2.60	0	0	0	12	6	0	0	0	0	0	0	0	18
2.90	0	0	0	0	0	0	0	0	0	0	0	0	0
3.20	0	0	0	0	0	0	0	0	0	0	0	0	0
3.50	0	0	0	0	0	0	0	0	0	0	0	0	0
3.80	0	0	0	0	0	0	0	0	0	0	0	0	0
4.10	0	0	0	0	0	0	0	0	0	0	0	0	0
4.40	0	0	0	0	0	0	0	0	0	0	0	0	0
4.70	0	0	0	0	0	0	0	0	0	0	0	0	0
5.00	0	0	0	0	0	0	0	0	0	0	0	0	0
5.30	0	0	0	0	0	0	0	0	0	0	0	0	0
5.60	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	109	233	206	56	6	0	0	0	0	0	0	0	610

BEAUFORT SEA COASTAL SEDIMENT STUDY

North Head Distant

WAVES 17/ 6/70 TO 28/ 9/83

DIRECTION 290 TO 300

WAVE !	Wave Period(secs)											Total!
INT(N)	1	2	3	4	5	6	7	8	9	10	11	
>	12	13	14	15	16	17	18	19	20	21	22	-
1.10!	90!	43!	53!	26!	0!	0!	0!	0!	0!	0!	0!	228!
1.40!	41!	177!	60!	23!	7!	12!	0!	0!	0!	0!	0!	320!
1.70!	0!	136!	204!	29!	10!	9!	0!	0!	0!	0!	0!	300!
1.00!	0!	0!	252!	52!	0!	13!	0!	0!	0!	0!	0!	325!
1.30!	0!	0!	3!	331!	7!	0!	0!	0!	0!	0!	0!	349!
1.60!	0!	0!	0!	125!	53!	9!	0!	0!	0!	0!	0!	187!
1.90!	0!	0!	0!	0!	167!	7!	0!	0!	0!	0!	0!	174!
2.20!	0!	0!	0!	0!	61!	6!	0!	0!	0!	0!	0!	67!
2.50!	0!	0!	0!	0!	2!	60!	0!	0!	0!	0!	0!	70!
2.80!	0!	0!	0!	0!	0!	63!	0!	0!	0!	0!	0!	63!
3.10!	0!	0!	0!	0!	0!	17!	16!	0!	0!	0!	0!	33!
3.40!	0!	0!	0!	0!	0!	0!	12!	0!	0!	0!	0!	12!
3.70!	0!	0!	0!	0!	0!	0!	1!	0!	0!	0!	0!	1!
4.00!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.30!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.60!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
TOTAL!	131!	354!	572!	586!	323!	220!	29!	0!	0!	0!	0!	2217!

BEAUFORT SEA COASTAL SEDIMENT STUDY

North Head Distant

WAVES 17/ 6/70 TO 28/ 9/83

DIRECTION 300 TO 310

WAVE !	Wave Period(secs)											Total!
INT(N)	1	2	3	4	5	6	7	8	9	10	11	
>	12	13	14	15	16	17	18	19	20	21	22	-
1.10!	84!	31!	21!	9!	2!	0!	1!	0!	0!	0!	0!	148!
1.40!	54!	220!	40!	0!	3!	0!	2!	0!	0!	0!	0!	327!
1.70!	0!	91!	111!	21!	4!	0!	2!	0!	0!	0!	0!	229!
1.00!	0!	0!	194!	46!	3!	0!	1!	0!	0!	0!	0!	244!
1.30!	0!	0!	1!	136!	7!	0!	2!	0!	0!	0!	0!	146!
1.60!	0!	0!	0!	104!	21!	0!	1!	0!	0!	0!	0!	126!
1.90!	0!	0!	0!	0!	93!	0!	2!	0!	0!	0!	0!	95!
2.20!	0!	0!	0!	0!	42!	0!	1!	0!	0!	0!	0!	43!
2.50!	0!	0!	0!	0!	3!	33!	2!	0!	0!	0!	0!	38!
2.80!	0!	0!	0!	0!	0!	23!	1!	0!	0!	0!	0!	24!
3.10!	0!	0!	0!	0!	0!	9!	7!	0!	0!	0!	0!	16!
3.40!	0!	0!	0!	0!	0!	0!	4!	0!	0!	0!	0!	4!
3.70!	0!	0!	0!	0!	0!	0!	2!	0!	0!	0!	0!	2!
4.00!	0!	0!	0!	0!	0!	0!	5!	5!	0!	0!	0!	10!
4.30!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.60!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
TOTAL!	130!	342!	367!	324!	178!	65!	33!	5!	0!	0!	0!	1452!

BEAUFORT SEA COASTAL SEDIMENT STUDY

North Head Distant

WAVES 17/ 6/70 TO 20/ 9/83

DIRECTION 310 TO 320

WAVE !	Wave Period(secs)											Total!
INT(H)!												
	12	13	14	15	16	17	18	19	20	21	22	
1.10!	141!	13!	17!	7!	3!	0!	0!	0!	0!	0!	0!	101!
1.40!	52!	132!	27!	0!	2!	0!	0!	0!	0!	0!	0!	221!
1.70!	0!	06!	100!	6!	3!	0!	0!	0!	0!	0!	0!	195!
1.00!	0!	0!	179!	11!	2!	3!	0!	0!	0!	0!	0!	195!
1.30!	0!	0!	1!	111!	3!	1!	0!	0!	0!	0!	0!	116!
1.60!	0!	0!	0!	32!	12!	1!	0!	0!	0!	0!	0!	45!
1.90!	0!	0!	0!	0!	22!	0!	0!	0!	0!	0!	0!	22!
2.20!	0!	0!	0!	0!	9!	0!	0!	0!	0!	0!	0!	9!
2.50!	0!	0!	0!	0!	2!	10!	0!	0!	0!	0!	0!	20!
2.80!	0!	0!	0!	0!	0!	22!	0!	0!	0!	0!	0!	22!
3.10!	0!	0!	0!	0!	0!	3!	0!	0!	0!	0!	0!	3!
3.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.70!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.00!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.30!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.60!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
TOTAL!	193!	231!	324!	175!	50!	40!	0!	0!	0!	0!	0!	1029!

BEAUFORT SEA COASTAL SEDIMENT STUDY

North Head Distant

WAVES 17/ 6/70 TO 20/ 9/83

DIRECTION 320 TO 330

WAVE !	Wave Period(secs)											Total!
INT(H)!												
	12	13	14	15	16	17	18	19	20	21	22	
1.10!	02!	11!	13!	0!	0!	0!	0!	0!	0!	0!	0!	114!
1.40!	52!	200!	16!	12!	0!	0!	0!	0!	0!	0!	0!	280!
1.70!	0!	77!	104!	7!	0!	0!	0!	0!	0!	0!	0!	180!
1.00!	0!	0!	112!	10!	0!	0!	0!	0!	0!	0!	0!	130!
1.30!	0!	0!	4!	112!	7!	0!	0!	0!	0!	0!	0!	123!
1.60!	0!	0!	0!	29!	11!	0!	0!	0!	0!	0!	0!	40!
1.90!	0!	0!	0!	0!	41!	0!	0!	0!	0!	0!	0!	41!
2.20!	0!	0!	0!	0!	3!	0!	0!	0!	0!	0!	0!	3!
2.50!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.80!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.70!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.00!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.30!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.60!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
TOTAL!	134!	280!	249!	104!	62!	0!	0!	0!	0!	0!	0!	919!

BEAUFORT SEA COASTAL SEDIMENT STUDY

North Head Bistant

WAVES 17/ 6/78 TO 28/ 9/83

DIRECTION 330 TO 340

WAVE !	Wave Period(secs)														Total!
INT(M)	12	13	14	15	16	17	18	19	20	21	22	23	24	25	-
1.10	120	20	0	0	2	0	0	0	0	0	0	0	0	0	150
1.40	54	168	10	0	2	0	0	0	0	0	0	0	0	0	234
1.70	0	105	71	3	1	0	0	0	0	0	0	0	0	0	180
1.80	0	0	64	7	0	0	0	0	0	0	0	0	0	0	71
1.30	0	0	0	67	0	0	0	0	0	0	0	0	0	0	67
1.60	0	0	0	31	1	0	0	0	0	0	0	0	0	0	32
1.90	0	0	0	0	10	0	0	0	0	0	0	0	0	0	10
2.20	0	0	0	0	9	0	0	0	0	0	0	0	0	0	9
2.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2.80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3.10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3.40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3.70	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4.30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4.60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	174	301	153	100	33	0	0	0	0	0	0	0	0	0	769

BEAUFORT SEA COASTAL SEDIMENT STUDY

North Head Bistant

WAVES 17/ 6/78 TO 28/ 9/83

DIRECTION 340 TO 350

WAVE !	Wave Period(secs)														Total!
INT(M)	12	13	14	15	16	17	18	19	20	21	22	23	24	25	-
1.10	182	15	3	0	0	0	0	0	0	0	0	0	0	0	120
1.40	19	109	3	0	0	0	0	0	0	0	0	0	0	0	131
1.70	0	31	72	0	0	0	0	0	0	0	0	0	0	0	103
1.80	0	0	43	3	0	0	0	0	0	0	0	0	0	0	46
1.30	0	0	1	10	0	0	0	0	0	0	0	0	0	0	19
1.60	0	0	0	9	0	0	0	0	0	0	0	0	0	0	9
1.90	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2.20	0	0	0	0	10	0	0	0	0	0	0	0	0	0	10
2.50	0	0	0	0	0	15	0	0	0	0	0	0	0	0	15
2.80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3.10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3.40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3.70	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4.30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4.60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	121	155	122	30	26	15	0	0	0	0	0	0	0	0	469

BEAUFORT SEA COASTAL SEDIMENT STUDY

North Head Distant

WAVES 17/ 6/78 TO 28/ 9/83

DIRECTION 350 TO 360

WAVE !	Wave Period(secs)											Total!
HT(M)!	1	2	3	4	5	6	7	8	9	10	11	-
.10!	215!	30!	6!	0!	0!	0!	0!	0!	0!	0!	0!	251!
.40!	92!	221!	7!	0!	0!	0!	0!	0!	0!	0!	0!	320!
.70!	0!	91!	183!	0!	0!	0!	0!	0!	0!	0!	0!	194!
1.00!	0!	2!	57!	3!	3!	0!	0!	0!	0!	0!	0!	65!
1.30!	0!	0!	1!	16!	4!	0!	0!	0!	0!	0!	0!	21!
1.60!	0!	0!	0!	11!	4!	0!	0!	0!	0!	0!	0!	15!
1.90!	0!	0!	0!	1!	18!	0!	0!	0!	0!	0!	0!	19!
2.20!	0!	0!	0!	0!	7!	0!	0!	0!	0!	0!	0!	7!
2.50!	0!	0!	0!	0!	0!	4!	0!	0!	0!	0!	0!	4!
2.80!	0!	0!	0!	0!	0!	19!	0!	0!	0!	0!	0!	19!
3.10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.70!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.00!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.30!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.60!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
TOTAL!	307!	344!	174!	31!	36!	23!	0!	0!	0!	0!	0!	915!

BEAUFORT SEA COASTAL SEDIMENT STUDY

North Head Distant

WAVES 17/ 6/78 TO 28/ 9/83

DIRECTION 360 TO 10

WAVE !	Wave Period(secs)											Total!
HT(M)!	1	2	3	4	5	6	7	8	9	10	11	-
.10!	177!	26!	6!	0!	0!	0!	0!	0!	0!	0!	0!	209!
.40!	43!	144!	10!	0!	0!	0!	0!	0!	0!	0!	0!	197!
.70!	0!	23!	75!	0!	0!	0!	0!	0!	0!	0!	0!	98!
1.00!	0!	0!	41!	12!	0!	0!	0!	0!	0!	0!	0!	53!
1.30!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
1.60!	0!	0!	0!	4!	0!	0!	0!	0!	0!	0!	0!	4!
1.90!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.20!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.50!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.80!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.70!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.00!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.30!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.60!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
TOTAL!	220!	193!	132!	24!	0!	0!	0!	0!	0!	0!	0!	569!

BEAUFORT SEA COASTAL SEDIMENT STUDY

North Head Distant

WAVES 17/ 6/70 TO 28/ 9/83

DIRECTION 10 TO 20

WAVE !	Wave Period(secs)											Total!
!HT(N)!												!
!	12	13	14	15	16	17	18	19	20	21	22	!
1.10!	191!	52!	23!	5!	0!	0!	0!	0!	0!	0!	0!	271!
1.40!	39!	184!	27!	7!	0!	0!	0!	0!	0!	0!	0!	257!
1.70!	0!	74!	92!	5!	0!	0!	0!	0!	0!	0!	0!	171!
1.80!	0!	0!	65!	10!	0!	0!	0!	0!	0!	0!	0!	75!
1.30!	0!	0!	0!	17!	0!	0!	0!	0!	0!	0!	0!	17!
1.60!	0!	0!	0!	2!	0!	0!	0!	0!	0!	0!	0!	2!
1.90!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.20!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.50!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.80!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.70!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.00!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.30!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.60!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
TOTAL!	230!	310!	207!	46!	0!	0!	0!	0!	0!	0!	0!	793!

BEAUFORT SEA COASTAL SEDIMENT STUDY

North Head Distant

WAVES 17/ 6/70 TO 28/ 9/83

DIRECTION 20 TO 30

WAVE !	Wave Period(secs)											Total!
!HT(N)!												!
!	12	13	14	15	16	17	18	19	20	21	22	!
1.10!	240!	125!	16!	0!	3!	0!	0!	0!	0!	0!	0!	392!
1.40!	61!	238!	31!	0!	4!	0!	0!	0!	0!	0!	0!	342!
1.70!	0!	84!	138!	11!	3!	0!	0!	0!	0!	0!	0!	236!
1.80!	0!	0!	104!	18!	4!	0!	0!	0!	0!	0!	0!	126!
1.30!	0!	0!	0!	43!	3!	0!	0!	0!	0!	0!	0!	46!
1.60!	0!	0!	0!	9!	5!	0!	0!	0!	0!	0!	0!	14!
1.90!	0!	0!	0!	0!	7!	0!	0!	0!	0!	0!	0!	7!
2.20!	0!	0!	0!	0!	5!	1!	0!	0!	0!	0!	0!	6!
2.50!	0!	0!	0!	0!	1!	2!	0!	0!	0!	0!	0!	3!
2.80!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.70!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.00!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.30!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.60!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
TOTAL!	301!	447!	289!	97!	35!	3!	0!	0!	0!	0!	0!	1172!

BEAUFORT SEA COASTAL SEDIMENT STUDY

North Head Distant

WAVES 17/ 6/78 TO 28/ 9/83

DIRECTION 38 TO 48

WAVE !	Wave Period(secs)												Total!
INT(N)!													
	12	13	14	15	16	17	18	19	20	21	22	23	
.10!	278!	57!	12!	2!	2!	0!	0!	0!	0!	0!	0!	0!	351!
.40!	63!	180!	21!	2!	2!	0!	0!	0!	0!	0!	0!	0!	268!
.70!	0!	91!	87!	2!	0!	0!	0!	0!	0!	0!	0!	0!	180!
1.00!	0!	0!	61!	6!	3!	0!	0!	0!	0!	0!	0!	0!	70!
1.30!	0!	0!	0!	52!	1!	0!	0!	0!	0!	0!	0!	0!	53!
1.60!	0!	0!	0!	12!	2!	0!	0!	0!	0!	0!	0!	0!	14!
1.90!	0!	0!	0!	0!	1!	0!	0!	0!	0!	0!	0!	0!	1!
2.20!	0!	0!	0!	0!	1!	3!	0!	0!	0!	0!	0!	0!	4!
2.50!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.80!	0!	0!	0!	0!	0!	5!	0!	0!	0!	0!	0!	0!	5!
3.10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.70!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.00!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.30!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.60!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
TOTAL!	341!	328!	181!	76!	12!	16!	0!	0!	0!	0!	0!	0!	954!

BEAUFORT SEA COASTAL SEDIMENT STUDY

North Head Distant

WAVES 17/ 6/78 TO 28/ 9/83

DIRECTION 48 TO 58

WAVE !	Wave Period(secs)												Total!
INT(N)!													
	12	13	14	15	16	17	18	19	20	21	22	23	
.10!	281!	56!	27!	7!	1!	0!	0!	0!	0!	0!	0!	0!	372!
.40!	189!	195!	27!	9!	2!	0!	0!	0!	0!	0!	0!	0!	342!
.70!	0!	60!	74!	18!	1!	0!	0!	0!	0!	0!	0!	0!	145!
1.00!	0!	0!	71!	14!	2!	0!	0!	0!	0!	0!	0!	0!	87!
1.30!	0!	0!	1!	64!	2!	0!	0!	0!	0!	0!	0!	0!	67!
1.60!	0!	0!	0!	38!	1!	0!	0!	0!	0!	0!	0!	0!	39!
1.90!	0!	0!	0!	0!	6!	0!	0!	0!	0!	0!	0!	0!	6!
2.20!	0!	0!	0!	0!	5!	0!	0!	0!	0!	0!	0!	0!	5!
2.50!	0!	0!	0!	0!	0!	5!	0!	0!	0!	0!	0!	0!	5!
2.80!	0!	0!	0!	0!	0!	1!	0!	0!	0!	0!	0!	0!	1!
3.10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.70!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.00!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.30!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.60!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
TOTAL!	390!	311!	288!	142!	20!	6!	0!	0!	0!	0!	0!	0!	1869!

BEAUFORT SEA COASTAL SEDIMENT STUDY

North Head Distant

WAVES 17/ 6/70 TO 28/ 9/83

DIRECTION 50 TO 60

WAVE !	Wave Period(secs)											Total!
HT(H)!												
>	12	13	14	15	16	17	18	19	20	21	22	
.10!	33!	6!	0!	0!	0!	0!	0!	0!	0!	0!	0!	39!
.40!	12!	17!	0!	0!	0!	0!	0!	0!	0!	0!	0!	29!
.70!	0!	6!	1!	0!	0!	0!	0!	0!	0!	0!	0!	7!
1.00!	0!	0!	2!	0!	0!	0!	0!	0!	0!	0!	0!	2!
1.30!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
1.60!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
1.90!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.20!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.50!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.80!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.70!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.00!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.30!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.60!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
TOTAL!	45!	29!	3!	0!	0!	0!	0!	0!	0!	0!	0!	77!

BEAUFORT SEA COASTAL SEDIMENT STUDY

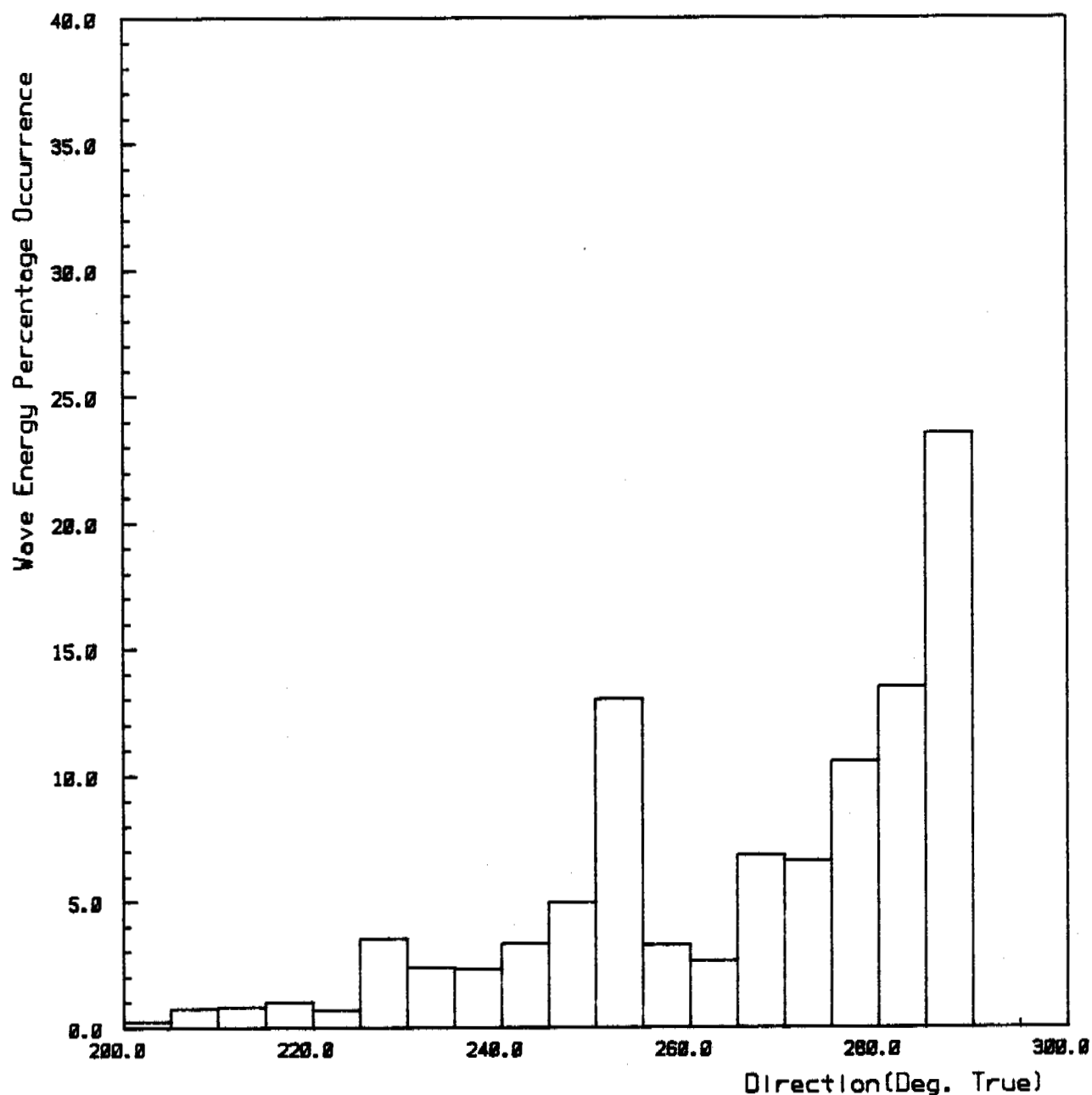
WAVE STATISTICS - NORTH HEAD SHALLOW WATER HINDCAST

WAVES 13/6/70 TO 28/9/83

SEASON: Summer, Fall

Note: This is one of two sets of "offshore" wave statistics in Section 3.6.2 of Part I.

KEITH PHILPOTT CONSULTING LTD
P.O. BOX 938
THORNHILL
ONTARIO L3T 4A5



Direction Limits: 200.0 TO 290.0

Calms: 83.4 %

Dates: 13/6/70 to 28/9/83

Season: Summer, Fall

Total No. of Records: 36033

Waves Hindcast Using Wind Data from Tuktoyaktuk N.W.T.

BEAUFORT SEA COASTAL SEDIMENT STUDY

North Head: Local Shallow Water Hindcast Wave Energy
Distribution 1970 - 1983

Date: 11 Mar 85

Scales as shown

Checked by:

Keith Philpott
Consulting Limited

BEAUFORT SEA COASTAL SEDIMENT STUDY

North Head Local Shallow
Water Hindcast

WAVES 13/06/70 TO 28/09/83

SEASON: Summer, Fall

PERCENTAGE WAVE POWER DISTRIBUTION

DIRECTION SECTOR	PERCENTAGE FREQUENCY	MEAN POWER (KW)	PERCENTAGE ENERGY
-----	-----	-----	-----
200. - 205.	.46	.13	.25
205. - 210.	1.53	.12	.75
210. - 215.	1.80	.11	.82
215. - 220.	2.06	.12	1.02
220. - 225.	1.36	.13	.70
225. - 230.	4.62	.19	3.54
230. - 235.	2.77	.21	2.37
235. - 240.	2.84	.20	2.30
240. - 245.	3.74	.22	3.32
245. - 250.	5.32	.23	4.97
250. - 255.	11.95	.27	13.03
255. - 260.	3.05	.26	3.24
260. - 265.	2.57	.25	2.61
265. - 270.	6.22	.27	6.95
270. - 275.	5.75	.28	6.64
275. - 280.	9.04	.29	10.58
280. - 285.	11.30	.29	13.48
285. - 290.	23.62	.24	23.52

BEAUFORT SEA COASTAL SEDIMENT STUDY

North Head Local Shallow
Water Hindcast

WAVES 13/06/78 TO 28/09/83

ALL DIRECTIONS

WAVE !	Wave Period(secs)							Total!
HT(M)!								
	12	13	14	15	16	17	18	
.10!	130!	12!	0!	0!	0!	0!	0!	142!
.20!	738!	0!	0!	0!	0!	0!	0!	746!
.30!	1272!	14!	0!	0!	0!	0!	0!	1286!
.40!	987!	428!	0!	0!	0!	0!	0!	1415!
.50!	5!	583!	0!	0!	0!	0!	0!	588!
.60!	0!	142!	0!	0!	0!	0!	0!	142!
.70!	0!	7!	1!	0!	0!	0!	0!	8!
.80!	0!	0!	0!	0!	0!	0!	0!	0!
.90!	0!	0!	0!	0!	0!	0!	0!	0!
TOTAL!	3132!	1194!	1!	0!	0!	0!	0!	4327!

SUMMARY :

NO. IN TOTAL SECTOR = 34368
NO. OUTSIDE TOTAL SECTOR = 1665
NO. OF CALMS = 30041
TOTAL NO. OF ALL RECORDS = 34368
PERCENTAGE CALMS = 83.4%

BEAUFORT SEA COASTAL SEDIMENT STUDY

North Head Local Shallow
Water Hindcast

WAVES 13/06/78 TO 28/09/83

DIRECTION 200 TO 205

WAVE !	Wave Period(secs)							Total!
HT(M)!								
	12	13	14	15	16	17	18	
.10!	1!	0!	0!	0!	0!	0!	0!	1!
.20!	4!	0!	0!	0!	0!	0!	0!	4!
.30!	14!	0!	0!	0!	0!	0!	0!	14!
.40!	1!	0!	0!	0!	0!	0!	0!	1!
.50!	0!	0!	0!	0!	0!	0!	0!	0!
.60!	0!	0!	0!	0!	0!	0!	0!	0!
.70!	0!	0!	0!	0!	0!	0!	0!	0!
.80!	0!	0!	0!	0!	0!	0!	0!	0!
.90!	0!	0!	0!	0!	0!	0!	0!	0!
TOTAL!	20!	0!	0!	0!	0!	0!	0!	20!

DIRECTION 205 TO 210

WAVE !	Wave Period(secs)							Total!
HT(M)!								
	12	13	14	15	16	17	18	
.10!	2!	0!	0!	0!	0!	0!	0!	2!
.20!	30!	0!	0!	0!	0!	0!	0!	30!
.30!	29!	0!	0!	0!	0!	0!	0!	29!
.40!	5!	0!	0!	0!	0!	0!	0!	5!
.50!	0!	0!	0!	0!	0!	0!	0!	0!
.60!	0!	0!	0!	0!	0!	0!	0!	0!
.70!	0!	0!	0!	0!	0!	0!	0!	0!
.80!	0!	0!	0!	0!	0!	0!	0!	0!
.90!	0!	0!	0!	0!	0!	0!	0!	0!
TOTAL!	66!	0!	0!	0!	0!	0!	0!	66!

BEAUFORT SEA COASTAL SEDIMENT STUDY

North Head Local Shallow
Water Hindcast

WAVES 13/06/78 TO 28/09/83

DIRECTION 210 TO 215

WAVE !	Wave Period(secs)						Total!
HT(M)!							
>	12	3	13	4	14	5	15
.10!	0!	0!	0!	0!	0!	0!	0!
.20!	36!	0!	0!	0!	0!	0!	36!
.30!	27!	0!	0!	0!	0!	0!	27!
.40!	7!	0!	0!	0!	0!	0!	7!
.50!	0!	0!	0!	0!	0!	0!	0!
.60!	0!	0!	0!	0!	0!	0!	0!
.70!	0!	0!	0!	0!	0!	0!	0!
.80!	0!	0!	0!	0!	0!	0!	0!
.90!	0!	0!	0!	0!	0!	0!	0!
TOTAL!	70!	0!	0!	0!	0!	0!	70!

DIRECTION 215 TO 220

WAVE !	Wave Period(secs)						Total!
HT(M)!							
>	12	3	13	4	14	5	15
.10!	3!	0!	0!	0!	0!	0!	3!
.20!	30!	0!	0!	0!	0!	0!	30!
.30!	42!	0!	0!	0!	0!	0!	42!
.40!	5!	1!	0!	0!	0!	0!	6!
.50!	0!	0!	0!	0!	0!	0!	0!
.60!	0!	0!	0!	0!	0!	0!	0!
.70!	0!	0!	0!	0!	0!	0!	0!
.80!	0!	0!	0!	0!	0!	0!	0!
.90!	0!	0!	0!	0!	0!	0!	0!
TOTAL!	80!	1!	0!	0!	0!	0!	81!

BEAUFORT SEA COASTAL SEDIMENT STUDY

North Head Local Shallow
Water Hindcast

WAVES 13/06/78 TO 28/09/83

DIRECTION 220 TO 225

WAVE !	Wave Period(secs)						Total!
HT(M)!							
>	12	3	13	4	14	5	15
.10!	2!	0!	0!	0!	0!	0!	2!
.20!	24!	0!	0!	0!	0!	0!	24!
.30!	20!	0!	0!	0!	0!	0!	20!
.40!	4!	1!	0!	0!	0!	0!	5!
.50!	0!	0!	0!	0!	0!	0!	0!
.60!	0!	0!	0!	0!	0!	0!	0!
.70!	0!	0!	0!	0!	0!	0!	0!
.80!	0!	0!	0!	0!	0!	0!	0!
.90!	0!	0!	0!	0!	0!	0!	0!
TOTAL!	50!	1!	0!	0!	0!	0!	51!

DIRECTION 225 TO 230

WAVE !	Wave Period(secs)						Total!
HT(M)!							
>	12	3	13	4	14	5	15
.10!	11!	1!	0!	0!	0!	0!	12!
.20!	54!	1!	0!	0!	0!	0!	55!
.30!	60!	1!	0!	0!	0!	0!	61!
.40!	44!	13!	0!	0!	0!	0!	57!
.50!	0!	12!	0!	0!	0!	0!	12!
.60!	0!	3!	0!	0!	0!	0!	3!
.70!	0!	0!	0!	0!	0!	0!	0!
.80!	0!	0!	0!	0!	0!	0!	0!
.90!	0!	0!	0!	0!	0!	0!	0!
TOTAL!	169!	31!	0!	0!	0!	0!	200!

BEAUFORT SEA COASTAL SEDIMENT STUDY

North Head Local Shallow
Water Hindcast

WAVES 13/06/78 TO 28/09/83

DIRECTION 230 TO 235

WAVE !	Wave Period(secs)						Total!
HT(M)!							
	12	13	14	15	16	17	
.10!	6!	0!	0!	0!	0!	0!	6!
.20!	30!	0!	0!	0!	0!	0!	30!
.30!	41!	0!	0!	0!	0!	0!	41!
.40!	15!	11!	0!	0!	0!	0!	26!
.50!	0!	16!	0!	0!	0!	0!	16!
.60!	0!	1!	0!	0!	0!	0!	1!
.70!	0!	0!	0!	0!	0!	0!	0!
.80!	0!	0!	0!	0!	0!	0!	0!
.90!	0!	0!	0!	0!	0!	0!	0!
TOTAL!	92!	29!	0!	0!	0!	0!	120!

DIRECTION 235 TO 240

WAVE !	Wave Period(secs)						Total!
HT(M)!							
	12	13	14	15	16	17	
.10!	4!	0!	0!	0!	0!	0!	4!
.20!	27!	0!	0!	0!	0!	0!	27!
.30!	45!	0!	0!	0!	0!	0!	45!
.40!	25!	12!	0!	0!	0!	0!	37!
.50!	0!	10!	0!	0!	0!	0!	10!
.60!	0!	0!	0!	0!	0!	0!	0!
.70!	0!	0!	0!	0!	0!	0!	0!
.80!	0!	0!	0!	0!	0!	0!	0!
.90!	0!	0!	0!	0!	0!	0!	0!
TOTAL!	101!	22!	0!	0!	0!	0!	123!

BEAUFORT SEA COASTAL SEDIMENT STUDY

North Head Local Shallow
Water Hindcast

WAVES 13/06/78 TO 28/09/83

DIRECTION 240 TO 245

WAVE !	Wave Period(secs)						Total!
HT(M)!							
	12	13	14	15	16	17	
.10!	9!	1!	0!	0!	0!	0!	10!
.20!	36!	1!	0!	0!	0!	0!	37!
.30!	45!	2!	0!	0!	0!	0!	47!
.40!	20!	32!	0!	0!	0!	0!	52!
.50!	0!	13!	0!	0!	0!	0!	13!
.60!	0!	3!	0!	0!	0!	0!	3!
.70!	0!	0!	0!	0!	0!	0!	0!
.80!	0!	0!	0!	0!	0!	0!	0!
.90!	0!	0!	0!	0!	0!	0!	0!
TOTAL!	110!	52!	0!	0!	0!	0!	162!

DIRECTION 245 TO 250

WAVE !	Wave Period(secs)						Total!
HT(M)!							
	12	13	14	15	16	17	
.10!	6!	0!	0!	0!	0!	0!	6!
.20!	43!	0!	0!	0!	0!	0!	43!
.30!	84!	1!	0!	0!	0!	0!	85!
.40!	33!	30!	0!	0!	0!	0!	63!
.50!	0!	30!	0!	0!	0!	0!	30!
.60!	0!	2!	0!	0!	0!	0!	2!
.70!	0!	1!	0!	0!	0!	0!	1!
.80!	0!	0!	0!	0!	0!	0!	0!
.90!	0!	0!	0!	0!	0!	0!	0!
TOTAL!	166!	64!	0!	0!	0!	0!	230!

BEAUFORT SEA COASTAL SEDIMENT STUDY

North Head Local Shallow
Water Hindcast

WAVES 13/06/78 TO 28/09/83

DIRECTION 250 TO 255

WAVE !	Wave Period(secs)						Total!				
HT(M)!											
!	!	!	!	!	!	!	!				
!	>	12	-3	13	-4	14	-5	15	-6	-	!
!	!	!	!	!	!	!	!	!	!	!	!
!	.10!	19!		3!		0!		0!		22!	!
!	.20!	60!		6!		0!		0!		74!	!
!	.30!	129!		10!		0!		0!		139!	!
!	.40!	57!		120!		0!		0!		177!	!
!	.50!	0!		103!		0!		0!		103!	!
!	.60!	0!		2!		0!		0!		2!	!
!	.70!	0!		0!		0!		0!		0!	!
!	.80!	0!		0!		0!		0!		0!	!
!	.90!	0!		0!		0!		0!		0!	!
!	TOTAL!	273!		244!		0!		0!		517!	!

DIRECTION 255 TO 260

WAVE !	Wave Period(secs)						Total!
HT(M)!							
>	12	-3	13	-4	14	-5	15 -6 -
.10!	1!	0!	0!	0!	0!	0!	1!
.20!	22!	0!	0!	0!	0!	0!	22!
.30!	27!	0!	0!	0!	0!	0!	27!
.40!	46!	17!	0!	0!	0!	0!	63!
.50!	0!	15!	0!	0!	0!	0!	15!
.60!	0!	2!	0!	0!	0!	0!	2!
.70!	0!	1!	1!	0!	0!	0!	2!
.80!	0!	0!	0!	0!	0!	0!	0!
.90!	0!	0!	0!	0!	0!	0!	0!
TOTAL!	96!	35!	1!	0!	0!	0!	132!

BEAUFORT SEA COASTAL SEDIMENT STUDY

North Head Local Shallow
Water Hindcast

WAVES 13/06/78 TO 28/09/83

DIRECTION 260 TO 265

WAVE !	Wave Period(secs)						Total!
HT(M)!							
>	12	-3	13	-4	14	-5	15 -6 -
.10!	1!	1!	0!	0!	0!	0!	2!
.20!	10!	0!	0!	0!	0!	0!	10!
.30!	32!	0!	0!	0!	0!	0!	32!
.40!	33!	0!	0!	0!	0!	0!	41!
.50!	0!	13!	0!	0!	0!	0!	13!
.60!	0!	4!	0!	0!	0!	0!	4!
.70!	0!	1!	0!	0!	0!	0!	1!
.80!	0!	0!	0!	0!	0!	0!	0!
.90!	0!	0!	0!	0!	0!	0!	0!
TOTAL!	84!	27!	0!	0!	0!	0!	111!

DIRECTION 265 TO 270

WAVE !	Wave Period(secs)						Total!
HT(M)!							
>	12	-3	13	-4	14	-5	15 -6 -
.10!	9!	0!	0!	0!	0!	0!	9!
.20!	39!	0!	0!	0!	0!	0!	39!
.30!	82!	0!	0!	0!	0!	0!	82!
.40!	62!	23!	0!	0!	0!	0!	85!
.50!	1!	29!	0!	0!	0!	0!	30!
.60!	0!	25!	0!	0!	0!	0!	25!
.70!	0!	1!	0!	0!	0!	0!	1!
.80!	0!	0!	0!	0!	0!	0!	0!
.90!	0!	0!	0!	0!	0!	0!	0!
TOTAL!	191!	78!	0!	0!	0!	0!	269!

BEAUFORT SEA COASTAL SEDIMENT STUDY

North Head Local Shallow
Water Hindcast

WAVES 13/06/70 TO 29/09/83

DIRECTION 270 TO 275

WAVE !	Wave Period(secs)	Total!
HT(M)!		
> 12 -3 13 -4 14 -5 15 -6 ! - !		
.10!	7!	0!
.20!	39!	0!
.30!	58!	0!
.40!	67!	14!
.50!	0!	41!
.60!	0!	22!
.70!	0!	0!
.80!	0!	0!
.90!	0!	0!
TOTAL!	171!	78!

DIRECTION 275 TO 280

WAVE !	Wave Period(secs)	Total!
HT(M)!		
> 12 -3 13 -4 14 -5 15 -6 ! - !		
.10!	0!	1!
.20!	49!	0!
.30!	81!	0!
.40!	110!	52!
.50!	0!	69!
.60!	0!	21!
.70!	0!	0!
.80!	0!	0!
.90!	0!	0!
TOTAL!	248!	143!

BEAUFORT SEA COASTAL SEDIMENT STUDY

North Head Local Shallow
Water Hindcast

WAVES 13/06/70 TO 26/09/83

DIRECTION 280 TO 285

WAVE !	Wave Period(secs)	Total!
HT(M)!		
> 12 -3 13 -4 14 -5 15 -6 ! - !		
.10!	15!	2!
.20!	49!	0!
.30!	114!	0!
.40!	133!	43!
.50!	4!	10!
.60!	0!	20!
.70!	0!	0!
.80!	0!	0!
.90!	0!	0!
TOTAL!	315!	174!

DIRECTION 285 TO 290

WAVE !	Wave Period(secs)	Total!
HT(M)!		
> 12 -3 13 -4 14 -5 15 -6 ! - !		
.10!	18!	2!
.20!	132!	0!
.30!	334!	0!
.40!	322!	51!
.50!	0!	131!
.60!	0!	29!
.70!	0!	3!
.80!	0!	0!
.90!	0!	0!
TOTAL!	806!	216!

BEAUFORT SEA COASTAL SEDIMENT STUDY

OFFSHORE TO ONSHORE WAVE TRANSFORMATION FUNCTIONS

NORTH HEAD

Note: These results apply to the deepwater hindcast wave data only, not the local shallow water hindcast data.

KEITH PHILPOTT CONSULTING LTD.
P.O. Box 938
THORNHILL
ONTARIO L3T 4A5

KEY

Grid Number
Nodal Dimensions (XxY)
Mesh Size (metres)

1
11X7
200X200

2
15X7
200X200

3
53X23
150X150

4
14X7
600X600

5
7X20
600X600

8
53X37
50X50

9
53X37
50X50

10
37X45
75X75

11
21X25
150X150

12
61X29
50X50

13
61X25
50X50

7
15X14
3000X3000

6
6X24
1500X1500

5

4

3

2

1

13

12

11

10

9

8

10 0 10 20 30 40 50
X 1000 Metres

X
Y

BEAUFORT SEA COASTAL SEDIMENT STUDY

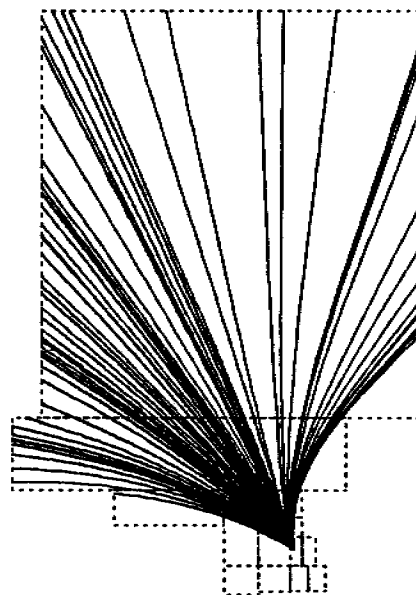
Date: 14 May 85

Scales as shown

North Head: Nodal Dimensions and Mesh Size of
Refraction Model Grids

Checked by:

Keith Philpott
Consulting Limited



FIGURE

WAVE RAY DETAILS

Tide Level= 0.50 m.

Wave Period= 5.0 secs

Position No:2

Bathymetry information used for
grids obtained from the Canadian
Hydrographic Service. Field Sheets
numbered:

H.A. 10101 (1970)



BEAUFORT SEA COASTAL STUDY

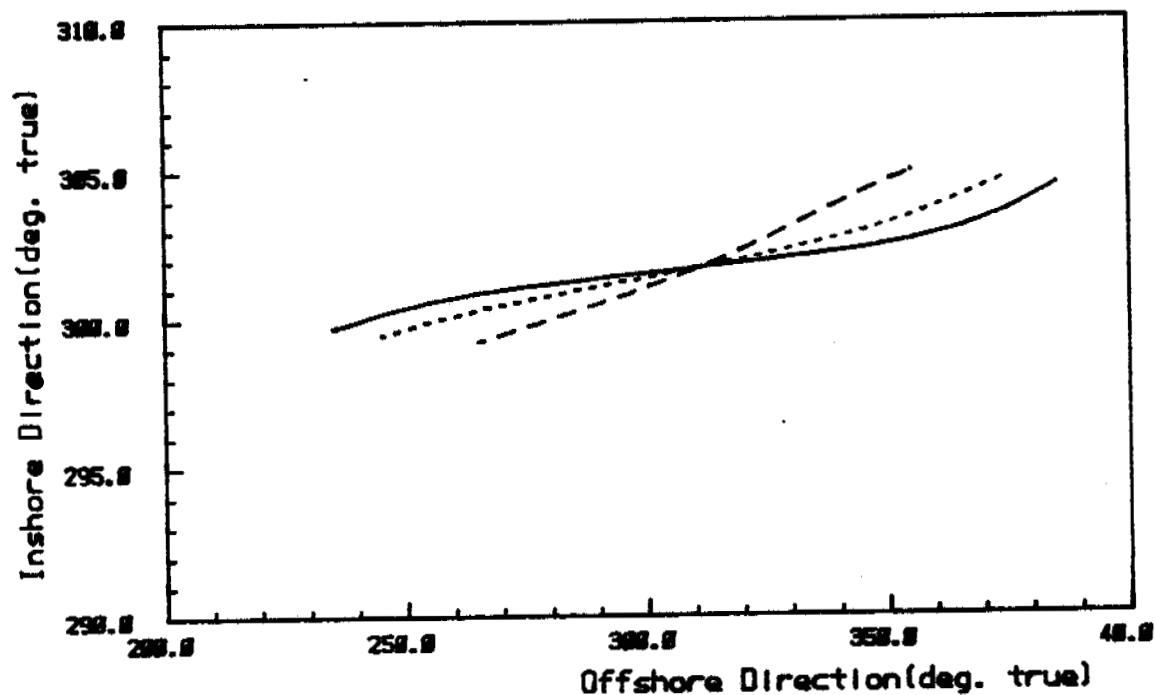
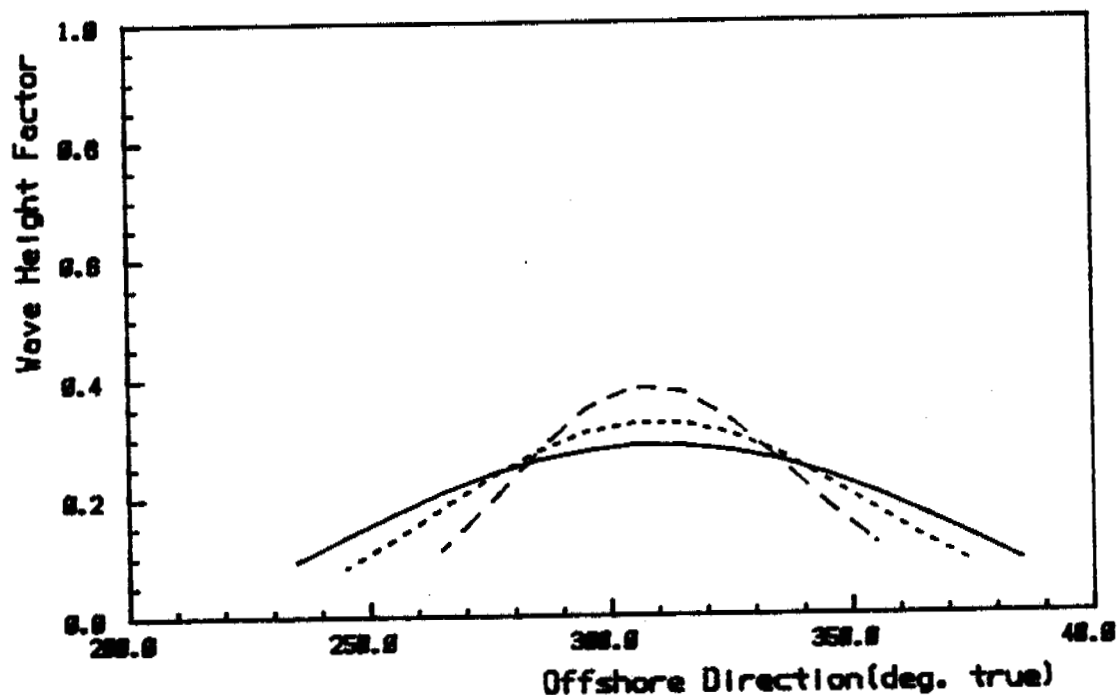
NORTH HEAD - BACKWARD TRACKING

Date: 16 Apr 85

Scale 1:500000

Checked by:

Keith Philpott
Consulting Limited



Node No: 1

Spreading Index:

2

Tide Level: 0.50 m.

4

Peak Period: 3.2 secs

18

BEAUFORT SEA COASTAL SEDIMENT STUDY

North Head: Wave Spectrum Transformation Results for
Node Number 01

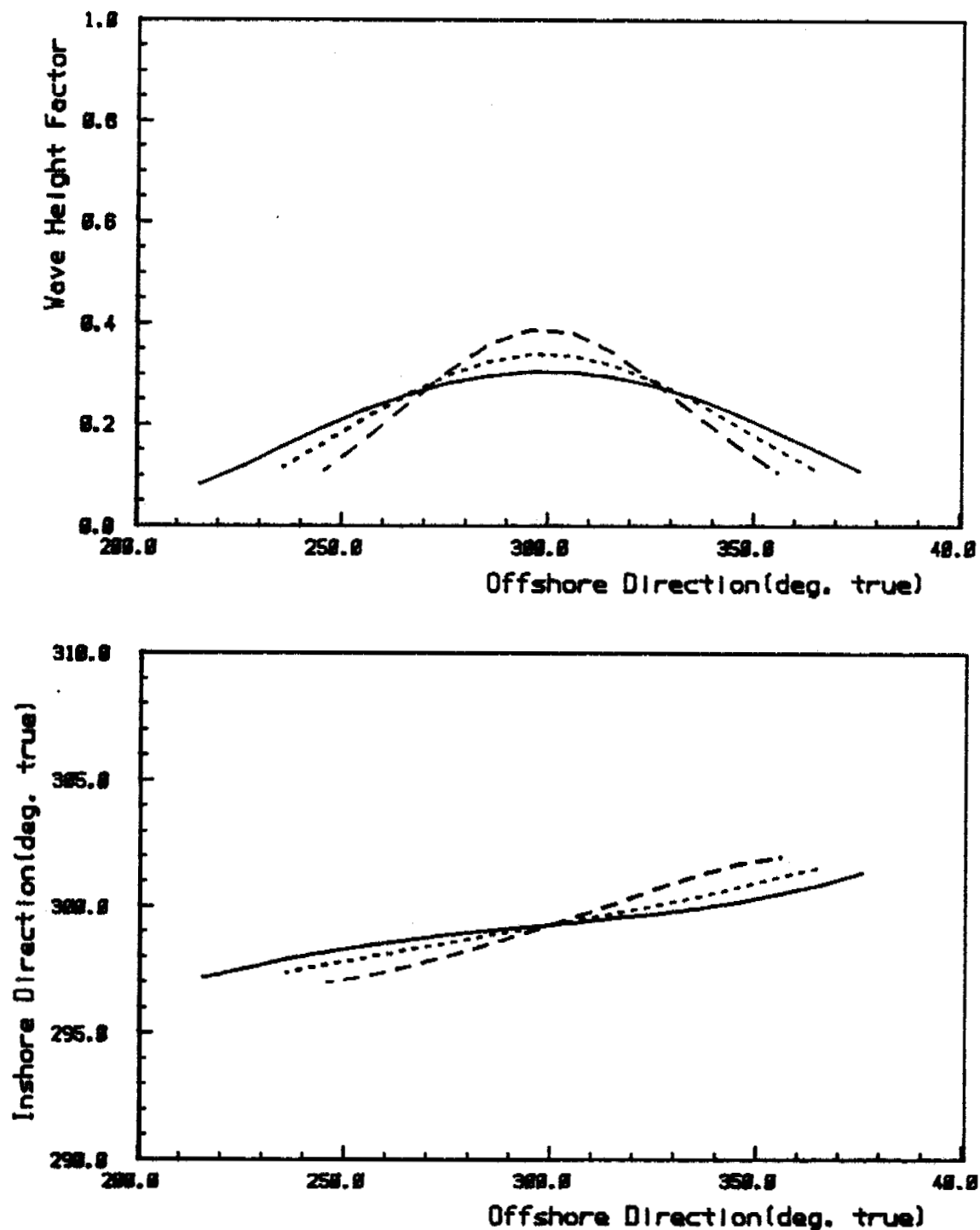
Date: 27 Mar 85

Scale as shown

Checked by:

Keith Philpott

Consulting Limited



Node No: 1

Spreading Index:

2

Tide Level: 0.50 m.

4

Peak Period: 5.0 secs

18

BEAUFORT SEA COASTAL SEDIMENT STUDY

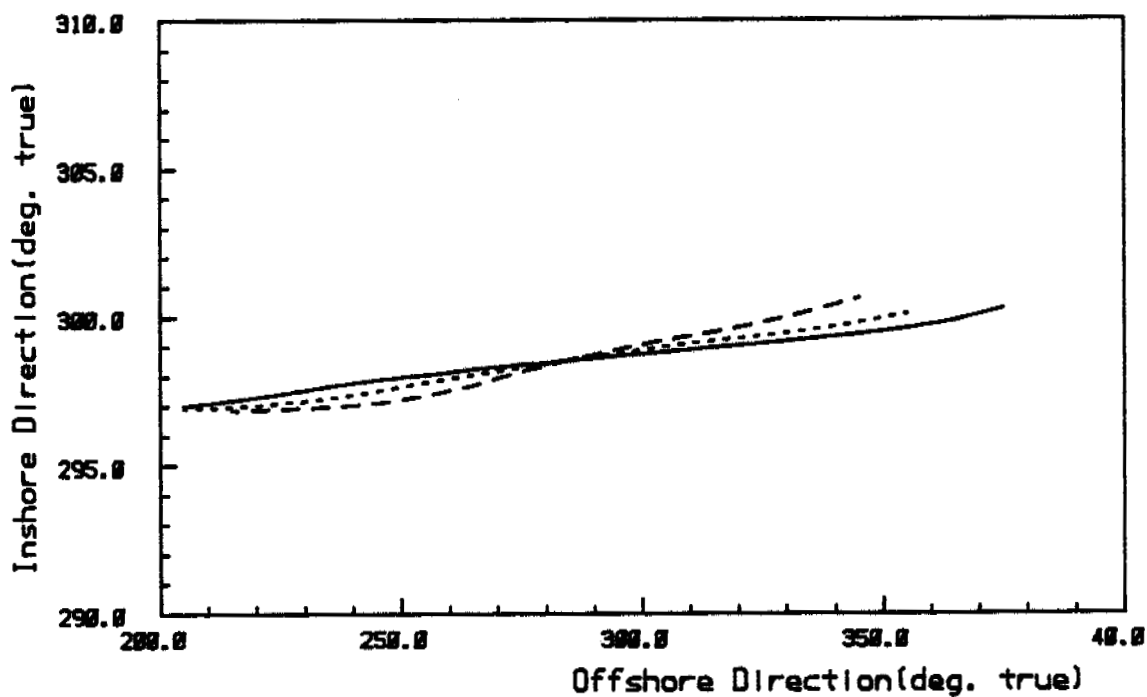
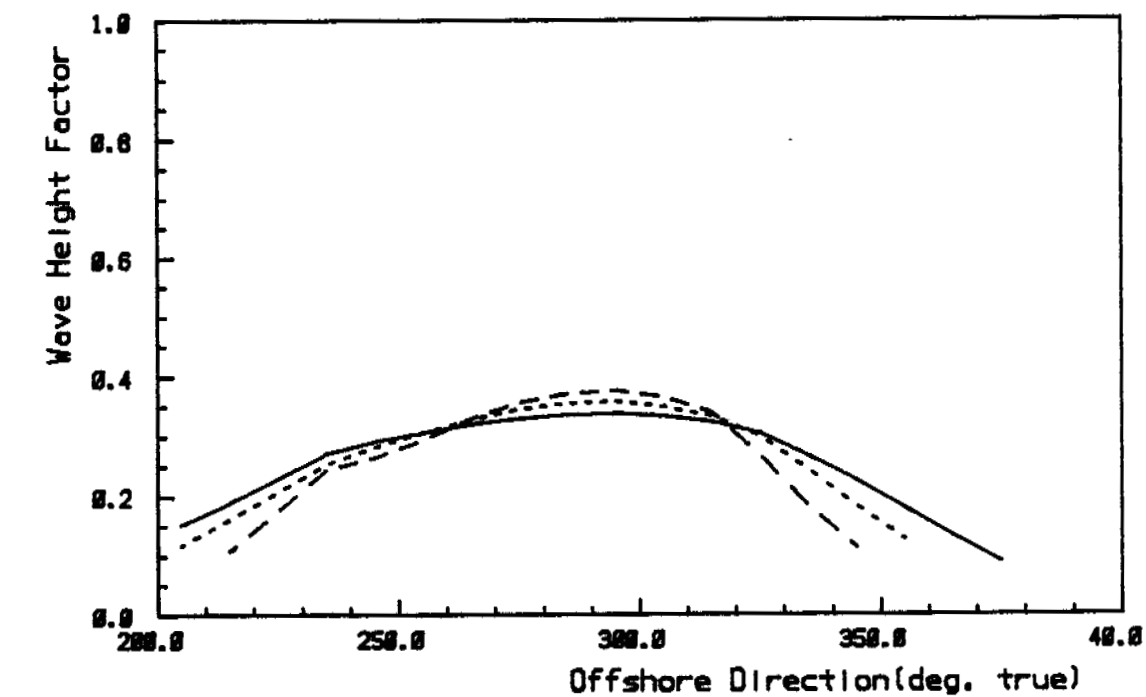
Date: 27 Mar 85

Scale as shown

Checked by:

Keith Philpott
Consulting LimitedNorth Head: Wave Spectrum Transformation Results for
Node Number 01

FIGURE



Node No: 1

Spreading Index:

2

Tide Level: 0.50 m.

4

Peak Period: 7.9 secs

10

BEAUFORT SEA COASTAL SEDIMENT STUDY

Date: 27 Mar 85

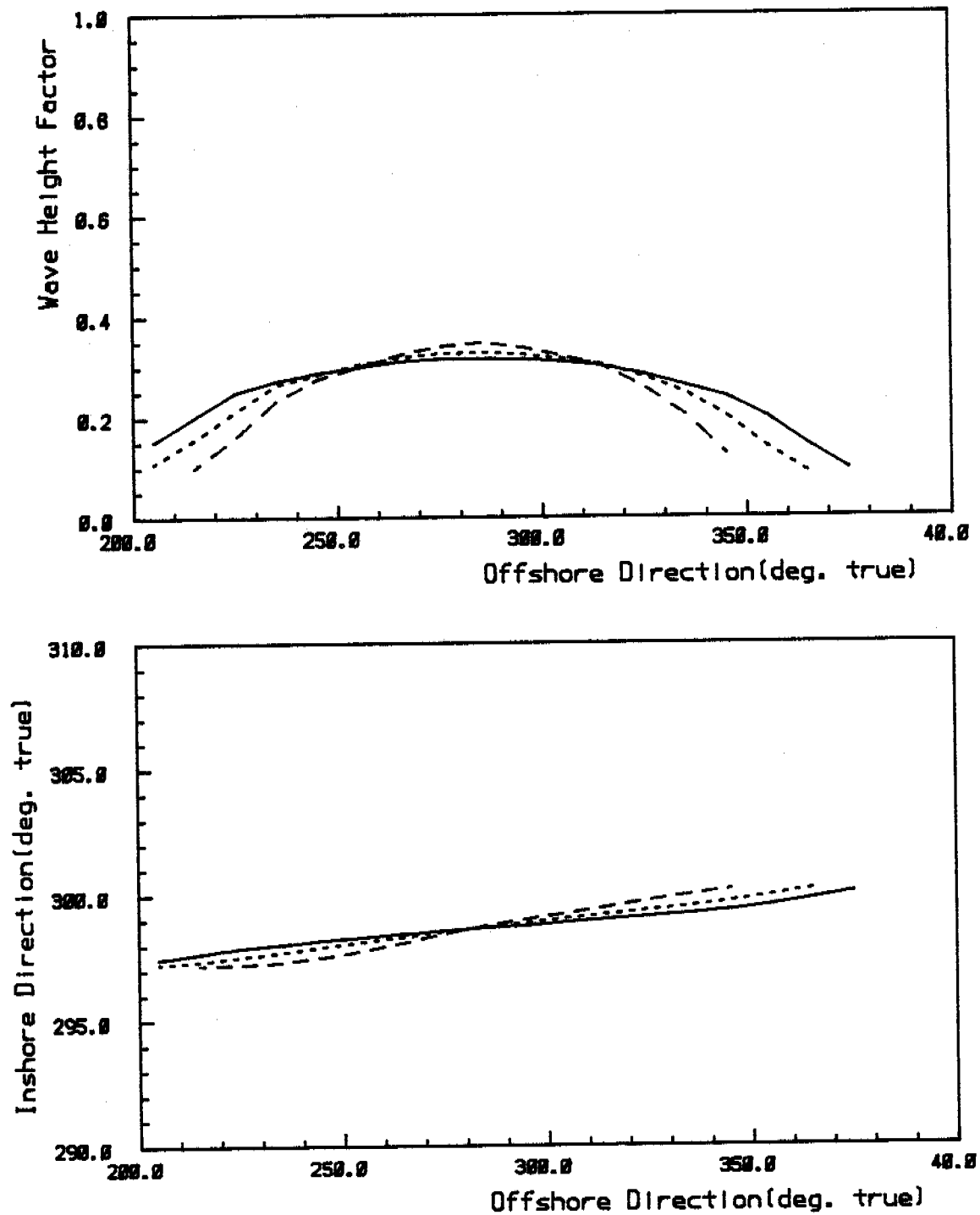
Scales as shown

Checked by:

North Head: Wave Spectrum Transformation Results for
Node Number 01

Keith Philpott

Consulting Limited



Node No: 1

Spreading Index:

2

Tide Level: 0.50 m.

4

Peak Period: 10.0 secs

10

BEAUFORT SEA COASTAL SEDIMENT STUDY

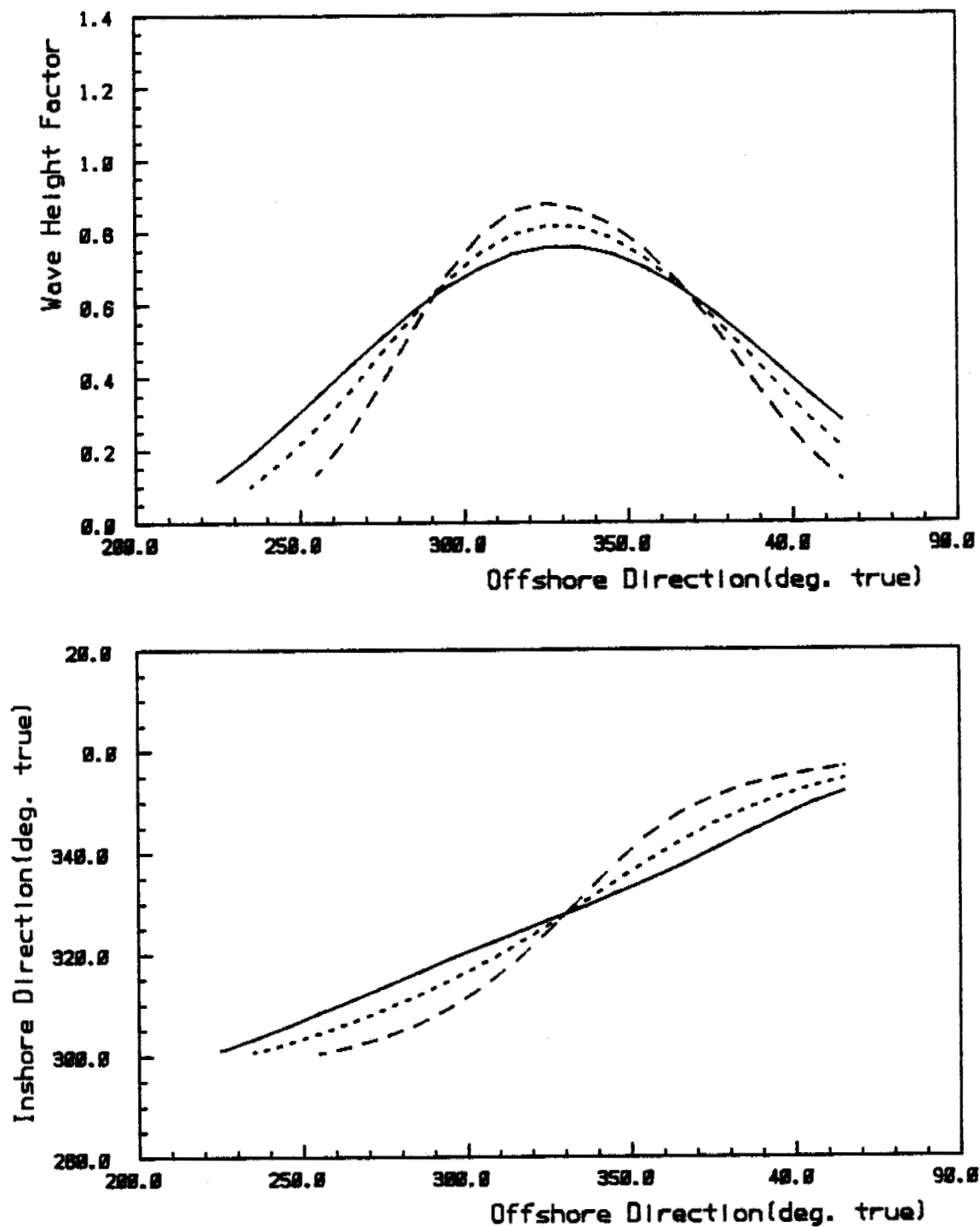
North Head: Wave Spectrum Transformation Results for
Node Number 01

Date: 27 Mar 85

Scale as shown

Checked by:

Keith Philpott
Consulting Limited



Node No: 2

Spreading Index: 2

Tide Level: 0.50 m.

4

Peak Period: 3.2 secs

10

BEAUFORT SEA COASTAL SEDIMENT STUDY

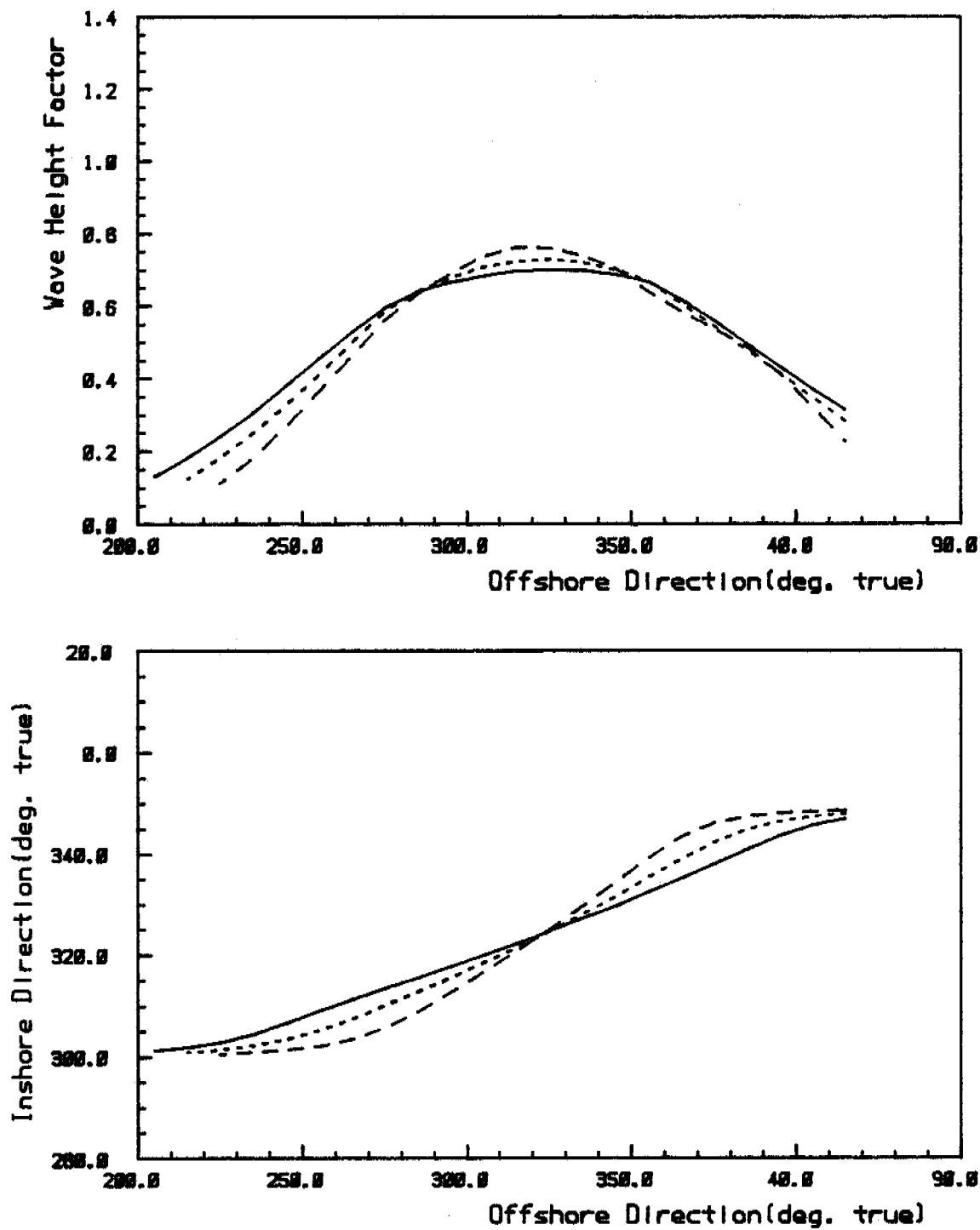
North Head: Wave Spectrum Transformation Results for
Node Number 02

Date: 27 Mar 85

Scale: as shown

Checked by:

Keith Philpott
Consulting Limited



Node No: 2

Spreading Index:

2

Tide Level: 0.50 m.

4

Peak Period: 5.0 secs

10

BEAUFORT SEA COASTAL SEDIMENT STUDY

Date: 27 Mar 85

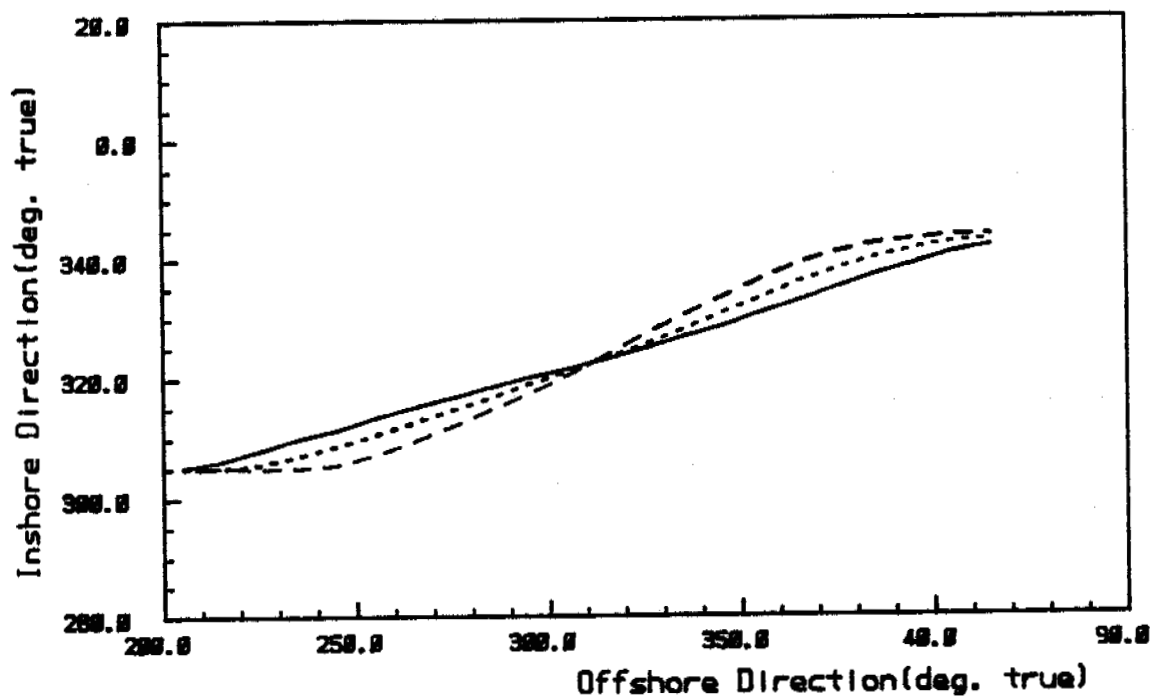
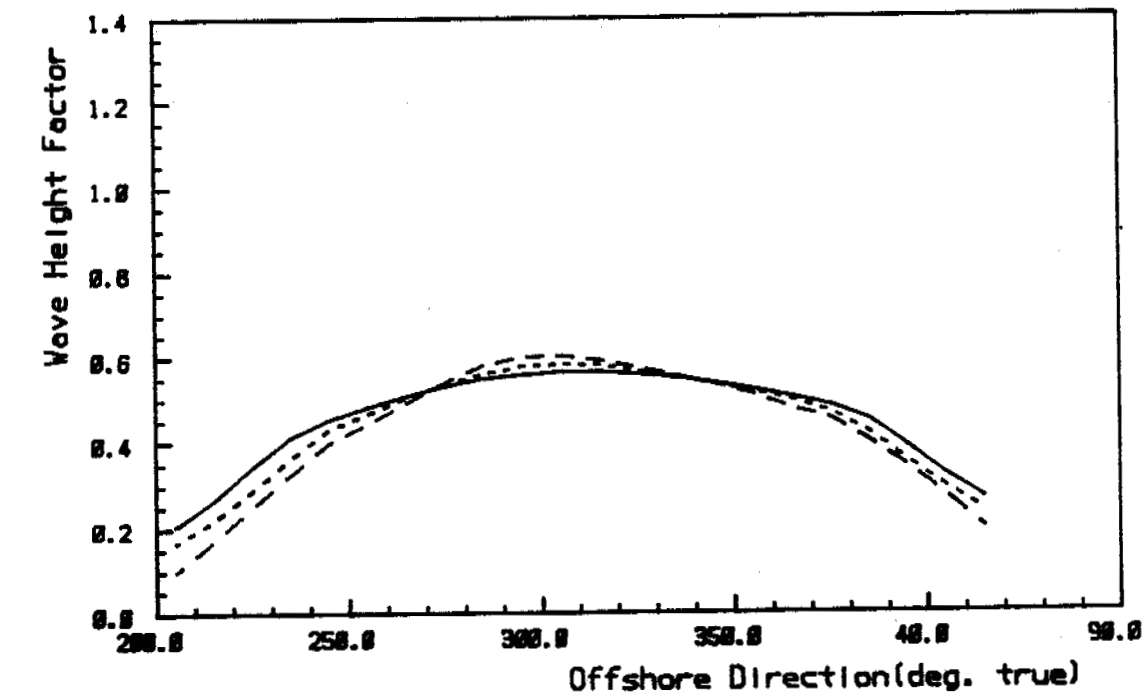
Scales as shown

Checked by:

Keith Philpott

Consulting Limited

North Head: Wave Spectrum Transformation Results for
Node Number 02



Node No: 2

Tide Level: 0.50 m.

Peak Period: 7.9 secs

Spreading Index:

2

4

10

BEAUFORT SEA COASTAL SEDIMENT STUDY

North Head: Wave Spectrum Transformation Results for
Node Number 02

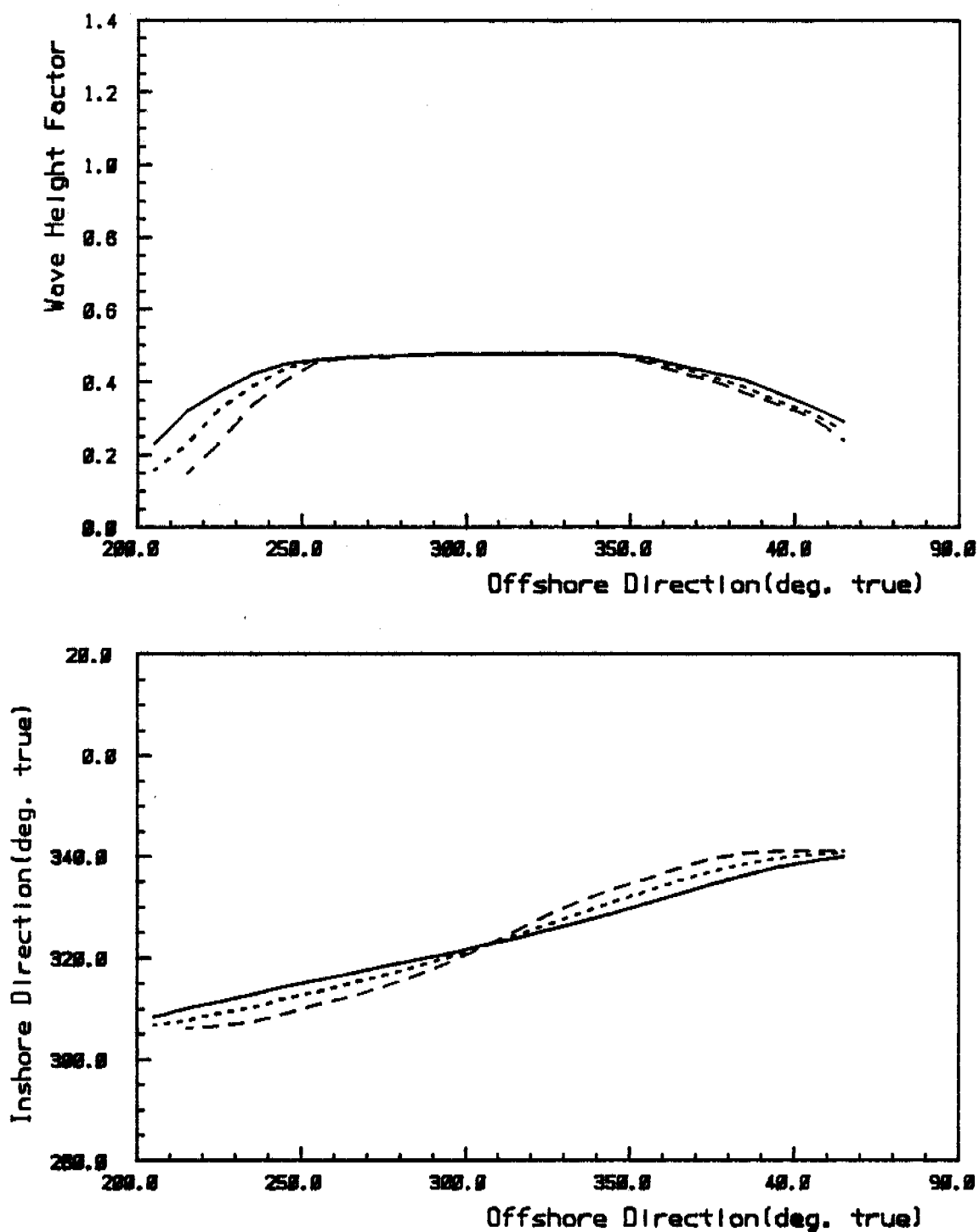
Date: 27 Mar 85

Scale: as shown

Checked by:

Keith Philpott
Consulting Limited

FIGURE



Node No: 2

Spreading Index:

2

Tide Level: 0.50 m.

4

Peak Period: 18.0 secs

18

BEAUFORT SEA COASTAL SEDIMENT STUDY

Date: 27 Mar 85

Scales as shown

Checked by:

Keith Philpott

Consulting Limited

North Head: Wave Spectrum Transformation Results for
Node Number 02

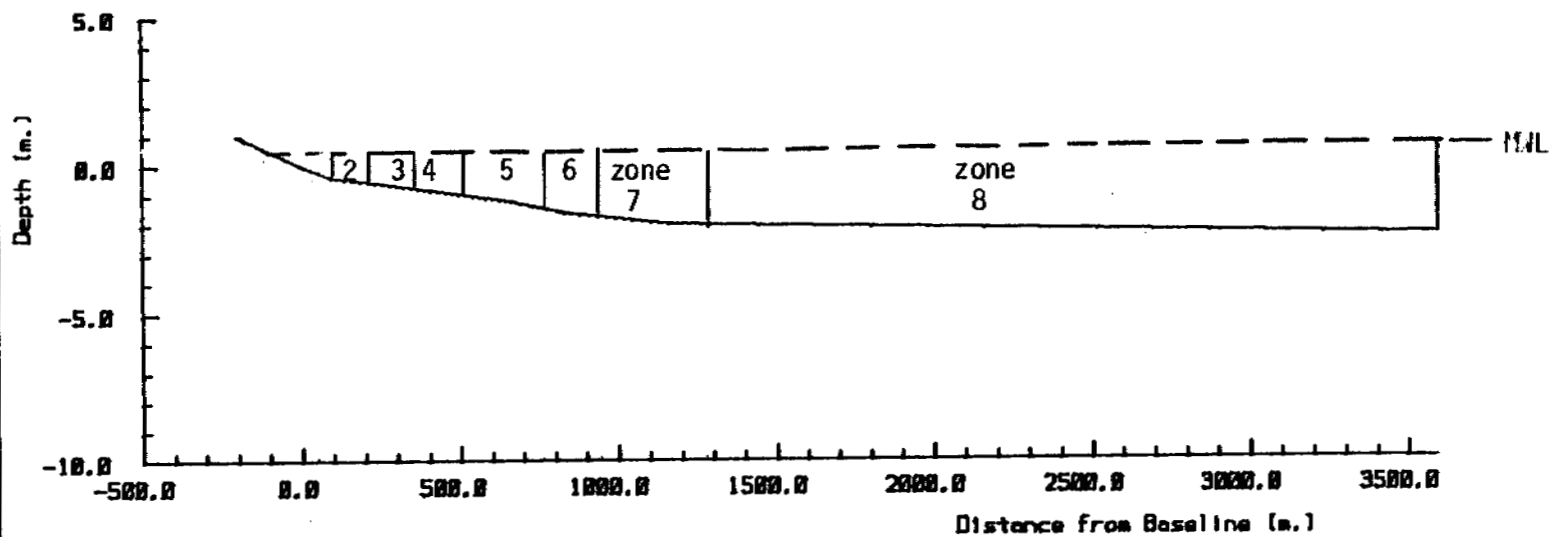
BEAUFORT SEA COASTAL SEDIMENT STUDY

ALONGSHORE SEDIMENT TRANSPORT RESULTS

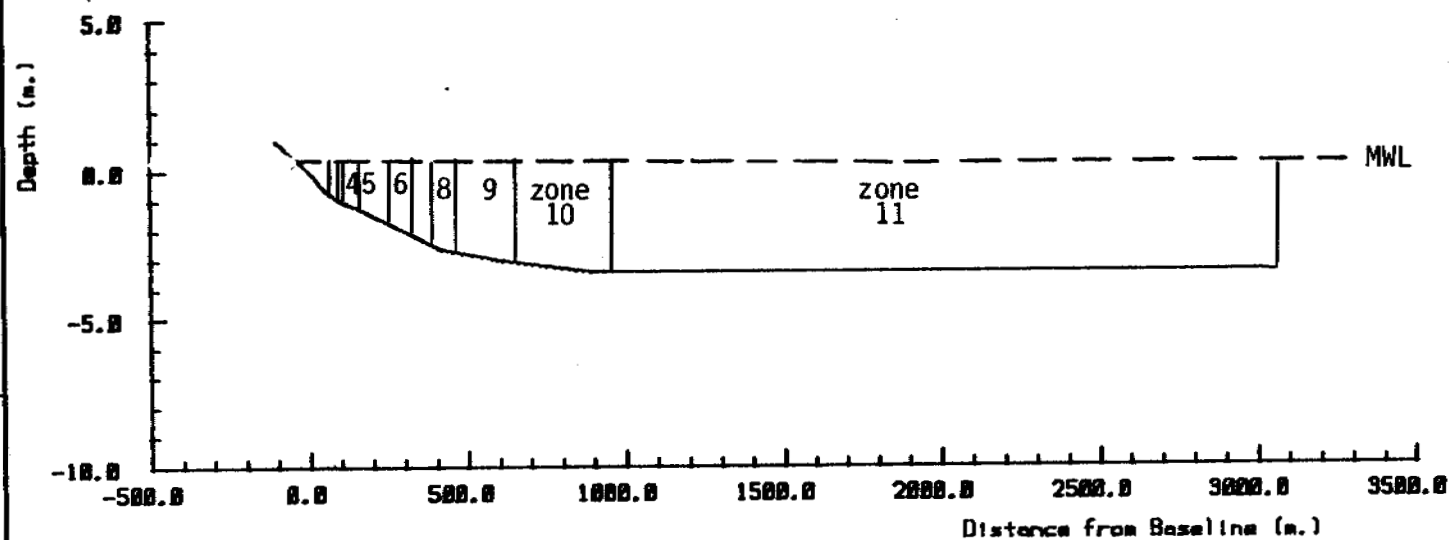
FOURTEEN YEAR AVERAGES

(1970 - 1983)

KEITH PHILPOTT CONSULTING LTD.
P.O. Box 938
THORNHILL
ONTARIO L3T 4A5



(a.) Profile at Node 1



(b.) Profile at Node 2

BEAUFORT SEA COASTAL SEDIMENT STUDY

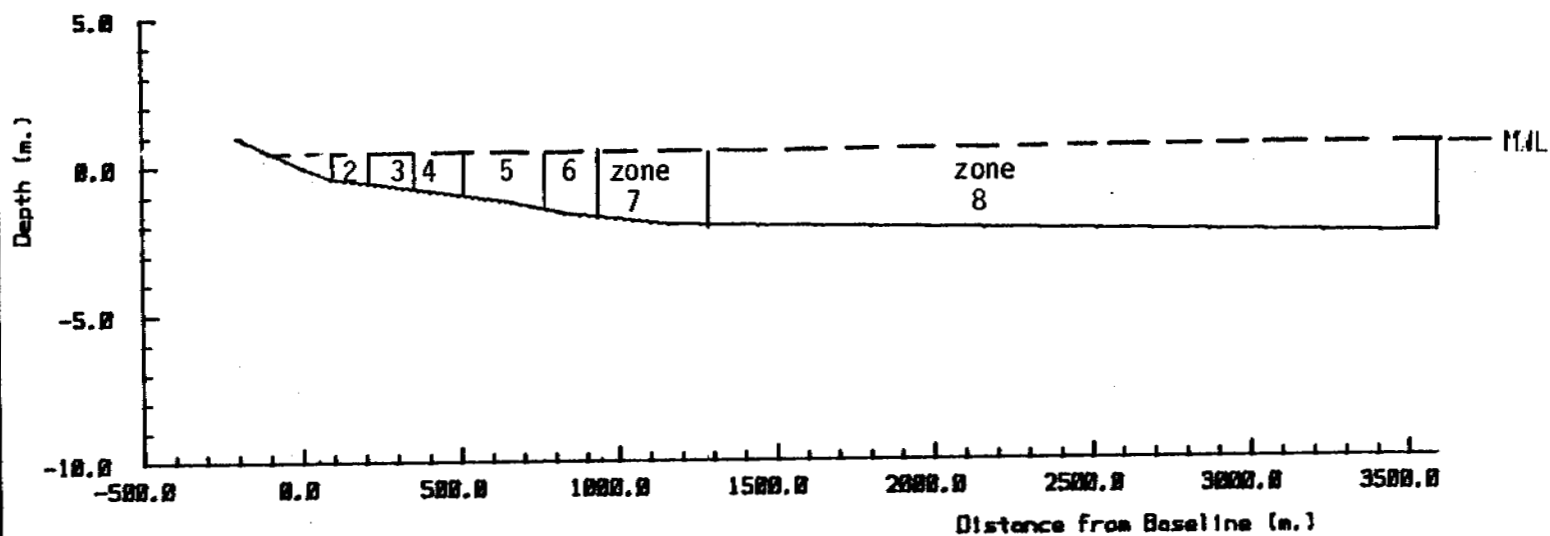
North Head: Beach Profiles used in Sediment Transport Predictions

Date: 15 Mar 85

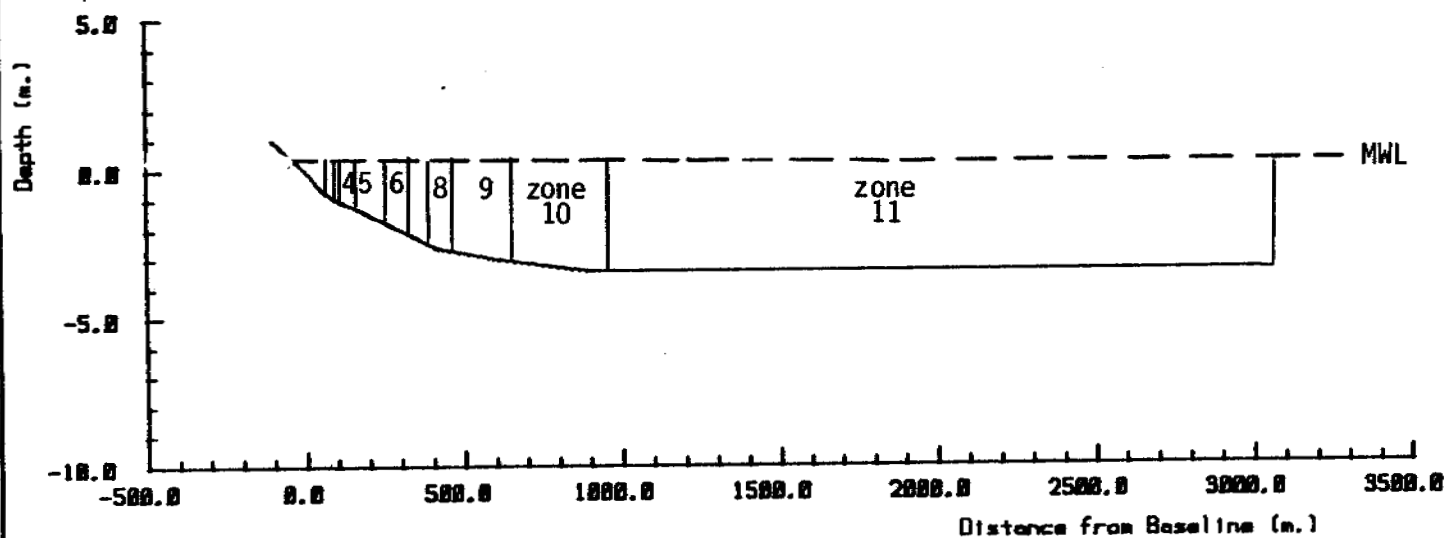
Scales as shown

Checked by:

Keith Philpott
Consulting Limited



(a.) Profile at Node 1



(b.) Profile at Node 2

BEAUFORT SEA COASTAL SEDIMENT STUDY

North Head: Beach Profiles used in Sediment Transport
Predictions

Date: 15 Mar 85

Scales as shown

Checked by:

Keith Philpott

Consulting Limited

BEAUFORT SEA COASTAL SEDIMENT STUDY

Current date is 02/27/85

Current time is 17:45:45.45

14 YEAR AVERAGE SEDIMENT TRANSPORT HINDCAST

WAVE DATA IS HINDCAST FROM TUKTOYAKTUK N.W.T. WINDS

This run used the following sediment transport models

- 1 CERC formula
- 2 Queen's modified CERC (March 1985)
- 3 Swart modified CERC
- 4 Bijker formula
- 5 Engelund and Hansen (by Swart)
- 7 Swart model
- 8 Willis model
- 9 Van Der Graaf and Overeen model
- 10 Nielsen model (breaking waves)
- 11 Nielsen model (non breaking waves)
- 12 Fleming model
- 13 Swart and Lenhoff model

NORTH HEAD NODE 1, MEAN WATER LEVEL

Profile Data

Zone	1	2	3	4	5	6	7	8
Shoreline O/S to mid-zone	50.0	150.0	275.0	425.0	630.0	850.0	1107.5	2457.5
Sed. Transport Zone Width	100.0	100.0	150.0	150.0	260.0	180.0	335.0	2365.0
Depth at Centre of Zone	.25	.70	1.00	1.20	1.50	1.90	2.30	2.70
Sediment Transport Switch	On	On	On	On	On	On	On	On

Input Grain Size Distribution (mm)

Zone	D16	D25	D35	D50	D65	D75	D84	D90	
1 to 8	.150	.180	.200	.220	.230	.250	.260	.280	Roughness Based on Ripple Height

refraction analysis was to a depth of 2.0 meters

beach normal azimuth =261.0 degrees

weighted breaker depth = .54 meters

NORTH HEAD NODE 2, MEAN WATER LEVEL

Profile Data

Zone	1	2	3	4	5	6	7	8	9	10	11
Shoreline O/S to mid-zone	25.0	60.0	85.0	125.0	195.0	275.0	350.0	425.0	555.0	800.0	2000.0
Sed. Transport Zone Width	50.0	20.0	30.0	50.0	90.0	70.0	80.0	70.0	190.0	300.0	2100.0
Depth at Centre of Zone	.25	.60	.90	1.30	1.70	2.10	2.50	2.90	3.30	3.70	3.91
Sediment Transport Switch	On	On	On	On	On	On	On	On	On	On	On

Input Grain Size Distribution (mm)

Zone	D16	D25	D35	D50	D65	D75	D84	D90	
1 to 11	.150	.180	.200	.220	.230	.250	.260	.280	Roughness Based on Ripple Height

refraction analysis was to a depth of 3.5 meters

beach normal azimuth =266.0 degrees

weighted breaker depth = .70 meters

RESULTS OF ALL WAVE CONDITIONS

NORTH HEAD NODE 1, MEAN WATER LEVEL

GROSS SEDIMENT TRANSPORT RATES (cu.m./m./yr)

Model	B(1)	B(2)	B(3)	B(4)	B(5)	B(6)	B(7)	B(8)	Total Transport (cu.m./yr.)
1									.3875E+05
2									.8717E+03
3									.4668E+05
4	.2800E-06	.1629E+01	.2501E+01	.1655E+01	.5025E+00	.5765E-02	.8759E-21	.0000E+00	.9180E+03
5	.1708E+03	.2222E+03	.1468E+03	.9552E+02	.4162E+02	.1079E+02	.2385E+01	.4709E+00	.9032E+05
7	.8143E+00	.3740E+02	.4261E+02	.3048E+02	.1114E+02	.1428E+01	.8217E-01	.1509E-02	.1797E+05
8	.2407E+03	.4971E+03	.3782E+03	.2662E+03	.1207E+03	.4035E+02	.1176E+02	.3792E+01	.2241E+06
9	.2284E+03	.5267E+03	.3866E+03	.2535E+03	.1038E+03	.2293E+02	.4264E+01	.7302E+00	.2058E+06
10	.3123E+03	.1291E+03	.6156E+02	.3596E+02	.1476E+02	.3794E+01	.9340E+00	.1952E+00	.6406E+05
11	.9535E+02	.5607E+02	.3857E+02	.2664E+02	.1298E+02	.3000E+01	.9331E+00	.1950E+00	.2984E+05
12	.1180E+03	.1396E+03	.8685E+02	.5485E+02	.2069E+02	.4816E+01	.9949E+00	.2687E+00	.5423E+05
13	.7218E+02	.2054E+03	.1525E+03	.9800E+02	.3729E+02	.7074E+01	.1135E+01	.2117E+00	.7718E+05

MEAN	.1376E+03	.2018E+03	.1440E+03	.9586E+02	.4128E+02	.1055E+02	.2499E+01	.6526E+00	.7089E+05
S.D.	.1087E+03	.1905E+03	.1437E+03	.9815E+02	.4483E+02	.1309E+02	.3708E+01	.1199E+01	.7281E+05

NORTH HEAD NODE 1, MEAN WATER LEVEL

NET SEDIMENT TRANSPORT RATES (cu.m./m./yr.)

Model	B(1)	B(2)	B(3)	B(4)	B(5)	B(6)	B(7)	B(8)	Total Transport (cu.m./yr.)
1									-.3623E+05
2									-.8501E+03
3									-.4365E+05
4	-.2800E-06	-.1629E+01	-.2501E+01	-.1655E+01	-.5025E+00	-.5765E-02	-.8759E-21	.0000E+00	-.9180E+03
5	-.1412E+03	-.2174E+03	-.1462E+03	-.9544E+02	-.4162E+02	-.1079E+02	-.2385E+01	-.4709E+00	-.8679E+05
7	-.7964E+00	-.3739E+02	-.4261E+02	-.3048E+02	-.1114E+02	-.1428E+01	-.8217E-01	-.1509E-02	-.1797E+05
8	-.1949E+03	-.4824E+03	-.3756E+03	-.2654E+03	-.1207E+03	-.4035E+02	-.1176E+02	-.3792E+01	-.2175E+06
9	-.1950E+03	-.5216E+03	-.3861E+03	-.2534E+03	-.1038E+03	-.2293E+02	-.4264E+01	-.7302E+00	-.2019E+06
10	-.2879E+03	-.1281E+03	-.6141E+02	-.3594E+02	-.1476E+02	-.3794E+01	-.9340E+00	-.1952E+00	-.6150E+05
11	-.8878E+02	-.5604E+02	-.3842E+02	-.2662E+02	-.1298E+02	-.3000E+01	-.9331E+00	-.1950E+00	-.2987E+05
12	-.9746E+02	-.1364E+03	-.8641E+02	-.5472E+02	-.2068E+02	-.4816E+01	-.9949E+00	-.2687E+00	-.5177E+05
13	-.6249E+02	-.2040E+03	-.1523E+03	-.9796E+02	-.3729E+02	-.7074E+01	-.1135E+01	-.2117E+00	-.7604E+05

MEAN	-.1187E+03	-.1983E+03	-.1435E+03	-.9573E+02	-.4128E+02	-.1055E+02	-.2499E+01	-.6526E+00	-.6868E+05
S.D.	.9568E+02	.1068E+03	.1431E+03	.9797E+02	.4482E+02	.1309E+02	.3708E+01	.1199E+01	.7111E+05

NORTH HEAD NODE 1, MEAN WATER LEVEL

POSITIVE SEDIMENT TRANSPORT RATES (clockwise wrt. beach normal)

Model	B(1)	B(2)	B(3)	B(4)	B(5)	B(6)	B(7)	B(8)	Total Transport (cu.m./yr.)
1									.1261E+04
2									.1078E+02
3									.1519E+04
4	.1161E-18	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.1161E-16
5	.1479E+02	.2392E+01	.2749E+00	.4113E-01	.1279E-02	.0000E+00	.0000E+00	.0000E+00	.1766E+04
7	.8941E-02	.7521E-03	.1979E-06	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.9694E+00
8	.2288E+02	.7360E+01	.1344E+01	.4071E+00	.2143E-01	.0000E+00	.0000E+00	.0000E+00	.3293E+04
9	.1672E+02	.2538E+01	.2406E+00	.3114E-01	.1226E-02	.0000E+00	.0000E+00	.0000E+00	.1967E+04
10	.1224E+02	.4730E+00	.7201E-01	.1142E-01	.4443E-03	.0000E+00	.0000E+00	.0000E+00	.1284E+04
11	.3283E+01	.4152E+00	.7231E-01	.1141E-01	.4439E-03	.0000E+00	.0000E+00	.0000E+00	.3825E+03
12	.1027E+02	.1604E+01	.2226E+00	.6446E-01	.2537E-02	.0000E+00	.0000E+00	.0000E+00	.1232E+04
13	.4847E+01	.7098E+00	.8449E-01	.1957E-01	.1141E-02	.0000E+00	.0000E+00	.0000E+00	.5716E+03

MEAN	.9449E+01	.1721E+01	.2568E+00	.6514E-01	.3166E-02	.0000E+00	.0000E+00	.0000E+00	.1107E+04
S.D.	.7968E+01	.2322E+01	.4204E+00	.1299E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.9841E+03

NORTH HEAD NODE 1, MEAN WATER LEVEL

NEGATIVE SEDIMENT TRANSPORT RATES (counter clockwise wrt. beach normal)

Model	B(1)	B(2)	B(3)	B(4)	B(5)	B(6)	B(7)	B(8)	Total Transport (cu.m./yr.)
1									.3749E+05
2									.8609E+03
3									.4516E+05
4	.2800E-06	.1629E+01	.2501E+01	.1655E+01	.5025E+00	.5765E-02	.8759E-21	.0000E+00	.9180E+03
5	.1560E+03	.2198E+03	.1465E+03	.9548E+02	.4162E+02	.1079E+02	.2385E+01	.4709E+00	.8855E+05
7	.8054E+00	.3739E+02	.4261E+02	.3048E+02	.1114E+02	.1428E+01	.8217E-01	.1509E-02	.1797E+05
8	.2178E+03	.4898E+03	.3769E+03	.2658E+03	.1287E+03	.4035E+02	.1176E+02	.3792E+01	.2208E+06
9	.2117E+03	.5242E+03	.3864E+03	.2535E+03	.1030E+03	.2293E+02	.4264E+01	.7382E+00	.2038E+06
10	.3001E+03	.1286E+03	.6148E+02	.3595E+02	.1476E+02	.3794E+01	.9340E+00	.1952E+00	.6278E+05
11	.9206E+02	.5646E+02	.3850E+02	.2663E+02	.1298E+02	.3800E+01	.9331E+00	.1950E+00	.2945E+05
12	.1077E+03	.1380E+03	.8663E+02	.5478E+02	.2069E+02	.4816E+01	.9949E+00	.2687E+00	.5300E+05
13	.6733E+02	.2047E+03	.1524E+03	.9798E+02	.3729E+02	.7074E+01	.1135E+01	.2117E+00	.7661E+05

MEAN	.1282E+03	.2001E+03	.1438E+03	.9580E+02	.4128E+02	.1055E+02	.2499E+01	.6526E+00	.6979E+05
S.D.	.1021E+03	.1887E+03	.1434E+03	.9806E+02	.4482E+02	.1309E+02	.3708E+01	.1199E+01	.7196E+05

NORTH HEAD NODE 1, MEAN WATER LEVEL

CUMULATIVE DISTRIBUTION OF NET SEDIMENT TRANSPORT (cu.m./yr.)

Model	B(1)	B(2)	B(3)	B(4)	B(5)	B(6)	B(7)	B(8)
4	-.2800E-04	-.1629E+03	-.5380E+03	-.7863E+03	-.9169E+03	-.9180E+03	-.9180E+03	-.9180E+03
5	-.1412E+05	-.3586E+05	-.5780E+05	-.7211E+05	-.8293E+05	-.8480E+05	-.8568E+05	-.8679E+05
7	-.7964E+02	-.3819E+04	-.1021E+05	-.1478E+05	-.1768E+05	-.1794E+05	-.1796E+05	-.1797E+05
8	-.1949E+05	-.6773E+05	-.1241E+06	-.1639E+06	-.1973E+06	-.2046E+06	-.2085E+06	-.2175E+06
9	-.1950E+05	-.7166E+05	-.1296E+06	-.1676E+06	-.1946E+06	-.1987E+06	-.2001E+06	-.2019E+06
10	-.2879E+05	-.4160E+05	-.5081E+05	-.5620E+05	-.6004E+05	-.6072E+05	-.6104E+05	-.6150E+05
11	-.8878E+04	-.1448E+05	-.2025E+05	-.2424E+05	-.2761E+05	-.2830E+05	-.2861E+05	-.2907E+05
12	-.9746E+04	-.2338E+05	-.3635E+05	-.4455E+05	-.4993E+05	-.5080E+05	-.5113E+05	-.5177E+05
13	-.6249E+04	-.2665E+05	-.4949E+05	-.6419E+05	-.7388E+05	-.7516E+05	-.7554E+05	-.7604E+05

MEAN	-.1187E+05	-.3170E+05	-.5323E+05	-.6759E+05	-.7832E+05	-.8022E+05	-.8106E+05	-.8260E+05
S.D.	.9568E+04	.2543E+05	.4594E+05	.6030E+05	.7168E+05	.7388E+05	.7494E+05	.7713E+05

NORTH HEAD NODE 1, MEAN WATER LEVEL

PERCENTAGE DISTRIBUTION OF NET SEDIMENT TRANSPORT

Model	B(1)	B(2)	B(3)	B(4)	B(5)	B(6)	B(7)	B(8)
4	.00	25.88	39.75	26.30	7.99	.09	.00	.00
5	21.54	33.17	22.31	14.56	6.35	1.65	.36	.07
7	.64	30.17	34.39	24.59	8.99	1.15	.07	.00
8	12.97	32.10	24.99	17.66	8.56	2.68	.78	.25
9	13.10	35.06	25.95	17.03	6.98	1.54	.29	.05
10	54.01	24.04	11.52	6.74	2.77	.71	.18	.04
11	30.98	24.60	16.87	11.69	5.70	1.67	.41	.09
12	24.26	33.95	21.51	13.62	5.15	1.20	.25	.07
13	11.11	36.26	27.08	17.42	6.63	1.26	.20	.04

MEAN	19.62	30.58	24.93	16.62	6.57	1.33	.28	.07
S.D.	17.63	4.66	8.50	6.06	1.91	.71	.23	.00

NH-46

NORTH HEAD NODE 2, MEAN WATER LEVEL

NEGATIVE SEDIMENT TRANSPORT RATES (counter clockwise wrt. beach normal)

Model	B(1)	B(2)	B(3)	B(4)	B(5)	B(6)	B(7)	B(8)	B(9)	B(10)	B(11)	Total Transport (cu. m./yr.)
1												.1187E+06
2												.1423E+05
3												.1438E+06
4	.2149E+08	.6965E+02	.1147E+03	.8307E+02	.3499E+02	.9541E+01	.2830E+01	.8441E-01	.5837E-09	.8880E+00	.8880E+00	.1298E+05
5	.4872E+03	.1244E+04	.1279E+04	.8152E+03	.3694E+03	.1336E+03	.4241E+02	.1273E+02	.3774E+01	.1185E+01	.5639E+00	.1735E+06
7	.8397E+01	.3580E+03	.7818E+03	.7749E+03	.3882E+03	.1192E+03	.2497E+02	.3596E+01	.3453E+00	.2825E-01	.3629E-02	.1152E+06
8	.5692E+03	.2784E+04	.3339E+04	.2426E+04	.1182E+04	.4572E+03	.1592E+03	.5669E+02	.2222E+02	.8884E+01	.4453E+01	.4753E+06
9	.6771E+03	.3502E+04	.4274E+04	.2958E+04	.1326E+04	.4409E+03	.1221E+03	.3186E+02	.7983E+01	.2876E+01	.1829E+01	.5464E+06
10	.6479E+03	.4143E+03	.3890E+03	.1579E+03	.7183E+02	.2870E+02	.1830E+02	.3568E+01	.1145E+01	.3587E+00	.1799E+00	.6818E+05
11	.1858E+03	.1925E+03	.1984E+03	.1341E+03	.7829E+02	.3884E+02	.1112E+02	.3764E+01	.1282E+01	.3583E+00	.1796E+00	.3609E+05
12	.2638E+03	.8269E+03	.8282E+03	.4935E+03	.2878E+03	.6907E+02	.1990E+02	.5518E+01	.1676E+01	.4986E+00	.2324E+00	.1857E+06
13	.2557E+03	.1559E+04	.1984E+04	.1377E+04	.5972E+03	.1849E+03	.4569E+02	.1883E+02	.2272E+01	.5898E+00	.2746E+00	.2446E+06

MEAN	.3349E+03	.1207E+04	.1456E+04	.1825E+04	.4719E+03	.1637E+03	.4863E+02	.1412E+02	.4584E+01	.1534E+01	.7684E+00	.1711E+06
S.D.	.2568E+03	.1197E+04	.1472E+04	.1848E+04	.4887E+03	.1714E+03	.5489E+02	.1843E+02	.7868E+01	.2888E+01	.1418E+01	.1727E+06

NORTH HEAD NODE 2, MEAN WATER LEVEL

CUMULATIVE DISTRIBUTION OF NET SEDIMENT TRANSPORT (cu. m./yr.)

Model	B(1)	B(2)	B(3)	B(4)	B(5)	B(6)	B(7)	B(8)	B(9)	B(10)	B(11)
4	-.1874E+02	-.1484E+04	-.4845E+04	-.8999E+04	-.1215E+05	-.1282E+05	-.1298E+05	-.1298E+05	-.1298E+05	-.1298E+05	-.1298E+05
5	-.1932E+05	-.4487E+05	-.8241E+05	-.1232E+06	-.1564E+06	-.1658E+06	-.1692E+06	-.1788E+06	-.1788E+06	-.1711E+06	-.1723E+06
7	-.4187E+03	-.7418E+04	-.3887E+05	-.6962E+05	-.1846E+06	-.1129E+06	-.1149E+06	-.1151E+06	-.1152E+06	-.1152E+06	-.1152E+06
8	-.2692E+05	-.8878E+05	-.1888E+06	-.3821E+06	-.4885E+06	-.4485E+06	-.4532E+06	-.4572E+06	-.4614E+06	-.4641E+06	-.4734E+06
9	-.3263E+05	-.1825E+06	-.2387E+06	-.3786E+06	-.4979E+06	-.5288E+06	-.5386E+06	-.5487E+06	-.5422E+06	-.5429E+06	-.5458E+06
10	-.3151E+05	-.3977E+05	-.4983E+05	-.5693E+05	-.6348E+05	-.6548E+05	-.6623E+05	-.6648E+05	-.6678E+05	-.6688E+05	-.6718E+05
11	-.9854E+04	-.1288E+05	-.1883E+05	-.2553E+05	-.3186E+05	-.3396E+05	-.3485E+05	-.3511E+05	-.3534E+05	-.3545E+05	-.3582E+05
12	-.1245E+05	-.2892E+05	-.5375E+05	-.7842E+05	-.9713E+05	-.1828E+06	-.1836E+06	-.1839E+06	-.1843E+06	-.1844E+06	-.1849E+06
13	-.1242E+05	-.4356E+05	-.1831E+06	-.1719E+06	-.2257E+06	-.2386E+06	-.2423E+06	-.2438E+06	-.2434E+06	-.2436E+06	-.2442E+06

MEAN	-.1688E+05	-.4814E+05	-.8381E+05	-.1358E+06	-.1775E+06	-.1898E+06	-.1929E+06	-.1938E+06	-.1947E+06	-.1952E+06	-.1968E+06
S.D.	.1235E+05	.3355E+05	.7643E+05	.1276E+06	.1784E+06	.1822E+06	.1863E+06	.1874E+06	.1885E+06	.1891E+06	.1911E+06

NORTH HEAD NODE 2, MEAN WATER LEVEL

PERCENTAGE DISTRIBUTION OF NET SEDIMENT TRANSPORT

Model	B(1)	B(2)	B(3)	B(4)	B(5)	B(6)	B(7)	B(8)	B(9)	B(10)	B(11)
4	.07	22.16	36.58	26.43	11.13	3.84	.65	.83	.88	.88	.88
5	9.83	28.98	29.86	19.84	8.63	3.12	.99	.38	.89	.83	.81
7	.34	14.28	31.89	31.61	15.84	4.86	1.82	.15	.81	.88	.88
8	4.95	24.71	38.67	22.38	18.86	4.28	1.46	.52	.28	.88	.84
9	4.98	26.26	32.11	22.23	9.96	3.31	.92	.23	.86	.82	.81
10	38.76	25.48	18.99	9.71	4.42	1.77	.63	.22	.87	.82	.81
11	22.84	23.28	24.13	16.32	8.55	3.66	1.35	.46	.15	.84	.82
12	9.23	38.51	38.68	18.29	7.78	2.56	.74	.28	.86	.82	.81
13	4.14	25.92	33.82	22.93	9.94	3.88	.76	.17	.84	.81	.88

MEAN	18.38	24.68	29.76	28.98	9.67	3.29	.95	.25	.88	.82	.81
S.D.	12.58	4.65	5.19	6.22	3.87	.98	.38	.15	.88	.88	.88

Pauline Cove Data Package

Pauline Cove

	Page
A. Description of Site	PC-1
B. Site Plan showing nodes	PC-2
C. Data	
1. Deep Water Wave Statistics (1970-1983)	
Scatter Diagram	PC-3
Weibull Longterm Distribution of Wave Heights (Plot and Analysis)	PC-4
Wave Energy Distribution	PC-7
Wave Height Exceedence and Wave Period Exceedence	PC-9
Wave Period Occurrence	PC-10
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Node 1 at 0.5 m above CHS Datum	PC-22
Node 2 at 0.5 m above CHS Datum	PC-26

Pauline Cove

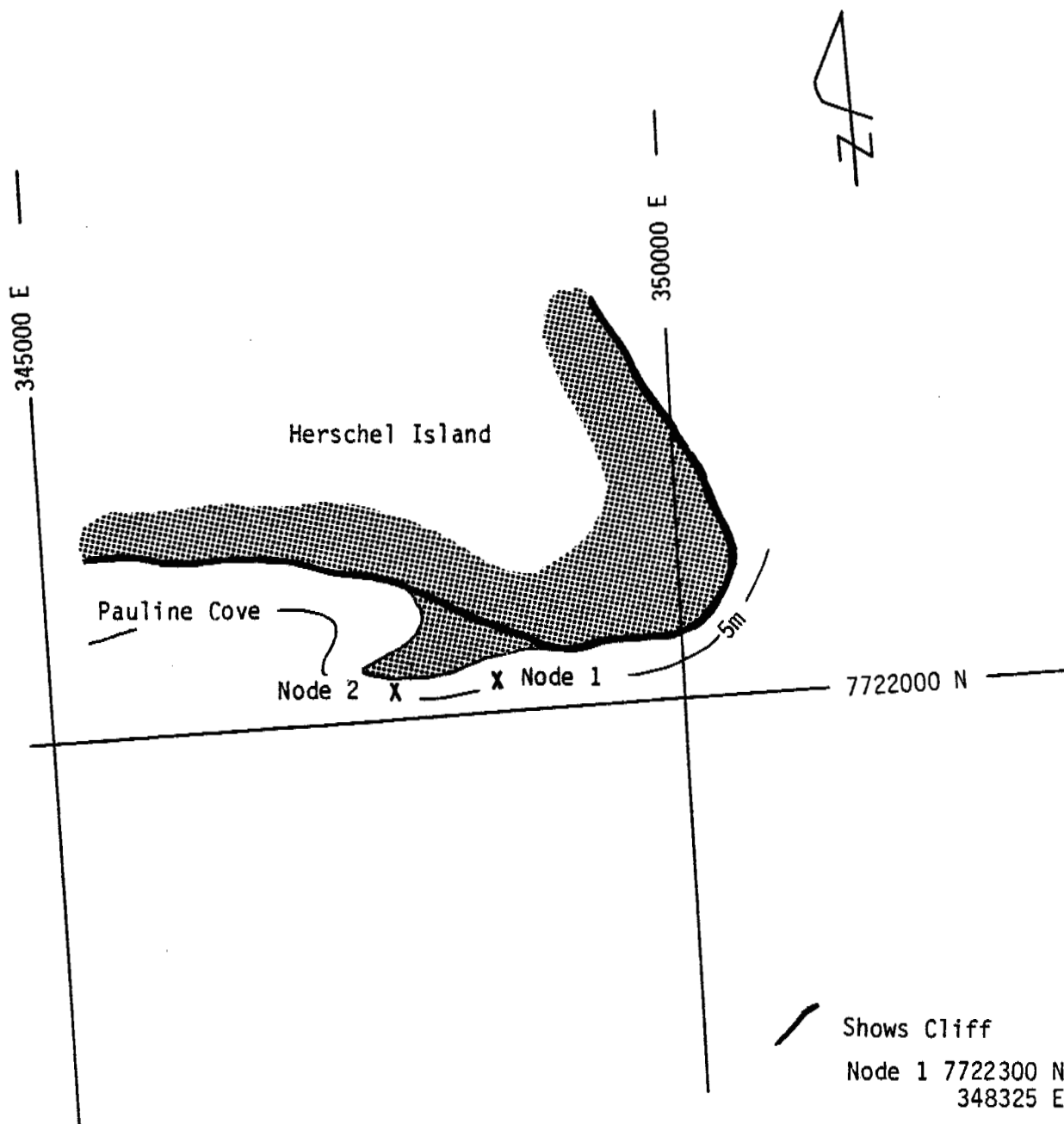
A. Description of Site

This site is located on the exposed south-facing headland outside the cove by which it is named. See Figure 2.5.

Again there is no documentary evidence. However, it appears that there is a comparatively narrow, coarse-grained beach at the foot of a cliff. (Forbes, private communication).

Nearshore bathymetry was inferred from CHS field sheets.

There was insufficient data to apply the sediment transport models at the Pauline Cove site.



Universal Transverse Mercator Projection
Zone 7

1000 0 1000 2000 3000

Scale
in
Metres

BEAUFORT SEA COASTAL SEDIMENT STUDY

Pauline Cove: Site Plan Showing Nodes

Date: 2 May 85

Scales as shown

Checked by:

Keith Philpott
Consulting Limited

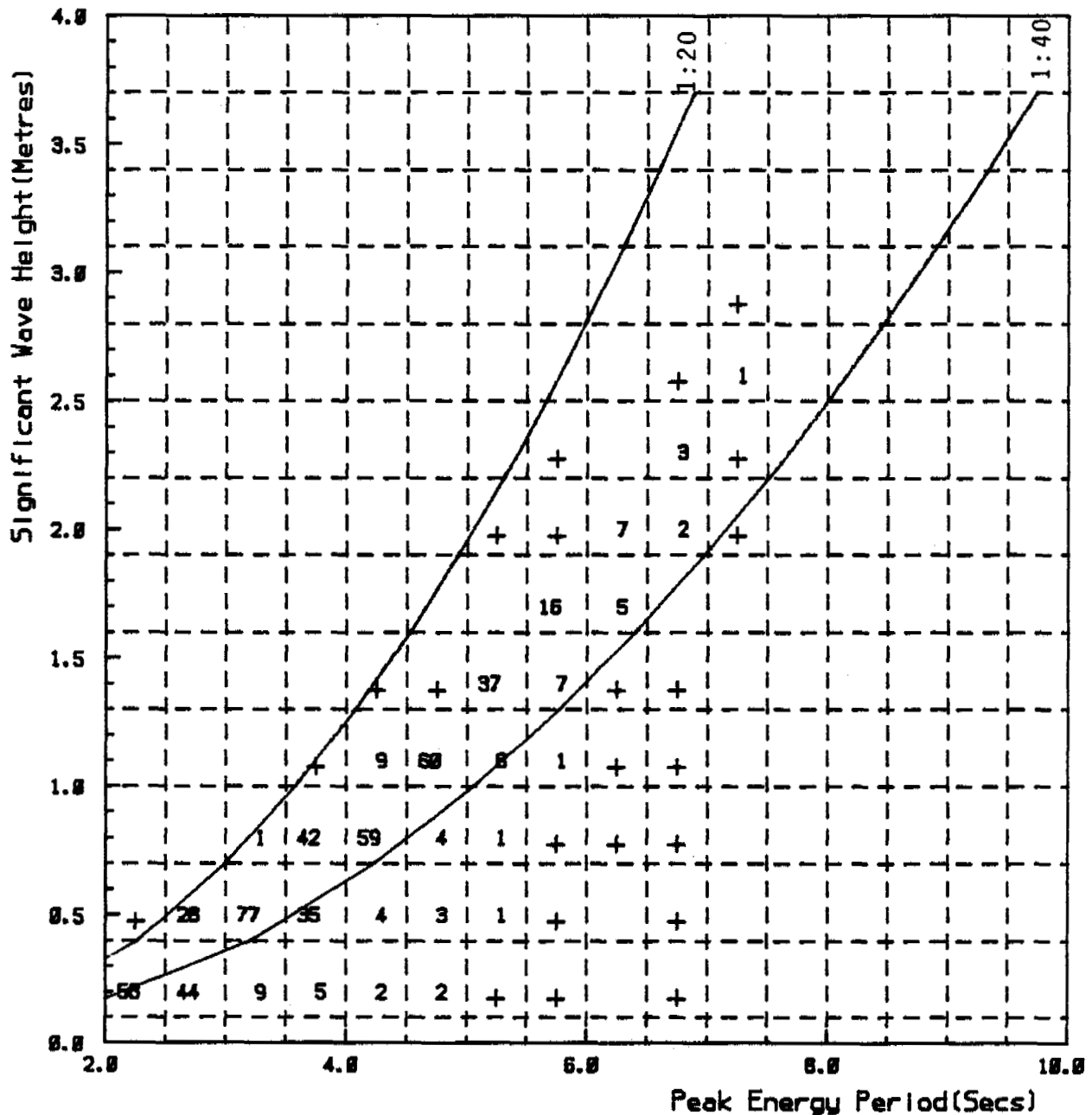
BEAUFORT SEA COASTAL SEDIMENT STUDY

DEEPWATER WAVE STATISTICS - PAULINE COVE

WAVES 2/7/70 TO 28/9/83

SEASON: Summer, Fall

KEITH PHILPOTT CONSULTING LTD
P.O. BOX 938
THORNHILL
ONTARIO L3T 4A5



Direction Limits: 8.0 TO 360.0

Values in parts per : 1000

Calms: 40.2 %

+- Values less than 1 ppt

Dates: 2/7/78 to 28/9/83

Season: Summer, Fall

Total No. of Records: 35272

Waves Hindcast Using Wind Data from Tuktoyaktuk N.W.T.

BEAUFORT SEA COASTAL SEDIMENT STUDY

Pauline Cove: Scatter Diagram for Deep Water Wave Data
 1970 - 1983

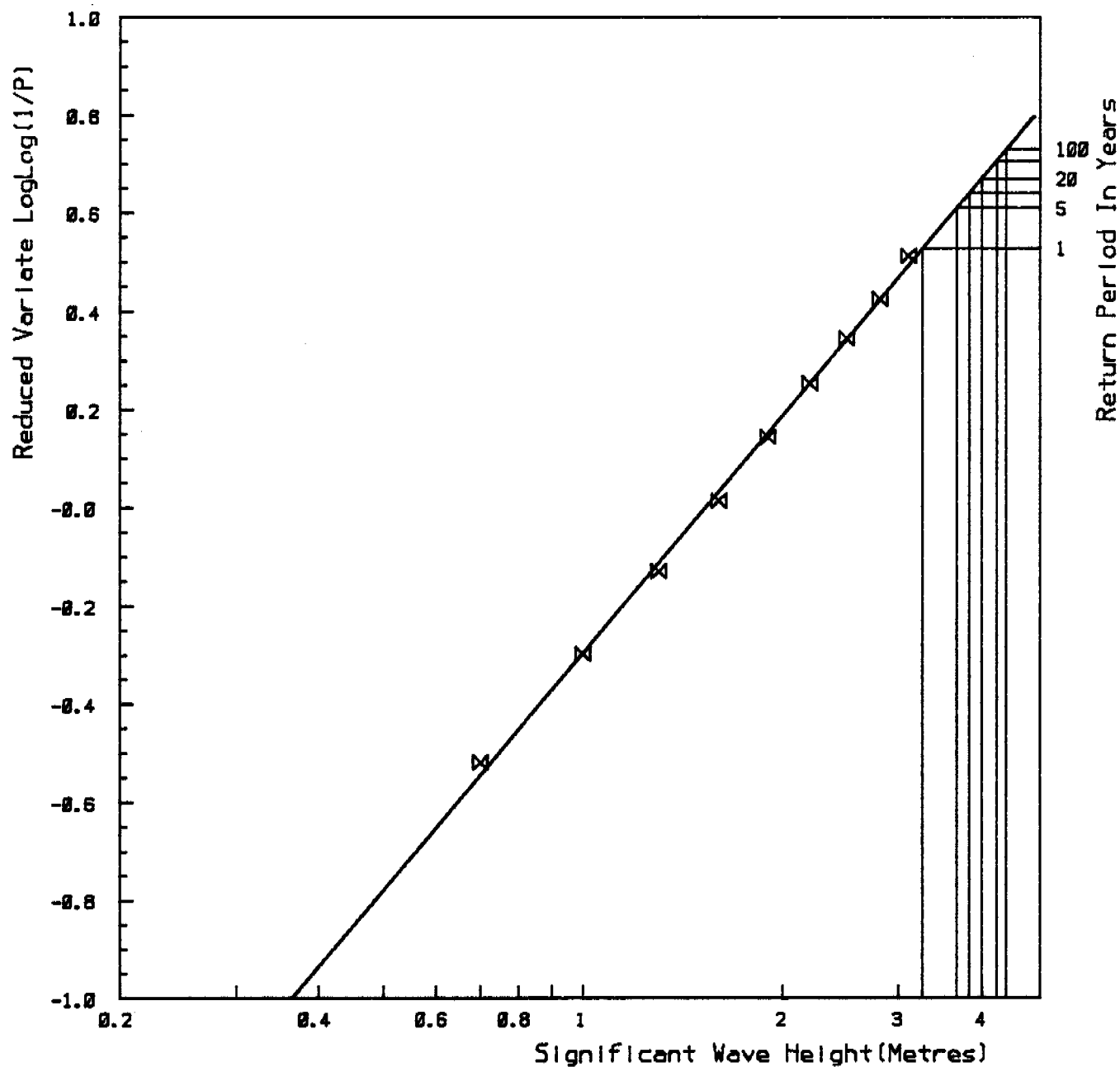
Date: 9 Jan 85

Scale as shown

Checked by:

Keith Philpott
 Consulting Limited

FIGURE



Direction Limits: 0.0 TO 360.0

Calms: 35.3 %

Dates: 2/7/70 to 28/9/83

Season: Summer, Fall

Total No. of Records: 32568

Waves Hindcast Using Data from Tuktoyaktuk N.W.T.

BEAUFORT SEA COASTAL SEDIMENT STUDY

Pauline Cove: Weibull Long Term Distribution of
Wave Heights

Date: 18 Mar 85

Scales as shown

Checked by:

Keith Philpott

Consulting Limited

PC-5
Pauline Cove BEAUFORT SEA COASTAL SEDIMENT STUDY

WAVES 2/ 7/70 TO 28/ 9/83

SEASON: Summer, Fall

WEIBULL PROBABILITY ANALYSIS

WHT LIMIT	CUM TOTAL	CUM PROB(P)	LOGLOG(1./P(H))	LOG(WHT)
< .4	32568	.999969	-4.874292	-.397940
< .7	16218	.497956	-.518634	-.154902
< 1.0	10195	.313028	-.297210	.000000
< 1.3	5917	.181676	-.130356	.113943
< 1.6	3031	.093064	.013351	.204120
< 1.9	1315	.040376	.144225	.278754
< 2.2	530	.016273	.252496	.342423
< 2.5	200	.006141	.344741	.397940
< 2.8	71	.002180	.425134	.447158
< 3.1	18	.000553	.512889	.491362

LEAST SQUARES CURVE FIT ON LOGLOG(1/(1-P))

LOG(WHT)	LOGLOG(1./P(H))	CURVE FIT	RESIDUAL
-.39794	-4.87429	-.46989	-19.08166
-.15490	-.51863	.15655	104.85570
.00000	-.29721	.18944	54.68193
.11394	-.13036	.21420	25.96816
.20412	.01335	.23553	7.50116
.27875	.14422	.25496	-5.33183
.34242	.25250	.27103	-15.15925
.39794	.34474	.28472	-22.94901
.44716	.42513	.29665	-29.26816
.49136	.51289	.30967	-34.18676

SLOPE= .14842 INTERCEPT= .23355 CORR COEFF= .83171

PREDICTED WAVE HEIGHTS FOR GIVEN RETURN PERIODS

RETURN PERIOD(YEARS)	WAVE HEIGHT(HS)
1.0	2.1
5.0	2.1
10.0	2.1
20.0	2.2
50.0	2.2
100.0	2.2

AVERAGE NUMBER OF RECORDS PER YEAR= 2326.3

1 GROUPS TO BE OMITTED FROM NEXT FIT:

< .4 32568

LEAST SQUARES CURVE FIT ON LOGLOG(1/(1-P))

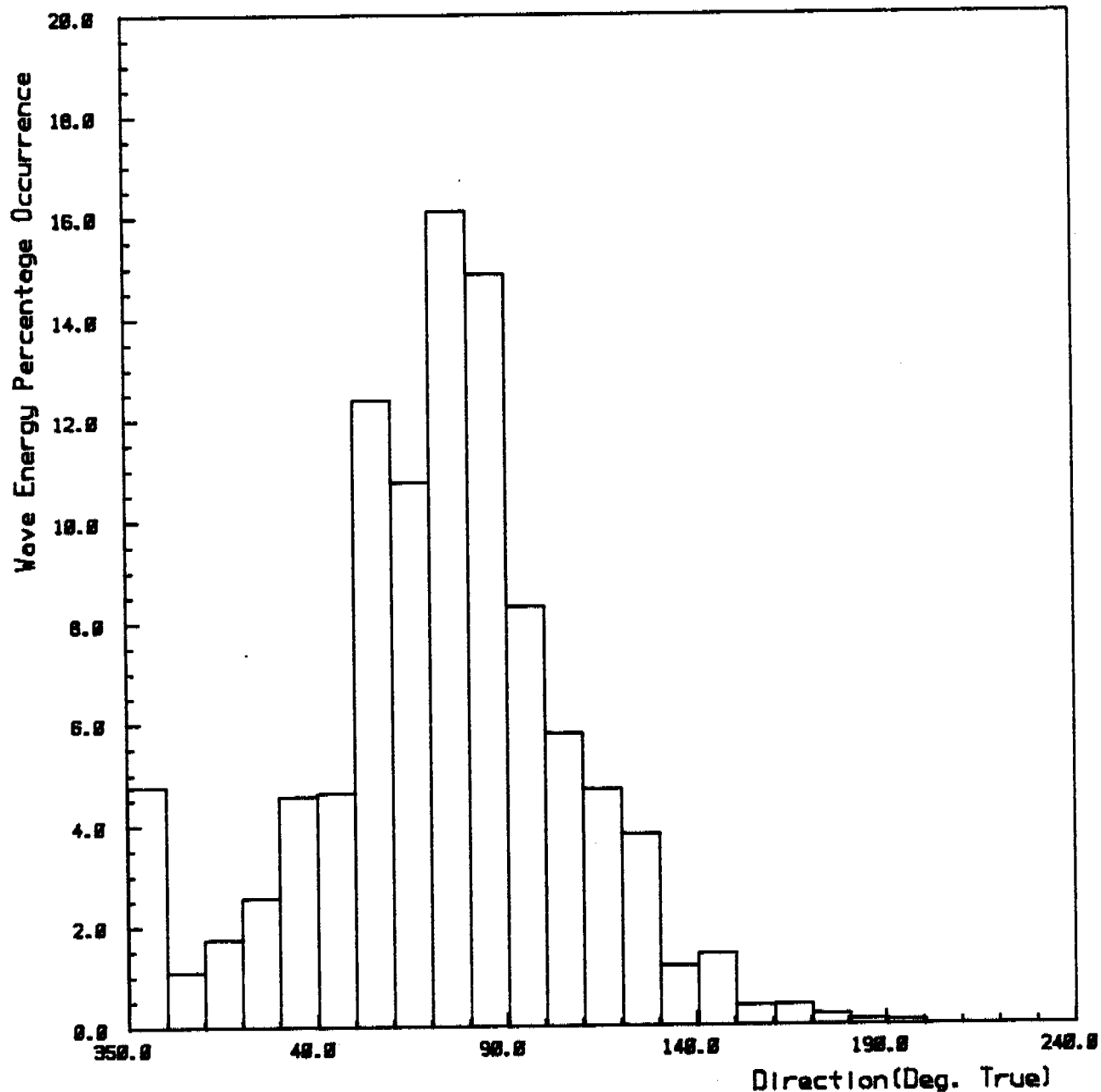
LOG(WHT)	LOGLOG(1./P(H))	CURVE FIT	RESIDUAL
-.15490	-.51883	-.13941	3.63089
.00000	-.29721	-.00128	-.29534
.11394	-.13036	.10271	-2.55384
.20412	.01335	.19227	-2.69077
.27875	.14422	.27384	-1.12455
.34242	.25250	.34132	-.25302
.39794	.34474	.39881	.20158
.44716	.42513	.44892	.40652
.49136	.51289	.50361	2.86125

SLOPE= .62325 INTERCEPT= .18395 CORR COEFF = .99908

PREDICTED WAVE HEIGHTS FOR GIVEN RETURN PERIODS

RETURN PERIOD(YEARS)	WAVE HEIGHT(HS)
1.0	3.3
5.0	3.7
10.0	3.8
20.0	4.0
50.0	4.2
100.0	4.4

AVERAGE NUMBER OF RECORDS PER YEAR= 2326.3



Direction Limits: 350.0 TO 270.0

Calms: 40.2 %

Dates: 2/7/78 to 28/9/83

Season: Summer, Fall

Total No. of Records: 35272

Waves Hindcast Using Wind Data from Tuktoyaktuk N.W.T.

BEAUFORT SEA COASTAL SEDIMENT STUDY

Pauline Cove: Deep Water Wave Energy Distribution

Date: 9 Jan 85

Scales as shown

Checked by:

Keith Philpott
Consulting Limited

BEAUFORT SEA COASTAL SEDIMENT STUDY

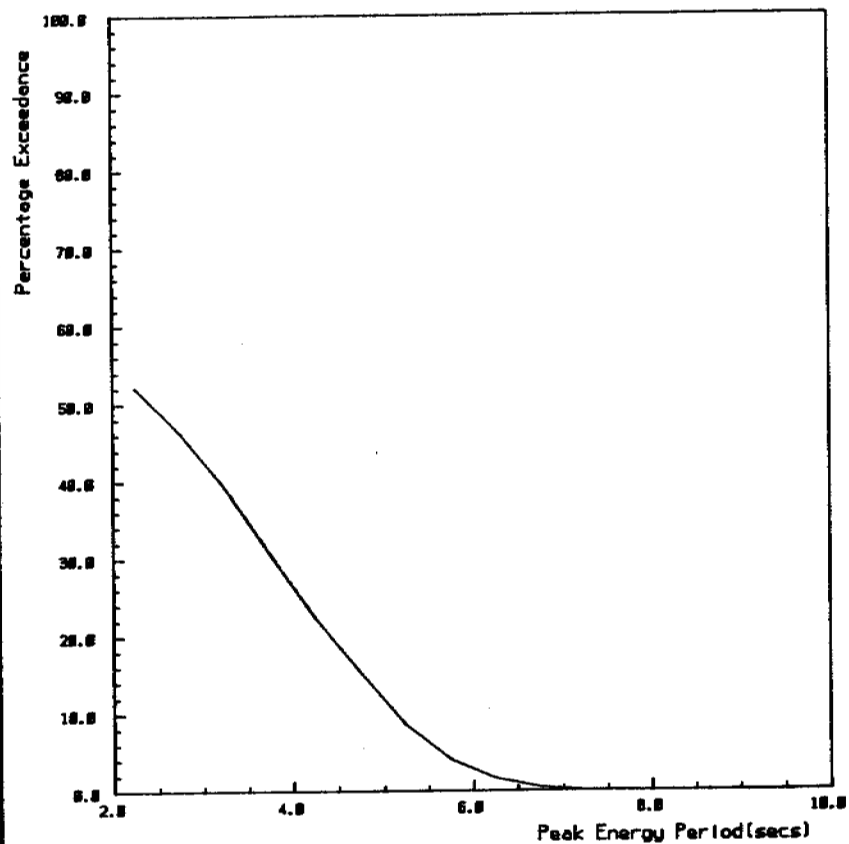
PAULINE COVE

WAVES 2/ 7/70 TO 28/ 9/83
-----SEASON: Summer, Fall

PERCENTAGE WAVE POWER DISTRIBUTION

DIRECTION SECTOR	PERCENTAGE FREQUENCY	MEAN POWER (KW)	PERCENTAGE ENERGY
350. - 360.	4.60	2.14	4.77
360. - 10.	2.42	.94	1.10
10. - 20.	3.35	1.07	1.75
20. - 30.	4.46	1.19	2.57
30. - 40.	4.93	1.91	4.56
40. - 50.	4.34	2.21	4.64
50. - 60.	6.80	3.76	12.40
60. - 70.	8.65	2.57	10.76
70. - 80.	9.15	3.63	16.11
80. - 90.	12.00	2.56	14.88
90. - 100.	7.95	2.16	8.31
100. - 110.	6.86	1.74	5.79
110. - 120.	5.37	1.81	4.70
120. - 130.	4.64	1.69	3.81
130. - 140.	3.24	.75	1.18
140. - 150.	3.71	.80	1.43
150. - 160.	1.83	.44	.39
160. - 170.	2.20	.39	.41
170. - 180.	1.51	.28	.21
180. - 190.	1.06	.23	.12
190. - 200.	.77	.28	.10
200. - 210.	.16	.15	.01
210. - 220.	.00	.00	.00
220. - 230.	.00	.00	.00
230. - 240.	.00	.00	.00
240. - 250.	.00	.00	.00
250. - 260.	.00	.00	.00
260. - 270.	.00	.00	.00

FIGURE

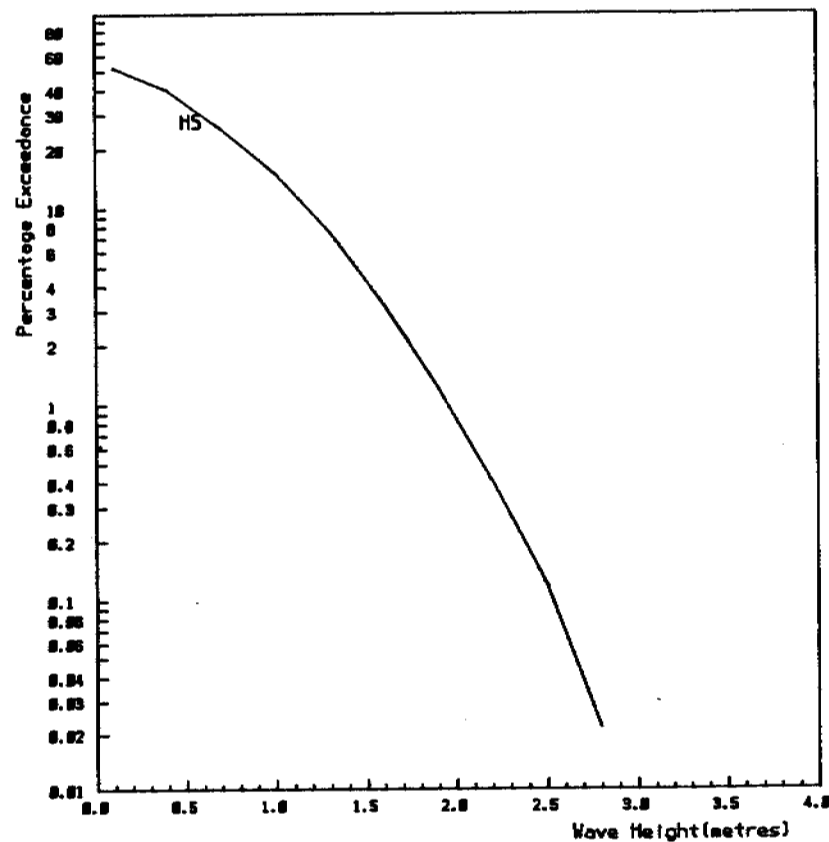


BEAUFORT SEA COASTAL SEDIMENT STUDY

 Pauline Cove: Deep Water Wave Period Exceedance
 1978 - 1983

 Date: 9 Jan 85
 Scales as shown
 Checked by:
 Keith Philpott
 Consulting Limited

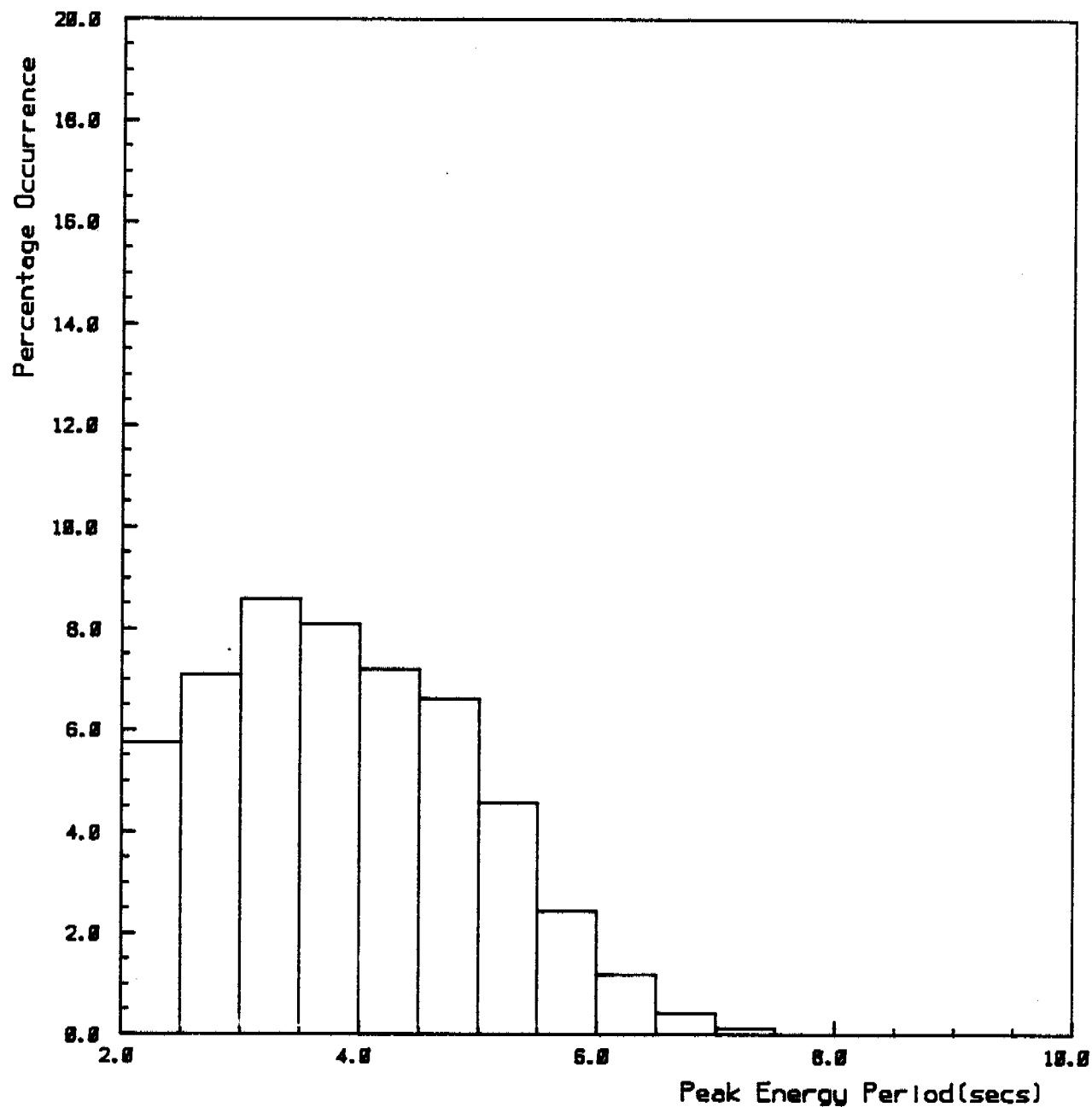
FIGURE



BEAUFORT SEA COASTAL SEDIMENT STUDY

 Pauline Cove: Deep Water Wave Height Exceedance
 1978 - 1983

 Date: 9 Jan 85
 Scales as shown
 Checked by:
 Keith Philpott
 Consulting Limited



Direction Limits: 350.0 TO 270.0

Calm: 40.2 %

Dates: 2/7/78 to 28/9/83

Season: Summer, Fall

Total No. of Records: 35272

Waves Hindcast Using Wind Data from Tuktoyaktuk N.W.T.

BEAUFORT SEA COASTAL SEDIMENT STUDY

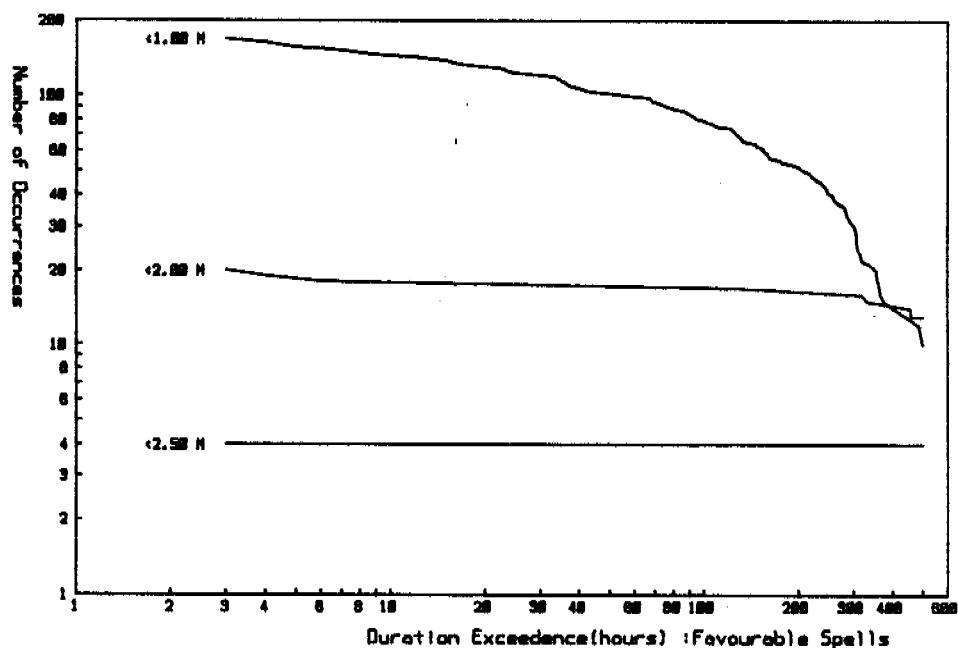
Pauline Cove: Deep Water Wave Period Occurrence
1970 - 1983

Date: 9 Jan 85

Scales as shown

Checked by:

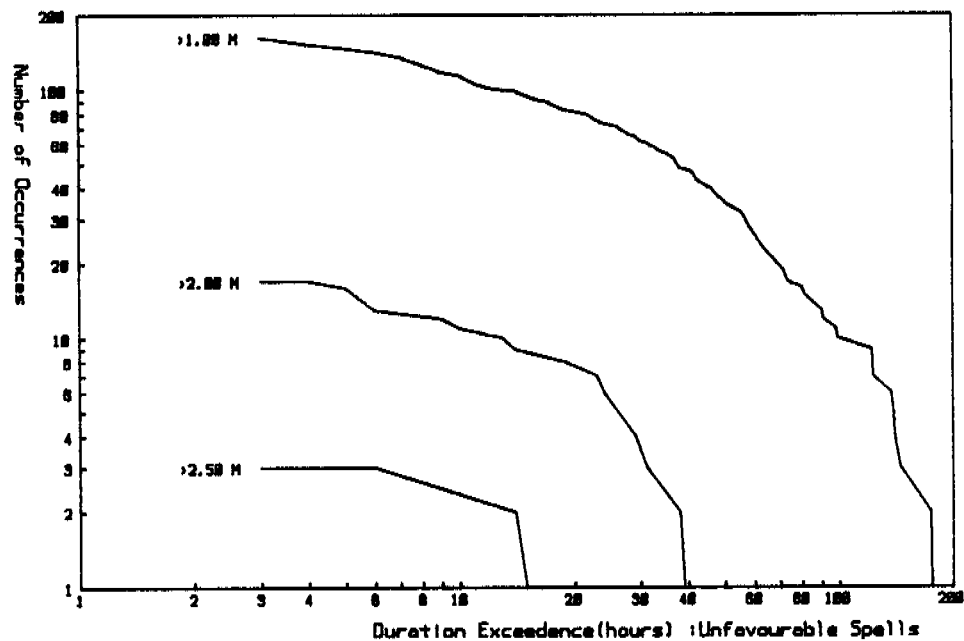
Keith Philpott
Consulting Limited



Dates: 2/7/78 to 28/9/83

Season: Summer, Fall

Waves Hindcast Using Wind Data from Tuktoyaktuk N.V.T.



Dates: 2/7/78 to 28/9/83

Season: Summer, Fall

Waves Hindcast Using Wind Data from Tuktoyaktuk N.V.T.

BEAUFORT SEA COASTAL SEDIMENT STUDY

Pauline Cove: Deepwater Wave Height Persistence
Favourable and Unfavourable Spells

Date: 17 May 85

Scales as shown

Checked by:

Keith Philpott
Consulting Limited

PAULINE COVE

BEAUFORT SEA COASTAL SEDIMENT STUDY

WAVES 2/ 7/78 TO 28/ 9/83

ALL DIRECTIONS

WAVE !	Wave Period(secs)												Total!
HT(M)													
>	12	13	14	15	16	17	18	19	20	21	22	23	-
.10!	3557!	458!	121!	24!	1!	0!	0!	0!	0!	4161!			
.40!	975!	3931!	195!	47!	2!	0!	0!	0!	0!	5150!			
.70!	0!	1492!	2180!	44!	3!	0!	0!	0!	0!	3719!			
1.00!	0!	4!	2369!	269!	9!	0!	0!	0!	0!	2651!			
1.30!	0!	0!	12!	1516!	10!	0!	0!	0!	0!	1530!			
1.60!	0!	0!	0!	558!	162!	0!	0!	0!	0!	720!			
1.90!	0!	0!	0!	0!	280!	1!	0!	0!	0!	289!			
2.20!	0!	0!	0!	2!	100!	2!	0!	0!	0!	104!			
2.50!	0!	0!	0!	0!	2!	33!	0!	0!	0!	35!			
2.80!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!			
3.10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!			
3.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!			
TOTAL!	4532!	5885!	4877!	2468!	569!	44!	0!	0!	0!	10375!			

SUMMARY :

NO. IN TOTAL SECTOR = 32568
 NO. OUTSIDE TOTAL SECTOR = 2784
 NO. OF CALMS = 14193
 TOTAL NO. OF ALL RECORDS = 32568
 PERCENTAGE CALMS = 40.2%

PAULINE COVE

BEAUFORT SEA COASTAL SEDIMENT STUDY

WAVES 2/ 7/78 TO 28/ 9/83

DIRECTION 350 TO 360

WAVE !	Wave Period(secs)												Total!
HT(M)													
>	12	13	14	15	16	17	18	19	20	21	22	23	-
.10!	211!	28!	5!	2!	0!	0!	0!	0!	0!	246!			
.40!	93!	283!	16!	2!	0!	0!	0!	0!	0!	314!			
.70!	0!	73!	88!	2!	1!	0!	0!	0!	0!	164!			
1.00!	0!	1!	37!	4!	4!	0!	0!	0!	0!	46!			
1.30!	0!	0!	2!	2!	4!	0!	0!	0!	0!	8!			
1.60!	0!	0!	0!	1!	3!	0!	0!	0!	0!	4!			
1.90!	0!	0!	0!	7!	20!	0!	0!	0!	0!	27!			
2.20!	0!	0!	0!	0!	13!	0!	0!	0!	0!	13!			
2.50!	0!	0!	0!	0!	2!	19!	0!	0!	0!	21!			
2.80!	0!	0!	0!	0!	0!	2!	0!	0!	0!	2!			
3.10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!			
3.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!			
TOTAL!	304!	305!	148!	20!	47!	21!	0!	0!	0!	845!			

DIRECTION 360 TO 10

WAVE !	Wave Period(secs)												Total!
HT(M)													
>	12	13	14	15	16	17	18	19	20	21	22	23	-
.10!	130!	8!	1!	0!	0!	0!	0!	0!	0!	139!			
.40!	39!	119!	4!	1!	0!	0!	0!	0!	0!	163!			
.70!	0!	37!	52!	0!	0!	0!	0!	0!	0!	89!			
1.00!	0!	0!	38!	4!	0!	0!	0!	0!	0!	42!			
1.30!	0!	0!	0!	7!	0!	0!	0!	0!	0!	7!			
1.60!	0!	0!	0!	4!	0!	0!	0!	0!	0!	4!			
1.90!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!			
2.20!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!			
2.50!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!			
2.80!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!			
3.10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!			
3.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!			
TOTAL!	169!	164!	95!	16!	0!	0!	0!	0!	0!	444!			

PAULINE COVE

BEAUFORT SEA COASTAL SEDIMENT STUDY

WAVES 2/ 7/78 TO 28/ 9/83

DIRECTION 10 TO 20

WAVE !	Wave Period(secs)										Total!
HT(H)!											
>	12	13	14	15	16	17	18	19	20	-	
.10!	137!	4!	0!	1!	0!	0!	0!	0!	0!	142!	
.40!	44!	204!	1!	2!	0!	0!	0!	0!	0!	251!	
.70!	0!	53!	69!	8!	0!	0!	0!	0!	0!	122!	
1.00!	0!	0!	00!	5!	0!	0!	0!	0!	0!	85!	
1.30!	0!	0!	0!	12!	0!	0!	0!	0!	0!	12!	
1.60!	0!	0!	0!	4!	0!	0!	0!	0!	0!	4!	
1.90!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
2.20!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
2.50!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
2.80!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
3.10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
3.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
TOTAL!	101!	261!	150!	24!	0!	0!	0!	0!	0!	616!	

DIRECTION 20 TO 30

WAVE !	Wave Period(secs)										Total!
HT (H)!											
>	12	13	14	15	16	17	18	19	20	-	
.10!	206!	40!	0!	3!	0!	0!	0!	0!	0!	249!	
.40!	50!	240!	1!	6!	0!	0!	0!	0!	0!	297!	
.70!	0!	77!	03!	5!	0!	0!	0!	0!	0!	165!	
1.00!	0!	0!	56!	7!	0!	0!	0!	0!	0!	63!	
1.30!	0!	0!	0!	22!	0!	0!	0!	0!	0!	22!	
1.60!	0!	0!	0!	10!	1!	0!	0!	0!	0!	11!	
1.90!	0!	0!	0!	1!	0!	0!	0!	0!	0!	9!	
2.20!	0!	0!	0!	2!	1!	0!	0!	0!	0!	3!	
2.50!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
2.80!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
3.10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
3.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
TOTAL!	256!	357!	140!	56!	10!	0!	0!	0!	0!	819!	

PAULINE COVE

BEAUFORT SEA COASTAL SEDIMENT STUDY

WAVES 2/ 7/78 TO 28/ 9/83

DIRECTION 30 TO 40

!WAVE !	Wave Period(secs)										!Total!
!INT(H)!											
!>	!2	!3	!4	!5	!6	!7	!8	!9	!10!	!-	
! .10!	192!	21!	2!	0!	1!	0!	0!	0!	0!	216!	
! .40!	61!	220!	14!	0!	2!	0!	0!	0!	0!	305!	
! .70!	0!	04!	120!	4!	2!	0!	0!	0!	0!	210!	
! 1.00!	0!	1!	66!	20!	2!	0!	0!	0!	0!	89!	
! 1.30!	0!	0!	1!	39!	4!	0!	0!	0!	0!	44!	
! 1.60!	0!	0!	0!	5!	4!	0!	0!	0!	0!	9!	
! 1.90!	0!	0!	0!	0!	8!	1!	0!	0!	0!	9!	
! 2.20!	0!	0!	0!	0!	13!	2!	0!	0!	0!	15!	
! 2.50!	0!	0!	0!	0!	0!	5!	0!	0!	0!	5!	
! 2.80!	0!	0!	0!	0!	0!	4!	0!	0!	0!	4!	
! 3.10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
! 3.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
!TOTAL!	253!	334!	203!	68!	36!	12!	0!	0!	0!	986!	

DIRECTION 40 TO 50

WAVE !	Wave Period(secs)										Total!
HT(H)!											
>	12	13	14	15	16	17	18	19	20	-	
.10!	171!	3!	1!	0!	0!	0!	0!	0!	0!	175!	
.40!	36!	225!	0!	0!	0!	0!	0!	0!	0!	261!	
.70!	0!	91!	67!	0!	0!	0!	0!	0!	0!	158!	
1.00!	0!	0!	103!	4!	0!	0!	0!	0!	0!	107!	
1.30!	0!	0!	2!	37!	2!	0!	0!	0!	0!	41!	
1.60!	0!	0!	0!	11!	6!	0!	0!	0!	0!	17!	
1.90!	0!	0!	0!	0!	16!	0!	0!	0!	0!	16!	
2.20!	0!	0!	0!	0!	11!	0!	0!	0!	0!	11!	
2.50!	0!	0!	0!	0!	0!	9!	0!	0!	0!	9!	
2.80!	0!	0!	0!	0!	0!	2!	0!	0!	0!	2!	
3.10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
3.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
TOTAL!	207!	319!	173!	52!	35!	11!	0!	0!	0!	797!	

PAULINE COVE

BEAUFORT SEA COASTAL SEDIMENT STUDY

WAVES 2/ 7/78 TO 28/ 9/83

DIRECTION 50 TO 60

WAVE !	Wave Period(secs)												Total!
HT(M)!													
	>	12	13	14	15	16	17	18	19	20	21	22	
1.10!	155!	14!	1!	0!	0!	0!	0!	0!	0!	0!	0!	0!	170!
1.40!	46!	237!	4!	0!	0!	0!	0!	0!	0!	0!	0!	0!	287!
1.70!	0!	61!	144!	0!	0!	0!	0!	0!	0!	0!	0!	0!	205!
1.80!	0!	0!	164!	35!	0!	0!	0!	0!	0!	0!	0!	0!	199!
1.30!	0!	0!	1!	137!	0!	0!	0!	0!	0!	0!	0!	0!	138!
1.60!	0!	0!	0!	83!	48!	0!	0!	0!	0!	0!	0!	0!	131!
1.90!	0!	0!	0!	0!	95!	0!	0!	0!	0!	0!	0!	0!	95!
2.20!	0!	0!	0!	0!	25!	0!	0!	0!	0!	0!	0!	0!	25!
2.50!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.80!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
TOTAL!	281!	312!	314!	255!	168!	0!	0!	0!	0!	0!	0!	0!	1250!

DIRECTION 60 TO 70

WAVE !	Wave Period(secs)												Total!
HT(M)!													
	>	12	13	14	15	16	17	18	19	20	21	22	
1.10!	177!	41!	27!	3!	0!	0!	0!	0!	0!	0!	0!	0!	248!
1.40!	62!	298!	37!	14!	0!	0!	0!	0!	0!	0!	0!	0!	411!
1.70!	0!	182!	164!	14!	0!	0!	0!	0!	0!	0!	0!	0!	280!
1.80!	0!	0!	222!	72!	3!	0!	0!	0!	0!	0!	0!	0!	297!
1.30!	0!	0!	0!	226!	0!	0!	0!	0!	0!	0!	0!	0!	226!
1.60!	0!	0!	0!	71!	33!	0!	0!	0!	0!	0!	0!	0!	104!
1.90!	0!	0!	0!	0!	18!	0!	0!	0!	0!	0!	0!	0!	18!
2.20!	0!	0!	0!	0!	5!	0!	0!	0!	0!	0!	0!	0!	5!
2.50!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.80!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
TOTAL!	239!	441!	458!	480!	59!	0!	0!	0!	0!	0!	0!	0!	1589!

PAULINE COVE

BEAUFORT SEA COASTAL SEDIMENT STUDY

WAVES 2/ 7/78 TO 28/ 9/83

DIRECTION 70 TO 80

WAVE !	Wave Period(secs)												Total!
HT(M)!													
	>	12	13	14	15	16	17	18	19	20	21	22	
1.10!	157!	12!	18!	9!	0!	0!	0!	0!	0!	0!	0!	0!	188!
1.40!	60!	272!	6!	11!	0!	0!	0!	0!	0!	0!	0!	0!	349!
1.70!	0!	67!	178!	18!	0!	0!	0!	0!	0!	0!	0!	0!	255!
1.80!	0!	0!	277!	46!	0!	0!	0!	0!	0!	0!	0!	0!	323!
1.30!	0!	0!	0!	246!	0!	0!	0!	0!	0!	0!	0!	0!	246!
1.60!	0!	0!	0!	193!	54!	0!	0!	0!	0!	0!	0!	0!	247!
1.90!	0!	0!	0!	0!	55!	0!	0!	0!	0!	0!	0!	0!	55!
2.20!	0!	0!	0!	0!	18!	0!	0!	0!	0!	0!	0!	0!	18!
2.50!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.80!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
TOTAL!	217!	351!	471!	515!	127!	0!	0!	0!	0!	0!	0!	0!	1681!

DIRECTION 80 TO 90

WAVE !	Wave Period(secs)												Total!
HT(M)!													
	>	12	13	14	15	16	17	18	19	20	21	22	
1.10!	286!	18!	20!	3!	0!	0!	0!	0!	0!	0!	0!	0!	327!
1.40!	69!	341!	30!	5!	0!	0!	0!	0!	0!	0!	0!	0!	445!
1.70!	0!	168!	378!	5!	0!	0!	0!	0!	0!	0!	0!	0!	535!
1.80!	0!	0!	455!	30!	0!	0!	0!	0!	0!	0!	0!	0!	485!
1.30!	0!	0!	6!	244!	0!	0!	0!	0!	0!	0!	0!	0!	250!
1.60!	0!	0!	0!	86!	12!	0!	0!	0!	0!	0!	0!	0!	98!
1.90!	0!	0!	0!	0!	51!	0!	0!	0!	0!	0!	0!	0!	51!
2.20!	0!	0!	0!	0!	14!	0!	0!	0!	0!	0!	0!	0!	14!
2.50!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.80!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
TOTAL!	355!	519!	881!	373!	77!	0!	0!	0!	0!	0!	0!	0!	2285!

PAULINE COVE

BEAUFORT SEA COASTAL SEDIMENT STUDY

WAVES 2/ 7/78 TO 28/ 9/83

DIRECTION 90 TO 100

WAVE !	Wave Period(secs)																Total!
INT(N)!																	
	>	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	
.10!	237!	13!	2!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	252!
.40!	44!	267!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	339!
.70!	0!	107!	253!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	360!
1.00!	0!	0!	220!	12!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	232!
1.30!	0!	0!	0!	226!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	226!
1.60!	0!	0!	0!	42!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	42!
1.90!	0!	0!	0!	0!	0!	9!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	9!
2.20!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.50!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.80!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
TOTAL!	301!	387!	483!	280!	9!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	1460!

DIRECTION 100 TO 110

WAVE !	Wave Period(secs)																Total!
INT(N)!																	
	>	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	
.10!	194!	35!	17!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	246!
.40!	23!	191!	28!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	242!
.70!	0!	150!	239!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	397!
1.00!	0!	0!	255!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	263!
1.30!	0!	0!	0!	90!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	90!
1.60!	0!	0!	0!	22!	1!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	23!
1.90!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.20!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.50!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.80!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
TOTAL!	217!	384!	539!	120!	1!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	1261!

PAULINE COVE

BEAUFORT SEA COASTAL SEDIMENT STUDY

WAVES 2/ 7/78 TO 28/ 9/83

DIRECTION 110 TO 120

WAVE !	Wave Period(secs)																Total!
INT(N)!																	
	>	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	
.10!	119!	37!	10!	1!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	167!
.40!	40!	231!	10!	2!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	283!
.70!	0!	112!	113!	1!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	226!
1.00!	0!	2!	164!	13!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	179!
1.30!	0!	0!	0!	120!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	120!
1.60!	0!	0!	0!	12!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	12!
1.90!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.20!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.50!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.80!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
TOTAL!	159!	382!	297!	149!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	987!

DIRECTION 120 TO 130

WAVE !	Wave Period(secs)																Total!
INT(N)!																	
	>	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	
.10!	103!	47!	11!	1!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	162!
.40!	54!	171!	17!	2!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	244!
.70!	0!	115!	86!	2!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	203!
1.00!	0!	0!	139!	5!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	144!
1.30!	0!	0!	0!	86!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	86!
1.60!	0!	0!	0!	14!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	14!
1.90!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.20!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.50!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.80!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
TOTAL!	157!	333!	253!	110!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	853!

PAULINE COVE

BEAUFORT SEA COASTAL SEDIMENT STUDY

WAVES 2/ 7/78 TO 28/ 9/83

DIRECTION 130 TO 140

WAVE !	Wave Period(secs)																		Total!
INT(N)!																			
	>	12	-3	13	-4	14	-5	15	-6	16	-7	17	-8	18	-9	19	-10	-	
.10!		169!		31!		4!		0!		0!		0!		0!		0!		204!	
.40!		32!		172!		0!		0!		0!		0!		0!		0!		212!	
.70!		0!		80!		58!		0!		0!		0!		0!		0!		130!	
1.00!		0!		0!		37!		1!		0!		0!		0!		0!		38!	
1.30!		0!		0!		0!		4!		0!		0!		0!		0!		4!	
1.60!		0!		0!		0!		0!		0!		0!		0!		0!		0!	
1.90!		0!		0!		0!		0!		0!		0!		0!		0!		0!	
2.20!		0!		0!		0!		0!		0!		0!		0!		0!		0!	
2.50!		0!		0!		0!		0!		0!		0!		0!		0!		0!	
2.80!		0!		0!		0!		0!		0!		0!		0!		0!		0!	
3.10!		0!		0!		0!		0!		0!		0!		0!		0!		0!	
3.40!		0!		0!		0!		0!		0!		0!		0!		0!		0!	
TOTAL!		201!		283!		107!		5!		0!		0!		0!		0!		590!	

DIRECTION 140 TO 150

WAVE !	Wave Period(secs)																		Total!
INT(N)!																			
	>	12	-3	13	-4	14	-5	15	-6	16	-7	17	-8	18	-9	19	-10	-	
.10!	213!	47!	7!	1!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	268!		
.40!	35!	203!	0!	2!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	240!		
.70!	0!	35!	59!	1!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	95!		
1.00!	0!	0!	49!	3!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	52!		
1.30!	0!	0!	0!	10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	10!		
1.60!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!		
1.90!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!		
2.20!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!		
2.50!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!		
2.80!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!		
3.10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!		
3.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!		
TOTAL!	240!	285!	123!	25!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	681!		

PAULINE COVE

BEAUFORT SEA COASTAL SEDIMENT STUDY

WAVES 2/ 7/78 TO 28/ 9/83

DIRECTION 150 TO 160

WAVE !	Wave Period(secs)																		Total!
INT(N)!																			
!	!	!	!	!	!	!	!	!	!	!	!	!	!	!	!	!	!	!	
!	>	12	-3	13	-4	14	-5	15	-6	16	-7	17	-8	18	-9	19	-10	-	
!	.10!	140!	14!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	154!		
!	.40!	33!	104!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	137!		
!	.70!	0!	24!	17!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	41!		
!	1.00!	0!	0!	5!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	5!		
!	1.30!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!		
!	1.60!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!		
!	1.90!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!		
!	2.20!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!		
!	2.50!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!		
!	2.80!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!		
!	3.10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!		
!	3.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!		
!	TOTAL!	173!	142!	22!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	337!		

DIRECTION 160 TO 170

WAVE !	Wave Period(secs)																	Total!
INT(N)!																		
	>	12	-3	13	-4	14	-5	15	-6	16	-7	17	-8	18	-9	19	-10	-
.10!	100!																	211!
.40!	51!																	143!
.70!	0!																	49!
1.00!	0!																	2!
1.30!	0!																	0!
1.60!	0!																	0!
1.90!	0!																	0!
2.20!	0!																	0!
2.50!	0!																	0!
2.80!	0!																	0!
3.10!	0!																	0!
3.40!	0!																	0!
TOTAL!	239!	139!	27!															405!

PAULINE COVE

BEAUFORT SEA COASTAL SEDIMENT STUDY

WAVES 2/ 7/78 TO 28/ 9/83

DIRECTION 170 TO 180

WAVE !	Wave Period(secs)										Total!
INT(H)!											
	! 2	! 3	! 4	! 5	! 6	! 7	! 8	! 9	! 10	! -	
! .10!	162!	7!	0!	0!	0!	0!	0!	0!	0!	169!	
! .40!	30!	61!	0!	0!	0!	0!	0!	0!	0!	91!	
! .70!	0!	17!	1!	0!	0!	0!	0!	0!	0!	18!	
! 1.00!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
! 1.30!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
! 1.60!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
! 1.90!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
! 2.20!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
! 2.50!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
! 2.80!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
! 3.10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
! 3.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
! TOTAL!	192!	85!	1!	0!	0!	0!	0!	0!	0!	278!	

DIRECTION 180 TO 190

WAVE !	Wave Period(secs)										Total!
INT(H)!											
	! > !	!2 !	!3 !	!4 !	!5 !	!6 !	!7 !	!8 !	!9 !	!10!	! - !
! .10!	113!	7!	0!	0!	0!	0!	0!	0!	0!	0!	120!
! .40!	34!	38!	0!	0!	0!	0!	0!	0!	0!	0!	72!
! .70!	0!	2!	0!	0!	0!	0!	0!	0!	0!	0!	2!
! 1.00!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
! 1.30!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
! 1.60!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
! 1.90!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
! 2.20!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
! 2.50!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
! 2.80!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
! 3.10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
! 3.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
! TOTAL!	147!	47!	0!	0!	0!	0!	0!	0!	0!	0!	194!

PAULINE COVE

BEAUFORT SEA COASTAL SEDIMENT STUDY

WAVES 2/ 7/78 TO 28/ 9/83

DIRECTION 190 TO 200

WAVE !	Wave Period(secs)										Total!
INT(H)!											
! > !2 !3 !4 !5 !6 !7 !8 !9 !10! - !											
! .10!	75!	0!	0!	0!	0!	0!	0!	0!	0!	0!	83!
! .40!	18!	33!	0!	0!	0!	0!	0!	0!	0!	0!	51!
! .70!	0!	7!	0!	0!	0!	0!	0!	0!	0!	0!	7!
! 1.00!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
! 1.30!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
! 1.60!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
! 1.90!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
! 2.20!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
! 2.50!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
! 2.80!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
! 3.10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
! 3.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
! TOTAL!	93!	48!	0!	0!	0!	0!	0!	0!	0!	0!	141!

DIRECTION 200 TO 210

WAVE !	Wave Period(secs)										Total!
INT(H)!											
! > !2 !3 !4 !5 !6 !7 !8 !9 !10! - !											
! .10!	22!	3!	0!	0!	0!	0!	0!	0!	0!	0!	25!
! .40!	1!	4!	0!	0!	0!	0!	0!	0!	0!	0!	5!
! .70!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
! 1.00!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
! 1.30!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
! 1.60!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
! 1.90!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
! 2.20!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
! 2.50!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
! 2.80!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
! 3.10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
! 3.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
! TOTAL!	23!	7!	0!	0!	0!	0!	0!	0!	0!	0!	30!

PAULINE COVE

BEAUFORT SEA COASTAL SEDIMENT STUDY

WAVES 2/ 7/70 TO 28/ 9/83

DIRECTION 210 TO 220

WAVE !	Wave Period(secs)										Total!
HT(H)!											
	12	13	14	15	16	17	18	19	10	11	-
.10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
.70!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
1.00!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
1.30!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
1.60!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
1.90!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.20!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.50!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.80!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
TOTAL!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!

DIRECTION 220 TO 230

WAVE !	Wave Period(secs)										Total!
HT(H)!											
	12	13	14	15	16	17	18	19	10	11	-
.10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
.70!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
1.00!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
1.30!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
1.60!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
1.90!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.20!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.50!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.80!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
TOTAL!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!

PAULINE COVE

BEAUFORT SEA COASTAL SEDIMENT STUDY

WAVES 2/ 7/70 TO 28/ 9/83

DIRECTION 230 TO 240

WAVE !	Wave Period(secs)										Total!
HT(H)!											
	12	13	14	15	16	17	18	19	10	11	-
.10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
.70!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
1.00!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
1.30!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
1.60!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
1.90!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.20!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.50!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.80!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
TOTAL!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!

DIRECTION 240 TO 250

WAVE !	Wave Period(secs)										Total!
HT(H)!											
	12	13	14	15	16	17	18	19	10	11	-
.10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
.70!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
1.00!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
1.30!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
1.60!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
1.90!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.20!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.50!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.80!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
TOTAL!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!

BEAUFORT SEA COASTAL SEDIMENT STUDY

PAULINE COVE

WAVES 2/ 7/78 TO 28/ 9/83

DIRECTION 250 TO 260

!WAVE !	Wave Period(secs)																		!Total!
!HT(N)!																			!
!	!2	!3	!3	!4	!4	!5	!5	!6	!6	!7	!7	!8	!8	!9	!9	!10	!10	!	!
! .10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
! .40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
! .70!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
! 1.00!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
! 1.30!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
! 1.60!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
! 1.90!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
! 2.20!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
! 2.50!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
! 2.80!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
! 3.10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
! 3.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
!TOTAL!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!

DIRECTION 260 TO 270

!WAVE !	Wave Period(secs)																		!Total!
!HT(N)!																			!
!	!2	!3	!3	!4	!4	!5	!5	!6	!6	!7	!7	!8	!8	!9	!9	!10	!10	!	!
! .10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
! .40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
! .70!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
! 1.00!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
! 1.30!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
! 1.60!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
! 1.90!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
! 2.20!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
! 2.50!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
! 2.80!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
! 3.10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
! 3.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
!TOTAL!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!

BEAUFORT SEA COASTAL SEDIMENT STUDY

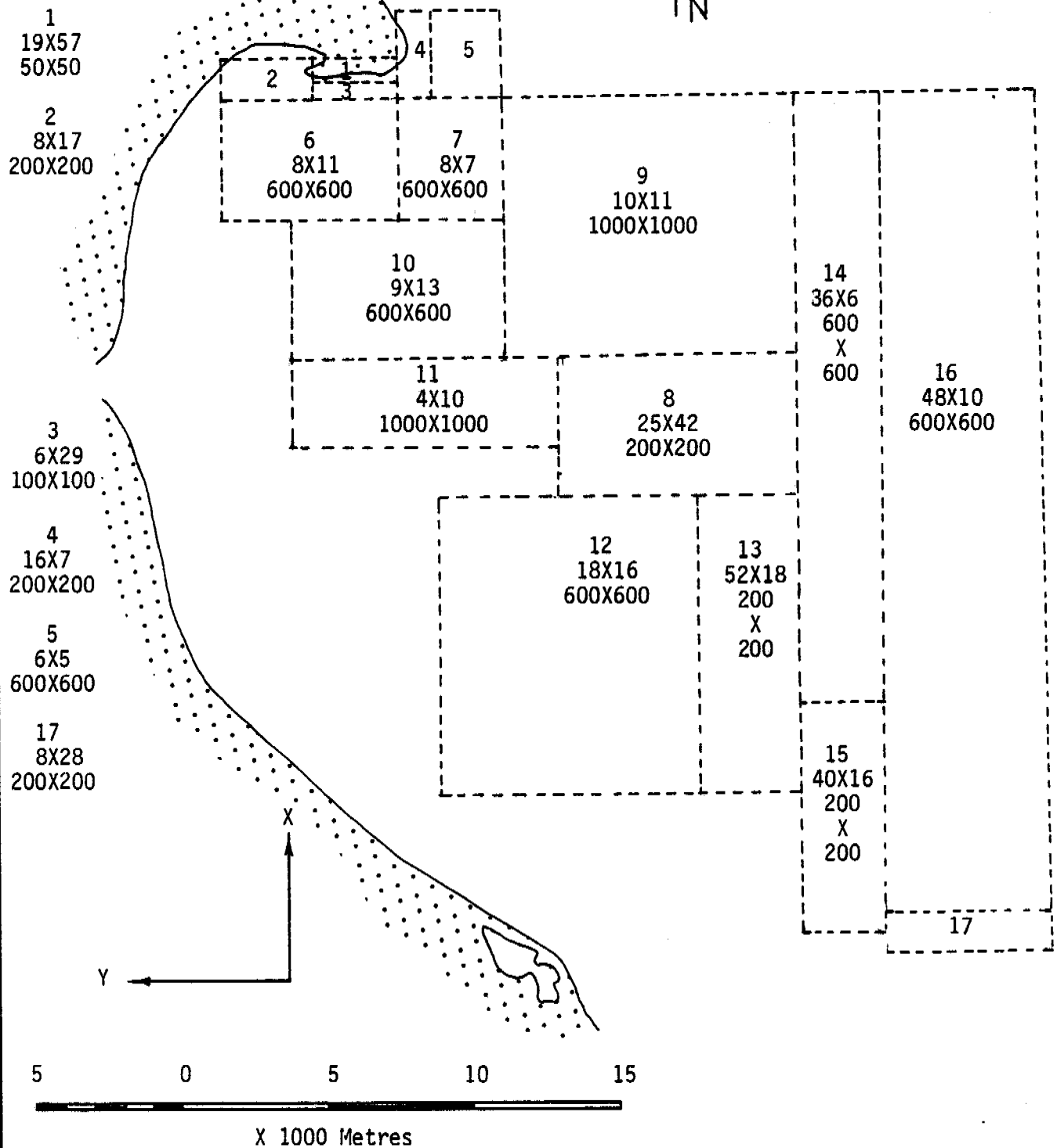
OFFSHORE TO ONSHORE WAVE TRANSFORMATION FUNCTIONS

PAULINE COVE

KEITH PHILPOTT CONSULTING LTD.
P.O. Box 938
THORNHILL
ONTARIO L3T 4A5

KEY

Grid Number
Nodal Dimensions (XxY)
Mesh Size (metres)



BEAUFORT SEA COASTAL SEDIMENT STUDY

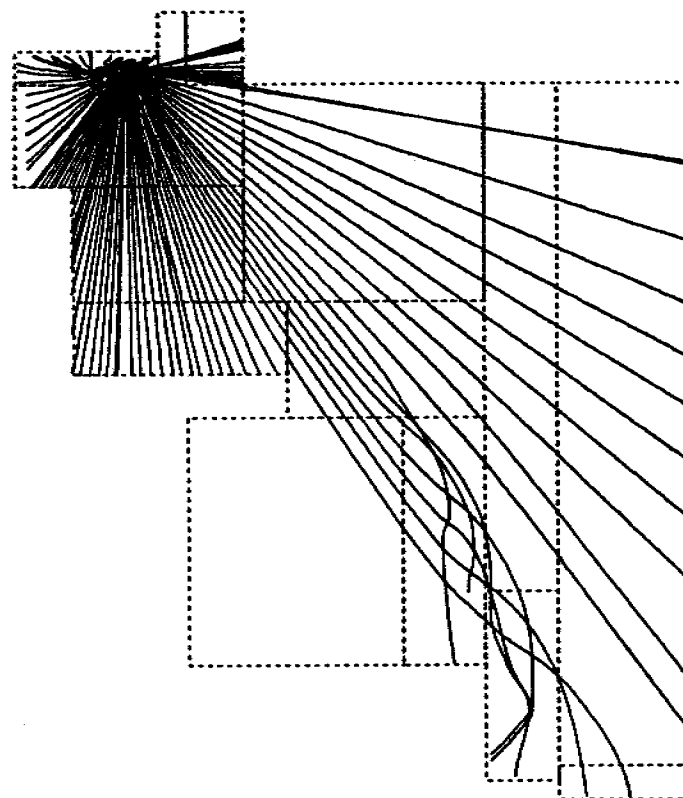
Pauline Cove: Nodal Dimensions and Mesh Size of
Refraction Model Grids

Date: 14 May 85

Scales as shown

Checked by:

Keith Philpott
Consulting Limited



FIGURE

WAVE RAY DETAILS

Tide Level= 0.50 m.

Wave Period= 5.0 secs

Position No.1

Bathymetry information used for
grids obtained from the Canadian
Hydrographic Service. Field Sheets
numbered:

V.R. 18878

F.S. 3588



PAULINE COVE BACKTRACK FILE

Wave Refraction Analysis for

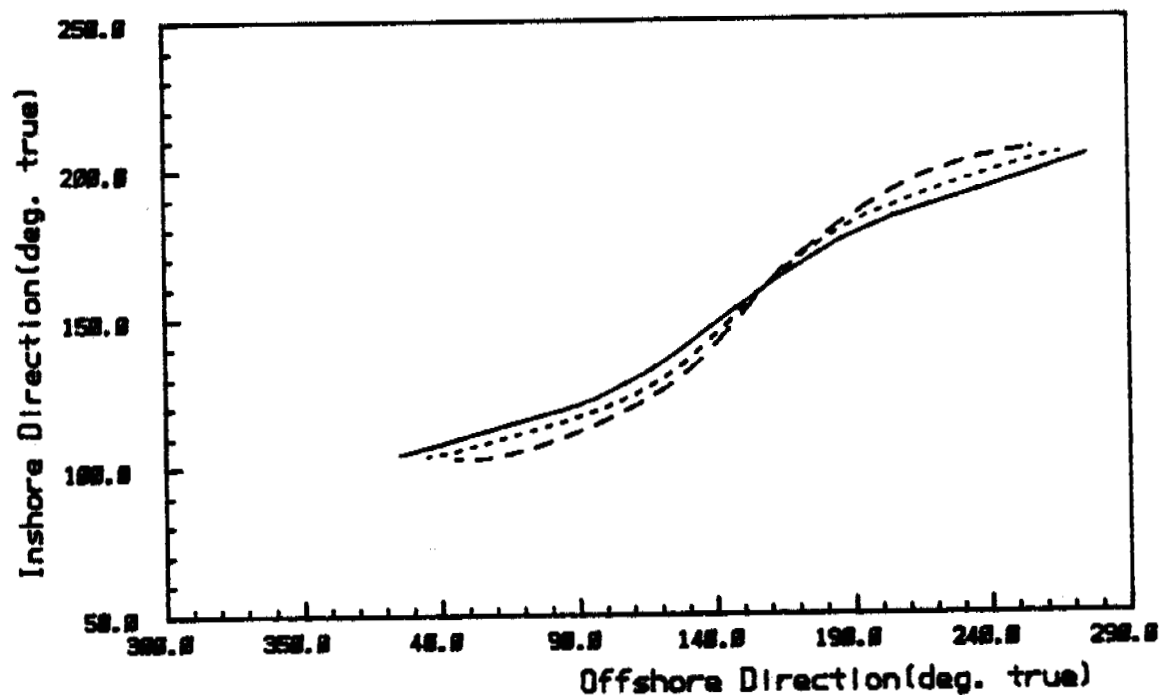
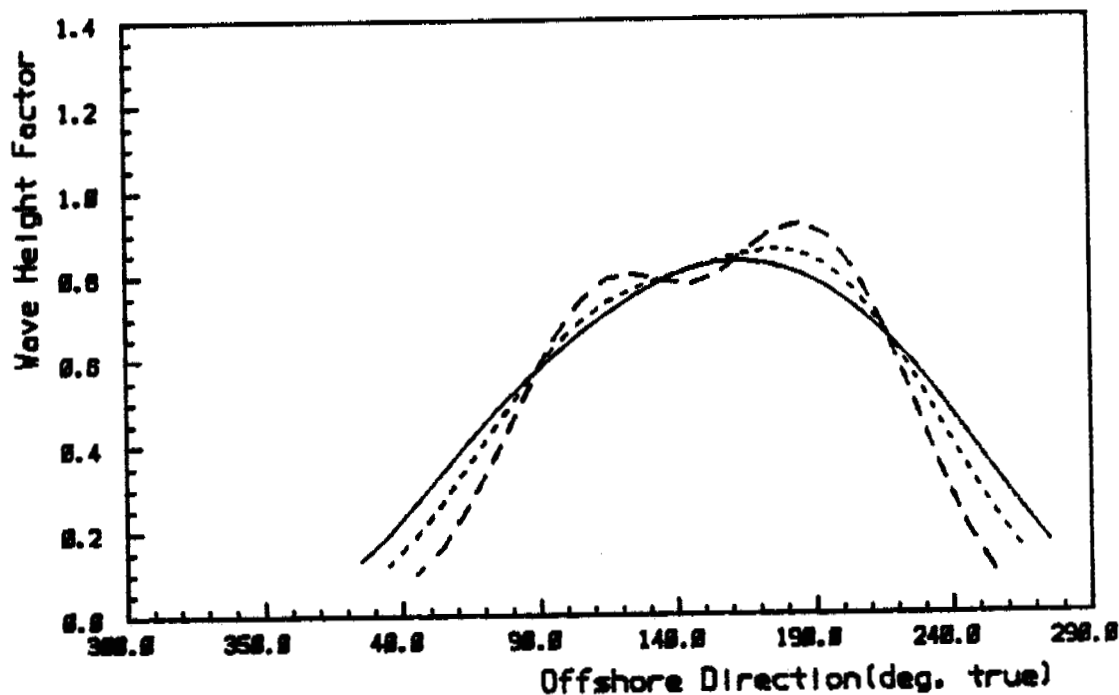
Pauline Cove - Beaufort Sea

Date: 31 Jan 85

Scale 1:200000

Checked by:

Keith Philpott
Consulting Limited



Node No: 1

Spreading Index:

2

Tide Level: 0.50 m.

4

Peak Period: 3.2 secs

10

BEAUFORT SEA COASTAL SEDIMENT STUDY

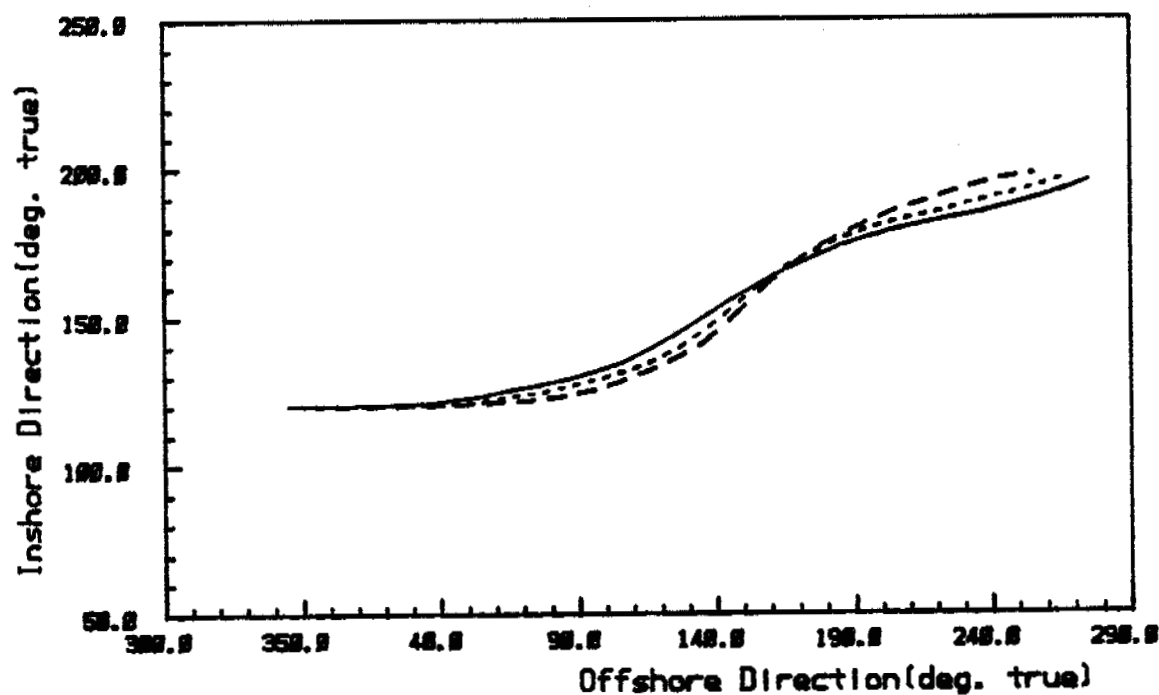
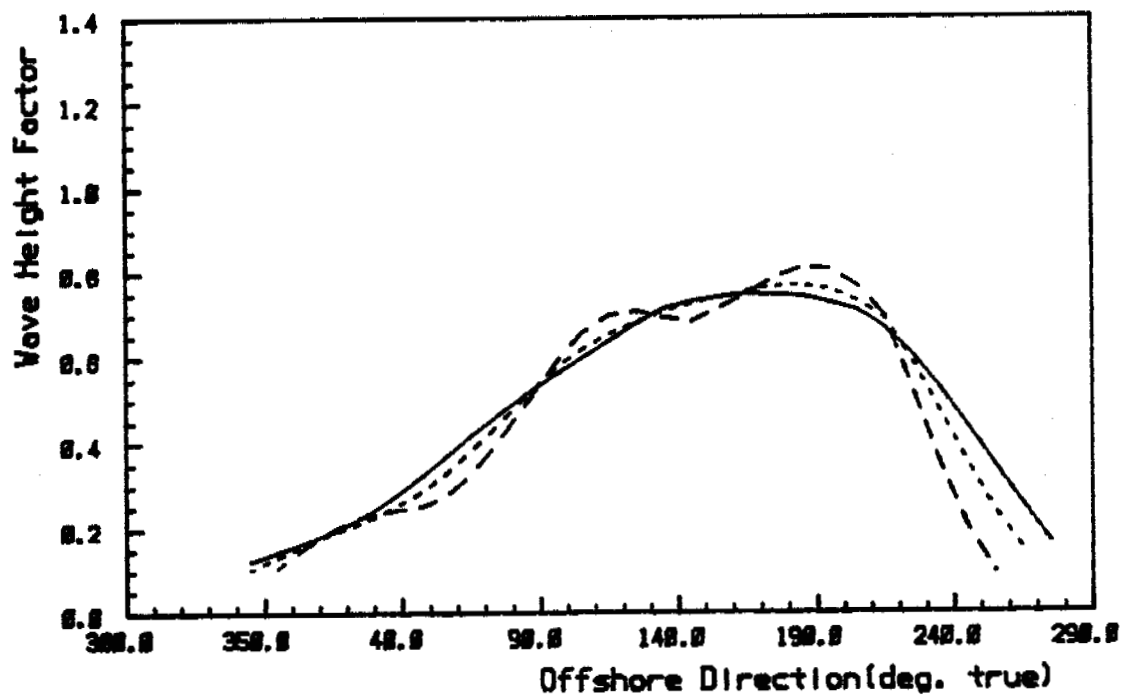
Pauline Cove Wave Spectrum Transformation Results for
Node Number 01

Date: 27 Mar 85

Scale as shown

Checked by:

Keith Philpott
Consulting Limited



Node No: 1

Spreading Index:

2

Tide Level: 0.50 m.

4

Peak Period: 5.0 secs

10

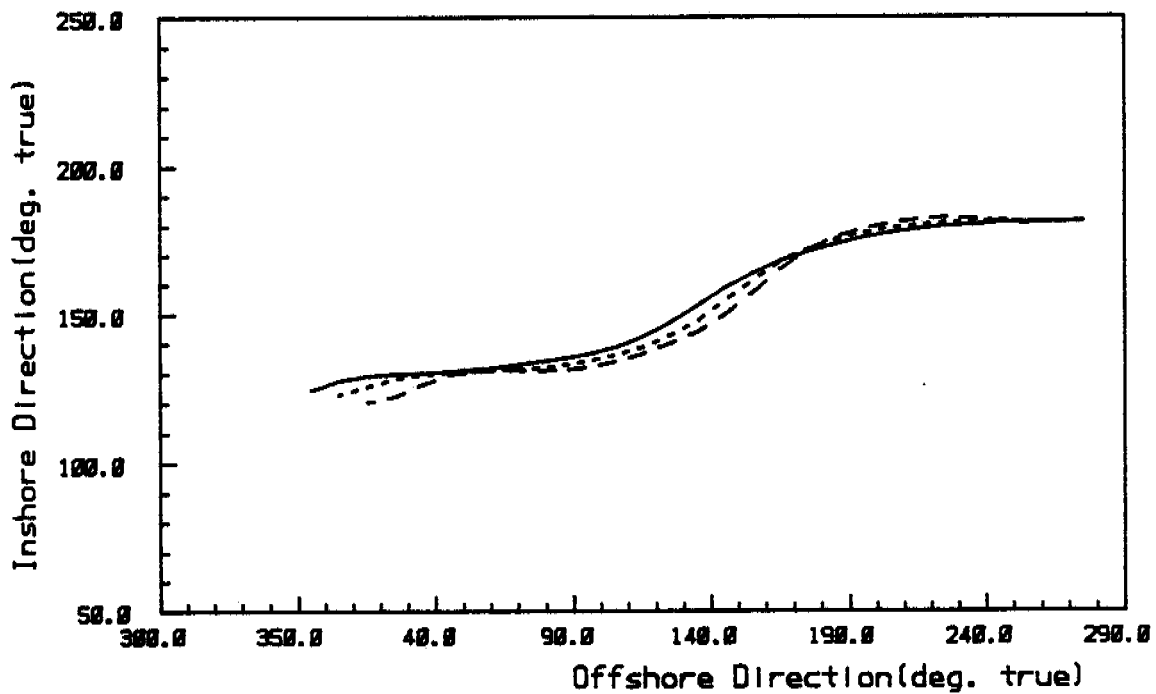
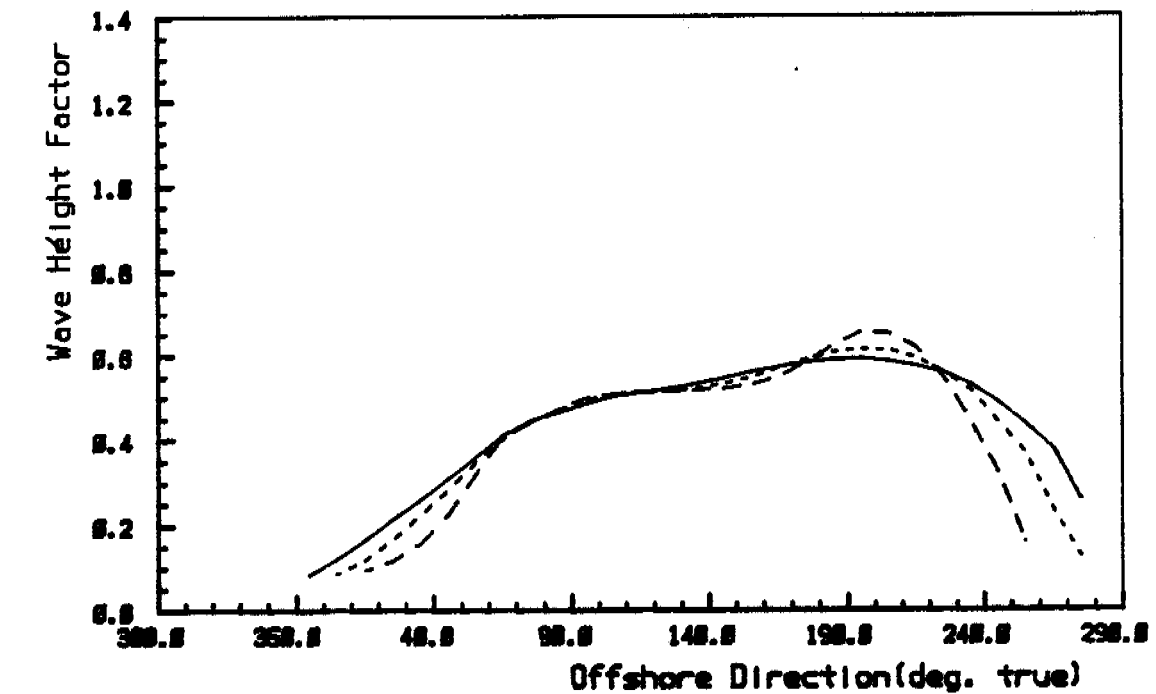
BEAUFORT SEA COASTAL SEDIMENT STUDY

Date: 27 Mar 85

Scale as shown

Checked by:

Keith Philpott
Consulting LimitedPauline Cove: Wave Spectrum Transformation Results for
Node Number 01



Node No: 1

Spreading Index: 2

Tide Level: 0.50 m.

4

Peak Period: 7.9 secs

10

BEAUFORT SEA COASTAL SEDIMENT STUDY

Date: 27 Mar 85

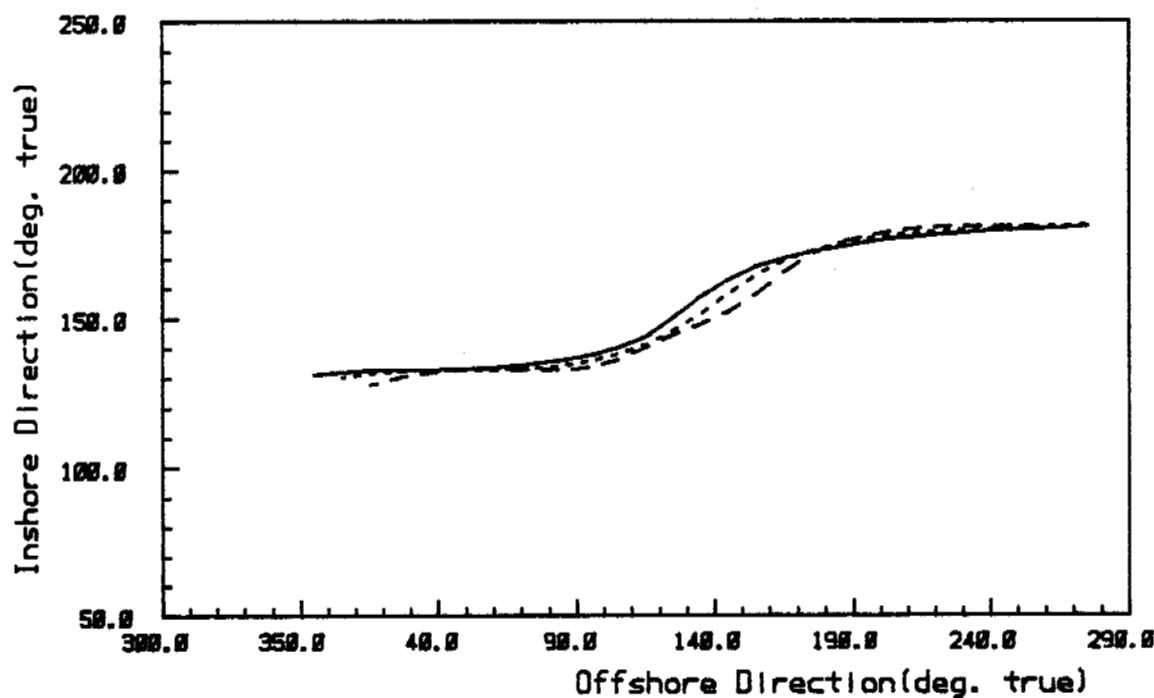
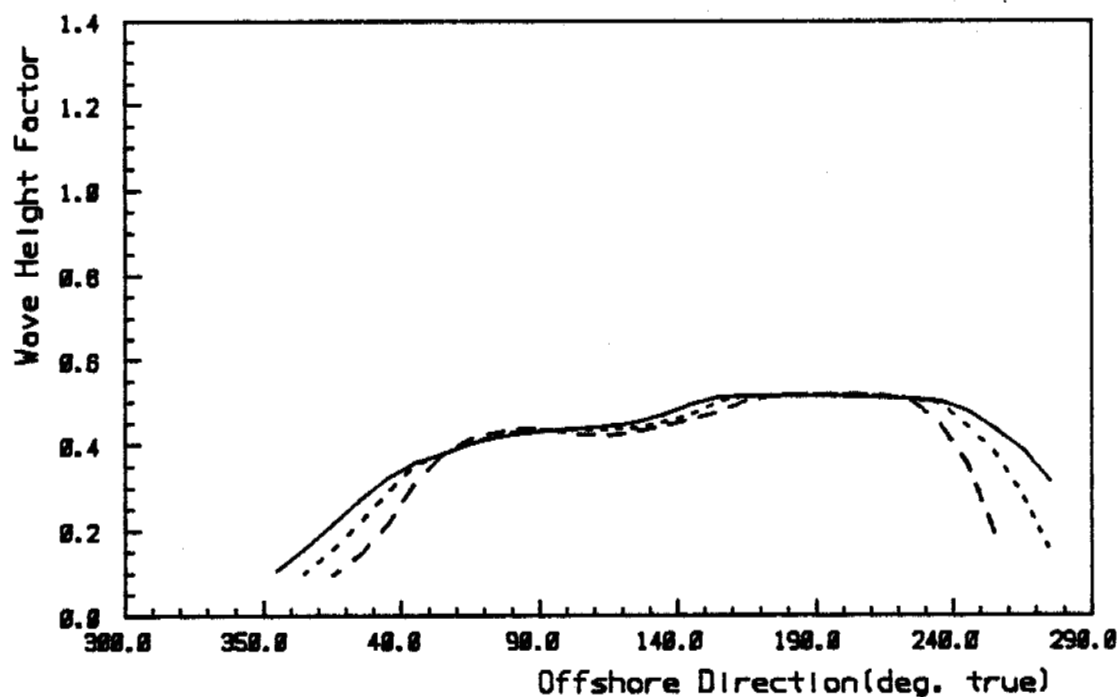
Scale as shown

Pauline Cove: Wave Spectrum Transformation Results for
Node Number 01

Checked by:

Keith Philpott
Consulting Limited

FIGURE



Node No: 1

Spreading Index:

2

Tide Level: 0.50 m.

4

Peak Period: 10.0 secs

10

BEAUFORT SEA COASTAL SEDIMENT STUDY

Date: 27 Mar 85

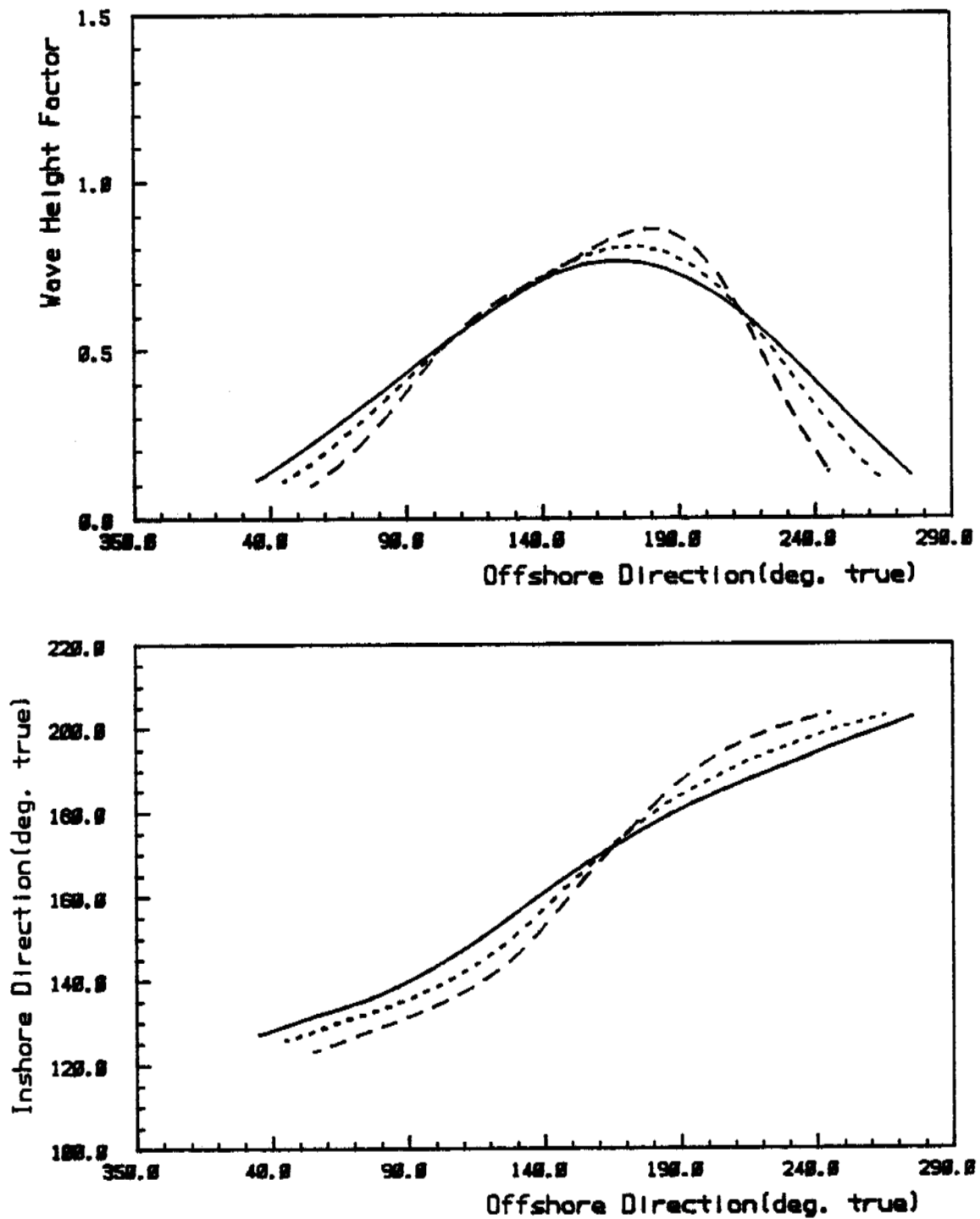
Scales as shown

Checked by:

Keith Philpott

Consulting Limited

Pauline Cove: Wave Spectrum Transformation Results for
Node Number 01



Node No: 2

Spreading Index: 2

Tide Level: 0.50 m.

4

Peak Period: 3.2 secs

10

BEAUFORT SEA COASTAL SEDIMENT STUDY

Date: 27 Mar 85

Scale as shown

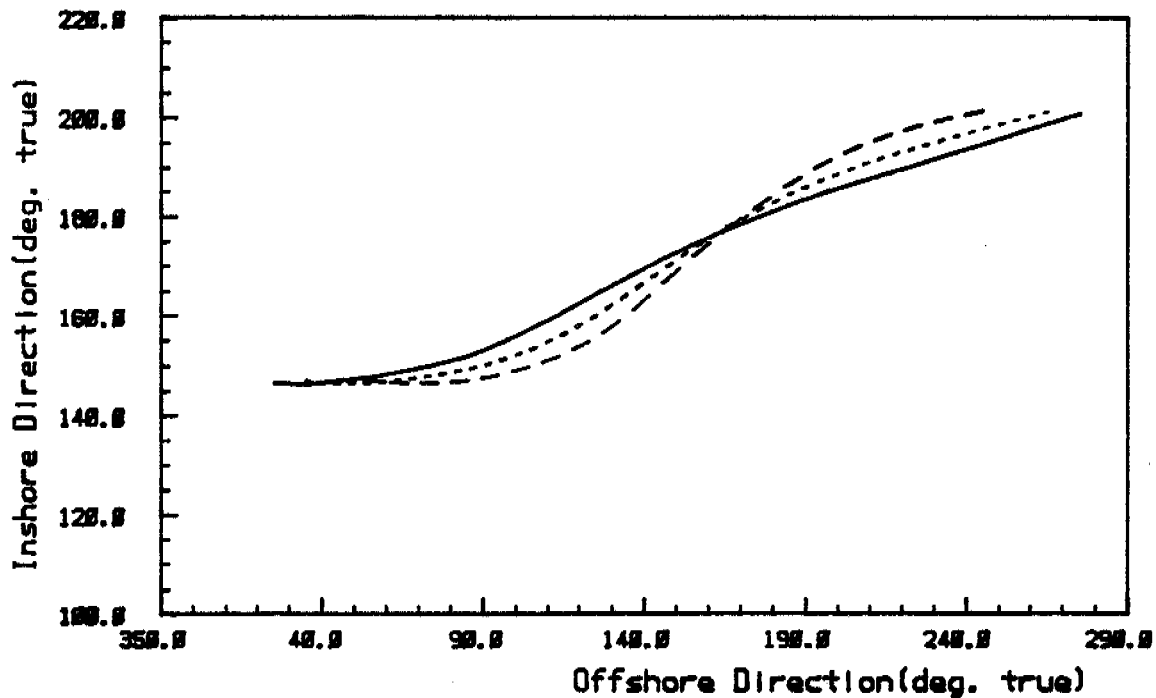
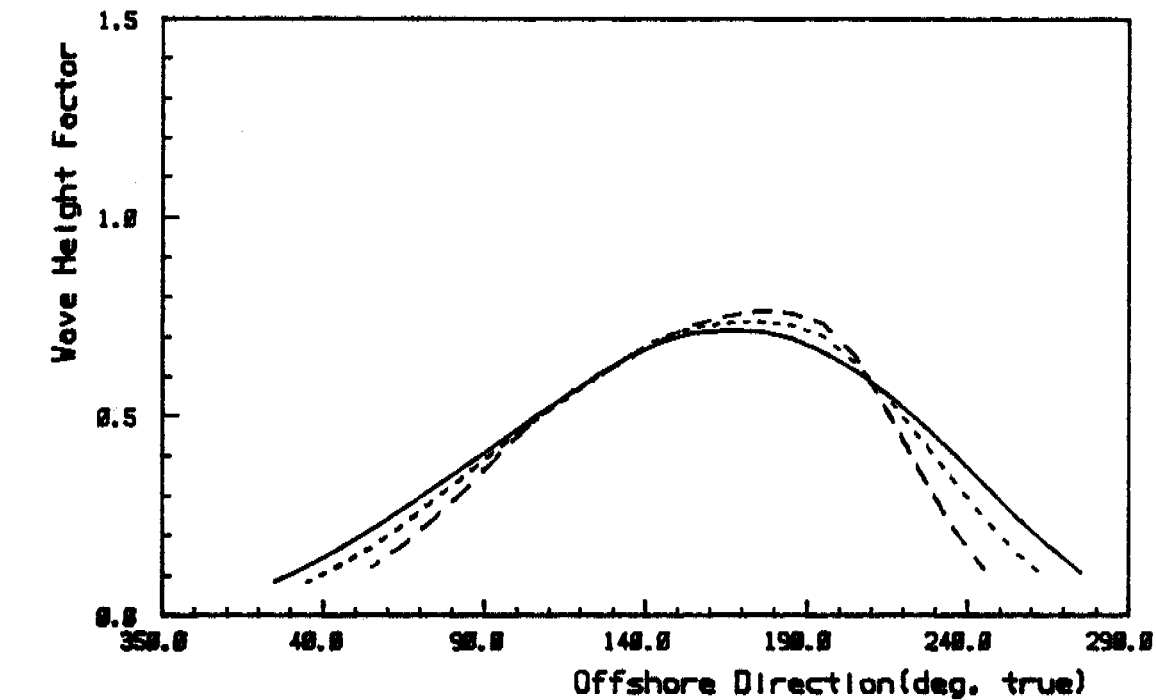
Pauline Cove: Wave Spectrum Transformation Results for
Node Number 02

Checked by:

Keith Philpott

Consulting Limited

FIGURE



Node No: 2

Spreading Index:

2

Tide Level: 0.50 m.

4

Peak Period: 5.0 secs

10

BEAUFORT SEA COASTAL SEDIMENT STUDY

Date: 27 Mar 85

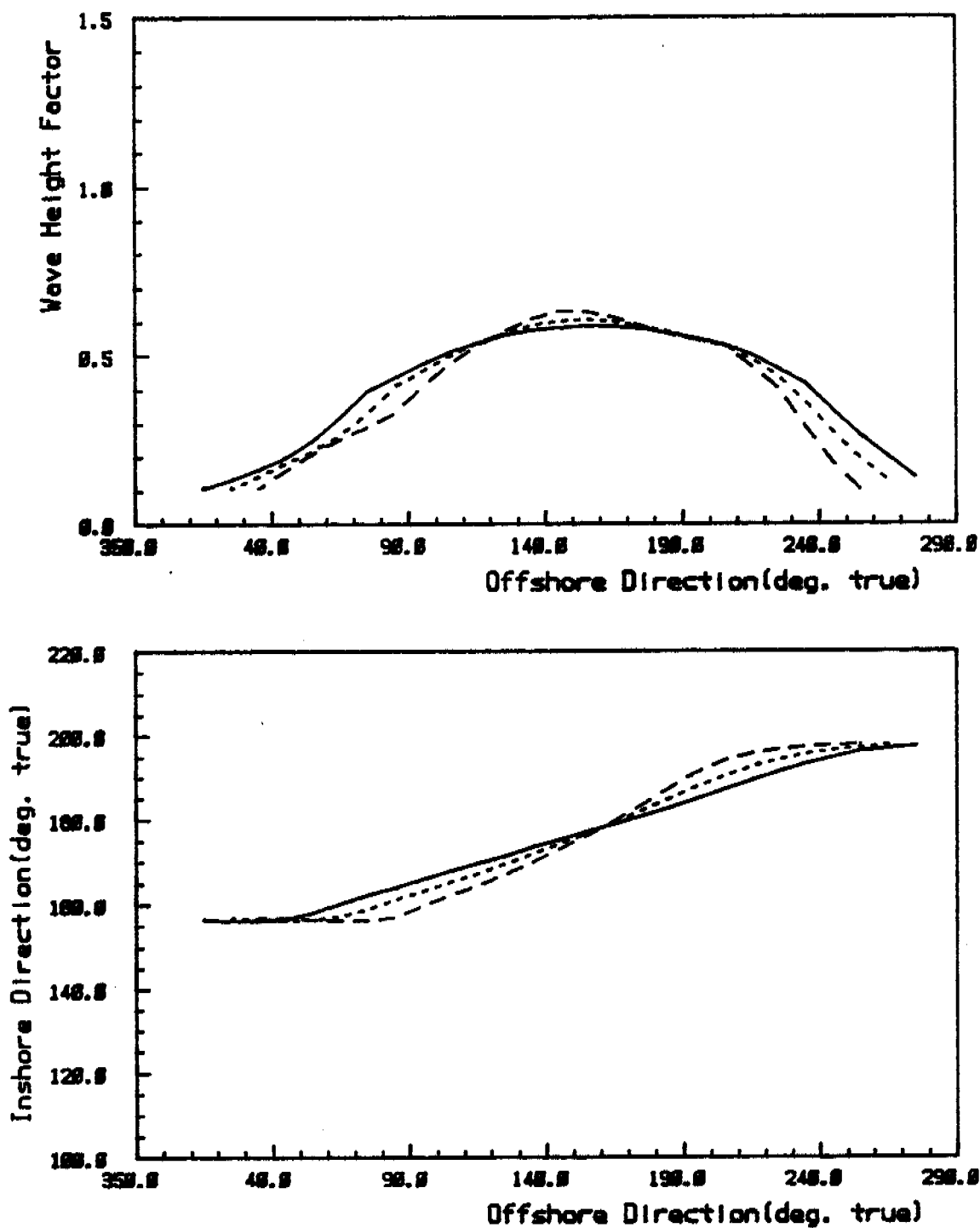
Scales as shown

Checked by:

Keith Philpott

Consulting Limited

Pauline Cove: Wave Spectrum Transformation Results for
Node Number 02



Node No: 2

Spreading Index:

2

Tide Level: 0.50 m.

4

Peak Period: 7.9 secs

10

BEAUFORT SEA COASTAL SEDIMENT STUDY

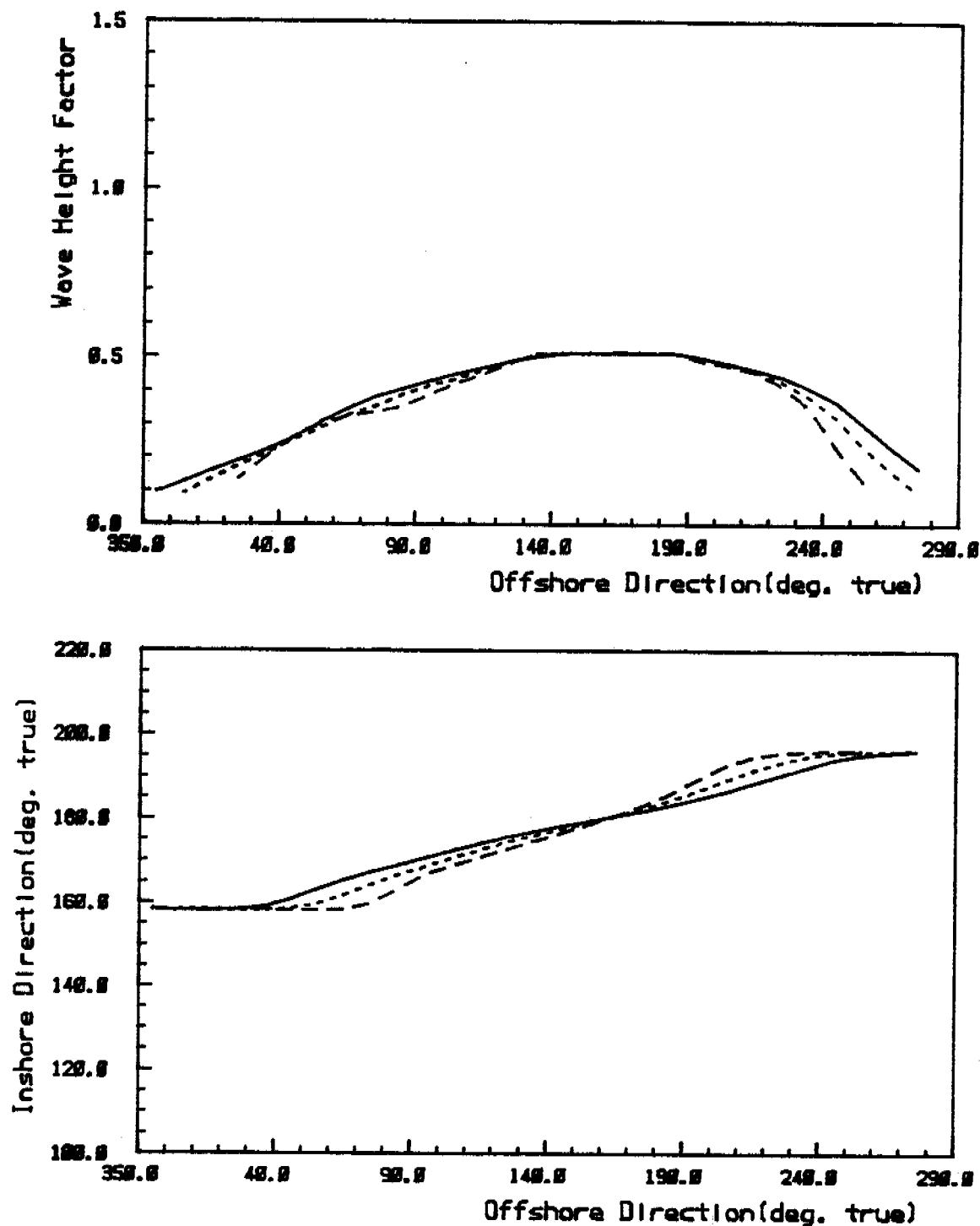
Date: 27 Mar 85

Scale as shown

Pouline Cove: Wave Spectrum Transformation Results for
Node Number 02

Checked by:

Keith Philpott
Consulting Limited



Node No: 2

Spreading Index:

2

Tide Level: 0.50 m.

4

Peak Period: 10.0 secs

10

BEAUFORT SEA COASTAL SEDIMENT STUDY

Date: 27 Mar 85

Scales as shown

Checked by:

Keith Philpott
Consulting LimitedPauline Cove: Wave Spectrum Transformation Results for
Node Number 02

Stokes Point Data Package

Stokes Point

	Page
A. Description of Site	SP-1
B. Site Plan showing nodes	SP-2
C. Data	
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Scatter Diagram	SP-3
Weibull Longterm Distribution of Wave Heights (Plot and Analysis)	SP-4
Wave Energy Distribution (Plot and Table)	SP-7
Wave Height Exceedance and Wave Period Exceedance	SP-9
Wave Period Occurrence	SP-10
Wave Height Persistence, Favourable and Unfavourable Spells	SP-11
Wave Tables (All Directions and at 10° Sectors)	SP-12
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Backtrack Example	SP-21
Forwardtrack Example	SP-22
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5. Nearshore Profile Adjustment at Node	
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5. Nearshore Profile Adjustment (continued)

Storm Surge Run (Surge=0.5m)

SP-42

Storm Surge Run (Surge=1.0m)

SP-43

Storm Wave Climate for Nearshore

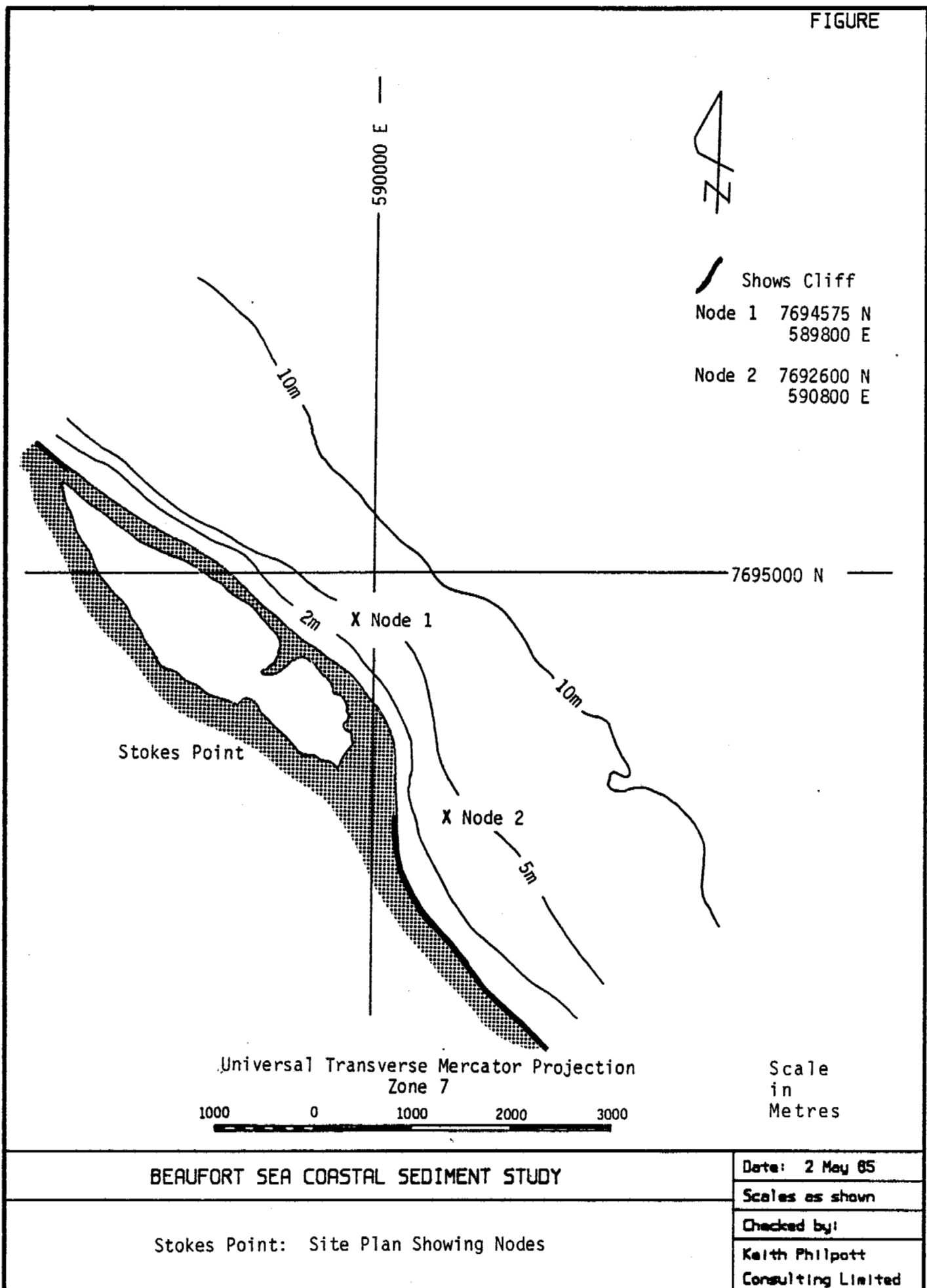
Profile Adjustment Runs

SP-44

Stokes Point

A. Description of Site

Stokes Point is a beach ridge foreland complex about 5 km long and up to 700 m wide formed from sand and gravel. See Figure 2.6. The overall configuration, and in particular the ridge and swale formation of the eastern 2 km indicate formation due to alongshore transport from the northwest, with progradation to the southeast. McDonald and Lewis (1973), Forbes (private communication), Harper et al., 1985, report small rates of coastal change suggesting relative stability. In contrast, Readshaw (1983) suggested that the entire foreland is undergoing rapid erosion, although, on the whole, that appears unlikely.



BEAUFORT SEA COASTAL SEDIMENT STUDY

DEEPWATER WAVE STATISTICS - STOKES POINT

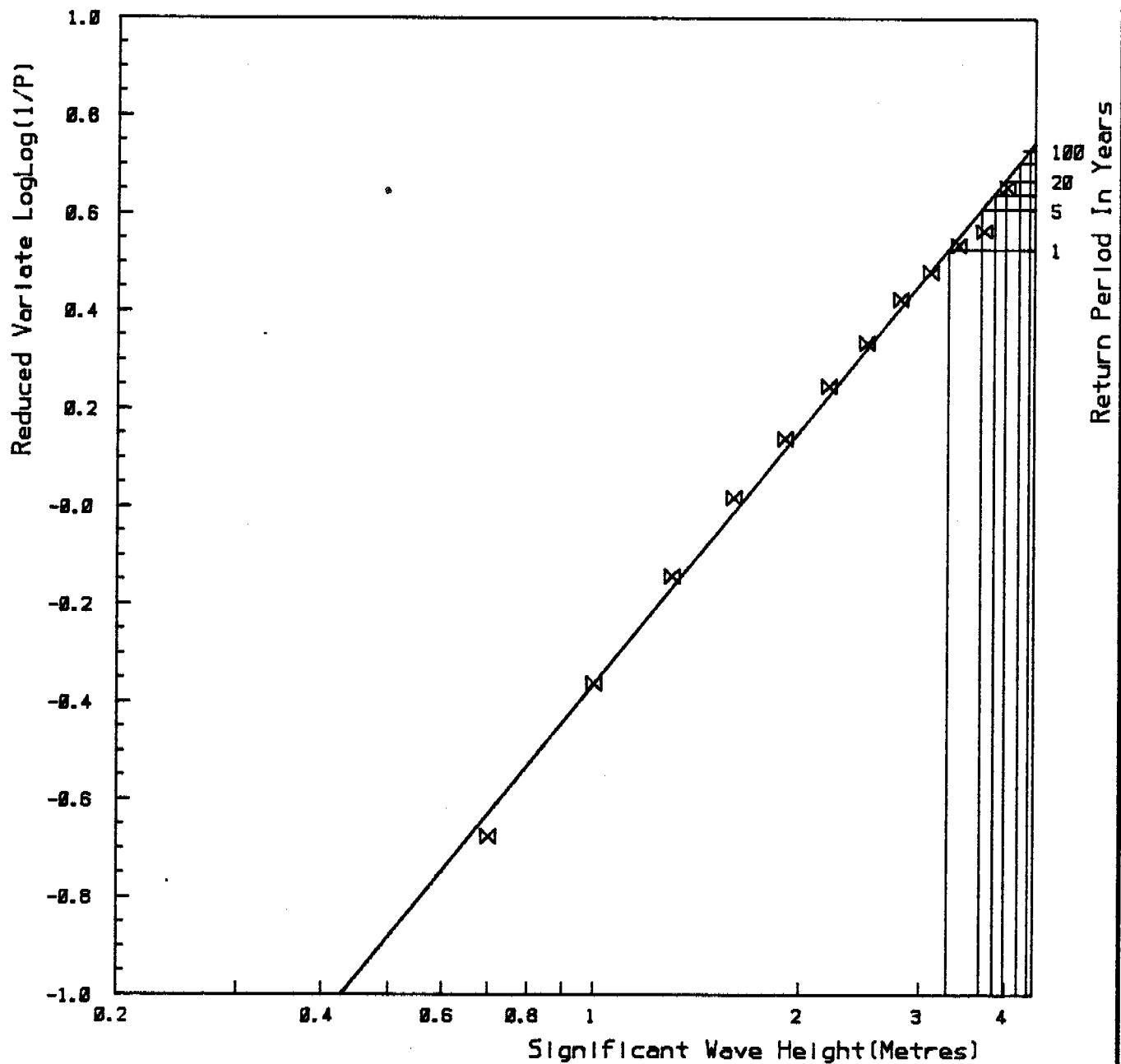
WAVES 8/7/70 TO 7/9/83

SEASON: Summer, Fall

KEITH PHILPOTT CONSULTING LTD
P.O. BOX 938
THORNHILL
ONTARIO L3T 4A5

Stokes Point: Scatter Diagram for Deep Water Wave Data
1970 - 1983

FIGURE



Direction Limits: 0.0 TO 360.0

Calms: 19.8 %

Dates: 8/7/70 to 27/9/83

Season: Summer, Fall

Total No. of Records: 32736

Waves Hindcast Using Data from Tuktoyaktuk N.W.T.

BEAUFORT SEA COASTAL SEDIMENT STUDY

Stokes Point: Weibull Long Term Distribution of
Wave Heights

Date: 18 Mar 85

Scales as shown

Checked by:

Keith Philpott
Consulting Limited

BEAUFORT SEA COASTAL SEDIMENT STUDY

Stokes Point

WAVES 8/ 7/78 TO 7/ 9/83

SEASON: Summer, Fall

WEIBULL PROBABILITY ANALYSIS

WHT LIMIT	CUM TOTAL	CUM PROB(P)	LOGLOG(1./P(H))	LOG(WHT)
< .4	32736	.999969	-4.877672	-.397940
< .7	20193	.616825	-.678116	-.154902
< 1.0	12068	.368635	-.363108	.000000
< 1.3	6252	.190977	-.143259	.113943
< 1.6	2949	.090082	.019268	.204120
< 1.9	1375	.042001	.138851	.278754
< 2.2	562	.017167	.246819	.342423
< 2.5	229	.006995	.333488	.397940
< 2.8	71	.002169	.425498	.447158
< 3.1	31	.000947	.480535	.491362
< 3.4	12	.000367	.536035	.531479
< 3.7	7	.000214	.564659	.568202
< 4.0	1	.000031	.654661	.602060

LEAST SQUARES CURVE FIT ON LOGLOG(1/(1-P))

LOG(WHT)	LOGLOG(1./P(H))	CURVE FIT	RESIDUAL
-.39794	-4.87767	-.54611	-28.90681
-.15490	-.67812	.18143	116.93680
.00000	-.36311	.23600	72.10855
.11394	-.14326	.27489	44.59326
.20412	.01927	.30225	25.35107
.27875	.13885	.32296	10.71626
.34242	.24682	.34167	-.17323
.39794	.33349	.35668	-9.06219
.44716	.42550	.37262	-15.77004
.49136	.48054	.38216	-22.23258
.53148	.53604	.39177	-27.50711
.56820	.56466	.39673	-32.61993
.60206	.65466	.41233	-35.39510

SLOPE= .17324, INTERCEPT= .29891, CORR COEFF= .83508

1 GROUPS TO BE OMITTED FROM NEXT FIT:

< .4

32736

LEAST SQUARES CURVE FIT ON LOGLOG(1/(1-P))

LOG(WHT)	LOGLOG(1./P(H))	CURVE FIT	RESIDUAL
-.15490	-.67812	-.18228	-6.10959
.00000	-.36311	.00059	.13508
.11394	-.14326	.12821	3.33990
.20412	.01927	.22256	4.33753
.27875	.13885	.29198	3.89242
.34242	.24682	.35466	2.85725
.39794	.33349	.40497	1.63195
.44716	.42550	.45838	2.61846
.49136	.49854	.49033	-.23652
.53148	.53604	.52255	-2.03459
.56820	.56466	.53917	-6.46663
.60206	.65466	.59142	-2.42107

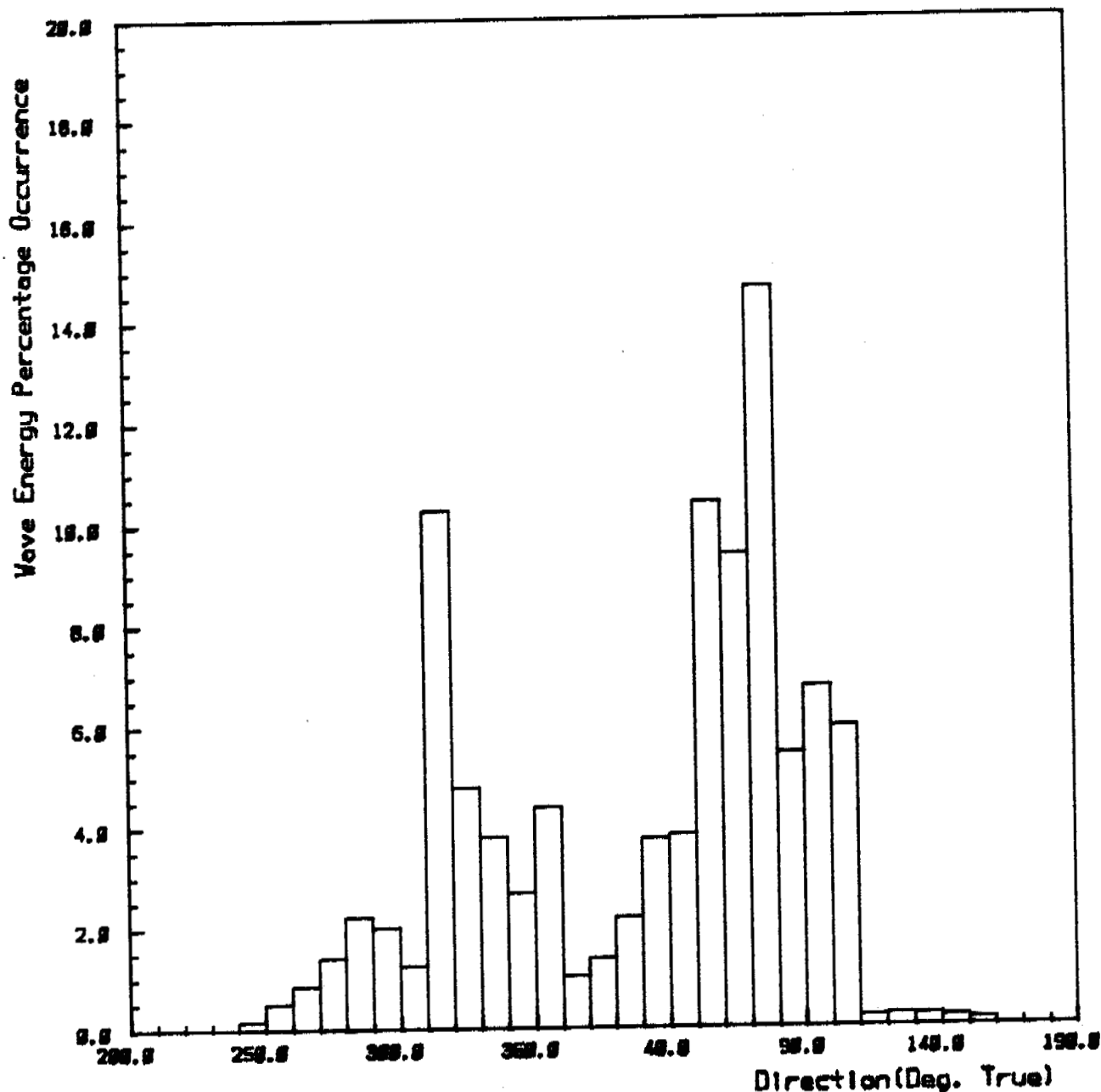
SLOPE= .58051, INTERCEPT= .21138, CORR COEFF= .99773

PREDICTED WAVE HEIGHTS FOR GIVEN RETURN PERIODS

RETURN PERIOD(YEARS) WAVE HEIGHT(M)

1.0	3.3
5.0	3.7
10.0	3.8
20.0	4.0
50.0	4.2
100.0	4.3

AVERAGE NUMBER OF RECORDS PER YEAR= 2338.3



Direction Limits: 240.0 TO 160.0

Calms: 28.7 %

Dates: 6/7/78 to 7/9/83

Season: Summer, Fall

Total No. of Records: 32615

Waves Hindcast Using Wind Data from Tuktoyaktuk N.W.T.

BEAUFORT SEA COASTAL SEDIMENT STUDY

Stokes Point: Deep Water Wave Energy Distribution
1978 - 1983

Date: 13 Feb 85

Scales as shown

Checked by:

Keith Philpott
Consulting Limited

BEAUFORT SEA COASTAL SEDIMENT STUDY

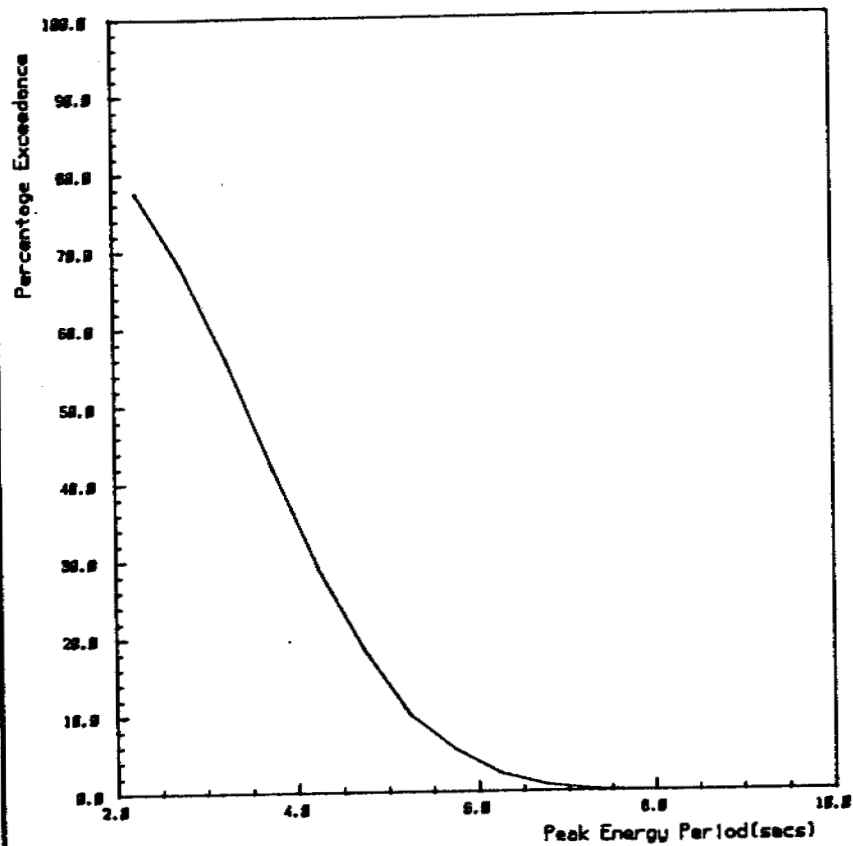
Stokes Point

WAVES 8/ 7/78 TO 7/ 9/83
-----SEASON: Summer, Fall

PERCENTAGE WAVE POWER DISTRIBUTION

DIRECTION SECTOR	PERCENTAGE FREQUENCY	MEAN POWER (KW)	PERCENTAGE ENERGY
240. - 250.	.49	.60	.16
250. - 260.	1.32	.72	.52
260. - 270.	1.83	.87	.86
270. - 280.	2.39	1.09	1.41
280. - 290.	3.86	1.86	2.21
290. - 300.	4.60	.81	2.01
300. - 310.	3.18	.73	1.25
310. - 320.	6.72	2.82	10.27
320. - 330.	3.97	2.22	4.78
330. - 340.	3.11	2.25	3.79
340. - 350.	1.94	2.54	2.68
350. - 360.	3.34	2.41	4.37
360. - 10.	2.01	.93	1.02
10. - 20.	2.40	1.86	1.38
20. - 30.	3.42	1.18	2.19
30. - 40.	3.77	1.83	3.74
40. - 50.	3.29	2.14	3.82
50. - 60.	5.10	3.76	10.42
60. - 70.	6.49	2.66	9.38
70. - 80.	7.60	3.56	14.66
80. - 90.	6.12	1.63	5.43
90. - 100.	6.68	1.86	6.74
100. - 110.	7.97	1.38	5.95
110. - 120.	1.49	.25	.20
120. - 130.	1.74	.25	.23
130. - 140.	2.16	.19	.22
140. - 150.	1.77	.20	.19
150. - 160.	1.25	.19	.13

FIGURE



Direction Limits: 248.8 TO 168.8

Calms: 28.7 %

Dates: 6/7/78 to 7/9/83

Season: Summer, Fall

Total No. of Records: 32815

Waves Hindcast Using Wind Data from Tuktoyaktuk N.W.T.

BEAUFORT SEA COASTAL SEDIMENT STUDY

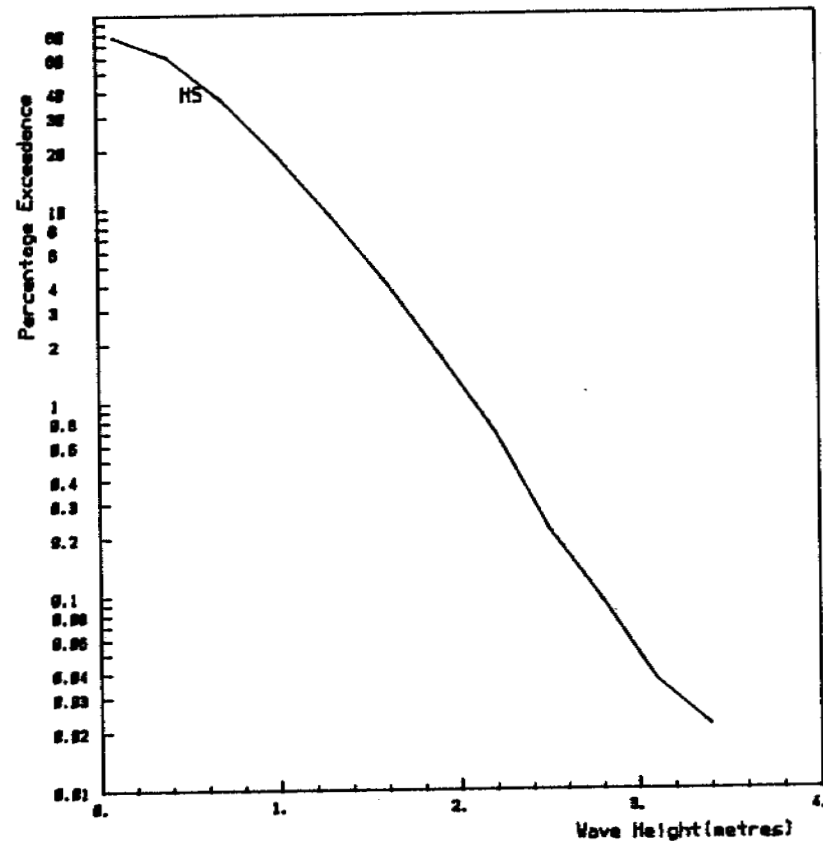
Date: 13 Feb 85

Scale: as shown

Checked by:

Keith Philpott
Consulting LimitedStokes Point: Deep Water Wave Period Exceedance
1978 - 1983

FIGURE



Direction Limits: 248.8 TO 168.8

Calms: 28.7 %

Dates: 6/7/78 to 7/9/83

Season: Summer, Fall

Total No. of Records: 32815

Waves Hindcast Using Wind Data from Tuktoyaktuk N.W.T.

BEAUFORT SEA COASTAL SEDIMENT STUDY

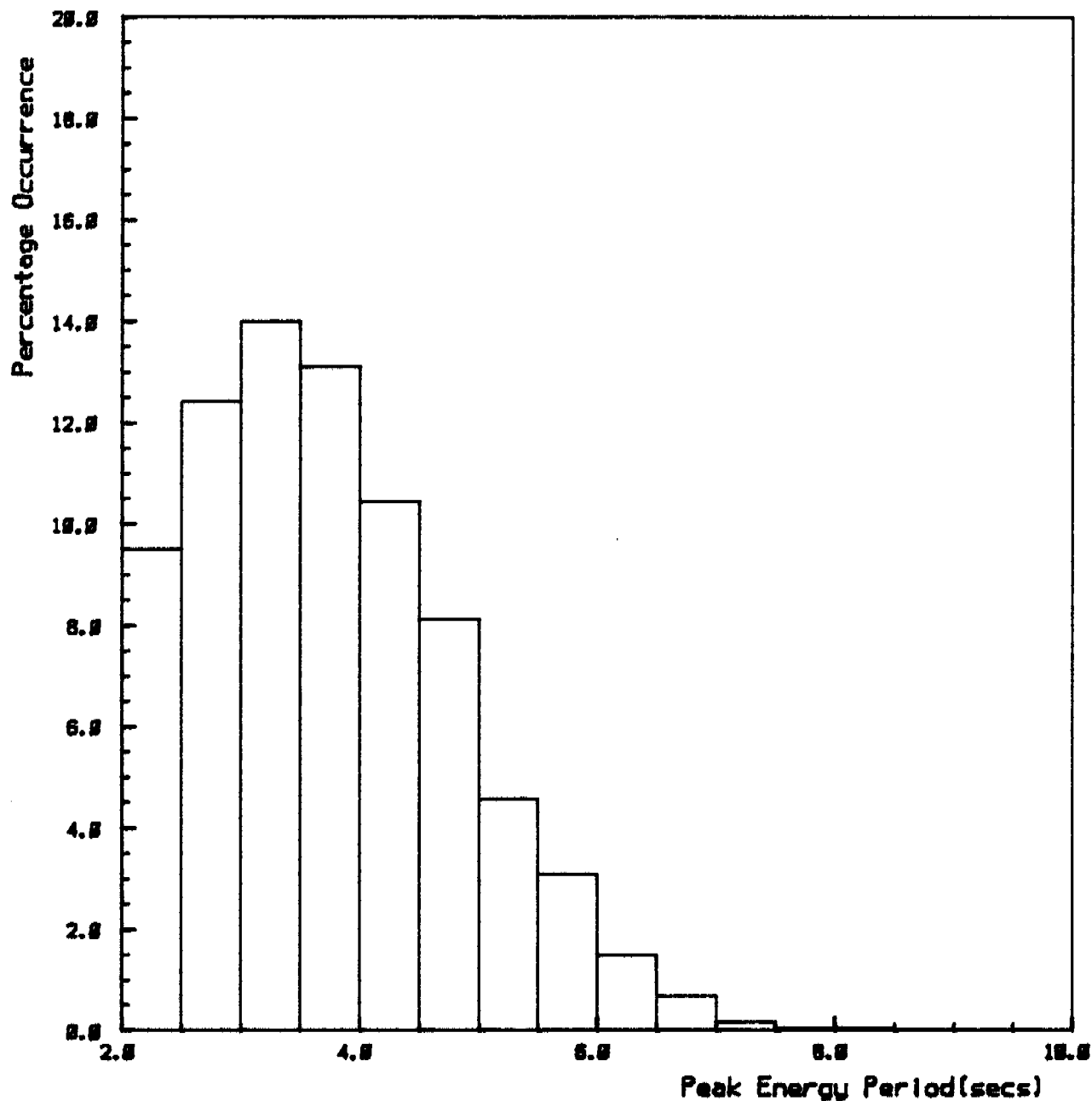
Date: 13 Feb 85

Scale: as shown

Checked by:

Keith Philpott
Consulting LimitedStokes Point: Deep Water Wave Height Exceedance
1978 - 1983

FIGURE



Direction Limits: 240.0 TO 180.0

Calms: 20.7 %

Dates: 8/7/70 to 7/9/83

Season: Summer, Fall

Total No. of Records: 32615

Waves Hindcast Using Wind Data from Tuktoyaktuk N.W.T.

BEAUFORT SEA COASTAL SEDIMENT STUDY

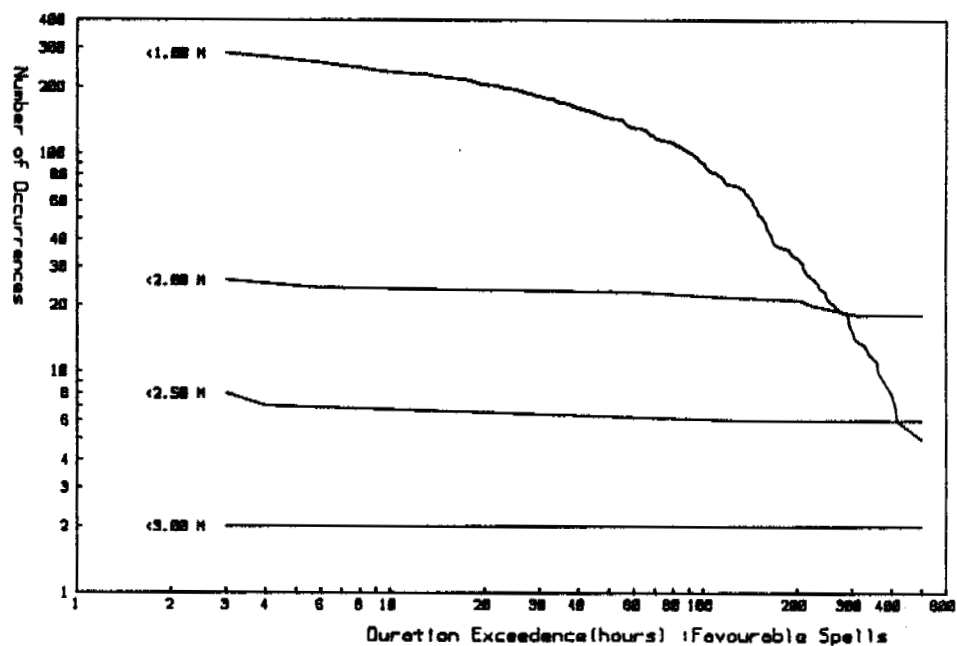
Stokes Point: Deep Water Wave Period Occurrence
1970 - 1983

Date: 13 Feb 85

Scales as shown

Checked by:

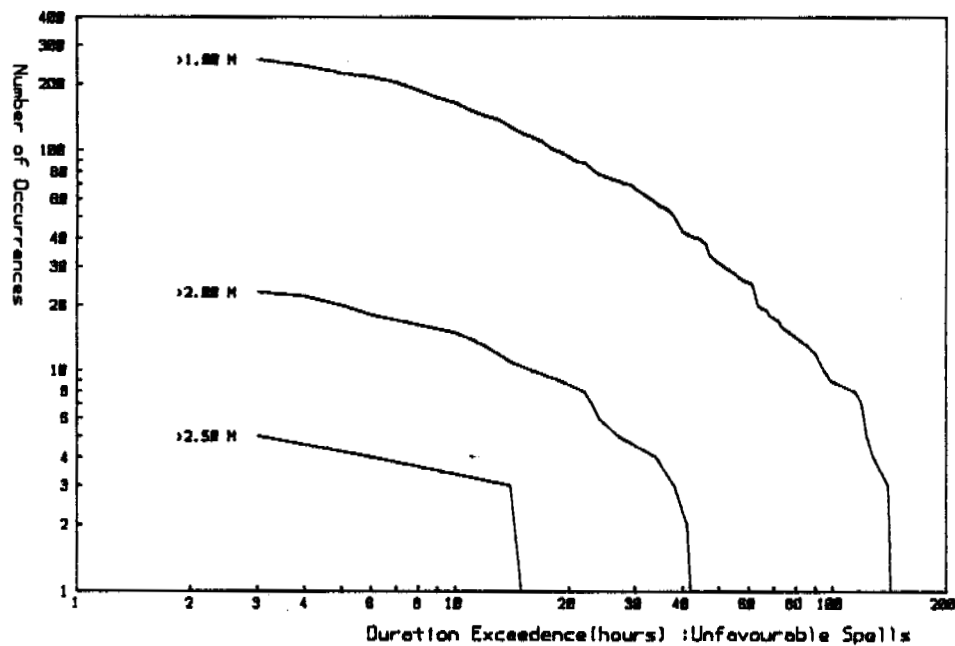
Keith Philpott
Consulting Limited



Dates: 8/7/78 to 27/9/83

Season: Summer, Fall

Waves Hindcast Using Wind Data from Tuktoyaktuk N.V.T.



Dates: 8/7/78 to 27/9/83

Season: Summer, Fall

Waves Hindcast Using Wind Data from Tuktoyaktuk N.V.T.

BEAUFORT SEA COASTAL SEDIMENT STUDY

Stokes Point: Deep Water Wave Height Persistence
Favourable and Unfavourable Spells

Date: 17 May 85

Scales as shown

Checked by:

Keith Philpott
Consulting Limited

Stokes Point

BEAUFORT SEA COASTAL SEDIMENT STUDY

WAVES 8/ 7/78 TO 27/ 9/83

ALL DIRECTIONS

WAVE !	Wave Period(secs)																Total!
INT(N)!																	!
!>	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	-
1.10!	5225!	386!	74!	13!	4!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	5702!
1.40!	2879!	5680!	283!	47!	5!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	7934!
1.70!	0!	2987!	2754!	66!	6!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	5013!
1.80!	0!	0!	3827!	257!	15!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	3383!
1.30!	0!	0!	73!	149!	20!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	1574!
1.60!	0!	0!	0!	641!	172!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	813!
1.90!	0!	0!	0!	9!	323!	1!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	333!
2.20!	0!	0!	0!	2!	154!	2!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	158!
2.50!	0!	0!	0!	0!	0!	32!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	40!
2.80!	0!	0!	0!	0!	0!	19!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	19!
3.10!	0!	0!	0!	0!	0!	2!	3!	0!	0!	0!	0!	0!	0!	0!	0!	0!	5!
3.40!	0!	0!	0!	0!	0!	0!	6!	0!	0!	0!	0!	0!	0!	0!	0!	0!	6!
3.70!	0!	0!	0!	0!	0!	0!	1!	0!	0!	0!	0!	0!	0!	0!	0!	0!	1!
4.00!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
TOTAL!	7384!	8977!	6131!	2516!	707!	56!	10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	25701!

SUMMARY :

NO. IN TOTAL SECTOR = 32736
 NO. OUTSIDE TOTAL SECTOR = 567
 NO. OF CALMS = 7835
 TOTAL NO. OF ALL RECORDS = 32736
 PERCENTAGE CALMS = 21.12

Stokes Point

BEAUFORT SEA COASTAL SEDIMENT STUDY

WAVES 8/ 7/78 TO 27/ 9/83

DIRECTION 240 TO 250

WAVE !	Wave Period(secs)																Total!
INT(N)!																	!
!>	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	-
1.10!	43!	3!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	46!
1.40!	23!	26!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	49!
1.70!	0!	21!	4!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	25!
1.80!	0!	0!	4!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	4!
1.30!	0!	0!	1!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	1!
1.60!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
1.90!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.20!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.50!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.80!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.70!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.00!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
TOTAL!	66!	50!	9!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	125!

DIRECTION 250 TO 260

WAVE !	Wave Period(secs)																Total!
INT(N)!																	!
!>	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	-
1.10!	91!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	99!
1.40!	50!	50!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	116!
1.70!	0!	106!	12!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	118!
1.80!	0!	0!	4!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	4!
1.30!	0!	0!	3!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	3!
1.60!	0!	0!	0!	1!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	1!
1.90!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.20!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.50!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.80!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.70!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.00!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
TOTAL!	149!	172!	19!	1!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	341!

Stokes Point

BEAUFORT SEA COASTAL SEDIMENT STUDY

WAVES 8/ 7/78 TO 27/ 9/83

DIRECTION 268 TO 278

WAVE !	Wave Period(secs)										Total!
HT(N)!											
>	12	13	14	15	16	17	18	19	20	-	
.10!	107!	6!	0!	0!	0!	0!	0!	0!	0!	113!	
.40!	70!	130!	2!	0!	0!	0!	0!	0!	0!	202!	
.70!	0!	97!	0!	0!	0!	0!	0!	0!	0!	105!	
1.00!	0!	0!	32!	0!	0!	0!	0!	0!	0!	32!	
1.30!	0!	0!	10!	4!	0!	0!	0!	0!	0!	14!	
1.60!	0!	0!	0!	1!	0!	0!	0!	0!	0!	1!	
1.90!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
2.20!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
2.50!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
2.80!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
3.10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
3.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
3.70!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
4.00!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
TOTAL!	177!	233!	52!	5!	0!	0!	0!	0!	0!	467!	

DIRECTION 278 TO 288

WAVE !	Wave Period(secs)										Total!
HT(N)!											
>	12	13	14	15	16	17	18	19	20	-	
.10!	100!	7!	1!	0!	0!	0!	0!	0!	0!	116!	
.40!	56!	137!	0!	0!	0!	0!	0!	0!	0!	193!	
.70!	0!	174!	44!	0!	0!	0!	0!	0!	0!	218!	
1.00!	0!	0!	66!	0!	0!	0!	0!	0!	0!	66!	
1.30!	0!	0!	17!	1!	0!	0!	0!	0!	0!	18!	
1.60!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
1.90!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
2.20!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
2.50!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
2.80!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
3.10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
3.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
3.70!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
4.00!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
TOTAL!	164!	310!	120!	1!	0!	0!	0!	0!	0!	611!	

Stokes Point

BEAUFORT SEA COASTAL SEDIMENT STUDY

WAVES 8/ 7/78 TO 27/ 9/83

DIRECTION 288 TO 298

WAVE !	Wave Period(secs)										Total!		
HT(N)!													
!>	!2	!3	!4	!4	!5	!6	!6	!7	!8	!8	!9	!10!	-
! .10!	116!	16!	0!	0!	0!	0!	0!	0!	0!	0!	0!	132!	
! .40!	90!	290!	2!	1!	0!	0!	0!	0!	0!	0!	0!	391!	
! .70!	0!	270!	79!	0!	0!	0!	0!	0!	0!	0!	0!	357!	
! 1.00!	0!	0!	92!	0!	0!	0!	0!	0!	0!	0!	0!	92!	
! 1.30!	0!	0!	17!	5!	0!	0!	0!	0!	0!	0!	0!	22!	
! 1.60!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
! 1.90!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
! 2.20!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
! 2.50!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
! 2.80!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
! 3.10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
! 3.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
! 3.70!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
! 4.00!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
!TOTAL!	214!	584!	190!	6!	0!	0!	0!	0!	0!	0!	0!	994!	

DIRECTION 298 TO 308

WAVE !	Wave Period(secs)										Total!
HT (N)!											
!>	!2	!3	!4	!5	!6	!7	!8	!9	!10	!>	
! .10!	215!	23!	0!	0!	0!	0!	0!	0!	0!	238!	
! .40!	151!	350!	2!	0!	0!	0!	0!	0!	0!	511!	
! .70!	0!	298!	57!	0!	0!	0!	0!	0!	0!	355!	
! 1.00!	0!	0!	69!	0!	0!	0!	0!	0!	0!	69!	
! 1.30!	0!	0!	2!	1!	0!	0!	0!	0!	0!	3!	
! 1.60!	0!	0!	0!	1!	0!	0!	0!	0!	0!	1!	
! 1.90!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
! 2.20!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
! 2.50!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
! 2.80!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
! 3.10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
! 3.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
! 3.70!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
! 4.00!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
! TOTAL!	366!	679!	130!	2!	0!	0!	0!	0!	0!	1177!	

BEAUFORT SEA COASTAL SEDIMENT STUDY

Stokes Point

WAVES 8/ 7/78 TO 27/ 9/83

DIRECTION 300 TO 310

!WAVE !	Wave Period(secs)												!Total!				
!HT(N)!													!				
!	!	!	!	!	!	!	!	!	!	!	!	!	!				
!	> 12	-3	13	-4	14	-5	15	-6	16	-7	17	-8	18	-9	19	-10	-
!	!	!	!	!	!	!	!	!	!	!	!	!	!	!	!	!	!
!	.10!	149!	10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	159!	
!	.40!	125!	264!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	389!	
!	.70!	0!	222!	29!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	251!	
!	1.00!	0!	0!	16!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	16!	
!	1.30!	0!	0!	4!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	4!	
!	1.60!	0!	0!	0!	1!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	1!	
!	1.90!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
!	2.20!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
!	2.50!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
!	2.80!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
!	3.10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
!	3.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
!	3.70!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
!	4.00!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
!	!	!	!	!	!	!	!	!	!	!	!	!	!	!	!	!	!
!	TOTAL!	274!	496!	49!	1!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	820!	

DIRECTION 310 TO 320

!WAVE !	Wave Period(secs)												!Total!				
!HT(N)!													!				
!	!	!	!	!	!	!	!	!	!	!	!	!	!				
!	> 12	-3	13	-4	14	-5	15	-6	16	-7	17	-8	18	-9	19	-10	-
!	!	!	!	!	!	!	!	!	!	!	!	!	!	!	!	!	!
!	.10!	207!	33!	5!	0!	2!	0!	0!	0!	0!	0!	0!	247!				
!	.40!	89!	286!	23!	4!	4!	0!	0!	0!	0!	0!	0!	406!				
!	.70!	0!	173!	268!	10!	5!	0!	0!	0!	0!	0!	0!	456!				
!	1.00!	0!	0!	300!	19!	5!	0!	0!	0!	0!	0!	0!	324!				
!	1.30!	0!	0!	5!	134!	5!	0!	0!	0!	0!	0!	0!	144!				
!	1.60!	0!	0!	0!	64!	7!	0!	0!	0!	0!	0!	0!	71!				
!	1.90!	0!	0!	0!	0!	32!	0!	0!	0!	0!	0!	0!	32!				
!	2.20!	0!	0!	0!	0!	40!	0!	0!	0!	0!	0!	0!	40!				
!	2.50!	0!	0!	0!	0!	6!	3!	0!	0!	0!	0!	0!	9!				
!	2.80!	0!	0!	0!	0!	0!	1!	0!	0!	0!	0!	0!	1!				
!	3.10!	0!	0!	0!	0!	0!	2!	3!	0!	0!	0!	0!	5!				
!	3.40!	0!	0!	0!	0!	0!	0!	6!	0!	0!	0!	0!	6!				
!	3.70!	0!	0!	0!	0!	0!	0!	0!	1!	0!	0!	0!	1!				
!	4.00!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!				
!	!	!	!	!	!	!	!	!	!	!	!	!	!	!	!	!	!
!TOTAL!	296!	492!	601!	231!	186!	6!	10!	0!	0!	0!	0!	0!	1742!				

BEAUFORT SEA COASTAL SEDIMENT STUDY

Stokes Point

WAVES 8/ 7/78 TO 27/ 9/83

DIRECTION 320 TO 330

!WAVE !	Wave Period(secs)												!Total!				
!HT(N)!													!				
!	!	!	!	!	!	!	!	!	!	!	!	!	!				
!	> 12	-3	13	-4	14	-5	15	-6	16	-7	17	-8	18	-9	19	-10	-
!	!	!	!	!	!	!	!	!	!	!	!	!	!	!	!	!	!
!	.10!	122!	20!	11!	5!	0!	0!	0!	0!	0!	0!	0!	150!				
!	.40!	37!	210!	30!	13!	0!	0!	0!	0!	0!	0!	0!	290!				
!	.70!	0!	176!	143!	11!	0!	0!	0!	0!	0!	0!	0!	330!				
!	1.00!	0!	0!	94!	13!	0!	0!	0!	0!	0!	0!	0!	107!				
!	1.30!	0!	0!	2!	86!	3!	0!	0!	0!	0!	0!	0!	91!				
!	1.60!	0!	0!	0!	30!	17!	0!	0!	0!	0!	0!	0!	55!				
!	1.90!	0!	0!	0!	0!	23!	0!	0!	0!	0!	0!	0!	23!				
!	2.20!	0!	0!	0!	0!	3!	0!	0!	0!	0!	0!	0!	3!				
!	2.50!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!				
!	2.80!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!				
!	3.10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!				
!	3.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!				
!	3.70!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!				
!	4.00!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!				
!	!	!	!	!	!	!	!	!	!	!	!	!	!	!	!	!	!
!	TOTAL!	159!	406!	280!	166!	46!	0!	0!	0!	0!	0!	0!	1057!				

DIRECTION 330 TO 340

!WAVE !	Wave Period(secs)												!Total!				
!HT(N)!													!				
!	!	!	!	!	!	!	!	!	!	!	!	!	!				
!	> 12	-3	13	-4	14	-5	15	-6	16	-7	17	-8	18	-9	19	-10	-
!	!	!	!	!	!	!	!	!	!	!	!	!	!	!	!	!	!
!	.10!	125!	10!	6!	0!	2!	0!	0!	0!	0!	0!	0!	151!				
!	.40!	62!	167!	10!	0!	1!	0!	0!	0!	0!	0!	0!	240!				
!	.70!	0!	90!	109!	5!	1!	0!	0!	0!	0!	0!	0!	213!				
!	1.00!	0!	0!	67!	4!	2!	0!	0!	0!	0!	0!	0!	73!				
!	1.30!	0!	0!	0!	72!	2!	0!	0!	0!	0!	0!	0!	74!				
!	1.60!	0!	0!	0!	47!	4!	0!	0!	0!	0!	0!	0!	51!				
!	1.90!	0!	0!	0!	0!	23!	0!	0!	0!	0!	0!	0!	23!				
!	2.20!	0!	0!	0!	0!	1!	0!	0!	0!	0!	0!	0!	1!				
!	2.50!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!				
!	2.80!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!				
!	3.10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!				
!	3.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!				
!	3.70!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!				
!	4.00!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!				
!	!	!	!	!	!	!	!	!	!	!	!	!	!	!	!	!	!
!	TOTAL!	107!	283!	192!	120!	36!	0!	0!	0!	0!	0!	0!	0!	026!			

Stokes Point

BEAUFORT SEA COASTAL SEDIMENT STUDY

WAVES 8/ 7/78 TO 27/ 9/83

DIRECTION 348 TO 350

WAVE !	Wave Period(secs)										Total!
INT(N)!											
	1	2	3	4	5	6	7	8	9	10	
.10!	91!	9!	3!	0!	0!	0!	0!	0!	0!	0!	183!
.40!	34!	125!	3!	1!	0!	0!	0!	0!	0!	0!	163!
.70!	0!	40!	74!	0!	0!	0!	0!	0!	0!	0!	114!
1.00!	0!	1!	41!	1!	0!	0!	0!	0!	0!	0!	43!
1.30!	0!	0!	1!	25!	0!	0!	0!	0!	0!	0!	26!
1.60!	0!	0!	0!	9!	2!	0!	0!	0!	0!	0!	11!
1.90!	0!	0!	0!	0!	13!	0!	0!	0!	0!	0!	13!
2.20!	0!	0!	0!	0!	24!	0!	0!	0!	0!	0!	24!
2.50!	0!	0!	0!	0!	1!	1!	0!	0!	0!	0!	2!
2.80!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.70!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.00!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
TOTAL!	125!	175!	122!	36!	40!	1!	0!	0!	0!	0!	499!

DIRECTION 350 TO 360

WAVE !	Wave Period(secs)										Total!
INT(N)!											
	1	2	3	4	5	6	7	8	9	10	
.10!	183!	9!	0!	0!	0!	0!	0!	0!	0!	0!	192!
.40!	92!	249!	0!	0!	0!	0!	0!	0!	0!	0!	349!
.70!	0!	87!	91!	0!	0!	0!	0!	0!	0!	0!	178!
1.00!	0!	2!	49!	0!	3!	0!	0!	0!	0!	0!	54!
1.30!	0!	0!	2!	16!	4!	0!	0!	0!	0!	0!	22!
1.60!	0!	0!	0!	5!	4!	0!	0!	0!	0!	0!	9!
1.90!	0!	0!	0!	0!	13!	0!	0!	0!	0!	0!	21!
2.20!	0!	0!	0!	0!	13!	0!	0!	0!	0!	0!	13!
2.50!	0!	0!	0!	0!	1!	14!	0!	0!	0!	0!	15!
2.80!	0!	0!	0!	0!	0!	12!	0!	0!	0!	0!	12!
3.10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.70!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.00!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
TOTAL!	275!	347!	150!	29!	38!	26!	0!	0!	0!	0!	865!

Stokes Point

BEAUFORT SEA COASTAL SEDIMENT STUDY

WAVES 8/ 7/78 TO 27/ 9/83

DIRECTION 360 TO 10

WAVE !	Wave Period(secs)										Total!
INT(N)!											
	1	2	3	4	5	6	7	8	9	10	
.10!	144!	12!	0!	0!	0!	0!	0!	0!	0!	0!	156!
.40!	32!	167!	1!	0!	0!	0!	0!	0!	0!	0!	200!
.70!	0!	25!	74!	0!	0!	0!	0!	0!	0!	0!	99!
1.00!	0!	0!	39!	9!	0!	0!	0!	0!	0!	0!	48!
1.30!	0!	0!	0!	9!	0!	0!	0!	0!	0!	0!	9!
1.60!	0!	0!	0!	3!	0!	0!	0!	0!	0!	0!	3!
1.90!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.20!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.50!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.80!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.70!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.00!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
TOTAL!	176!	204!	114!	21!	0!	0!	0!	0!	0!	0!	515!

DIRECTION 10 TO 20

WAVE !	Wave Period(secs)										Total!
INT(N)!											
	1	2	3	4	5	6	7	8	9	10	
.10!	144!	3!	1!	1!	0!	0!	0!	0!	0!	0!	149!
.40!	44!	285!	3!	2!	0!	0!	0!	0!	0!	0!	254!
.70!	0!	52!	62!	0!	0!	0!	0!	0!	0!	0!	114!
1.00!	0!	0!	78!	4!	0!	0!	0!	0!	0!	0!	82!
1.30!	0!	0!	0!	13!	0!	0!	0!	0!	0!	0!	13!
1.60!	0!	0!	0!	4!	0!	0!	0!	0!	0!	0!	4!
1.90!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.20!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.50!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.80!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.70!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.00!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
TOTAL!	188!	268!	144!	24!	0!	0!	0!	0!	0!	0!	616!

BEAUFORT SEA COASTAL SEDIMENT STUDY

Stokes Point

WAVES 8/ 7/78 TO 27/ 9/83

DIRECTION 28 TO 38

WAVE !	Wave Period(secs)										Total!
HT(N)!											
! > 12 -3 13 -4 14 -5 15 -6 16 -7 17 -8 18 -9 19 -10! - !											
1.10!	245!	36!	0!	1!	0!	0!	0!	0!	0!	282!	
1.40!	54!	252!	1!	3!	0!	0!	0!	0!	0!	310!	
1.70!	0!	78!	82!	5!	0!	0!	0!	0!	0!	165!	
1.80!	0!	0!	70!	7!	0!	0!	0!	0!	0!	77!	
1.30!	0!	0!	0!	22!	0!	0!	0!	0!	0!	22!	
1.60!	0!	0!	0!	11!	1!	0!	0!	0!	0!	12!	
1.90!	0!	0!	0!	1!	0!	0!	0!	0!	0!	9!	
2.20!	0!	0!	0!	2!	1!	0!	0!	0!	0!	3!	
2.50!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
2.80!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
3.10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
3.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
3.70!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
4.00!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
TOTAL!	299!	366!	153!	52!	10!	0!	0!	0!	0!	680!	

DIRECTION 38 TO 48

!WAVE !	Wave Period(secs)										!Total!
!HT(N)!											!
! > 12 -3 13 -4 14 -5 15 -6 16 -7 17 -8 18 -9 19 -10! - !											!
1.10!	231!	23!	4!	0!	0!	0!	0!	0!	0!	258!	
1.40!	63!	228!	19!	0!	0!	0!	0!	0!	0!	310!	
1.70!	0!	84!	133!	4!	0!	0!	0!	0!	0!	221!	
1.80!	0!	1!	70!	20!	2!	0!	0!	0!	0!	93!	
1.30!	0!	0!	0!	39!	4!	0!	0!	0!	0!	43!	
1.60!	0!	0!	0!	5!	4!	0!	0!	0!	0!	9!	
1.90!	0!	0!	0!	0!	0!	1!	0!	0!	0!	9!	
2.20!	0!	0!	0!	0!	13!	2!	0!	0!	0!	15!	
2.50!	0!	0!	0!	0!	0!	5!	0!	0!	0!	5!	
2.80!	0!	0!	0!	0!	0!	4!	0!	0!	0!	4!	
3.10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
3.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
3.70!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
4.00!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
!TOTAL!	294!	336!	226!	68!	31!	12!	0!	0!	0!	967!	

BEAUFORT SEA COASTAL SEDIMENT STUDY

Stokes Point

WAVES 8/ 7/78 TO 27/ 9/83

DIRECTION 48 TO 58

WAVE !	Wave Period(secs)										Total!
HT(N)!											
! > 12 -3 13 -4 14 -5 15 -6 16 -7 17 -8 18 -9 19 -10! - !											
1.10!	200!	2!	0!	0!	0!	0!	0!	0!	0!	210!	
1.40!	35!	221!	0!	0!	0!	0!	0!	0!	0!	256!	
1.70!	0!	180!	73!	0!	0!	0!	0!	0!	0!	173!	
1.80!	0!	0!	110!	4!	0!	0!	0!	0!	0!	114!	
1.30!	0!	0!	1!	37!	2!	0!	0!	0!	0!	40!	
1.60!	0!	0!	0!	11!	6!	0!	0!	0!	0!	17!	
1.90!	0!	0!	0!	0!	16!	0!	0!	0!	0!	16!	
2.20!	0!	0!	0!	0!	11!	0!	0!	0!	0!	11!	
2.50!	0!	0!	0!	0!	0!	9!	0!	0!	0!	9!	
2.80!	0!	0!	0!	0!	0!	2!	0!	0!	0!	2!	
3.10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
3.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
3.70!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
4.00!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
TOTAL!	243!	323!	184!	52!	35!	11!	0!	0!	0!	840!	

DIRECTION 58 TO 68

WAVE !	Wave Period(secs)										Total!
HT(N)!											
! > 12 -3 13 -4 14 -5 15 -6 16 -7 17 -8 18 -9 19 -10! - !											
1.10!	152!	9!	1!	0!	0!	0!	0!	0!	0!	162!	
1.40!	45!	224!	6!	3!	0!	0!	0!	0!	0!	278!	
1.70!	0!	55!	173!	14!	0!	0!	0!	0!	0!	242!	
1.80!	0!	0!	182!	42!	0!	0!	0!	0!	0!	224!	
1.30!	0!	0!	1!	142!	0!	0!	0!	0!	0!	143!	
1.60!	0!	0!	0!	77!	50!	0!	0!	0!	0!	127!	
1.90!	0!	0!	0!	0!	99!	0!	0!	0!	0!	99!	
2.20!	0!	0!	0!	0!	25!	0!	0!	0!	0!	25!	
2.50!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
2.80!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
3.10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
3.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
3.70!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
4.00!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
TOTAL!	197!	288!	343!	278!	174!	0!	0!	0!	0!	1300!	

Stokes Point

BEAUFORT SEA COASTAL SEDIMENT STUDY

WAVES 8/ 7/70 TO 27/ 9/83

DIRECTION 60 TO 70

WAVE !	Wave Period(secs)																	Total!
INT(N)!																		
	>	12	-3	13	-4	14	-5	15	-6	16	-7	17	-8	18	-9	19	-10	-
.10!	188!			33!		18!		3!		0!		0!		0!		0!		242!
.40!	52!			299!		37!		10!		0!		0!		0!		0!		398!
.70!	0!			93!		178!		6!		0!		0!		0!		0!		277!
1.00!	0!			0!		293!		75!		3!		0!		0!		0!		371!
1.30!	0!			0!		0!		229!		0!		0!		0!		0!		229!
1.60!	0!			0!		0!		75!		35!		0!		0!		0!		110!
1.90!	0!			0!		0!		0!		22!		0!		0!		0!		22!
2.20!	0!			0!		0!		0!		5!		0!		0!		0!		5!
2.50!	0!			0!		0!		0!		0!		0!		0!		0!		0!
2.80!	0!			0!		0!		0!		0!		0!		0!		0!		0!
3.10!	0!			0!		0!		0!		0!		0!		0!		0!		0!
3.40!	0!			0!		0!		0!		0!		0!		0!		0!		0!
3.70!	0!			0!		0!		0!		0!		0!		0!		0!		0!
4.00!	0!			0!		0!		0!		0!		0!		0!		0!		0!
TOTAL!	240!			425!		526!		398!		65!		0!		0!		0!		1654!

DIRECTION 70 TO 80

WAVE !	Wave Period(secs)																	Total!
INT(N)!																		
	>	12	-3	13	-4	14	-5	15	-6	16	-7	17	-8	18	-9	19	-10	-
.10!	154!	0!	5!	2!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	169!
.40!	67!	314!	16!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	485!
.70!	0!	78!	225!	10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	313!
1.00!	0!	0!	354!	43!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	397!
1.30!	0!	0!	0!	315!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	315!
1.60!	0!	0!	0!	238!	39!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	277!
1.90!	0!	0!	0!	0!	43!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	43!
2.20!	0!	0!	0!	0!	18!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	18!
2.50!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.80!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.70!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.00!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
TOTAL!	221!	480!	600!	616!	100!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	1937!

Stokes Point

BEAUFORT SEA COASTAL SEDIMENT STUDY

WAVES 8/ 7/70 TO 27/ 9/83

DIRECTION 80 TO 90

WAVE !	Wave Period(secs)																	Total!
INT(N)!																		
	>	12	-3	13	-4	14	-5	15	-6	16	-7	17	-8	18	-9	19	-10	-
.10!	289!	16!	5!	1!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	311!
.40!	189!	251!	7!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	367!
.70!	0!	195!	260!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	455!
1.00!	0!	0!	310!	4!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	314!
1.30!	0!	0!	7!	78!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	85!
1.60!	0!	0!	0!	11!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	11!
1.90!	0!	0!	0!	0!	16!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	16!
2.20!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.50!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.80!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.70!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.00!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
TOTAL!	398!	462!	589!	94!	16!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	1559!

DIRECTION 90 TO 100

WAVE !	Wave Period(secs)																	Total!
INT(N)!																		
	>	12	-3	13	-4	14	-5	15	-6	16	-7	17	-8	18	-9	19	-10	-
.10!	232!	28!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	260!
.40!	86!	343!	5!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	434!
.70!	0!	173!	295!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	468!
1.00!	0!	0!	322!	7!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	329!
1.30!	0!	0!	0!	178!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	178!
1.60!	0!	0!	0!	28!	1!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	29!
1.90!	0!	0!	0!	0!	3!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	3!
2.20!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.50!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.80!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.70!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.00!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
TOTAL!	318!	544!	622!	213!	4!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	1781!

BEAUFORT SEA COASTAL SEDIMENT STUDY

Stokes Point

WAVES 8/ 7/78 TO 27/ 9/83

DIRECTION 100 TO 110

WAVE !	Wave Period(secs)										Total!
INT(M)!											
!	12	13	14	15	16	17	18	19	20	-	
.10!	345!	46!	14!	0!	0!	0!	0!	0!	0!	485!	
.40!	184!	469!	28!	2!	0!	0!	0!	0!	0!	683!	
.70!	0!	279!	281!	1!	0!	0!	0!	0!	0!	561!	
1.00!	0!	0!	365!	5!	0!	0!	0!	0!	0!	370!	
1.30!	0!	0!	0!	75!	0!	0!	0!	0!	0!	75!	
1.60!	0!	0!	0!	11!	2!	0!	0!	0!	0!	13!	
1.90!	0!	0!	0!	0!	4!	0!	0!	0!	0!	4!	
2.20!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
2.50!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
2.80!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
3.10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
3.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
3.70!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
4.00!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
TOTAL!	449!	794!	688!	94!	6!	0!	0!	0!	0!	2831!	

DIRECTION 110 TO 120

!WAVE !	Wave Period(secs)										!Total!
!INT (M)!											!
!	!-----!										!
!	> !2 !3 !3 !4 !4 !5 !5 !6 !6 !7 !7 !8 !8 !9 !9 !10!	!	!								
! .10!	283!	1!	0!	0!	0!	0!	0!	0!	0!	284!	
! .40!	89!	87!	0!	0!	0!	0!	0!	0!	0!	176!	
! .70!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
! 1.00!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
! 1.30!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
! 1.60!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
! 1.90!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
! 2.20!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
! 2.50!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
! 2.80!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
! 3.10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
! 3.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
! 3.70!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
! 4.00!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
!TOTAL!	292!	88!	0!	0!	0!	0!	0!	0!	0!	380!	

BEAUFORT SEA COASTAL SEDIMENT STUDY

Stokes Point

WAVES 8/ 7/78 TO 27/ 9/83

DIRECTION 120 TO 130

WAVE !	Wave Period(secs)										Total!
INT(M)!											
	12	13	14	15	16	17	18	19	20	-	
.10!	236!	3!	0!	0!	0!	0!	0!	0!	0!	239!	
.40!	121!	88!	0!	0!	0!	0!	0!	0!	0!	209!	
.70!	0!	2!	0!	0!	0!	0!	0!	0!	0!	2!	
1.00!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
1.30!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
1.60!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
1.90!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
2.20!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
2.50!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
2.80!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
3.10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
3.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
3.70!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
4.00!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
TOTAL!	357!	93!	0!	0!	0!	0!	0!	0!	0!	450!	

DIRECTION 130 TO 140

WAVE !	Wave Period(secs)										Total!
INT(M)!											!
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Stokes Point

BEAUFORT SEA COASTAL SEDIMENT STUDY

WAVES 8/ 7/78 TO 27/ 9/83

DIRECTION 140 TO 150

WAVE !	Wave Period(secs)										Total!
INT(H)!											!
!											!
!	>	12	13	14	15	16	17	18	19	20	-
!	1.10!	343!	0!	0!	0!	0!	0!	0!	0!	0!	343!
!	1.40!	182!	53!	0!	0!	0!	0!	0!	0!	0!	155!
!	1.70!	0!	2!	0!	0!	0!	0!	0!	0!	0!	2!
!	1.80!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
!	1.30!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
!	1.60!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
!	1.90!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
!	2.20!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
!	2.50!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
!	2.80!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
!	3.10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
!	3.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
!	3.70!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
!	4.00!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
!	TOTAL!	485!	55!	0!	0!	0!	0!	0!	0!	0!	480!

DIRECTION 150 TO 160

WAVE !	Wave Period(secs)										Total!
INT(H)!											!
!											!
!	>	12	13	14	15	16	17	18	19	20	-
!	1.10!	225!	3!	0!	0!	0!	0!	0!	0!	0!	228!
!	1.40!	62!	37!	0!	0!	0!	0!	0!	0!	0!	99!
!	1.70!	0!	1!	0!	0!	0!	0!	0!	0!	0!	1!
!	1.80!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
!	1.30!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
!	1.60!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
!	1.90!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
!	2.20!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
!	2.50!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
!	2.80!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
!	3.10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
!	3.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
!	3.70!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
!	4.00!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
!	TOTAL!	287!	41!	0!	0!	0!	0!	0!	0!	0!	328!

BEAUFORT SEA COASTAL SEDIMENT STUDY

OFFSHORE TO ONSHORE WAVE TRANSFORMATION FUNCTIONS

STOKES POINT

KEITH PHILPOTT CONSULTING LTD.
P.O. Box 938
THORNHILL
ONTARIO L3T 4A5

KEY

Grid Number
Nodal Dimensions (XxY)
Mesh Size (metres)

1
29X49
50X50

2
33X49
50X50

3
7X46
200X200

4
25X6
200X200

12
10X11
1000X1000

11
25X51
200X200

5
16X16
600X600

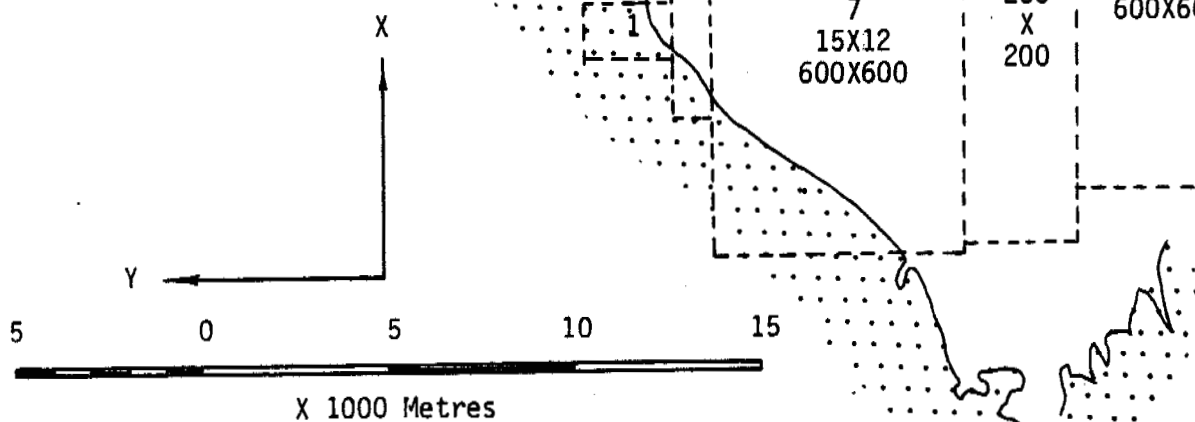
6
52X18
200X200

8
13X6
600
X
600

9
57X16
200
X
200

10
16X10
600X600

7
15X12
600X600



BEAUFORT SEA COASTAL SEDIMENT STUDY

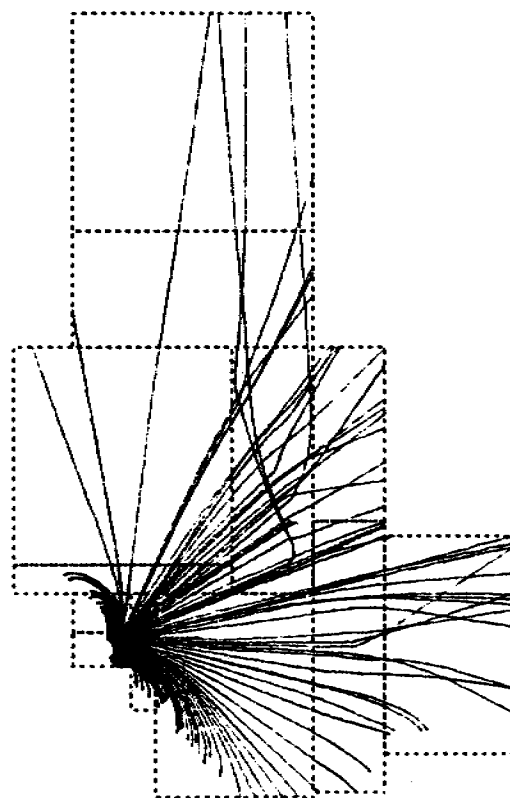
Stokes Point: Nodal Dimensions and Mesh Size of
Refraction Model Grids

Date: 14 May 85

Scales as shown

Checked by:

Keith Philpott
Consulting Limited



FIGURE

WAVE RAY DETAILS

Tide Level= 0.50 m.

Wave Period= 5.8 secs

Position No:2

Bathymetry information used for
grids obtained from the Canadian
Hydrographic Service. Field sheets
numbered:

W.A. 10070 (1970)

F.S. 3588 (1969)



BEAUFORT COASTAL SEDIMENT STUDY

Wave Refraction Analysis for

Stokes Point - Beaufort Sea

Date: 15 Jan 85

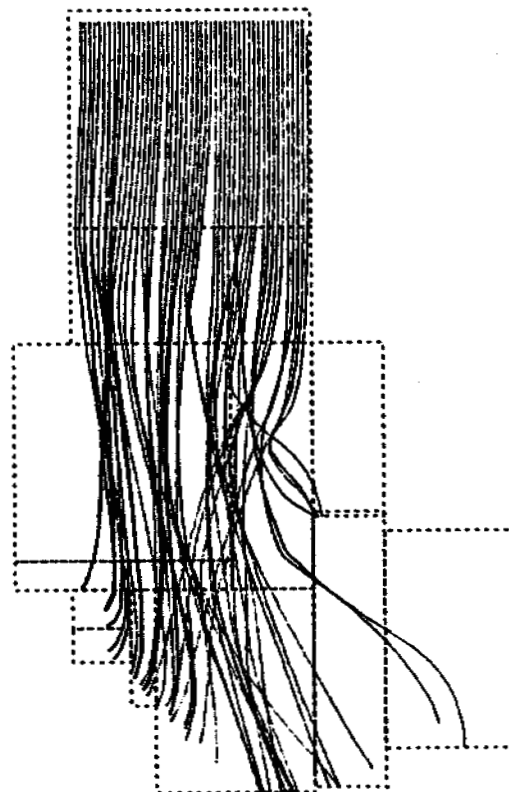
Scale 1:200000

Checked by:

Keith Philpott

Consulting Limited

SP-21



FIGURE

WAVE RAY DETAILS:

Tide Level= 0.58 m.

Wave Period= 6.3 secs

Direction= 180.0 Degree True

Bathymetry information used for
grids obtained from the Canadian
Hydrographic Service. Field sheets
numbered:

V.A. 18871 (1978)

F.S. 3500 (1989)



BEAUFORT COASTAL SEDIMENT STUDY

Wave Refraction Analysis for

Stokes Point - Beaufort Sea

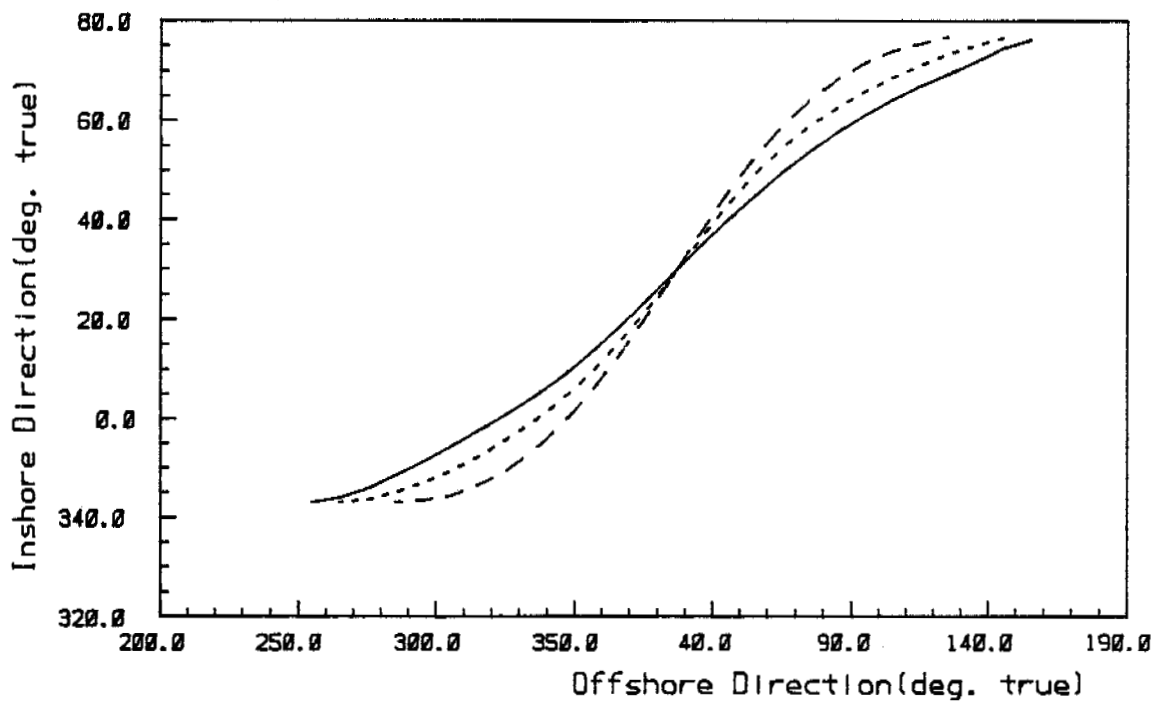
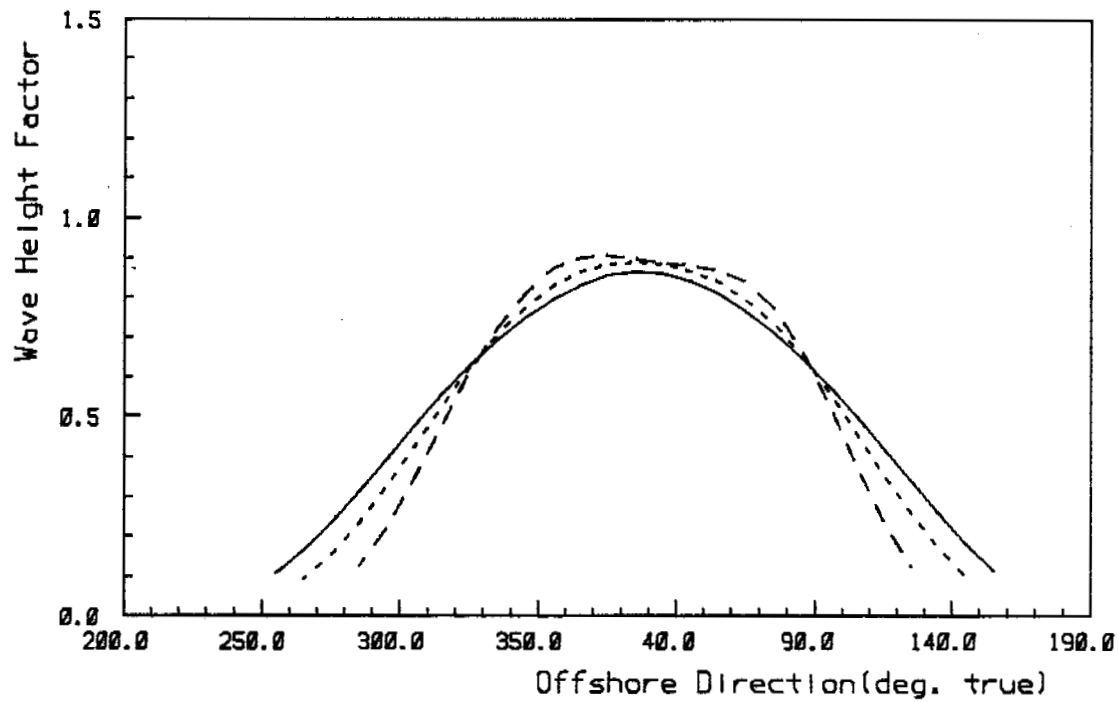
Date: 14 Nov 84

Scale 1:200000

Checked by:

Keith Philpott

Consulting Limited



Node No: 1

Spreading Index:

2

Tide Level: 0.50 m.

4

Peak Period: 3.2 secs

10

BEAUFORT SEA COASTAL SEDIMENT STUDY

Date: 26 Mar 85

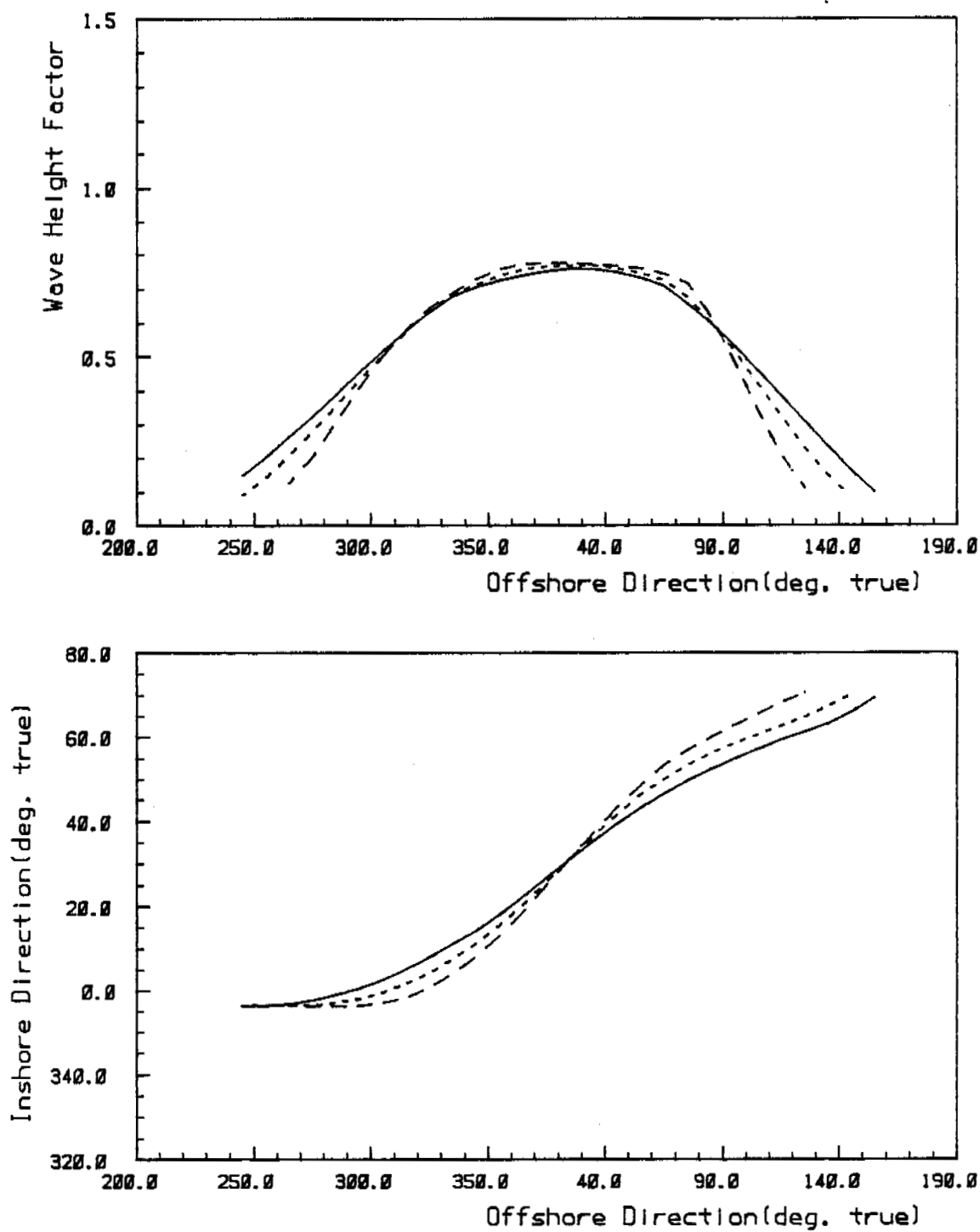
Scales as shown

Stokes Point: Wave Spectrum Transformation Results for
Node Number 01

Checked by:

Keith Philpott

Consulting Limited



Node No: 1

Spreading Index:

2

Tide Level: 0.50 m.

4

Peak Period: 5.0 secs

10

BEAUFORT SEA COASTAL SEDIMENT STUDY

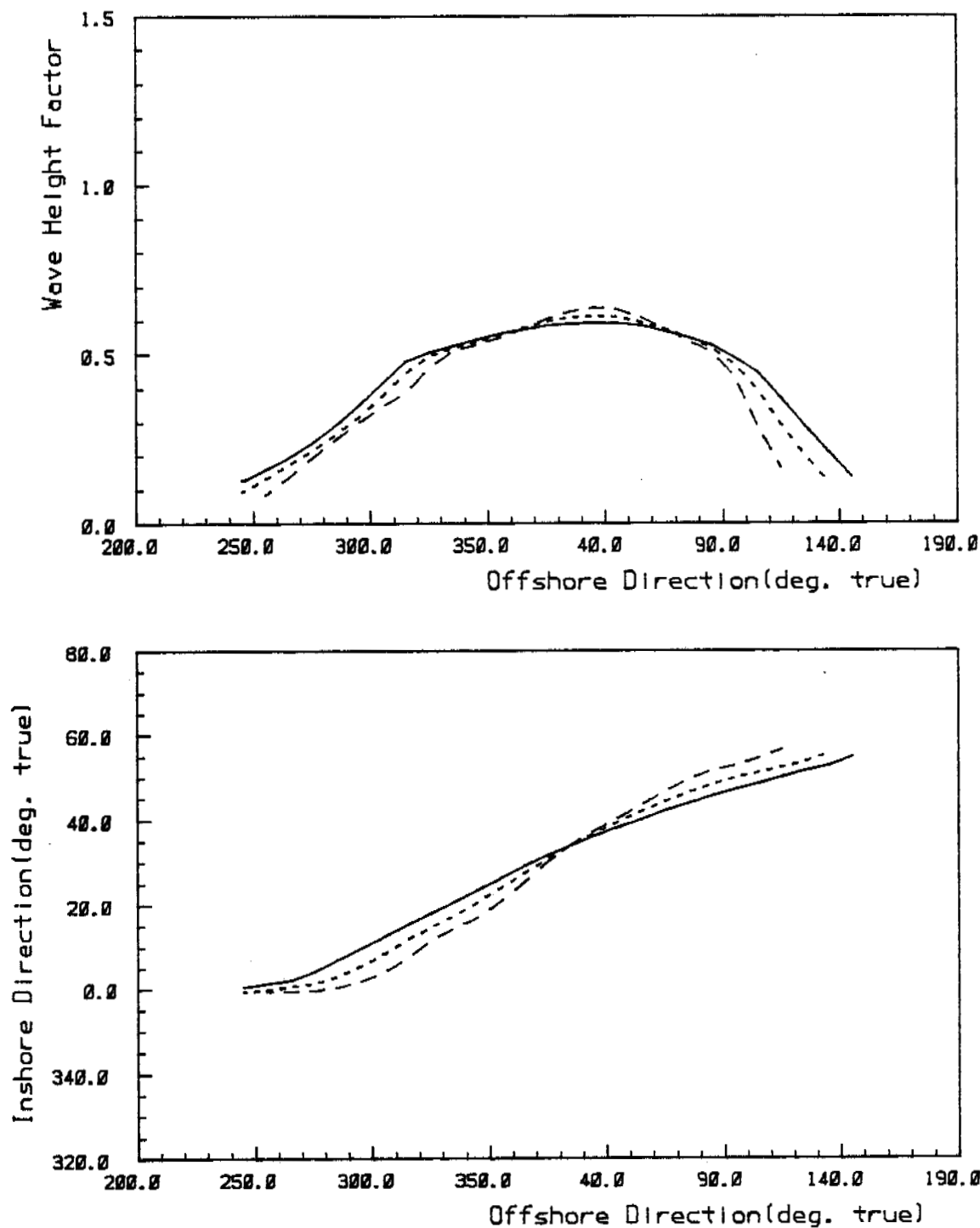
Stokes Point: Wave Spectrum Transformation Results for
Node Number 01

Date: 26 Mar 85

Scales as shown

Checked by:

Keith Philpott
Consulting Limited



Node No: 1

Spreading Index:

2

Tide Level: 0.50 m.

4

Peak Period: 7.9 secs

10

BEAUFORT SEA COASTAL SEDIMENT STUDY

Date: 26 Mar 85

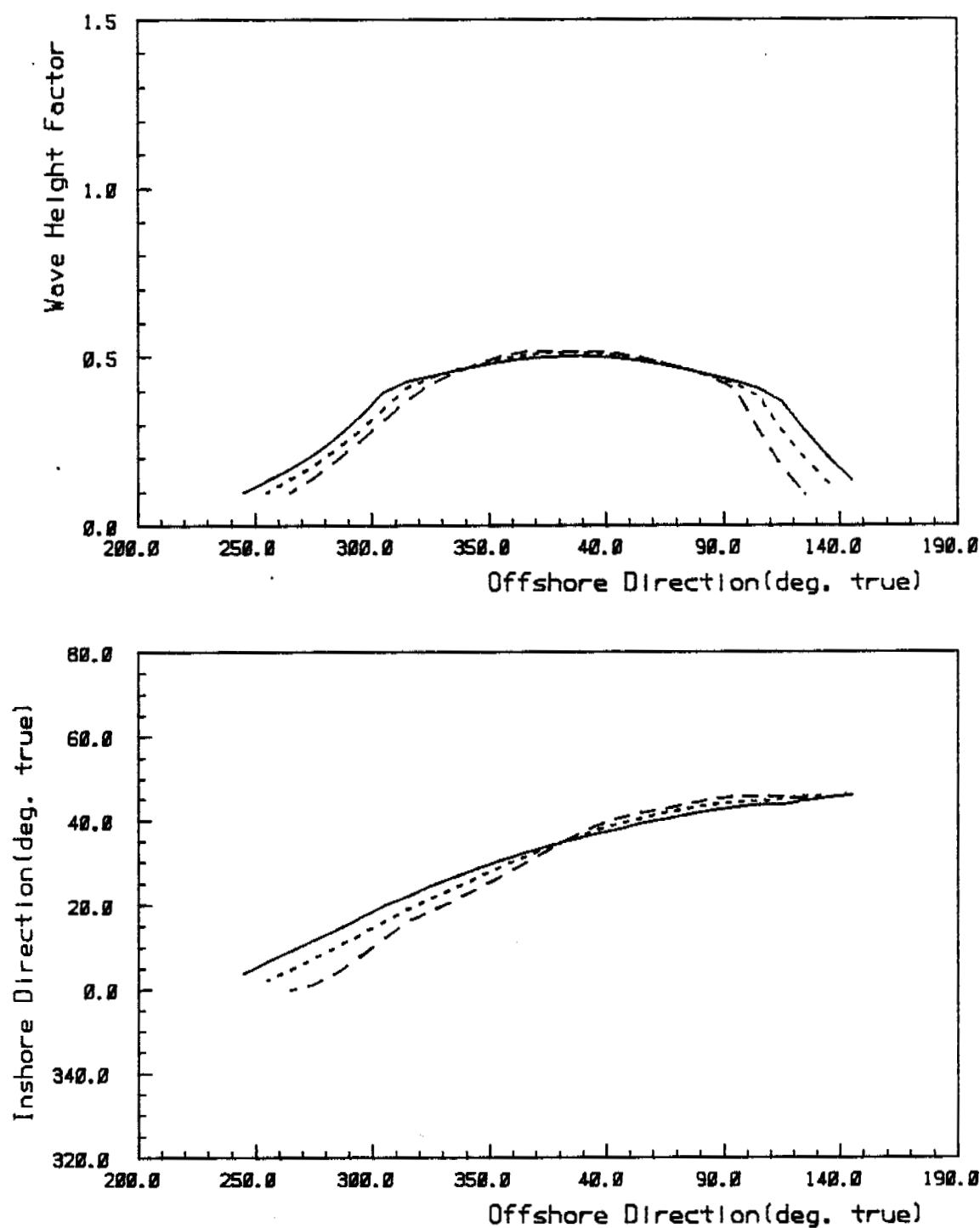
Scales as shown

Checked by:

Keith Philpott

Consulting Limited

Stokes Point: Wave Spectrum Transformation Results for
Node Number 01



Node No: 1

Spreading Index:

2

Tide Level: 0.50 m.

4

Peak Period: 10.0 secs

10

BEAUFORT SEA COASTAL SEDIMENT STUDY

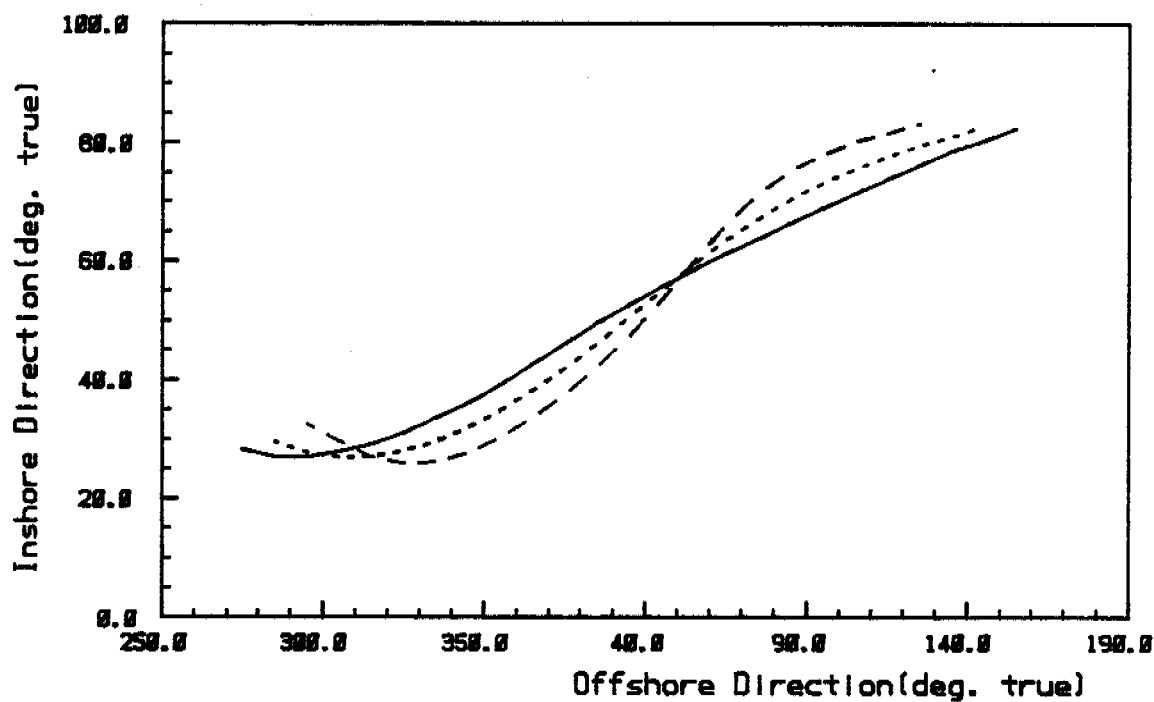
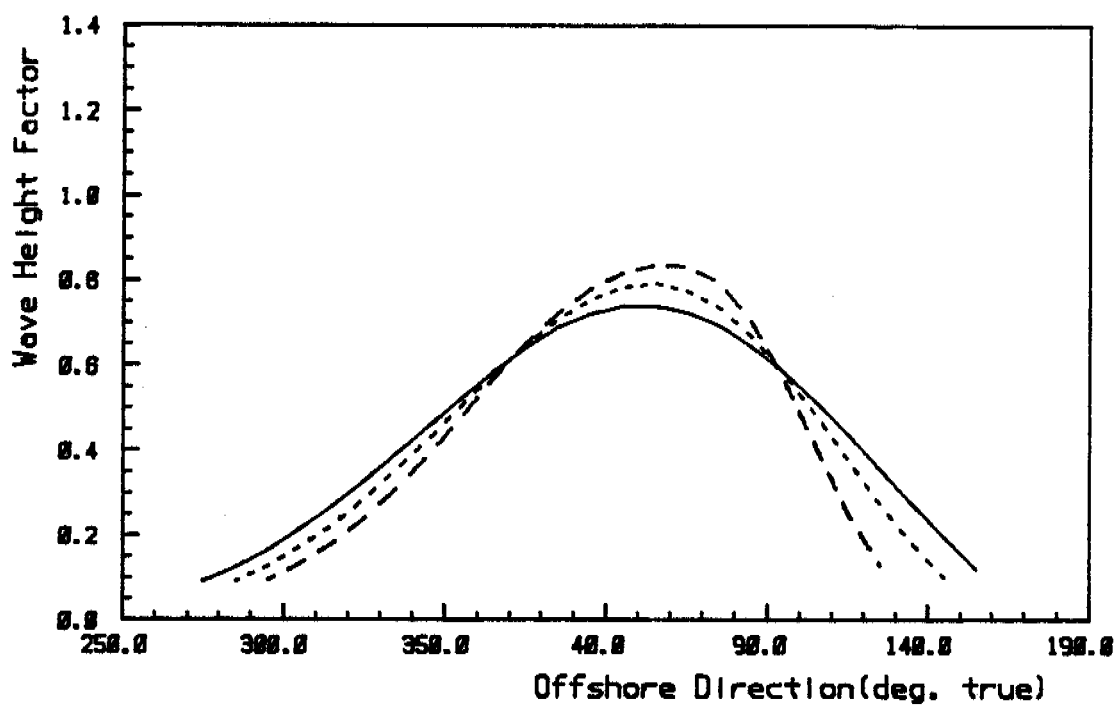
Date: 26 Mar 85

Scales as shown

Stokes Point: Wave Spectrum Transformation Results for
Node Number 01

Checked by:

Keith Philpott
Consulting Limited



Node No: 2

Spreading Index:

2

Tide Level: 0.50 m.

4

Peak Period: 3.2 secs

10

BEAUFORT SEA COASTAL SEDIMENT STUDY

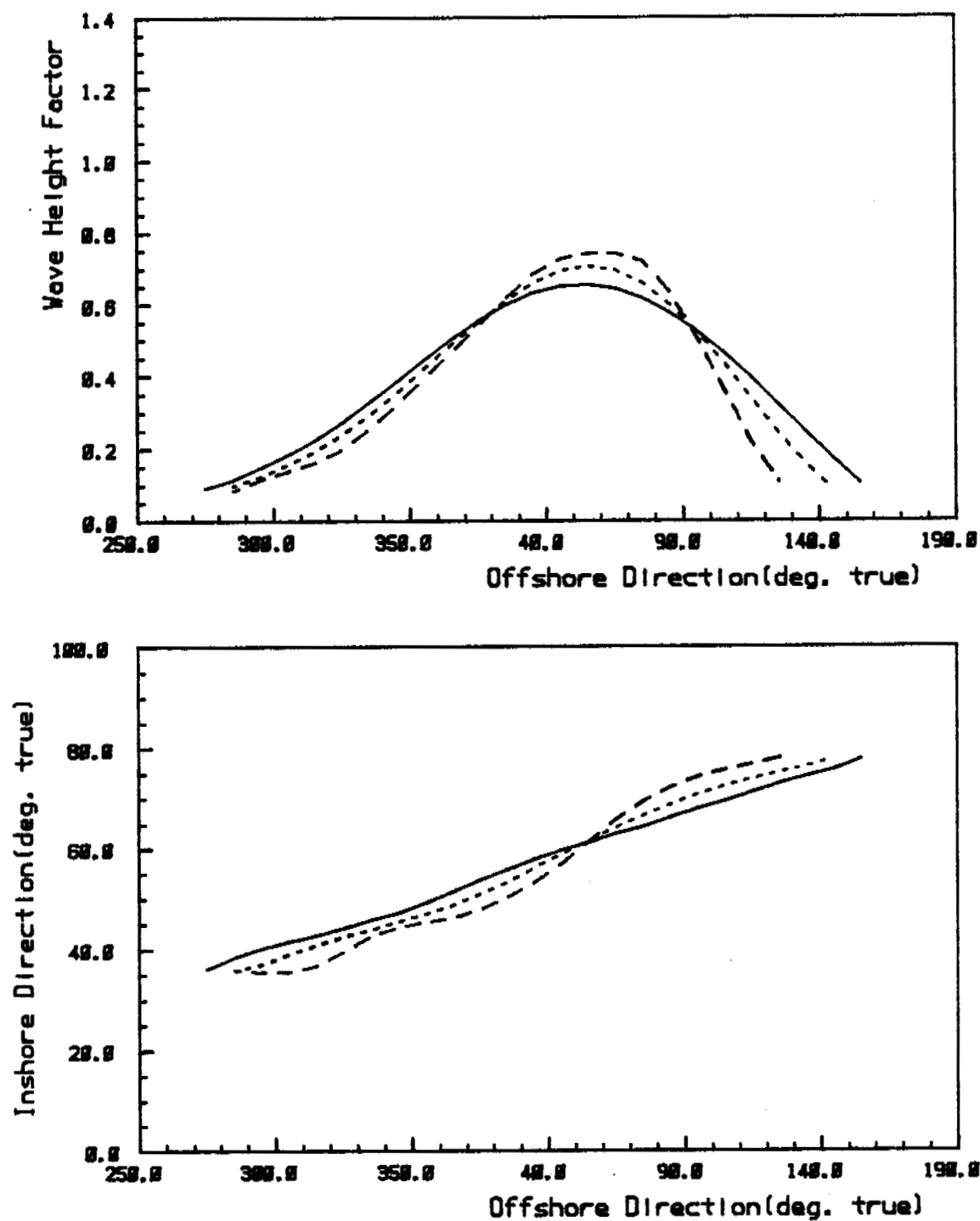
Date: 27 Mar 85

Scales as shown

Stokes Point: Wave Spectrum Transformation Results for
Node Number 02

Checked by:

Keith Philpott
Consulting Limited



Node No: 2

Spreading Index:

2

Tide Level: 0.50 m.

4

Peak Period: 5.0 secs

10

BEAUFORT SEA COASTAL SEDIMENT STUDY

Date: 27 Mar 85

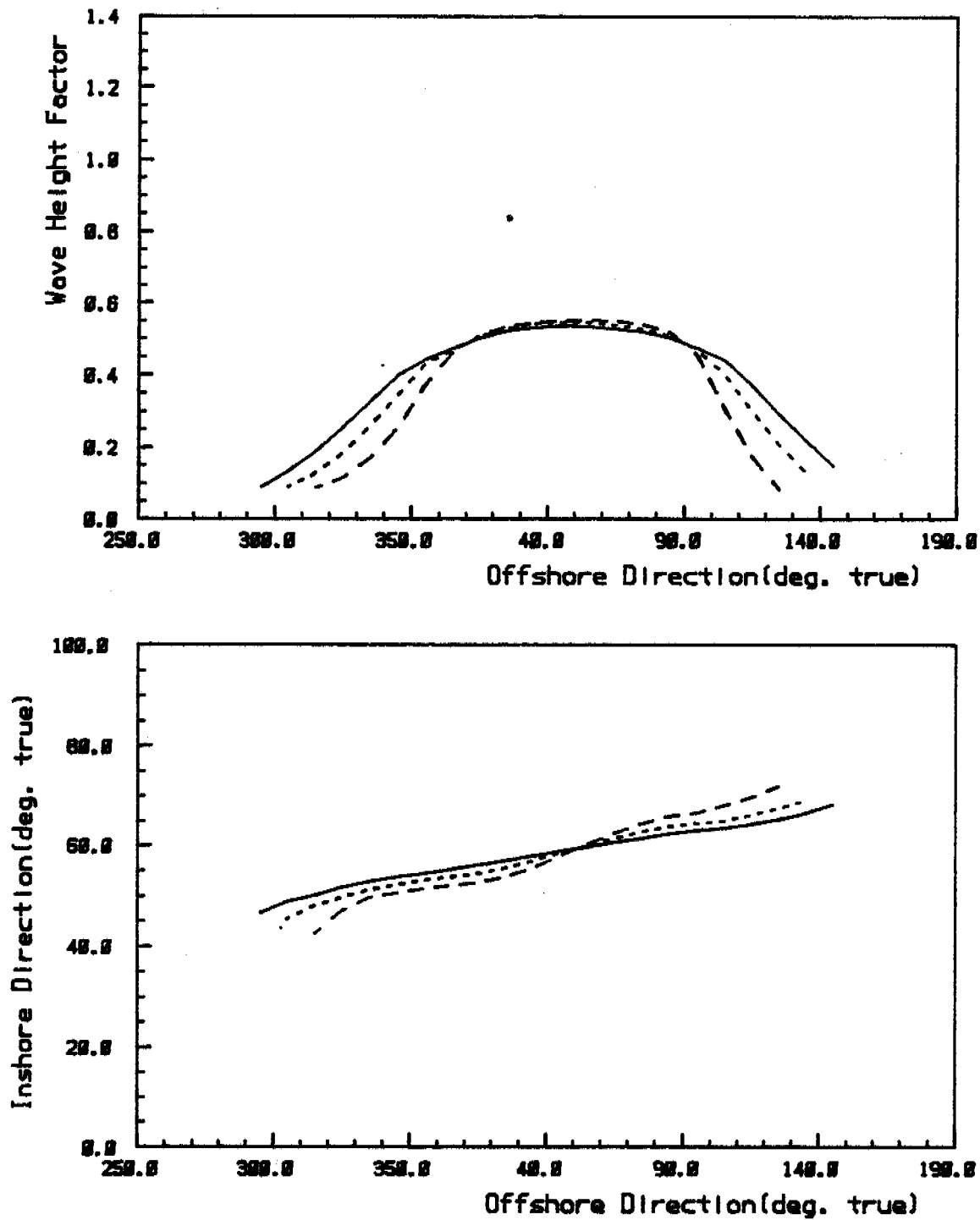
Scales as shown

Stokes Point: Wave Spectrum Transformation Results for
Node Number 02

Checked by:

Keith Philpott
Consulting Limited

FIGURE



Node No: 2

Spreading Index: 2

Tide Level: 0.50 m.

4

Peak Period: 7.9 secs

18

BEAUFORT SEA COASTAL SEDIMENT STUDY

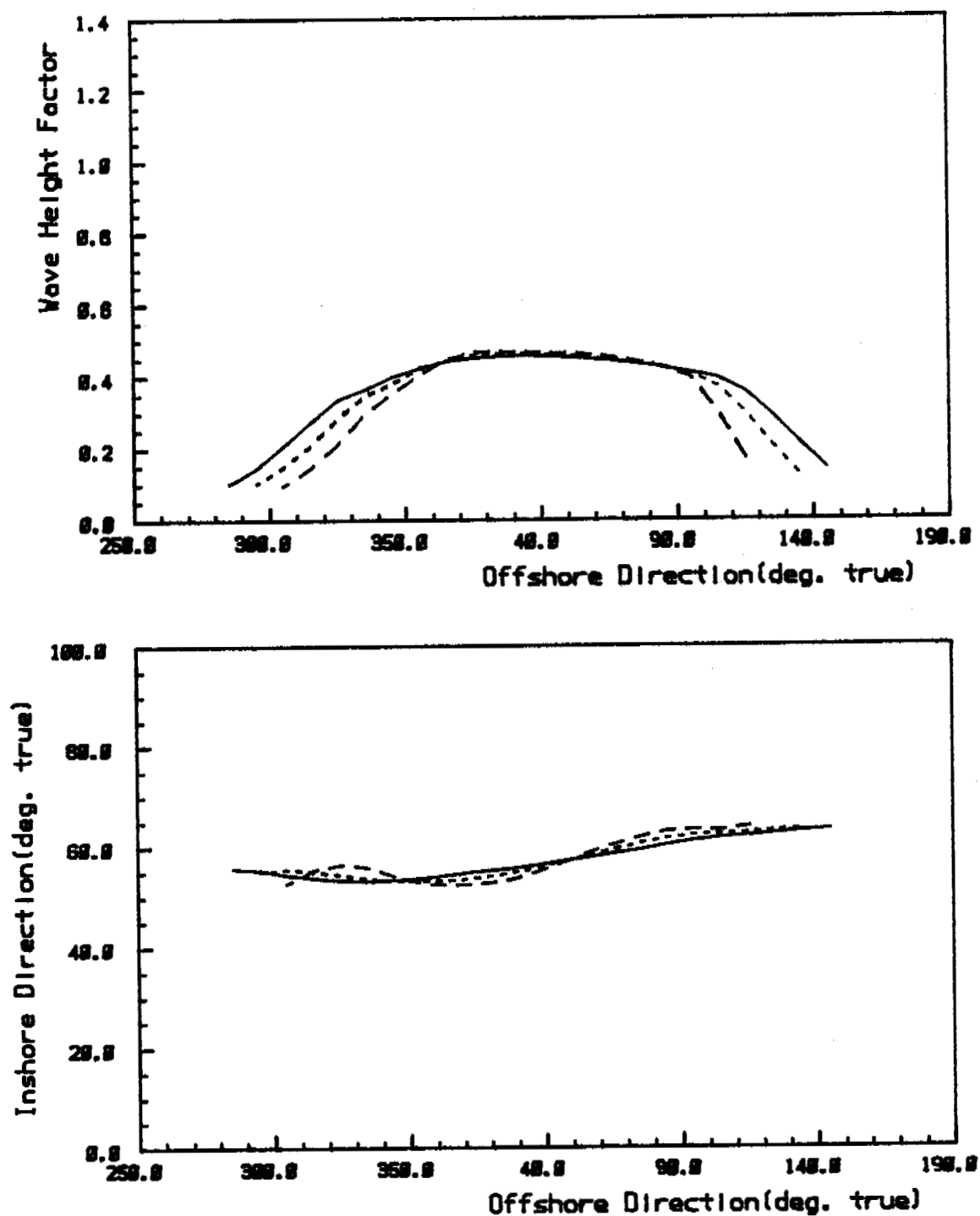
Date: 27 Mar 85

Scales as shown

Stokes Point: Wave Spectrum Transformation Results for
Node Number 02

Checked by:

Keith Philpott
Consulting Limited



Node No: 2

Spreading Index: 2

Tide Level: 0.50 m.

4

Peak Period: 10.0 secs

10

BEAUFORT SEA COASTAL SEDIMENT STUDY

Date: 27 Mar 85

Scales as shown

Stokes Point: Wave Spectrum Transformation Results for
Node Number 02

Checked by:

Keith Philpott
Consulting Limited

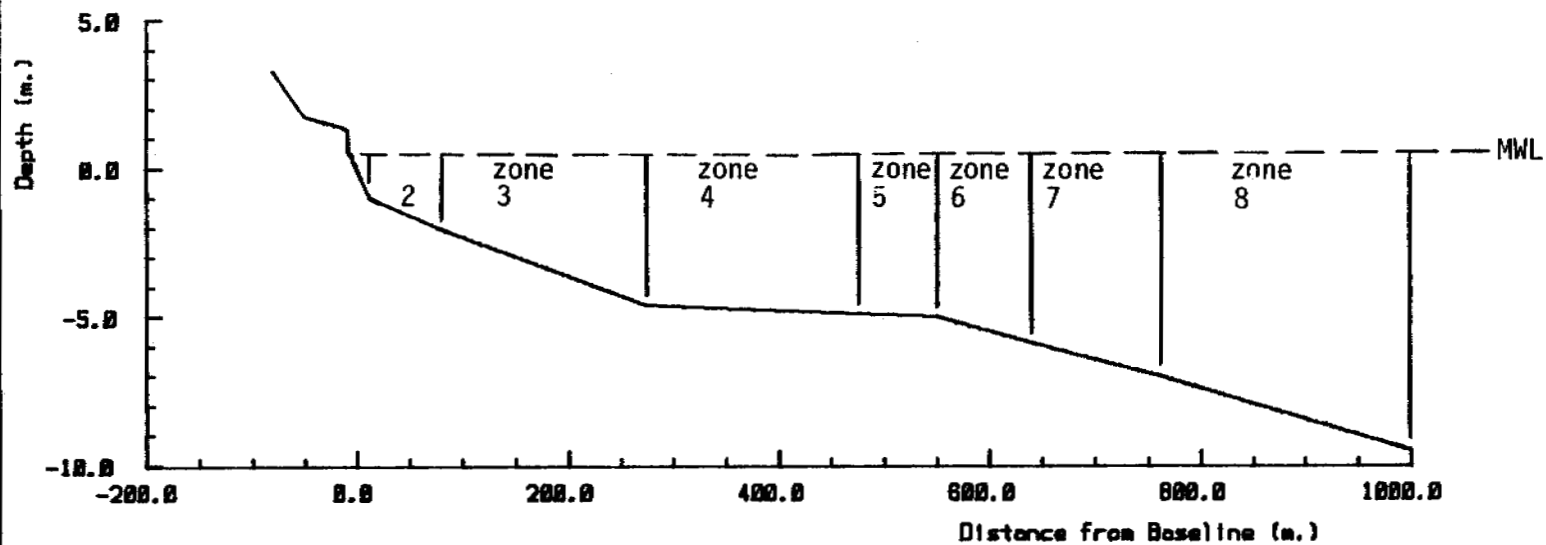
BEAUFORT SEA COASTAL SEDIMENT STUDY

ALONGSHORE SEDIMENT TRANSPORT RESULTS

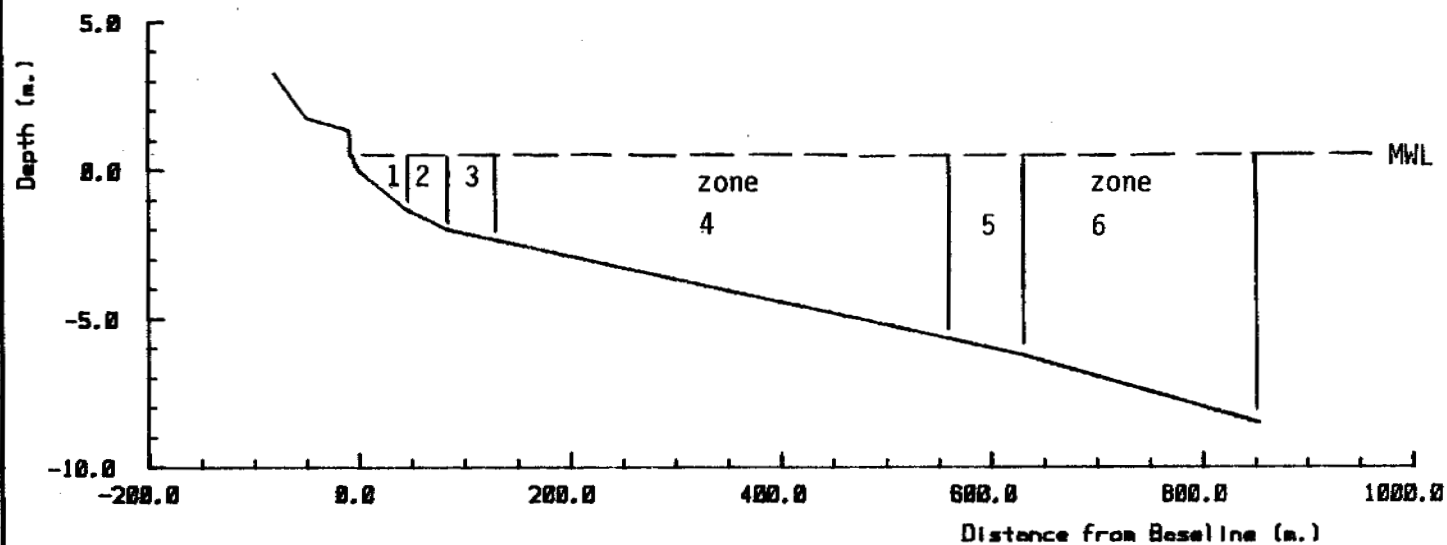
FOURTEEN YEAR AVERAGES

(1970 - 1983)

KEITH PHILPOTT CONSULTING LTD.
P.O. Box 938
THORNHILL
ONTARIO L3T 4A5



(a) Profile at Node 1



(b) Profile at Node 2

BEAUFORT SEA COASTAL SEDIMENT STUDY

Stokes Point: Beach Profiles used in Sediment

Transport Predictions

Date: 15 Mar 85

Scales as shown

Checked by:

Keith Philpott
Consulting Limited

BEAUFORT SEA COASTAL SEDIMENT STUDY

Current date is 02/27/85

Current time is 17:45:45.45

14 YEAR AVERAGE SEDIMENT TRANSPORT HINDCAST,

WAVE DATA IS HINDCAST FROM TUKTOYAKTUK N.N.T. WINDS

This run used the following sediment transport models

- 1 CERC formula
- 2 Queen's modified CERC (March 1985)
- 3 Swart modified CERC
- 4 Bijker formula
- 5 Engelund and Hansen (by Swart)
- 7 Swart model
- 8 Willis model
- 9 Van Der Graaf and Overeen model
- 10 Nielsen model (breaking waves)
- 11 Nielsen model (non breaking waves)
- 12 Fleming model
- 13 Swart and Lenhoff model

STOKES POINT NODE 1, MEAN WATER LEVEL

Profile Data

Zone	1	2	3	4	5	6	7	8
Shoreline O/S to mid-zone	6.3	45.0	176.3	375.0	512.5	595.0	700.0	880.0
Sed. Transport Zone Width	12.5	65.0	197.5	200.0	75.0	90.0	120.0	240.0
Depth at Centre of Zone	.50	1.50	3.30	4.75	4.95	5.45	6.45	8.25
Sediment Transport Switch	On	On	On	On	On	On	On	On

Input Grain Size Distribution (mm)

Zone	D16	D25	D35	D50	D65	D75	D84	D90	
1 to 4	.120	.130	.150	.190	.200	.220	.240	.260	Roughness Based on Ripple Height
5 to 6	.200	.380	.520	.680	.690	.700	.800	.860	Roughness Based on Ripple Height
7 to 8	.170	.200	.230	.250	.260	.280	.300	.360	Roughness Based on Ripple Height

refraction analysis was to a depth of 4.0 meters

beach normal azimuth = 48.0 degrees

weighted breaker depth = .72 meters

STOKES POINT NODE 2, MEAN WATER LEVEL

Profile Data

Zone	1	2	3	4	5	6
Shoreline O/S to mid-zone	22.5	65.0	107.5	347.5	597.5	742.5
Sed. Transport Zone Width	45.0	40.0	45.0	435.0	65.0	225.0
Depth at Centre of Zone	.65	1.65	2.17	4.82	5.95	7.35
Sediment Transport Switch	On	On	On	On	On	On

Input Grain Size Distribution (mm)

Zone	D16	D25	D35	D50	D65	D75	D84	D90	
1 to 3	.170	.200	.230	.250	.260	.280	.300	.360	Roughness Based on Ripple Height
4	.120	.130	.150	.190	.200	.220	.240	.260	Roughness Based on Ripple Height
5 to 6	.200	.380	.520	.680	.690	.700	.800	.860	Roughness Based on Ripple Height

refraction analysis was to a depth of 4.0 meters

beach normal azimuth = 81.0 degrees

weighted breaker depth = .65 meters

RESULTS OF ALL WAVE CONDITIONS

STOKES POINT NODE 1, MEAN WATER LEVEL

GROSS SEDIMENT TRANSPORT RATES (cu.m./m./yr)

Model	B(1)	B(2)	B(3)	B(4)	B(5)	B(6)	B(7)	B(8)	Total Transport (cu.m./yr.)
1									.4868E+05
2									.1493E+05
3									.6320E+05
4	.5203E+03	.2815E+03	.4379E-07	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.2480E+05
5	.3684E+04	.1564E+04	.4373E+01	.8798E-02	.3961E-02	.0000E+00	.0000E+00	.0000E+00	.1485E+06
7	.7190E+04	.1725E+05	.1045E+01	.3705E-06	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.1211E+07
8	.2930E+05	.2175E+05	.4813E+02	.2681E+00	.2042E+00	.0000E+00	.0000E+00	.0000E+00	.1790E+07
9	.4338E+05	.2927E+05	.2093E+02	.3221E-01	.1346E-02	.0000E+00	.0000E+00	.0000E+00	.2449E+07
10	.9612E+03	.2388E+03	.1522E+01	.3719E-02	.6178E-03	.0000E+00	.0000E+00	.0000E+00	.2784E+05
11	.4552E+03	.2221E+03	.1520E+01	.3714E-02	.6173E-03	.0000E+00	.0000E+00	.0000E+00	.2043E+05
12	.3608E+04	.1305E+04	.2435E+01	.7378E-02	.5289E-02	.0000E+00	.0000E+00	.0000E+00	.1304E+06
13	.2272E+05	.1566E+05	.5422E+01	.1455E-01	.4236E-02	.0000E+00	.0000E+00	.0000E+00	.1303E+07

MEAN	.1242E+05	.9726E+04	.9487E+01	.3761E-01	.2448E-01	.0000E+00	.0000E+00	.0000E+00	.6026E+06
S.D.	.1560E+05	.1132E+05	.1583E+02	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.8556E+06

STOKES POINT NODE 1, MEAN WATER LEVEL

NET SEDIMENT TRANSPORT RATES (cu.m./m./yr.)

Model	B(1)	B(2)	B(3)	B(4)	B(5)	B(6)	B(7)	B(8)	Total Transport (cu.m./yr.)
1									.3294E+05
2									.1123E+05
3									.4276E+05
4	.4478E+02	.1908E+03	.4379E-07	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.1296E+05
5	.3236E+03	.9166E+03	.3921E+01	.8798E-02	.3961E-02	.0000E+00	.0000E+00	.0000E+00	.6440E+05
7	.9606E+03	.1346E+05	.1044E+01	.3705E-06	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.8869E+06
8	.2955E+04	.1497E+05	.4200E+02	.2681E+00	.2042E+00	.0000E+00	.0000E+00	.0000E+00	.1818E+07
9	.4464E+04	.2057E+05	.1942E+02	.3221E-01	.1346E-02	.0000E+00	.0000E+00	.0000E+00	.1396E+07
10	.1703E+03	.1269E+03	.1390E+01	.3719E-02	.6178E-03	.0000E+00	.0000E+00	.0000E+00	.1865E+05
11	.5375E+02	.1126E+03	.1388E+01	.3714E-02	.6173E-03	.0000E+00	.0000E+00	.0000E+00	.8263E+04
12	.3260E+03	.7985E+03	.2179E+01	.7378E-02	.5289E-02	.0000E+00	.0000E+00	.0000E+00	.5641E+05
13	.2442E+04	.1139E+05	.5027E+01	.1455E-01	.4236E-02	.0000E+00	.0000E+00	.0000E+00	.7717E+06

MEAN	.1304E+04	.6947E+04	.8485E+01	.3761E-01	.2448E-01	.0000E+00	.0000E+00	.0000E+00	.3594E+06
S.D.	.1600E+04	.8101E+04	.1389E+02	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.5072E+06

STOKES POINT NODE 1, MEAN WATER LEVEL

POSITIVE SEDIMENT TRANSPORT RATES (clockwise wrt. beach normal)

Model	B(1)	B(2)	B(3)	B(4)	B(5)	B(6)	B(7)	B(8)	Total Transport (cu.m./yr.)
1									.4081E+05
2									.1308E+05
3									.5298E+05
4	.2825E+03	.2362E+03	.4379E-07	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.1888E+05
5	.2004E+04	.1240E+04	.4147E+01	.8798E-02	.3961E-02	.0000E+00	.0000E+00	.0000E+00	.1065E+06
7	.4075E+04	.1535E+05	.1045E+01	.3705E-06	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.1849E+07
8	.1613E+05	.1836E+05	.4506E+02	.2681E+00	.2042E+00	.0000E+00	.0000E+00	.0000E+00	.1404E+07
9	.2392E+05	.2492E+05	.2018E+02	.3221E-01	.1346E-02	.0000E+00	.0000E+00	.0000E+00	.1923E+07
10	.5658E+03	.1828E+03	.1456E+01	.3719E-02	.6178E-03	.0000E+00	.0000E+00	.0000E+00	.1925E+05
11	.2545E+03	.1673E+03	.1454E+01	.3714E-02	.6173E-03	.0000E+00	.0000E+00	.0000E+00	.1435E+05
12	.1967E+04	.1052E+04	.2387E+01	.7378E-02	.5289E-02	.0000E+00	.0000E+00	.0000E+00	.9340E+05
13	.1258E+05	.1352E+05	.5224E+01	.1455E-01	.4236E-02	.0000E+00	.0000E+00	.0000E+00	.1837E+07

MEAN	.6864E+04	.8337E+04	.8986E+01	.3761E-01	.2448E-01	.0000E+00	.0000E+00	.0000E+00	.4810E+06
S.D.	.8598E+04	.9707E+04	.1486E+02	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.6805E+06

STOKES POINT NODE 1, MEAN WATER LEVEL

NEGATIVE SEDIMENT TRANSPORT RATES (counter clockwise wrt. beach normal)

Model	B(1)	B(2)	B(3)	B(4)	B(5)	B(6)	B(7)	B(8)	Total Transport (cu.m./yr.)
1									.7871E+04
2									.1849E+04
3									.1022E+05
4	.2377E+03	.4535E+02	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.5919E+04
5	.1680E+04	.3235E+03	.2259E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.4207E+05
7	.3115E+04	.1895E+04	.5549E-03	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.1621E+06
8	.1317E+05	.3391E+04	.3067E+01	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.3857E+06
9	.1946E+05	.4349E+04	.7539E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.5260E+06
10	.3955E+03	.5595E+02	.6608E-01	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.8593E+04
11	.2807E+03	.5480E+02	.6599E-01	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.6084E+04
12	.1641E+04	.2532E+03	.1280E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.3700E+05
13	.1014E+05	.2138E+04	.1978E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.2657E+06

MEAN	.5560E+04	.1390E+04	.5806E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.1216E+06
S.D.	.7801E+04	.1635E+04	.9897E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.1780E+06

STOKES POINT NODE 1, MEAN WATER LEVEL

CUMULATIVE DISTRIBUTION OF NET SEDIMENT TRANSPORT (cu.m./yr.)

Model	B(1)	B(2)	B(3)	B(4)	B(5)	B(6)	B(7)	B(8)
4	.5598E+03	.1296E+05	.1296E+05	.1296E+05	.1296E+05	.1296E+05	.1296E+05	.1296E+05
5	.4045E+04	.6362E+05	.6440E+05	.6440E+05	.6440E+05	.6440E+05	.6440E+05	.6440E+05
7	.1201E+05	.8867E+06	.8869E+06	.8869E+06	.8869E+06	.8869E+06	.8869E+06	.8869E+06
8	.3693E+05	.1018E+07	.1018E+07	.1018E+07	.1018E+07	.1018E+07	.1018E+07	.1018E+07
9	.5580E+05	.1393E+07	.1396E+07	.1396E+07	.1396E+07	.1396E+07	.1396E+07	.1396E+07
10	.2129E+04	.1038E+05	.1065E+05	.1065E+05	.1065E+05	.1065E+05	.1065E+05	.1065E+05
11	.6718E+03	.7988E+04	.8262E+04	.8263E+04	.8263E+04	.8263E+04	.8263E+04	.8263E+04
12	.4075E+04	.5598E+05	.5641E+05	.5641E+05	.5641E+05	.5641E+05	.5641E+05	.5641E+05
13	.3052E+05	.7707E+06	.7717E+06	.7717E+06	.7717E+06	.7717E+06	.7717E+06	.7717E+06

MEAN	.1630E+05	.4679E+06	.4696E+06	.4696E+06	.4696E+06	.4696E+06	.4696E+06	.4696E+06
S.D.	.2000E+05	.5451E+06	.5469E+06	.5469E+06	.5469E+06	.5469E+06	.5469E+06	.5469E+06

STOKES POINT NODE 1, MEAN WATER LEVEL

PERCENTAGE DISTRIBUTION OF NET SEDIMENT TRANSPORT

Model	B(1)	B(2)	B(3)	B(4)	B(5)	B(6)	B(7)	B(8)
4	19.01	80.99	.00	.00	.00	.00	.00	.00
5	26.01	73.67	.32	.00	.00	.00	.00	.00
7	6.66	93.33	.01	.00	.00	.00	.00	.00
8	16.44	83.32	.23	.00	.00	.00	.00	.00
9	17.82	82.10	.08	.00	.00	.00	.00	.00
10	57.03	42.50	.47	.00	.00	.00	.00	.00
11	32.05	67.12	.83	.00	.00	.00	.00	.00
12	28.94	70.87	.19	.00	.00	.00	.00	.00
13	17.65	82.31	.04	.00	.00	.00	.00	.00

MEAN	24.62	75.14	.24	.00	.00	.00	.00	.00
S.D.	14.33	14.50	.27	.00	.00	.00	.00	.00

RESULTS OF ALL WAVE CONDITIONS

STOKES POINT NODE 2, MEAN WATER LEVEL

GROSS SEDIMENT TRANSPORT RATES (cu.m./m./yr.)

Model	B(1)	B(2)	B(3)	B(4)	B(5)	B(6)	Total Transport(cu.m./yr.)
1							.4479E+05
2							.1135E+05
3							.5032E+05
4	.9681E+02	.1699E+02	.1856E+00	.0000E+00	.0000E+00	.0000E+00	.5044E+04
5	.1884E+04	.3291E+03	.5714E+02	.3581E-01	.0000E+00	.0000E+00	.1005E+06
7	.2915E+03	.9011E+02	.5570E+01	.6753E-06	.0000E+00	.0000E+00	.1697E+05
8	.2873E+04	.6839E+03	.1497E+03	.1744E+01	.0000E+00	.0000E+00	.1641E+06
9	.3566E+04	.6441E+03	.8902E+02	.1004E+00	.0000E+00	.0000E+00	.1903E+06
10	.5293E+03	.4904E+02	.1285E+02	.1339E-01	.0000E+00	.0000E+00	.2637E+05
11	.2573E+03	.5170E+02	.1296E+02	.1337E-01	.0000E+00	.0000E+00	.1424E+05
12	.9071E+03	.1341E+03	.1824E+02	.6608E-01	.0000E+00	.0000E+00	.4704E+05
13	.1677E+04	.2795E+03	.3093E+02	.8549E-01	.0000E+00	.0000E+00	.8809E+05

MEAN	.1342E+04	.2532E+03	.4185E+02	.2287E+00	.0000E+00	.0000E+00	.6326E+05
S.D.	.1244E+04	.2558E+03	.4937E+02	.5693E+00	.0000E+00	.0000E+00	.6111E+05

STOKES POINT NODE 2, MEAN WATER LEVEL

NET SEDIMENT TRANSPORT RATES (cu.m./m./yr.)

Model	B(1)	B(2)	B(3)	B(4)	B(5)	B(6)	Total Transport(cu.m./yr.)
1							.4479E+05
2							.1135E+05
3							.5032E+05
4	.9681E+02	.1699E+02	.1856E+00	.0000E+00	.0000E+00	.0000E+00	.5044E+04
5	.1884E+04	.3291E+03	.5714E+02	.3581E-01	.0000E+00	.0000E+00	.1005E+06
7	.2915E+03	.9011E+02	.5570E+01	.6753E-06	.0000E+00	.0000E+00	.1697E+05
8	.2873E+04	.6839E+03	.1497E+03	.1744E+01	.0000E+00	.0000E+00	.1641E+06
9	.3566E+04	.6441E+03	.8902E+02	.1004E+00	.0000E+00	.0000E+00	.1903E+06
10	.5293E+03	.4904E+02	.1285E+02	.1339E-01	.0000E+00	.0000E+00	.2637E+05
11	.2573E+03	.5170E+02	.1296E+02	.1337E-01	.0000E+00	.0000E+00	.1424E+05
12	.9071E+03	.1341E+03	.1824E+02	.6608E-01	.0000E+00	.0000E+00	.4704E+05
13	.1677E+04	.2795E+03	.3093E+02	.8549E-01	.0000E+00	.0000E+00	.8809E+05

MEAN	.1342E+04	.2532E+03	.4185E+02	.2287E+00	.0000E+00	.0000E+00	.6326E+05
S.D.	.1244E+04	.2558E+03	.4937E+02	.5693E+00	.0000E+00	.0000E+00	.6111E+05

STOKES POINT NODE 2, MEAN WATER LEVEL

POSITIVE SEDIMENT TRANSPORT RATES (clockwise wrt. beach normal)

Model	B(1)	B(2)	B(3)	B(4)	B(5)	B(6)	Total Transport(cu.m./yr.)
1							.4479E+05
2							.1135E+05
3							.5032E+05
4	.9681E+02	.1699E+02	.1856E+00	.0000E+00	.0000E+00	.0000E+00	.5044E+04
5	.1884E+04	.3291E+03	.5714E+02	.3581E-01	.0000E+00	.0000E+00	.1005E+06
7	.2915E+03	.9011E+02	.5570E+01	.6753E-06	.0000E+00	.0000E+00	.1697E+05
8	.2873E+04	.6839E+03	.1497E+03	.1744E+01	.0000E+00	.0000E+00	.1641E+06
9	.3566E+04	.6441E+03	.8902E+02	.1004E+00	.0000E+00	.0000E+00	.1903E+06
10	.5293E+03	.4904E+02	.1285E+02	.1339E-01	.0000E+00	.0000E+00	.2637E+05
11	.2573E+03	.5170E+02	.1296E+02	.1337E-01	.0000E+00	.0000E+00	.1424E+05
12	.9071E+03	.1341E+03	.1824E+02	.6608E-01	.0000E+00	.0000E+00	.4704E+05
13	.1677E+04	.2795E+03	.3093E+02	.8549E-01	.0000E+00	.0000E+00	.8809E+05

MEAN	.1342E+04	.2532E+03	.4185E+02	.2287E+00	.0000E+00	.0000E+00	.6326E+05
S.D.	.1244E+04	.2558E+03	.4937E+02	.5693E+00	.0000E+00	.0000E+00	.6111E+05

STOKES POINT NODE 2, MEAN WATER LEVEL

NEGATIVE SEDIMENT TRANSPORT RATES (counter clockwise wrt. beach normal)

Model	B(1)	B(2)	B(3)	B(4)	B(5)	B(6)	Total Transport(cu.m./yr.)
1							.0000E+00
2							.0000E+00
3							.0000E+00
4	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00
5	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00
7	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00
8	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00
9	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00
10	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00
11	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00
12	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00
13	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00

MEAN	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00
S.D.	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00

STOKES POINT NODE 2, MEAN WATER LEVEL

CUMULATIVE DISTRIBUTION OF NET SEDIMENT TRANSPORT (cu.m./yr.)

Model	B(1)	B(2)	B(3)	B(4)	B(5)	B(6)
4	.4356E+04	.5836E+04	.5844E+04	.5844E+04	.5844E+04	.5844E+04
5	.8477E+05	.9793E+05	.1005E+06	.1005E+06	.1005E+06	.1005E+06
7	.1312E+05	.1672E+05	.1697E+05	.1697E+05	.1697E+05	.1697E+05
8	.1293E+06	.1567E+06	.1634E+06	.1641E+06	.1641E+06	.1641E+06
9	.1605E+06	.1862E+06	.1902E+06	.1903E+06	.1903E+06	.1903E+06
10	.2382E+05	.2578E+05	.2636E+05	.2637E+05	.2637E+05	.2637E+05
11	.1158E+05	.1365E+05	.1423E+05	.1424E+05	.1424E+05	.1424E+05
12	.4082E+05	.4619E+05	.4701E+05	.4704E+05	.4704E+05	.4704E+05
13	.7548E+05	.8666E+05	.8805E+05	.8809E+05	.8809E+05	.8809E+05

MEAN	.6041E+05	.7054E+05	.7242E+05	.7252E+05	.7252E+05	.7252E+05
S.D.	.5597E+05	.6598E+05	.6797E+05	.6810E+05	.6810E+05	.6810E+05

STOKES POINT NODE 2, MEAN WATER LEVEL

PERCENTAGE DISTRIBUTION OF NET SEDIMENT TRANSPORT

Model	B(1)	B(2)	B(3)	B(4)	B(5)	B(6)
4	84.93	14.90	.16	.00	.00	.00
5	82.99	14.50	2.52	.00	.00	.00
7	75.28	23.28	1.44	.00	.00	.00
8	77.47	18.44	4.04	.05	.00	.00
9	82.94	14.98	2.07	.00	.00	.00
10	89.53	8.29	2.17	.00	.00	.00
11	79.92	16.05	4.02	.00	.00	.00
12	85.61	12.66	1.72	.01	.00	.00
13	84.38	14.06	1.56	.00	.00	.00

MEAN	82.56	15.24	2.19	.01	.00	.00
S.D.	4.37	4.07	1.23	.00	.00	.00

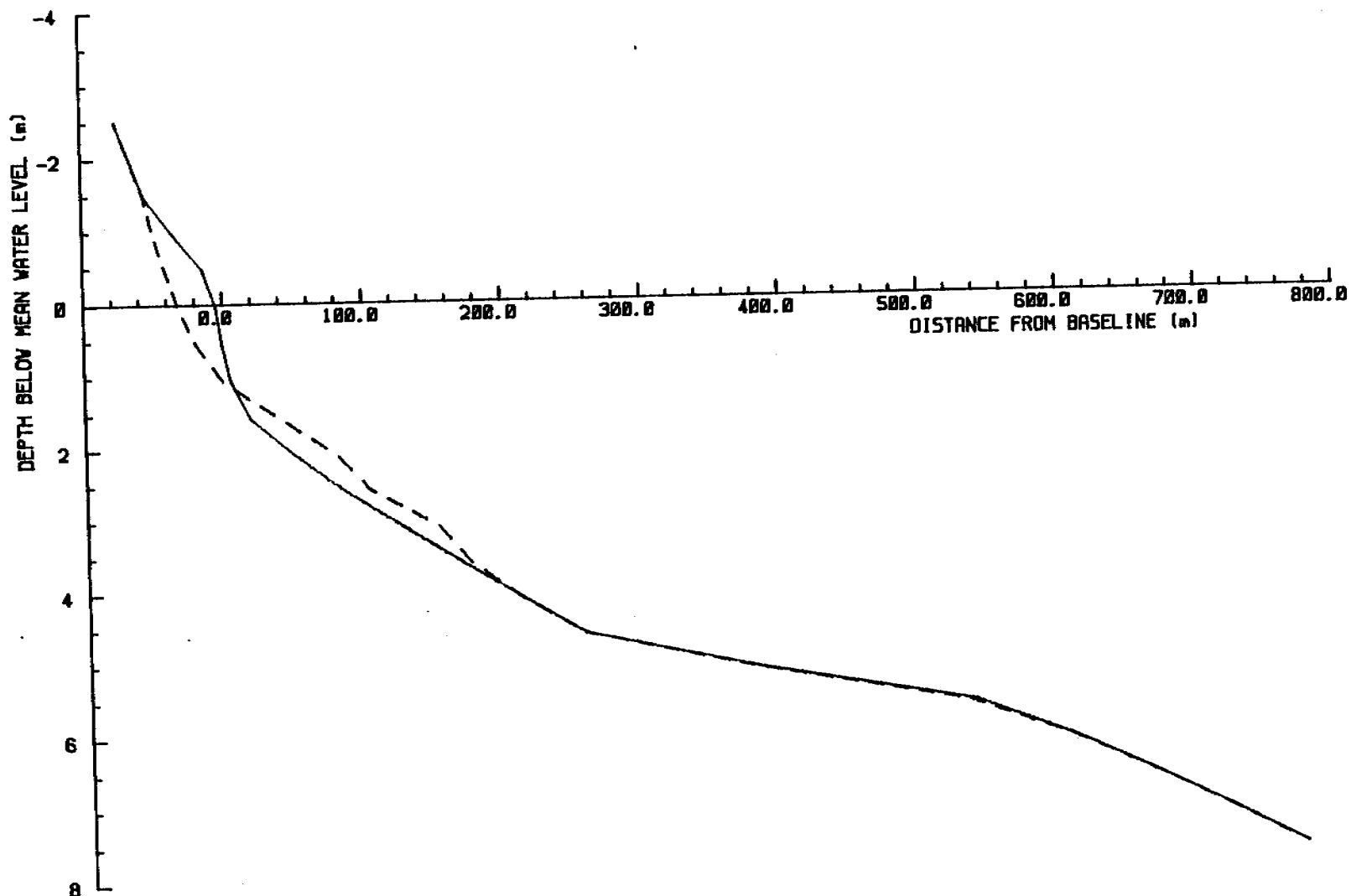
BEAUFORT SEA COASTAL SEDIMENT STUDY

NEARSHORE PROFILE ADJUSTMENT RESULTS - STOKES POINT

NODE 1

Calibration Runs and Storm Surge Runs

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ONTARIO L3T 4A5

LEGEND

— Initial profile

- - - End of run profile

CALIBRATION RUN 2

SUPPLEMENTARY DATA

Calibration run for 82 wave conditions
 Total time all waves was 643.4 hours

Shoreline retreat = 27.12 metres

STOKES POINT PROFILE ADJUSTMENT

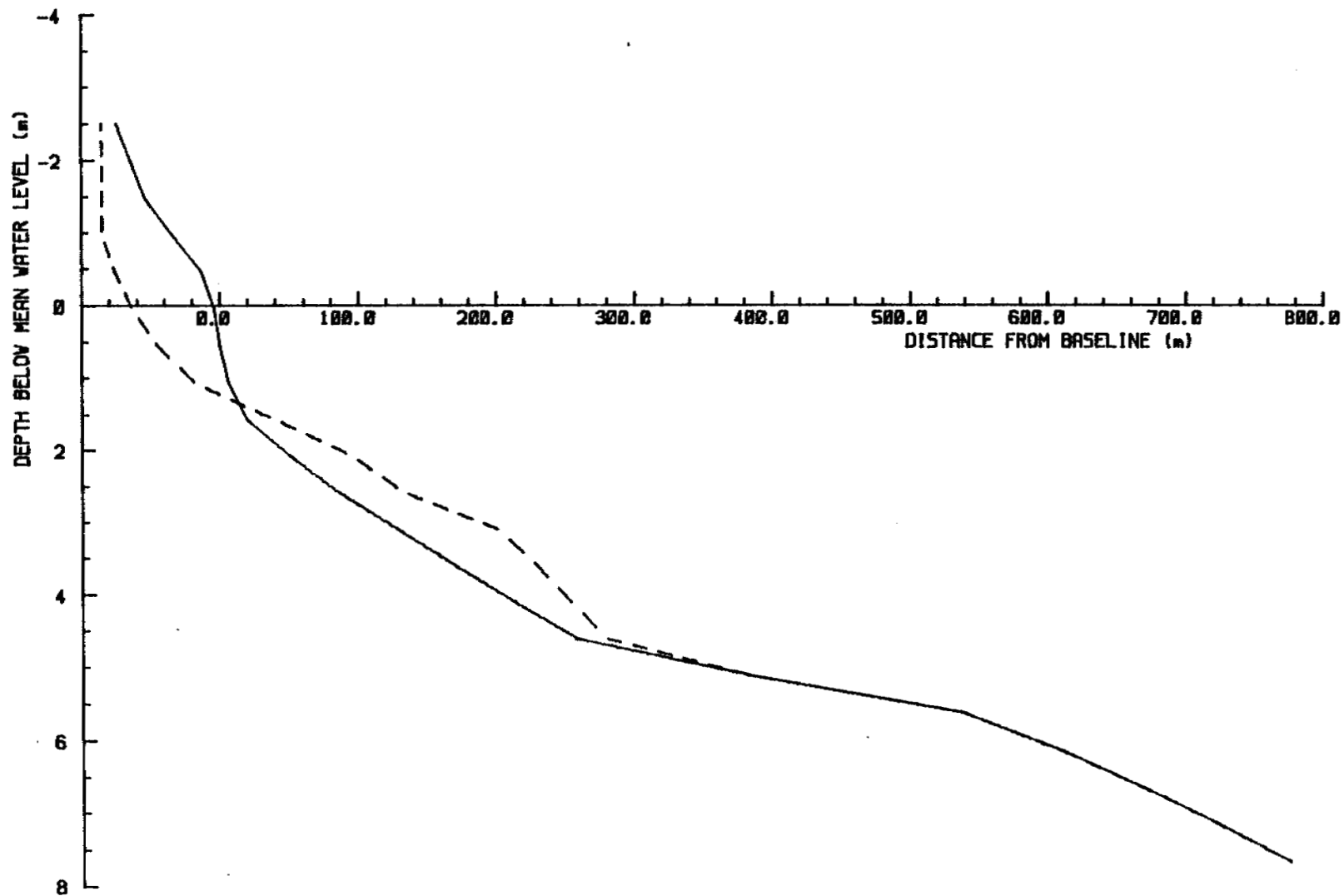
CALIBRATION RUN / WSKRAL = 0.7 / MEASURED PROFILE

Date: 24 Apr 85

Scale: as shown

Checked by:

Keith Philpott
Consulting Limited



LEGEND

———— Initial profile

----- End of run profile

CALIBRATION RUN 1

SUPPLEMENTARY DATA

Calibration run for 82 wave conditions
Total time all waves was 643.4 hours

Shoreline retreat = 59.71 metres

STOKES POINT PROFILE ADJUSTMENT

Date: 24 Apr 85

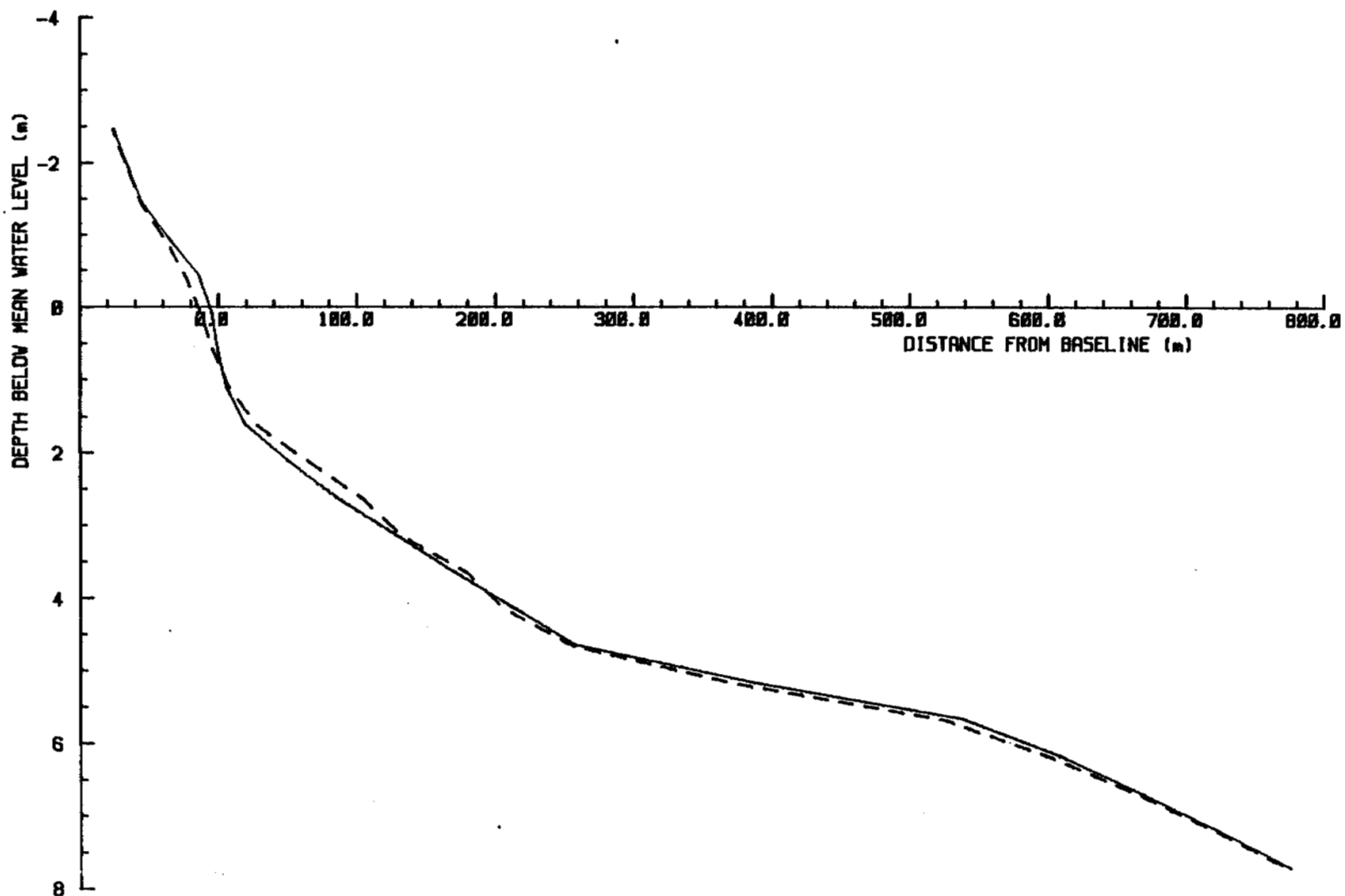
Scales as shown

Checked by:

CALIBRATION RUN / VSKAL = 1.0 / MEASURED PROFILE

Kaith Philippot

Consulting Limited

LEGEND

———— Initial profile - - - - - End of run profile

CALIBRATION RUN 8

SUPPLEMENTARY DATA

Calibration run for 82 wave conditions
Total time all waves was 643.4 hours

Shoreline retreat = 7.91 metres

STOKES POINT PROFILE ADJUSTMENT

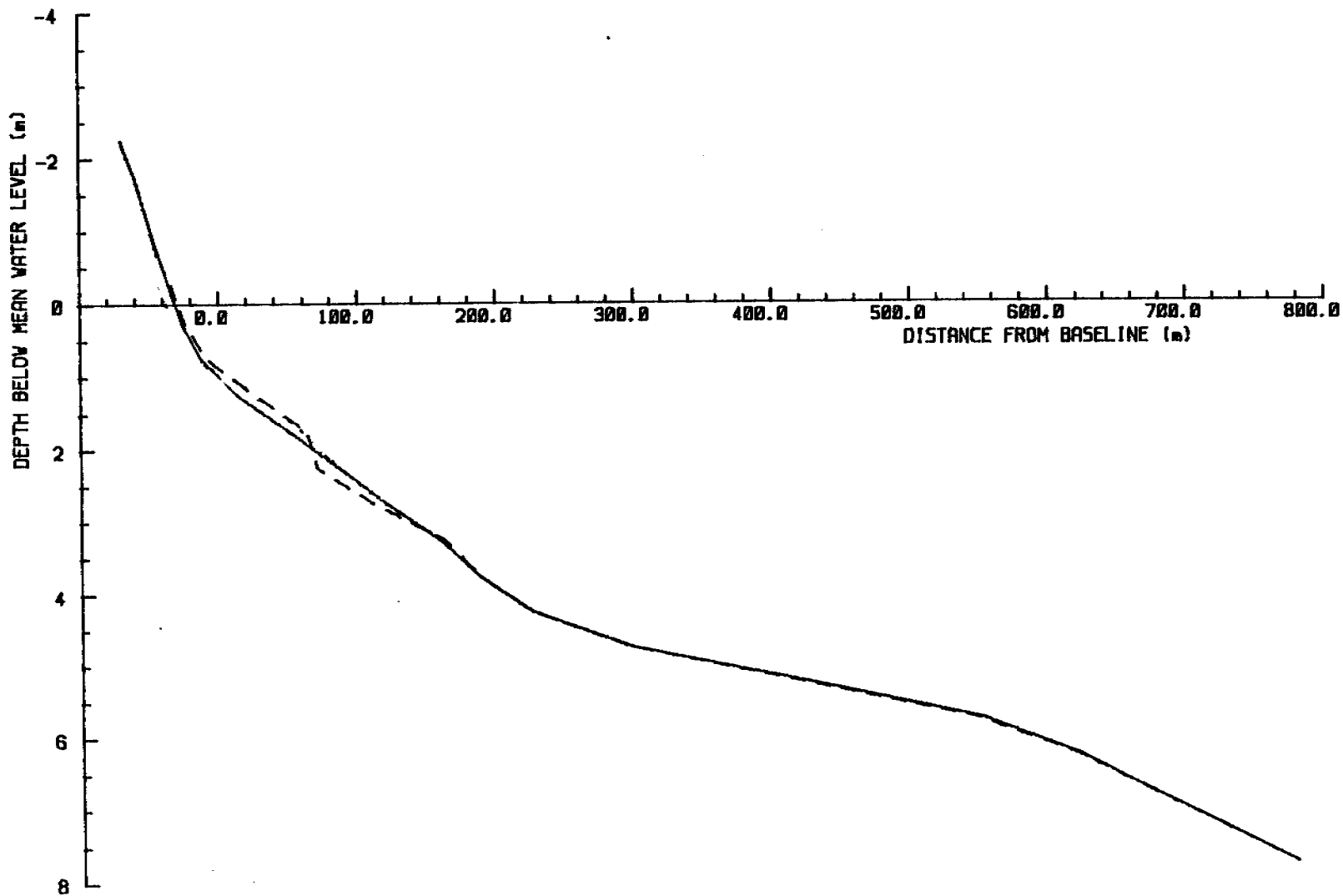
CALIBRATION RUN / VSKAAL = 0.7 / MEASURED PROFILE TIDE
= -0.5 m

Date: 24 Apr 85

Scales as shown

Checked by:

Keith Philpott
Consulting Limited

LEGEND

— Initial profile

- - - - - End of run profile

CALIBRATION RUN 3

SUPPLEMENTARY DATA

Calibration run for 82 wave conditions
 Total time all waves was 643.4 hours

Shoreline advance = 2.89 metres

STOKES POINT PROFILE ADJUSTMENT

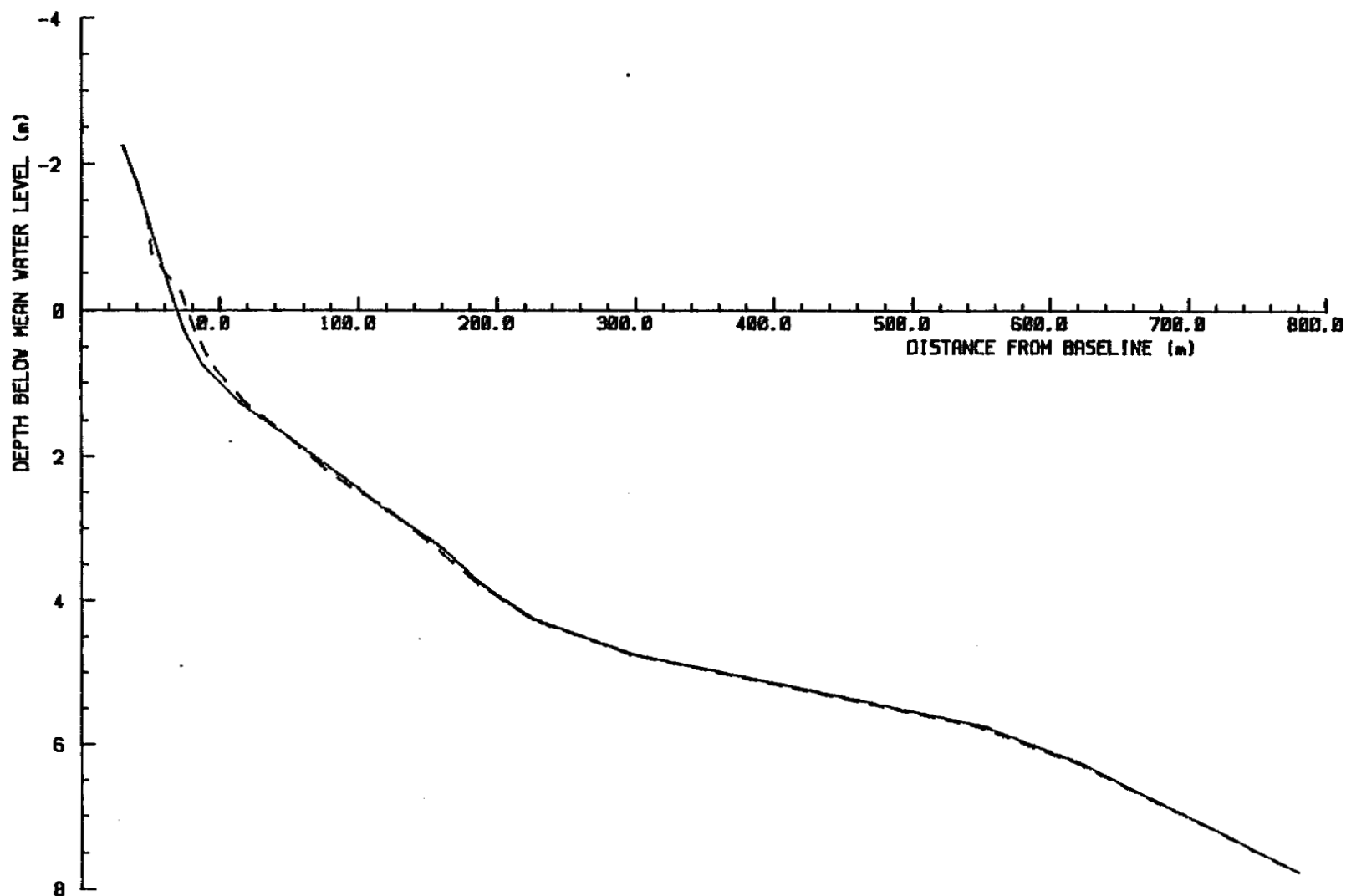
Date: 24 Apr 85

Scales as shown

Checked by:

Keith Philpott
Consulting Limited

CALIBRATION RUN / NEW PROFILE / VSKARL = 0.7

LEGEND

———— Initial profile - - - - - End of run profile

CALIBRATION RUN 4

SUPPLEMENTARY DATA

Calibration run for B2 wave conditions
Total time all waves was 643.5 hours

Shoreline advance = 7.67 metres

STOKES POINT PROFILE ADJUSTMENT

Date: 24 Apr 85

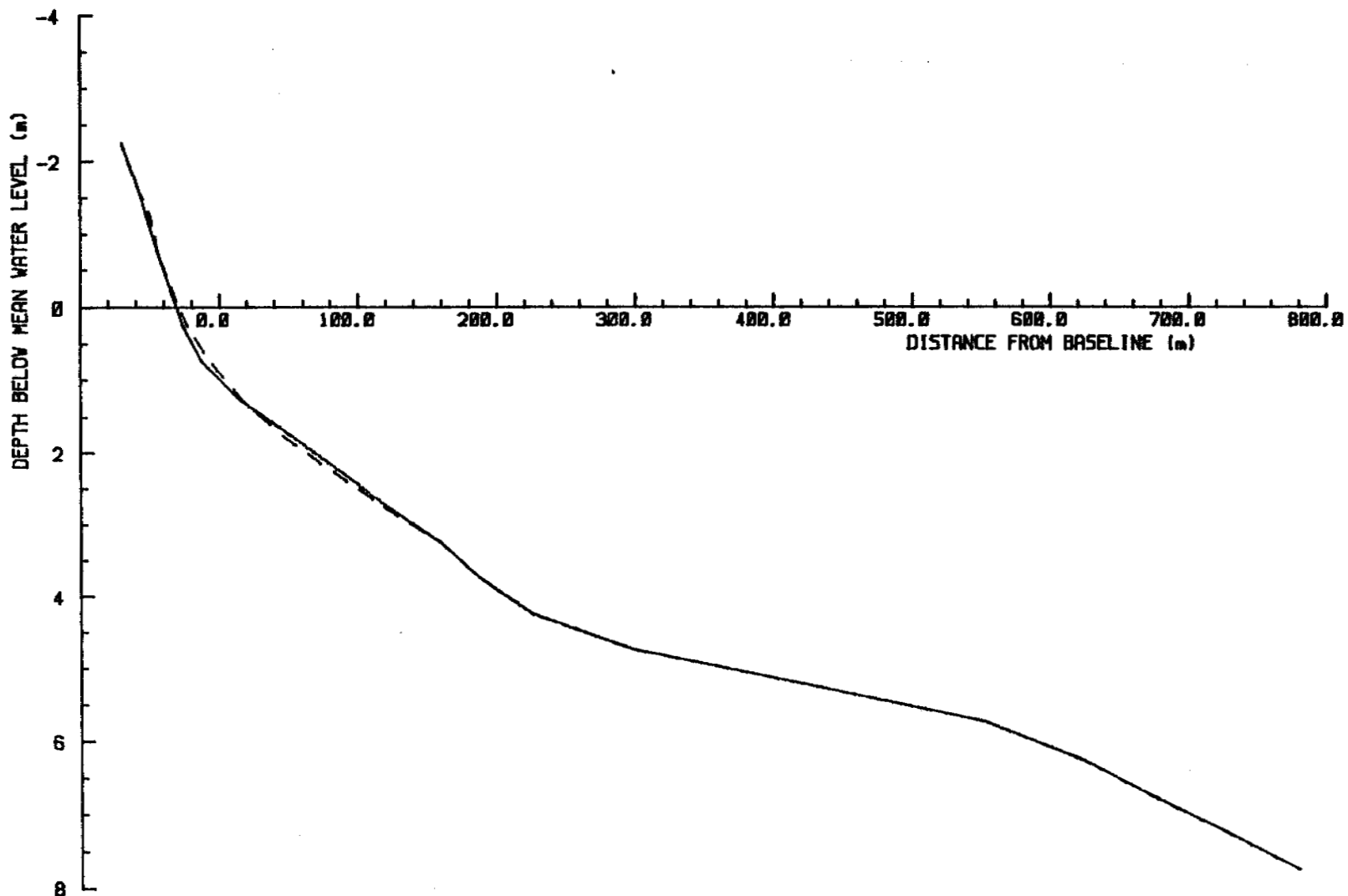
Scales as shown

Checked by:

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CALIBRATION RUN / ONE THIRD ROLL / VSKAL = 0.7

LEGEND

—— Initial profile

- - - - - End of run profile

SUPPLEMENTARY DATA

Calibration run for 42 wave conditions
 Total time all waves was 42.0 hours

Shoreline advance = 2.12 metres

STOKES POINT PROFILE ADJUSTMENT

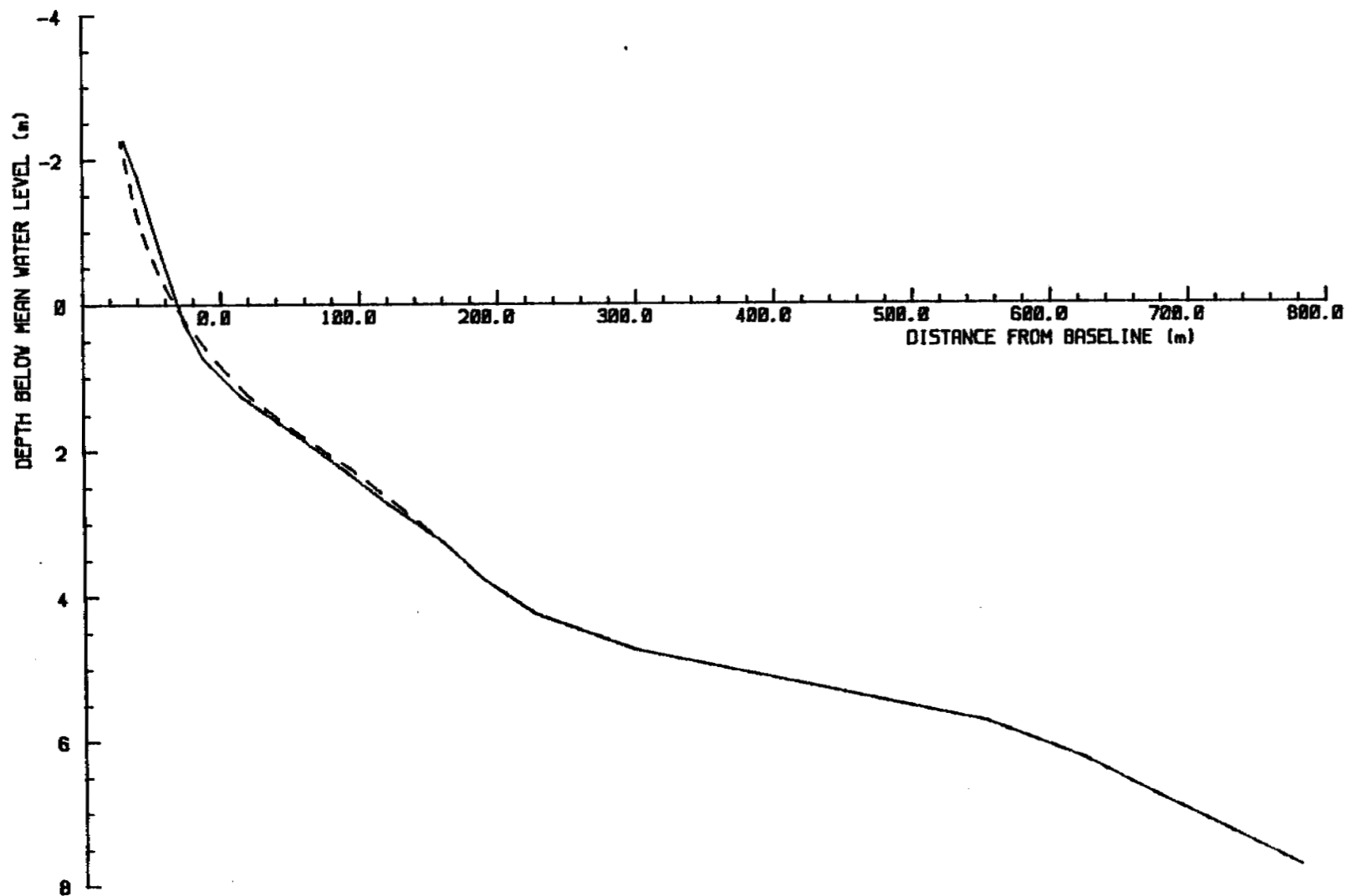
Date: 24 Apr 85

Scales as shown

Checked by:

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STORM SURGE RUN / SURGE = 0.5 m



LEGEND

———— Initial profile - - - - - End of run profile

SUPPLEMENTARY DATA

Calibration run for 42 wave conditions
Total time all waves was 42.0 hours

Shoreline retreat = 1.83 metres

FIGURE

STOKES POINT PROFILE ADJUSTMENT

STORM SURGE RUN / SURGE = 1.0 m

Date: 24 Apr 85

Scales as shown

Checked by:

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STOKES POINT
Storm Wave Climate for Nearshore
Profile Adjustment Runs

Hs(m)	Tp(s)	HR	DD/MM/YY
.71	4.73	11	31/ 8/72
.76	4.88	12	31/ 8/72
.48	3.98	13	31/ 8/72
.42	4.44	14	31/ 8/72
.52	4.81	15	31/ 8/72
.48	4.68	16	31/ 8/72
.47	4.63	17	31/ 8/72
.47	4.59	18	31/ 8/72
.49	4.56	19	31/ 8/72
.49	4.55	20	31/ 8/72
.50	4.54	21	31/ 8/72
.51	4.54	22	31/ 8/72
.51	4.54	23	31/ 8/72
.52	4.54	0	2/ 9/72
.64	4.67	1	2/ 9/72
.68	5.00	2	2/ 9/72
.67	5.27	3	2/ 9/72
.82	5.35	4	2/ 9/72
1.29	6.90	5	2/ 9/72
1.44	7.79	6	2/ 9/72
1.48	8.00	7	2/ 9/72
1.50	8.06	8	2/ 9/72
1.56	8.28	9	2/ 9/72
1.55	8.24	10	2/ 9/72
1.59	8.40	11	2/ 9/72
1.59	8.41	12	2/ 9/72
1.61	8.48	13	2/ 9/72
1.58	8.39	14	2/ 9/72
1.52	8.21	15	2/ 9/72
1.47	8.03	16	2/ 9/72
1.41	7.83	17	2/ 9/72
1.36	7.61	18	2/ 9/72
1.15	6.72	19	2/ 9/72
1.06	6.72	20	2/ 9/72
.97	6.72	21	2/ 9/72
.88	6.72	22	2/ 9/72
.79	6.72	23	2/ 9/72
.70	6.72	0	3/ 9/72
.61	6.72	1	3/ 9/72
.52	6.72	2	3/ 9/72
.43	6.72	3	3/ 9/72
.34	6.72	4	3/ 9/72

Tuktoyaktuk Data Package

Tuktoyaktuk

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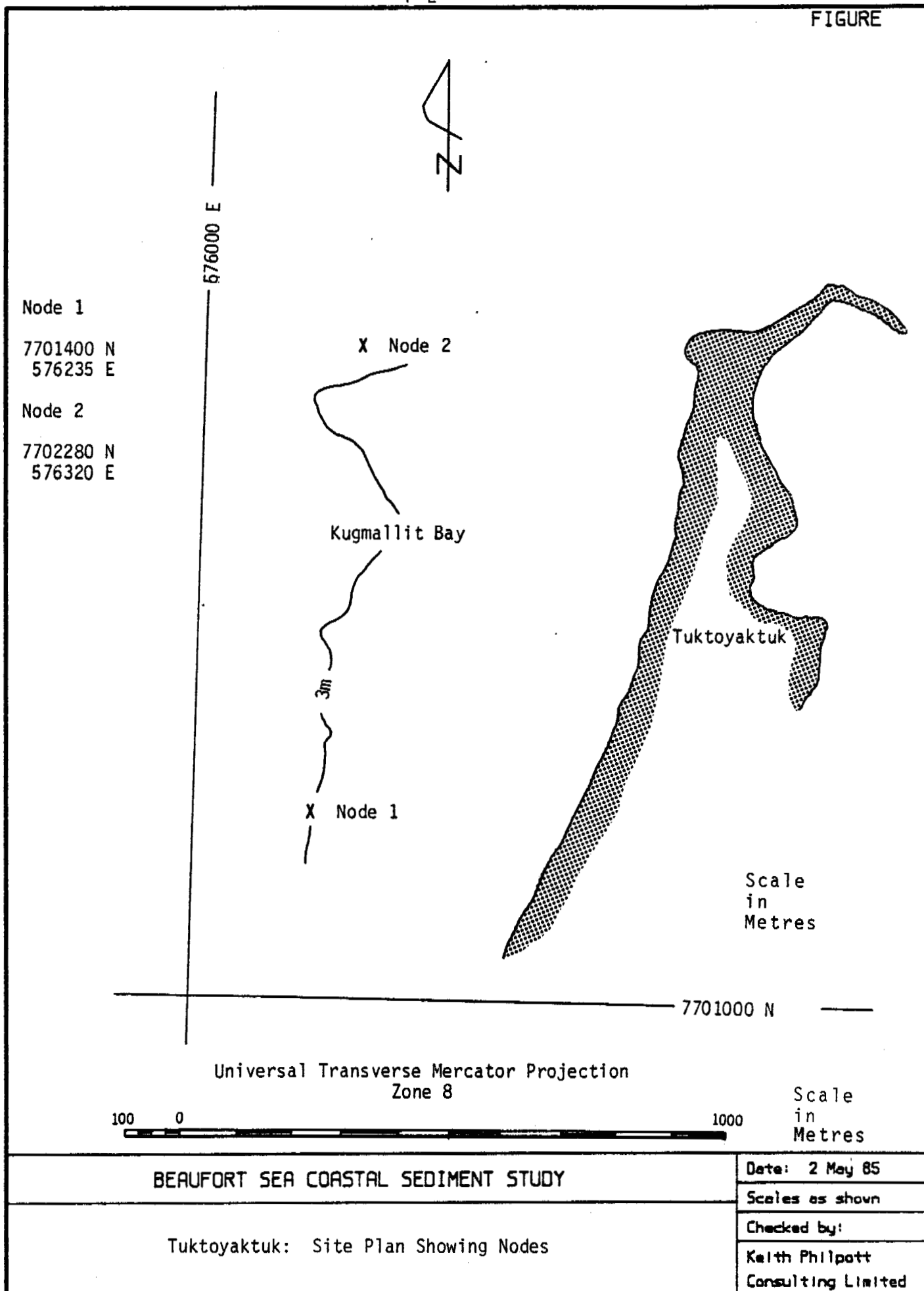
Tuktoyaktuk

A. Description of Site

The site at Tuktoyaktuk comprises the shore of a barrier which separates Tuktoyaktuk Harbour from Kugmallitt Bay.

The barrier is described as sandy. See Figure 2.7.

(Forbes, 1985). A sparse, coarse-grained beach fronts low tundra cliffs, but there is a substantial deposit of sand close to the shoreline. High rates of recession have been reported. Kolberg and Shah, 1976; Forbes, 1985; Harper et al., 1985. Because the area is well sheltered, it appears thermal erosion may be important at this site.



BEAUFORT SEA COASTAL SEDIMENT STUDY

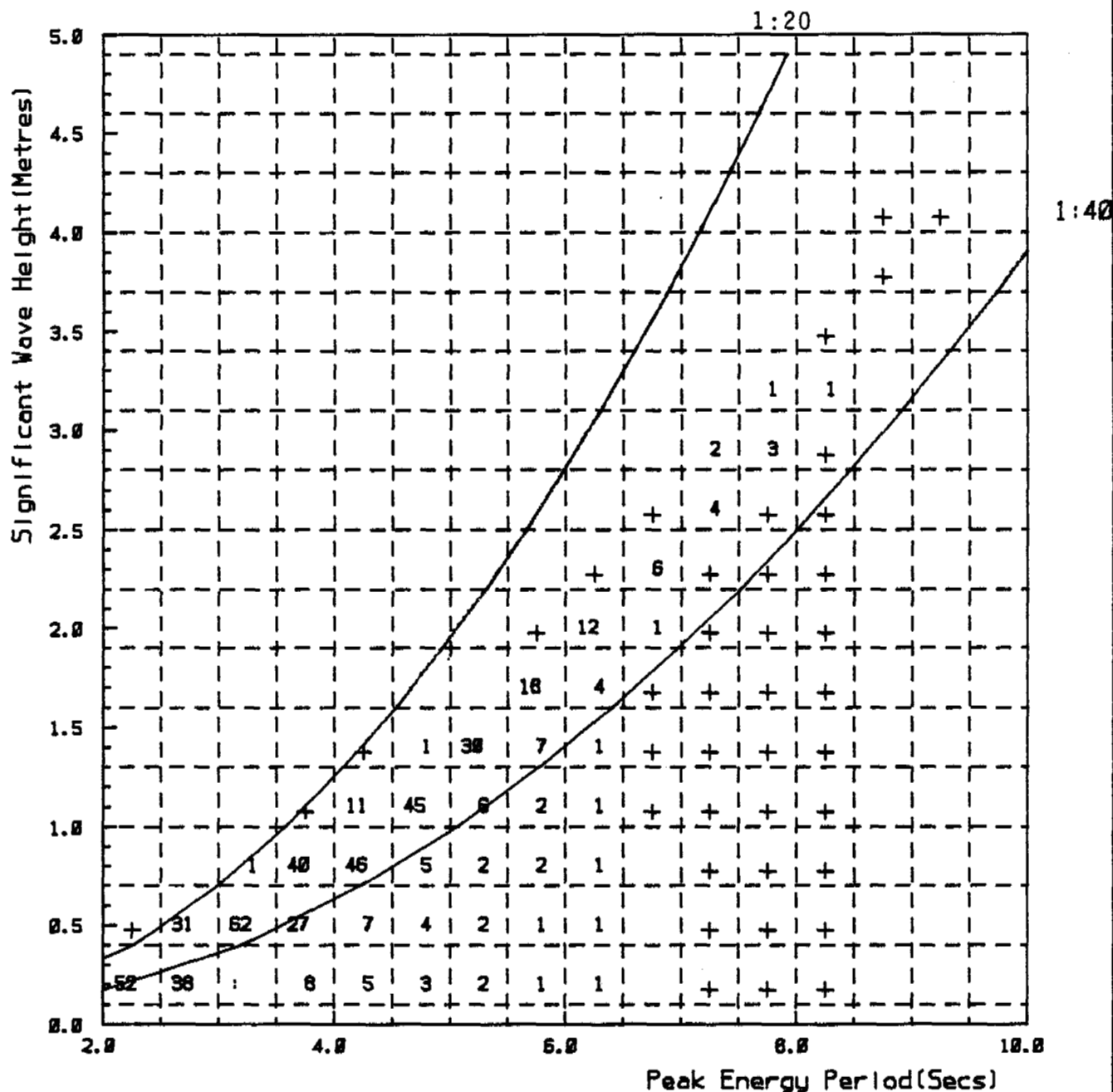
DEEPWATER WAVE STATISTICS - KUGMALLIT

WAVES 25/6/70 TO 28/9/83

SEASON: Summer, Fall

Note: This is one of two sets of "offshore"
wave statistics for Tuktoyaktuk, as
explained in Section 3.6.3 of Part I.

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ONTARIO L3T 4A5



Direction Limits: 0.0 TO 360.0

Values in parts per : 1000

Calms: 50.1 %

+- Values less than 1 ppt

Dates: 25/6/70 to 28/9/83

Season: Summer, Fall

Total No. of Records: 36796

Waves Hindcast Using Wind Data from Tuktoyaktuk N.W.T.

BEAUFORT SEA COASTAL SEDIMENT STUDY

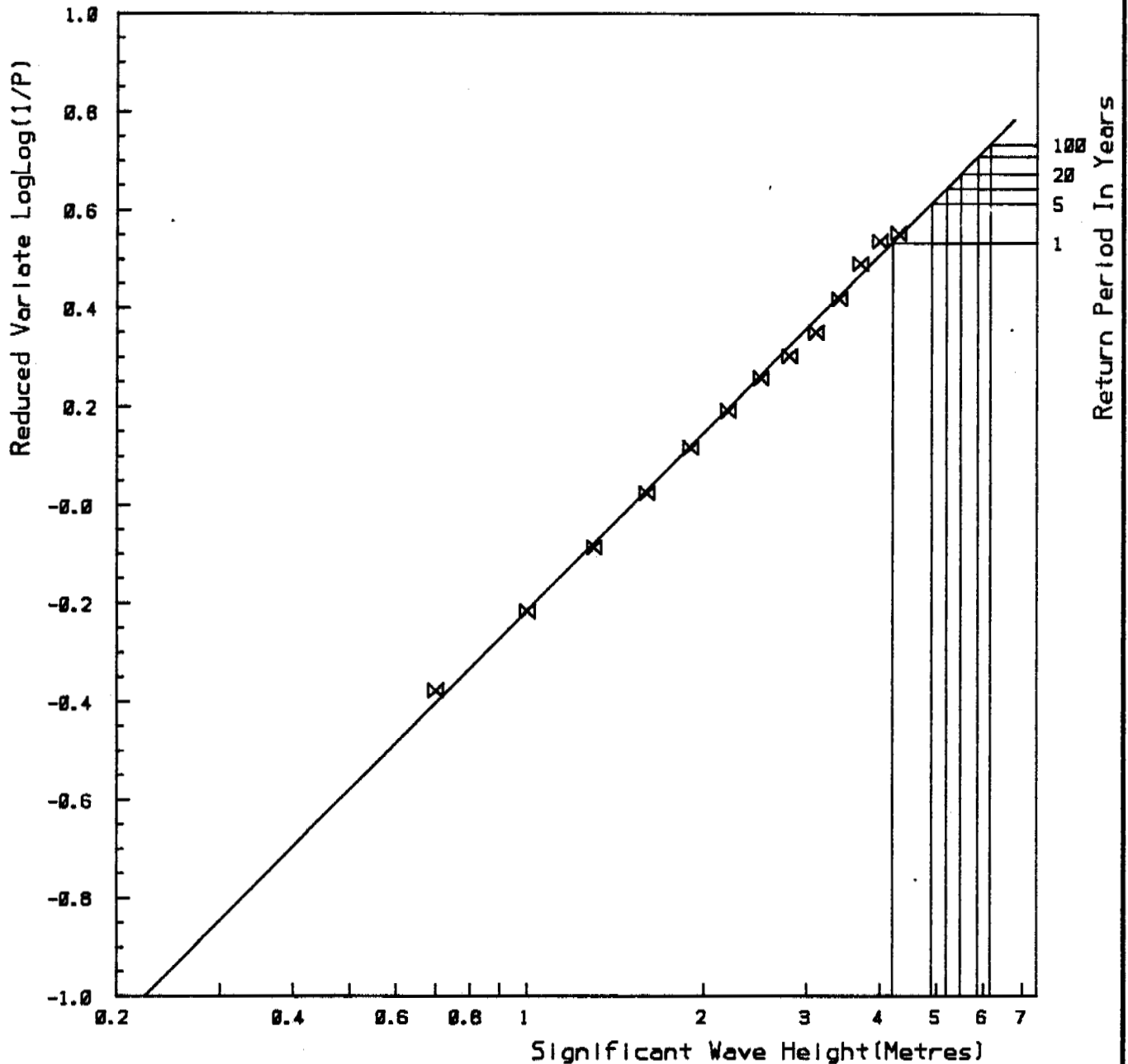
Date: 17 Feb 85

Scale as shown

Kugmallit: Scatter Diagram for Deep Water Wave Data
1970 - 1983

Checked by:

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Direction Limits: 0.0 TO 360.0

Calms: 49.8 %

Dates: 25/6/70 to 28/9/83

Season: Summer, Fall

Total No. of Records: 36600

Waves Hindcast Using Data from Tuktoyaktuk N.W.T.

BEAUFORT SEA COASTAL SEDIMENT STUDY

Kugmallit: Weibull Long Term Distribution of
Wave Heights

Date: 16 May 85

Scales as shown

Checked by:

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BEAUFORT SEA COASTAL SEDIMENT STUDY

KUGMALLIT

WAVES 25/ 6/78 TO 28/9/83

SEASON: Summer, Fall

WEIBULL PROBABILITY ANALYSIS

WHT LIMIT	CUM TOTAL	CUM PROB(P)	LOGLOG(1./P(H))	LOG(WHT)
< .4	36600	.999973	-4.926076	-.397940
< .7	13942	.380919	-.377612	-.154902
< 1.0	9016	.246332	-.215754	.000000
< 1.3	5531	.151116	-.085021	.113943
< 1.6	3199	.087402	.024682	.204120
< 1.9	1803	.049261	.116441	.278754
< 2.2	1026	.028032	.190908	.342423
< 2.5	565	.015437	.258025	.397940
< 2.8	358	.009781	.303112	.447158
< 3.1	210	.005738	.350495	.491362
< 3.4	88	.002404	.418137	.531479
< 3.7	29	.000792	.491515	.568202
< 4.0	13	.000355	.537762	.602060
< 4.3	10	.000273	.551876	.633460

LEAST SQUARES CURVE FIT ON LOGLOG(1/(1-P))

LOG(WHT)	LOGLOG(1./P(H))	CURVE FIT	RESIDUAL
-.39794	-4.92608	-.53066	-26.33119
-.15490	-.37761	.25384	156.29330
.00000	-.21575	.28175	91.31613
.11394	-.08502	.30416	54.95952
.20412	.02468	.32322	31.55296
.27875	.11644	.33905	14.89285
.34242	.19099	.35190	2.20718
.39794	.25803	.36347	-7.63101
.44716	.30311	.37124	-16.03768
.49136	.35049	.37941	-22.72249
.53148	.41814	.39108	-27.62269
.56820	.49152	.40374	-31.52446
.60206	.53776	.41171	-35.48606
.63347	.55188	.41415	-39.64970

SLOPE= .17247

INTERCEPT= .31896

CORR COEFF= .78562

1 GROUPS TO BE OMITTED FROM NEXT FIT:

< .4

36600

LEAST SQUARES CURVE FIT ON LOGLOG(1/(1-P))

LOG(WHT)	LOGLOG(1./P(H))	CURVE FIT	RESIDUAL
-.15490	-.37761	-.13474	4.75105
.00000	-.21575	-.00029	-.06630
.11394	-.00502	.10765	-1.43917
.20412	.02468	.19944	-1.07112
.27075	.11644	.27567	-.70815
.34242	.19099	.33759	-1.10567
.39794	.25003	.39328	-1.06691
.44716	.30311	.43074	-3.71090
.49136	.35049	.47010	-4.77055
.53148	.41814	.52629	-1.10035
.56820	.49152	.58724	4.40177
.60206	.53776	.62566	5.58445
.63347	.55188	.63730	.90570

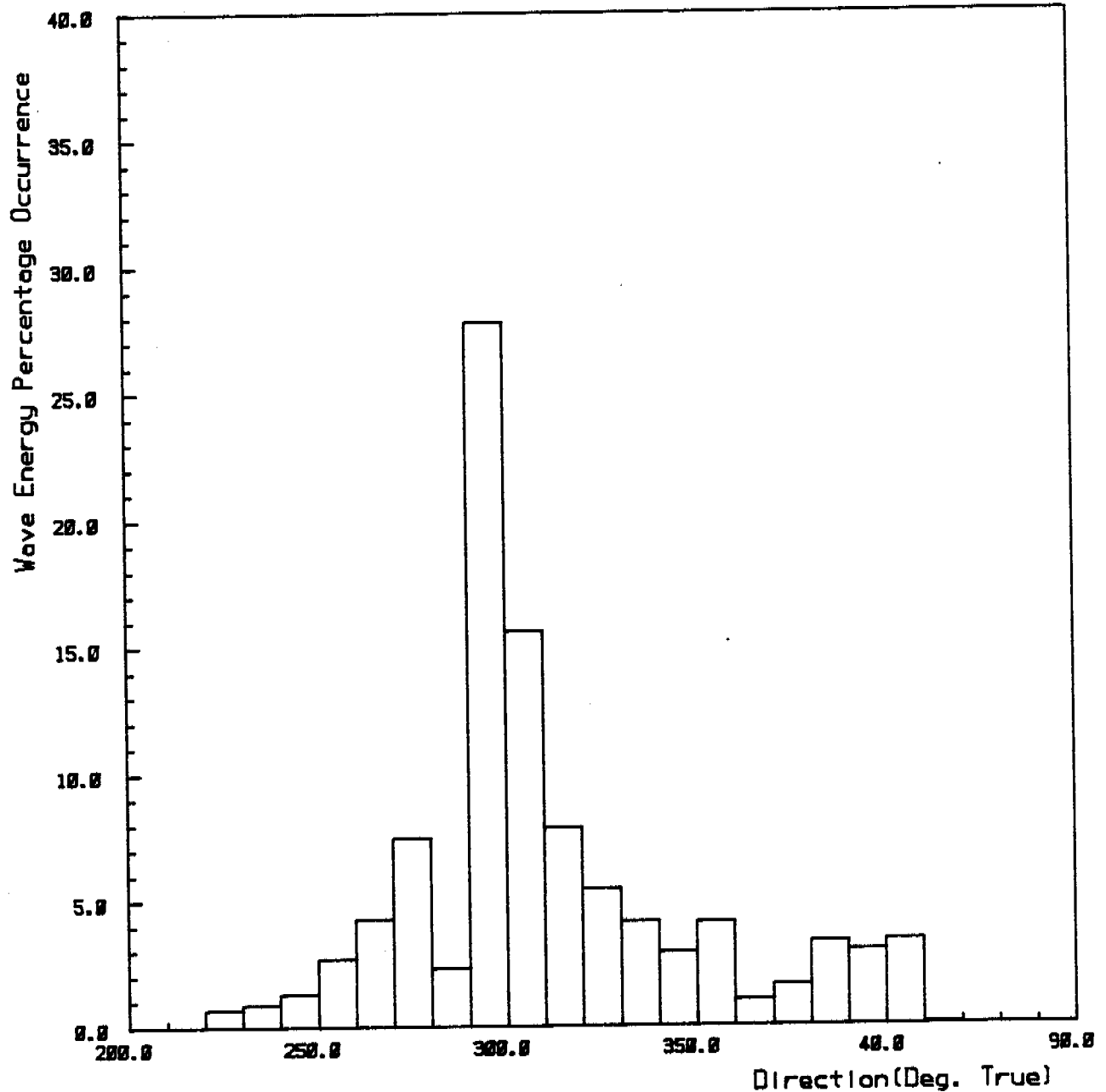
SLOPE= .83070 INTERCEPT= .17894 CORR COEFF= .99846

PREDICTED WAVE HEIGHTS FOR GIVEN RETURN PERIODS

RETURN PERIOD(YEARS) WAVE HEIGHT(HS)

1.0	4.2
5.0	4.9
10.0	5.2
20.0	5.5
50.0	5.9
100.0	6.1

AVERAGE NUMBER OF RECORDS PER YEAR= 2614.3



Direction Limits: 220.0 TO 70.0

Calms: 50.1 %

Dates: 25/8/70 to 28/9/83

Season: Summer, Fall

Total No. of Records: 36796

Waves Hindcast Using Wind Data from Tuktoyaktuk N.W.T.

BEAUFORT SEA COASTAL SEDIMENT STUDY

Kugmallit: Deep Water Wave Energy Distribution
1970 - 1983

Date: 17 Feb 85

Scales as shown

Checked by:

Keith Philpott
Consulting Limited

BEAUFORT SEA COASTAL SEDIMENT STUDY

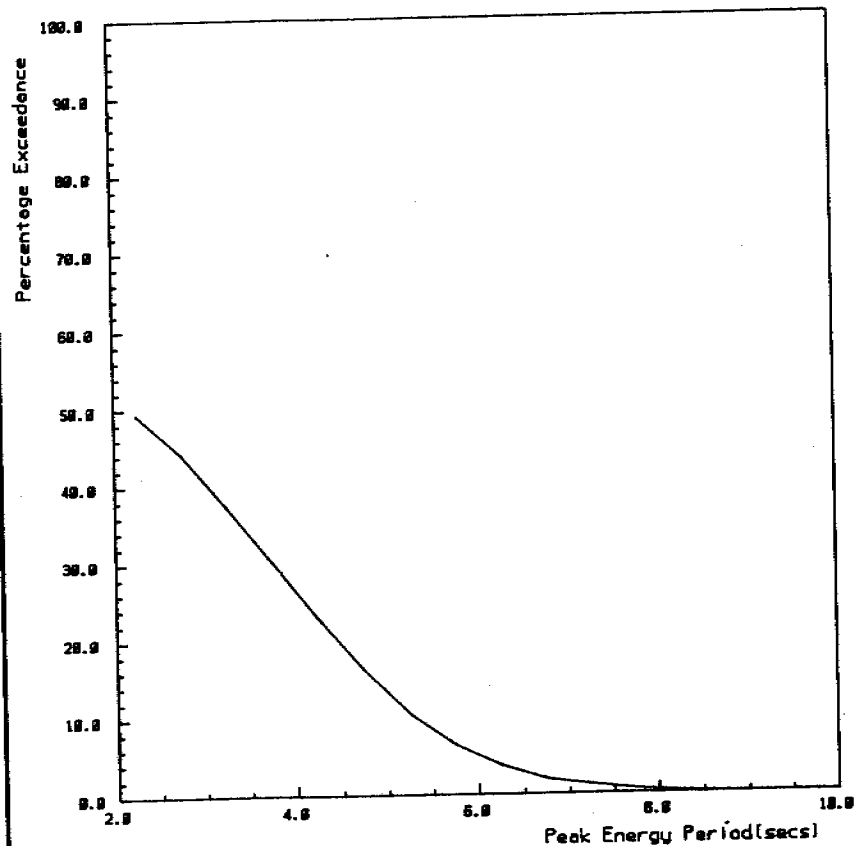
KUGNALLIT

WAVES 25/ 6/78 TO 28/9/83
-----SEASON: Summer, Fall

PERCENTAGE WAVE POWER DISTRIBUTION

DIRECTION SECTOR	PERCENTAGE FREQUENCY	MEAN POWER (KW)	PERCENTAGE ENERGY
220. - 230.	2.02	.98	.70
230. - 240.	2.03	1.20	.86
240. - 250.	2.03	1.79	1.29
250. - 260.	2.77	2.76	2.71
260. - 270.	3.57	3.37	4.28
270. - 280.	5.63	3.74	7.47
280. - 290.	4.17	1.56	2.31
290. - 300.	13.14	5.95	27.80
300. - 310.	8.95	4.91	15.61
310. - 320.	7.03	3.15	7.87
320. - 330.	6.01	2.56	5.46
330. - 340.	5.34	2.19	4.16
340. - 350.	3.45	2.39	2.92
350. - 360.	6.37	1.82	4.13
360. - 10.	3.88	.75	1.03
10. - 20.	4.93	.93	1.64
20. - 30.	6.83	1.37	3.33
30. - 40.	5.39	1.56	2.98
40. - 50.	6.03	1.59	3.40
50. - 60.	.43	.40	.06

FIGURE



Direction Limits: 220.0 TO 70.0

Calms: 50.1 %

Dates: 25/8/78 to 28/9/83

Season: Summer, Fall

Total No. of Records: 36796

Waves Hindcast Using Wind Data from Tuktoyaktuk N.W.T.

BEAUFORT SEA COASTAL SEDIMENT STUDY

Kugmallit: Deep Water Wave Period Exceedance
1970 - 1983

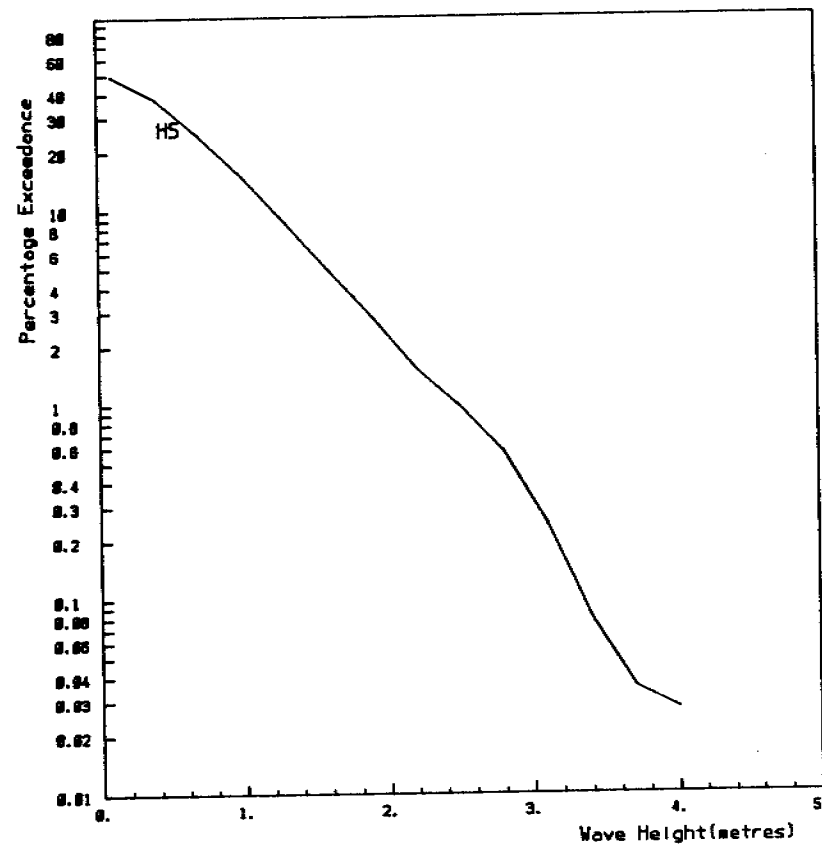
Date: 17 Feb 85

Scales as shown

Checked by:

Keith Philpott
Consulting Limited

FIGURE



Direction Limits: 220.0 TO 70.0

Calms: 50.1 %

Dates: 25/8/78 to 28/9/83

Season: Summer, Fall

Total No. of Records: 36796

Waves Hindcast Using Wind Data from Tuktoyaktuk N.W.T.

BEAUFORT SEA COASTAL SEDIMENT STUDY

Kugmallit: Deep Water Wave Height Exceedance
1970 - 1983

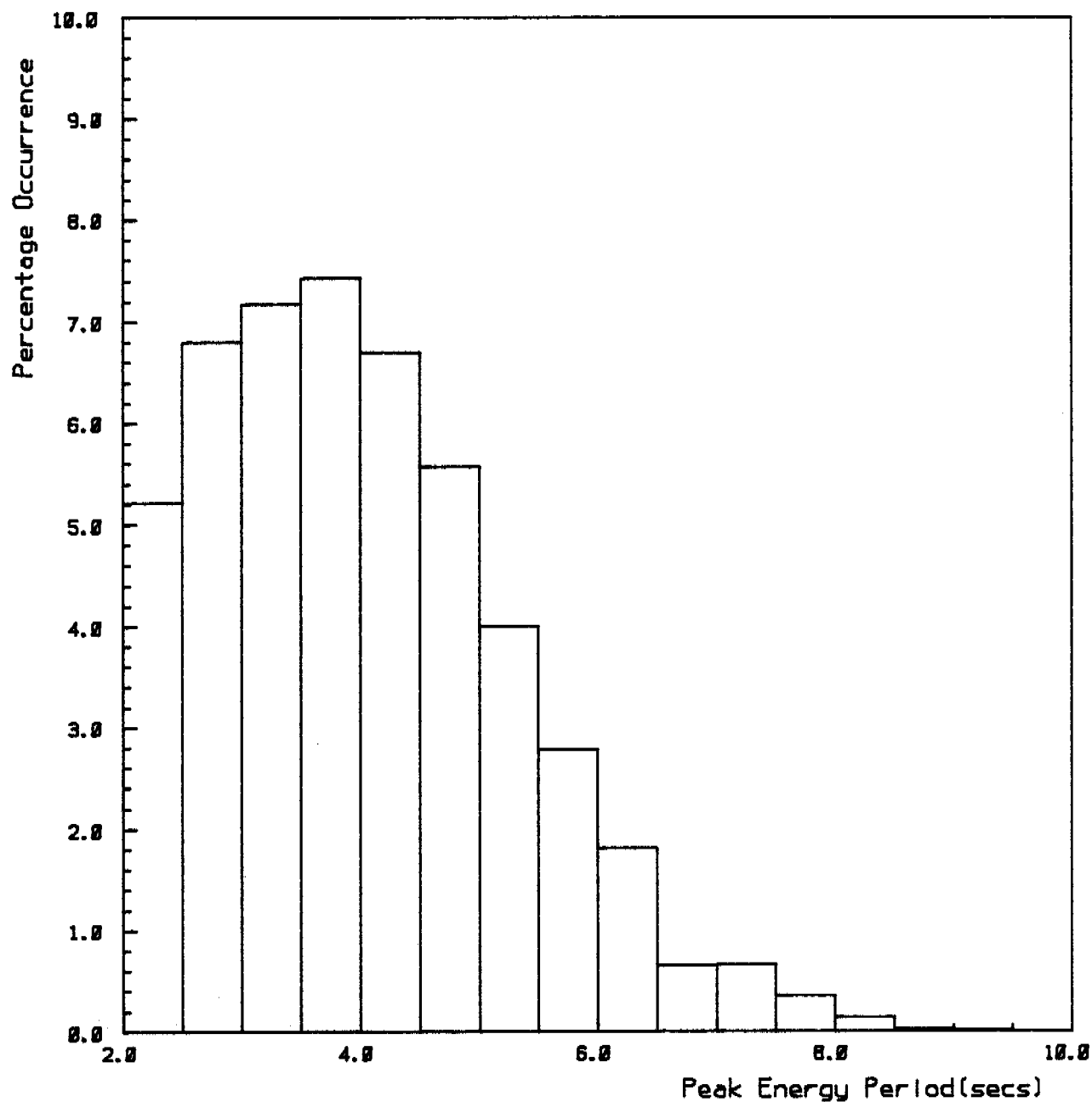
Date: 17 Feb 85

Scales as shown

Checked by:

Keith Philpott
Consulting Limited

FIGURE



Direction Limits: 220.0 TO 70.0

Calms: 50.1 %

Dates: 25/8/70 to 26/9/83

Season: Summer, Fall

Total No. of Records: 36796

Waves Hindcast Using Wind Data from Tuktoyaktuk N.W.T.

BEAUFORT SEA COASTAL SEDIMENT STUDY

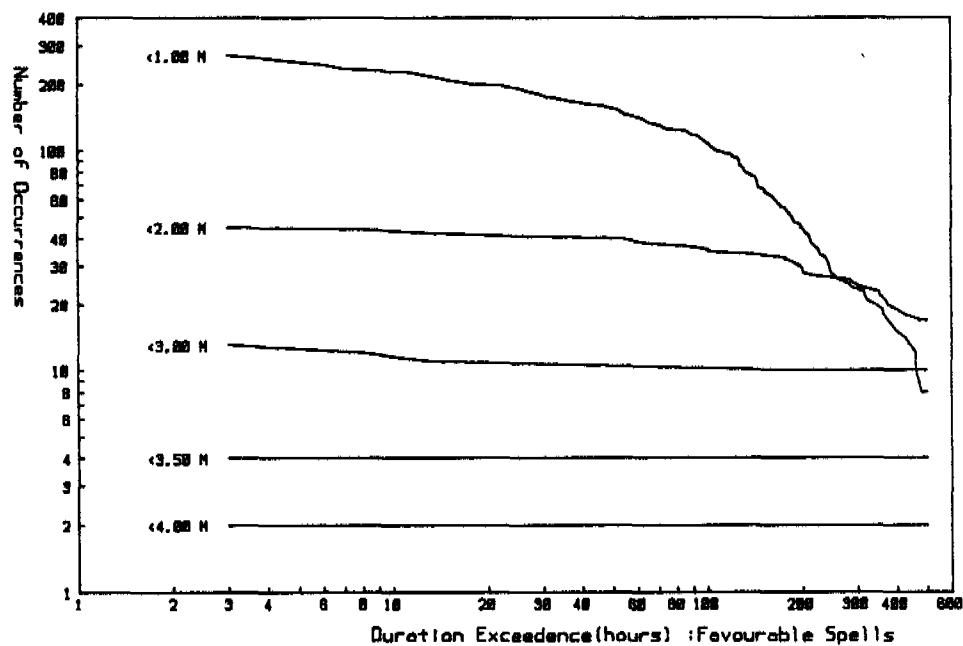
Kugmallit: Deep Water Wave Period Occurrence
1970 - 1983

Date: 17 Feb 85

Scales as shown

Checked by:

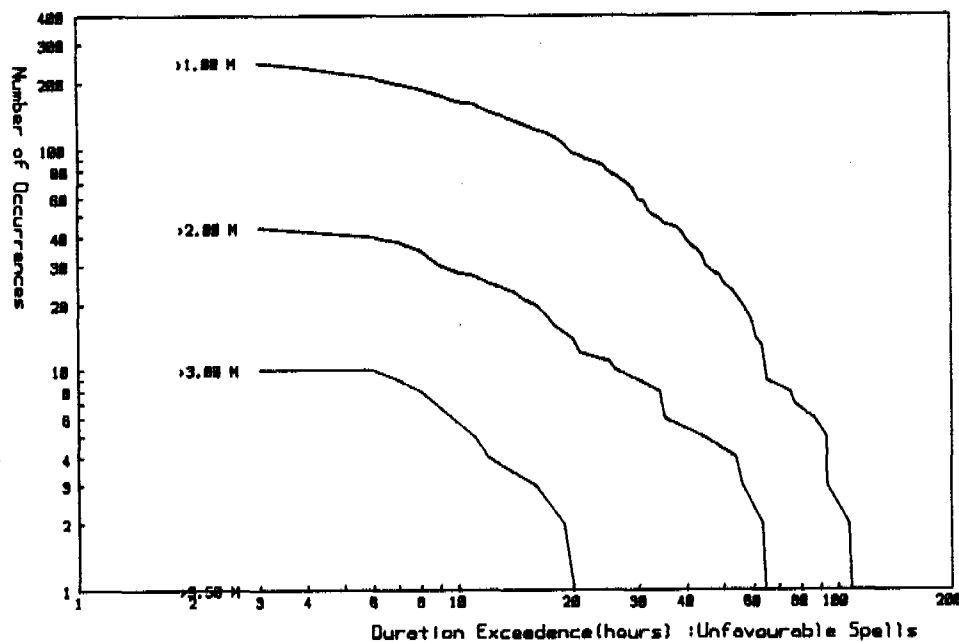
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Dates: 25/8/78 to 28/9/83

Season: Summer, Fall

Waves Hindcast Using Wind Data from Tuktoyaktuk N.V.T.



Dates: 25/8/78 to 28/9/83

Season: Summer, Fall

Waves Hindcast Using Wind Data from Tuktoyaktuk N.V.T.

BEAUFORT SEA COASTAL SEDIMENT STUDY

Kugmallit: Deepwater Wave Height Persistence
Favourable and Unfavourable Spells

Date: 17 May 85

Scales as shown

Checked by:

Keith Philpott
Consulting Limited

KUSMALLIT

BEAUFORT SEA COASTAL SEDIMENT STUDY

WAVES 25/ 6/70 TO 28/9/83

ALL DIRECTIONS

WAVE !	Wave Period(secs)																		Total!
HT(M)!																			
	>	12	-3	13	-4	14	-5	15	-6	16	-7	17	-8	18	-9	19	-10	10-11	-
.10!	3298!	631!	272!	88!	19!	8!	1!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	4317!
.40!	1122!	3257!	351!	92!	22!	12!	2!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	4858!
.70!	0!	1484!	1820!	111!	24!	9!	2!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	3458!
1.00!	0!	3!	2826!	256!	25!	16!	1!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	2327!
1.30!	0!	0!	36!	1315!	34!	9!	2!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	1396!
1.60!	0!	0!	0!	636!	130!	10!	1!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	777!
1.90!	0!	0!	0!	1!	451!	7!	2!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	461!
2.20!	0!	0!	0!	0!	0!	193!	13!	1!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	287!
2.50!	0!	0!	0!	0!	0!	13!	133!	2!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	148!
2.80!	0!	0!	0!	0!	0!	0!	121!	1!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	122!
3.10!	0!	0!	0!	0!	0!	0!	36!	23!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	59!
3.40!	0!	0!	0!	0!	0!	0!	0!	0!	16!	0!	0!	0!	0!	0!	0!	0!	0!	0!	16!
3.70!	0!	0!	0!	0!	0!	0!	0!	0!	3!	0!	0!	0!	0!	0!	0!	0!	0!	0!	3!
4.00!	0!	0!	0!	0!	0!	0!	0!	0!	5!	5!	0!	0!	0!	0!	0!	0!	0!	0!	10!
4.30!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.60!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
TOTAL!	4420!	5375!	4513!	2499!	911!	374!	62!	5!	0!	18159!									

SUMMARY :

NO. IN TOTAL SECTOR = 36680
 NO. OUTSIDE TOTAL SECTOR = 196
 NO. OF CALMS = 18441
 TOTAL NO. OF ALL RECORDS = 36680
 PERCENTAGE CALMS = 50.1%

KUSMALLIT

BEAUFORT SEA COASTAL SEDIMENT STUDY
WAVES 25/ 6/70 TO 28/9/83

DIRECTION 220 TO 230

WAVE !	Wave Period(secs)																		Total!
HT(M)!																			
	>	12	-3	13	-4	14	-5	15	-6	16	-7	17	-8	18	-9	19	-10	10-11	-
.10!	135!	7!	1!	2!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	145!
.40!	27!	60!	4!	1!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	92!
.70!	0!	39!	33!	1!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	73!
1.00!	0!	0!	42!	1!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	43!
1.30!	0!	0!	2!	10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	12!
1.60!	0!	0!	0!	1!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	1!
1.90!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.20!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.50!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.80!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.70!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.00!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.30!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.60!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
TOTAL!	162!	106!	82!	16!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	366!

DIRECTION 230 TO 240

WAVE !	Wave Period(secs)																		Total!
HT(M)!																			
	>	12	-3	13	-4	14	-5	15	-6	16	-7	17	-8	18	-9	19	-10	10-11	-
.10!	116!	10!	11!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	137!
.40!	31!	61!	13!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	185!
.70!	0!	26!	37!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	63!
1.00!	0!	0!	34!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	34!
1.30!	0!	0!	7!	15!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	22!
1.60!	0!	0!	0!	7!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	7!
1.90!	0!	0!	0!	0!	1!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	1!
2.20!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.50!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.80!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.70!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.00!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.30!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.60!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
TOTAL!	147!	97!	102!	22!	1!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	369!

KUSHALLIT

BEAUFORT SEA COASTAL SEDIMENT STUDY
WAVES 25/ 6/78 TO 28/9/83

DIRECTION 240 TO 250

WAVE ! HT(M)!	Wave Period(secs)											Total!
!	12	13	14	15	16	17	18	19	20	21	22	!
1.10!	83!	11!	2!	0!	0!	0!	0!	0!	0!	0!	0!	96!
1.40!	24!	84!	1!	2!	0!	0!	0!	0!	0!	0!	0!	111!
1.70!	0!	25!	35!	0!	0!	0!	0!	0!	0!	0!	0!	60!
1.00!	0!	0!	57!	2!	0!	0!	0!	0!	0!	0!	0!	59!
1.30!	0!	0!	0!	22!	0!	0!	0!	0!	0!	0!	0!	22!
1.60!	0!	0!	0!	15!	1!	0!	0!	0!	0!	0!	0!	16!
1.90!	0!	0!	0!	0!	2!	0!	0!	0!	0!	0!	0!	2!
2.20!	0!	0!	0!	0!	3!	0!	0!	0!	0!	0!	0!	3!
2.50!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.80!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.70!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.00!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.30!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.60!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
TOTAL!	107!	120!	95!	41!	6!	0!	0!	0!	0!	0!	0!	369!

DIRECTION 250 TO 260

WAVE ! HT(M)!	Wave Period(secs)											Total!
!	12	13	14	15	16	17	18	19	20	21	22	!
1.10!	88!	12!	2!	2!	0!	0!	0!	0!	0!	0!	0!	104!
1.40!	20!	113!	2!	1!	0!	0!	0!	0!	0!	0!	0!	136!
1.70!	0!	26!	43!	3!	0!	0!	0!	0!	0!	0!	0!	72!
1.00!	0!	0!	54!	6!	0!	0!	0!	0!	0!	0!	0!	60!
1.30!	0!	0!	2!	72!	0!	0!	0!	0!	0!	0!	0!	74!
1.60!	0!	0!	0!	40!	4!	0!	0!	0!	0!	0!	0!	44!
1.90!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.20!	0!	0!	0!	0!	1!	0!	0!	0!	0!	0!	0!	1!
2.50!	0!	0!	0!	0!	0!	2!	0!	0!	0!	0!	0!	2!
2.80!	0!	0!	0!	0!	0!	2!	0!	0!	0!	0!	0!	2!
3.10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.70!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.00!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.30!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.60!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
TOTAL!	100!	151!	103!	124!	13!	4!	0!	0!	0!	0!	0!	503!

KUSHALLIT

BEAUFORT SEA COASTAL SEDIMENT STUDY
WAVES 25/ 6/78 TO 28/9/83

DIRECTION 260 TO 270

WAVE ! HT(M)!	Wave Period(secs)											Total!
!	12	13	14	15	16	17	18	19	20	21	22	!
1.10!	70!	3!	21!	0!	0!	0!	0!	0!	0!	0!	0!	102!
1.40!	24!	100!	20!	3!	0!	0!	0!	0!	0!	0!	0!	147!
1.70!	0!	30!	01!	6!	0!	0!	0!	0!	0!	0!	0!	125!
1.00!	0!	0!	120!	16!	0!	0!	0!	0!	0!	0!	0!	136!
1.30!	0!	0!	2!	50!	0!	0!	0!	0!	0!	0!	0!	52!
1.60!	0!	0!	0!	37!	4!	0!	0!	0!	0!	0!	0!	41!
1.90!	0!	0!	0!	0!	17!	0!	0!	0!	0!	0!	0!	17!
2.20!	0!	0!	0!	0!	18!	0!	0!	0!	0!	0!	0!	18!
2.50!	0!	0!	0!	0!	3!	1!	0!	0!	0!	0!	0!	4!
2.80!	0!	0!	0!	0!	0!	5!	0!	0!	0!	0!	0!	5!
3.10!	0!	0!	0!	0!	0!	2!	0!	0!	0!	0!	0!	2!
3.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.70!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.00!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.30!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.60!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
TOTAL!	102!	141!	244!	112!	42!	0!	0!	0!	0!	0!	0!	649!

DIRECTION 270 TO 280

WAVE ! HT(M)!	Wave Period(secs)											Total!
!	12	13	14	15	16	17	18	19	20	21	22	!
1.10!	99!	34!	18!	4!	1!	0!	0!	0!	0!	0!	0!	156!
1.40!	34!	130!	15!	3!	1!	0!	0!	0!	0!	0!	0!	193!
1.70!	0!	70!	122!	4!	1!	0!	0!	0!	0!	0!	0!	205!
1.00!	0!	0!	207!	9!	1!	0!	0!	0!	0!	0!	0!	217!
1.30!	0!	0!	3!	115!	1!	0!	0!	0!	0!	0!	0!	119!
1.60!	0!	0!	0!	39!	4!	0!	0!	0!	0!	0!	0!	43!
1.90!	0!	0!	0!	0!	43!	0!	0!	0!	0!	0!	0!	43!
2.20!	0!	0!	0!	0!	19!	1!	0!	0!	0!	0!	0!	20!
2.50!	0!	0!	0!	0!	2!	7!	0!	0!	0!	0!	0!	9!
2.80!	0!	0!	0!	0!	0!	11!	0!	0!	0!	0!	0!	11!
3.10!	0!	0!	0!	0!	0!	6!	0!	0!	0!	0!	0!	6!
3.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.70!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.00!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.30!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.60!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
TOTAL!	135!	250!	365!	174!	73!	25!	0!	0!	0!	0!	0!	1022!

DIRECTION 280 TO 290

WAVE !	Wave Period(secs)											Total!
INT(M)!												
	>	12	13	14	15	16	17	18	19	10	11	-
1.10!	94!	25!	3!	3!	0!	0!	0!	0!	0!	0!	0!	125!
1.40!	32!	163!	9!	2!	0!	0!	0!	0!	0!	0!	0!	206!
1.70!	0!	134!	96!	2!	0!	0!	0!	0!	0!	0!	0!	232!
1.80!	0!	0!	136!	13!	0!	0!	0!	0!	0!	0!	0!	149!
1.30!	0!	0!	7!	21!	0!	0!	0!	0!	0!	0!	0!	28!
1.60!	0!	0!	0!	11!	6!	0!	0!	0!	0!	0!	0!	17!
1.90!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.20!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.50!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.80!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.70!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.00!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.30!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.60!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
TOTAL!	126!	322!	251!	52!	6!	0!	0!	0!	0!	0!	0!	757!

DIRECTION 290 TO 300

WAVE !	Wave Period(secs)											Total!
INT(M)!												
	>	12	13	14	15	16	17	18	19	10	11	-
1.10!	132!	42!	58!	25!	0!	0!	0!	0!	0!	0!	0!	273!
1.40!	33!	204!	69!	25!	7!	12!	0!	0!	0!	0!	0!	350!
1.70!	0!	143!	237!	28!	10!	9!	0!	0!	0!	0!	0!	427!
1.80!	0!	0!	337!	54!	0!	13!	0!	0!	0!	0!	0!	412!
1.30!	0!	0!	3!	324!	7!	0!	0!	0!	0!	0!	0!	342!
1.60!	0!	0!	0!	145!	54!	9!	0!	0!	0!	0!	0!	200!
1.90!	0!	0!	0!	0!	154!	7!	0!	0!	0!	0!	0!	161!
2.20!	0!	0!	0!	0!	0!	59!	6!	0!	0!	0!	0!	65!
2.50!	0!	0!	0!	0!	2!	58!	0!	0!	0!	0!	0!	60!
2.80!	0!	0!	0!	0!	0!	44!	0!	0!	0!	0!	0!	44!
3.10!	0!	0!	0!	0!	0!	16!	16!	0!	0!	0!	0!	32!
3.40!	0!	0!	0!	0!	0!	0!	12!	0!	0!	0!	0!	12!
3.70!	0!	0!	0!	0!	0!	0!	1!	0!	0!	0!	0!	1!
4.00!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.30!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.60!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
TOTAL!	165!	389!	704!	601!	309!	190!	29!	0!	0!	0!	0!	2387!

DIRECTION 300 TO 310

WAVE !	Wave Period(secs)											Total!
INT(M)!												
	>	12	13	14	15	16	17	18	19	10	11	-
1.10!	150!	37!	21!	13!	0!	0!	0!	0!	0!	0!	0!	230!
1.40!	70!	231!	37!	12!	2!	0!	2!	0!	0!	0!	0!	354!
1.70!	0!	117!	146!	24!	3!	0!	2!	0!	0!	0!	0!	292!
1.80!	0!	0!	194!	51!	1!	0!	1!	0!	0!	0!	0!	247!
1.30!	0!	0!	2!	165!	6!	0!	2!	0!	0!	0!	0!	175!
1.60!	0!	0!	0!	119!	19!	0!	1!	0!	0!	0!	0!	139!
1.90!	0!	0!	0!	0!	92!	0!	2!	0!	0!	0!	0!	94!
2.20!	0!	0!	0!	0!	32!	0!	1!	0!	0!	0!	0!	33!
2.50!	0!	0!	0!	0!	3!	14!	2!	0!	0!	0!	0!	19!
2.80!	0!	0!	0!	0!	0!	9!	1!	0!	0!	0!	0!	10!
3.10!	0!	0!	0!	0!	0!	9!	7!	0!	0!	0!	0!	16!
3.40!	0!	0!	0!	0!	0!	0!	4!	0!	0!	0!	0!	4!
3.70!	0!	0!	0!	0!	0!	0!	2!	0!	0!	0!	0!	2!
4.00!	0!	0!	0!	0!	0!	0!	5!	5!	0!	0!	0!	10!
4.30!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.60!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
TOTAL!	228!	385!	400!	384!	150!	32!	33!	5!	0!	0!	0!	1625!

DIRECTION 310 TO 320

WAVE !	Wave Period(secs)											Total!
INT(M)!												
	>	12	13	14	15	16	17	18	19	10	11	-
1.10!	106!	16!	19!	7!	3!	0!	0!	0!	0!	0!	0!	231!
1.40!	119!	245!	25!	6!	2!	0!	0!	0!	0!	0!	0!	397!
1.70!	0!	110!	117!	4!	3!	0!	0!	0!	0!	0!	0!	234!
1.80!	0!	0!	144!	10!	2!	3!	0!	0!	0!	0!	0!	159!
1.30!	0!	0!	1!	100!	3!	1!	0!	0!	0!	0!	0!	113!
1.60!	0!	0!	0!	54!	12!	1!	0!	0!	0!	0!	0!	67!
1.90!	0!	0!	0!	0!	22!	0!	0!	0!	0!	0!	0!	22!
2.20!	0!	0!	0!	0!	9!	0!	0!	0!	0!	0!	0!	9!
2.50!	0!	0!	0!	0!	2!	10!	0!	0!	0!	0!	0!	20!
2.80!	0!	0!	0!	0!	0!	22!	0!	0!	0!	0!	0!	22!
3.10!	0!	0!	0!	0!	0!	3!	0!	0!	0!	0!	0!	3!
3.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.70!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.00!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.30!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.60!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
TOTAL!	385!	371!	306!	189!	50!	40!	0!	0!	0!	0!	0!	1277!

KUGMALLIT

BEAUFORT SEA COASTAL SEDIMENT STUDY
WAVES 25/ 6/70 TO 28/9/83

DIRECTION 320 TO 330

WAVE !	Wave Period(secs)											Total!
HT(M) !												
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DIRECTION 330 TO 340

WAVE !	Wave Period(secs)											Total!
HT(M)!												
	>	12	13	14	15	16	17	18	19	20	21	-
.10!	154!	26!	7!	0!	1!	0!	0!	0!	0!	0!	188!	
.40!	65!	202!	0!	0!	3!	0!	0!	0!	0!	0!	270!	
.70!	0!	133!	113!	3!	2!	0!	0!	0!	0!	0!	251!	
1.00!	0!	0!	99!	6!	0!	0!	0!	0!	0!	0!	105!	
1.30!	0!	0!	0!	64!	0!	0!	0!	0!	0!	0!	64!	
1.60!	0!	0!	0!	44!	2!	0!	0!	0!	0!	0!	46!	
1.90!	0!	0!	0!	0!	24!	0!	0!	0!	0!	0!	24!	
2.20!	0!	0!	0!	0!	14!	0!	0!	0!	0!	0!	14!	
2.50!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
2.80!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
3.10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
3.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
3.70!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
4.00!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
4.30!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
4.60!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
TOTAL!	219!	361!	227!	117!	46!	0!	0!	0!	0!	0!	970!	

KUGMALLIT

BEAUFORT SEA COASTAL SEDIMENT STUDY
WAVES 25/ 6/70 TO 28/9/83

DIRECTION 340 TO 350

WAVE !	Wave Period(secs)											Total!
HT(M)!												

>	12	13	14	15	16	17	18	19	20	21	-	
.10!	165!	17!	3!	0!	0!	0!	0!	0!	0!	0!	185!	
.40!	49!	136!	3!	0!	0!	0!	0!	0!	0!	0!	188!	
.70!	0!	77!	51!	0!	0!	0!	0!	0!	0!	0!	128!	
1.00!	0!	0!	40!	1!	0!	0!	0!	0!	0!	0!	49!	
1.30!	0!	0!	1!	25!	0!	0!	0!	0!	0!	0!	26!	
1.60!	0!	0!	0!	7!	0!	0!	0!	0!	0!	0!	7!	
1.90!	0!	0!	0!	0!	10!	0!	0!	0!	0!	0!	10!	
2.20!	0!	0!	0!	0!	16!	0!	0!	0!	0!	0!	16!	
2.50!	0!	0!	0!	0!	0!	15!	0!	0!	0!	0!	15!	
2.80!	0!	0!	0!	0!	0!	2!	0!	0!	0!	0!	2!	
3.10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
3.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
3.70!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
4.00!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
4.30!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
4.60!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	

TOTAL!	214!	230!	106!	33!	26!	17!	0!	0!	0!	0!	626!	

DIRECTION 350 TO 360

WAVE !	Wave Period(secs)											Total!
HT(M)!												
	12	13	14	15	16	17	18	19	20	21	-	
.10!	310!	37!	4!	0!	0!	0!	0!	0!	0!	0!	359!	
.40!	132!	283!	4!	0!	0!	0!	0!	0!	0!	0!	419!	
.70!	0!	115!	93!	0!	0!	0!	0!	0!	0!	0!	208!	
1.00!	0!	3!	76!	3!	3!	0!	0!	0!	0!	0!	85!	
1.30!	0!	0!	1!	16!	4!	0!	0!	0!	0!	0!	21!	
1.60!	0!	0!	0!	11!	4!	0!	0!	0!	0!	0!	15!	
1.90!	0!	0!	0!	1!	10!	0!	0!	0!	0!	0!	19!	
2.20!	0!	0!	0!	0!	7!	0!	0!	0!	0!	0!	7!	
2.50!	0!	0!	0!	0!	0!	3!	0!	0!	0!	0!	3!	
2.80!	0!	0!	0!	0!	0!	20!	0!	0!	0!	0!	20!	
3.10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
3.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
3.70!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
4.00!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
4.30!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
4.60!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
TOTAL!	450!	430!	170!	31!	36!	23!	0!	0!	0!	0!	1156!	

BEAUFORT SEA COASTAL SEDIMENT STUDY
WAVES 25/ 6/78 TO 28/9/83

DIRECTION 360 TO 10

WAVE !	Wave Period(secs)											Total!
INT(N)!												
> 12 -3 13 -4 14 -5 15 -6 16 -7 17 -8 18 -9 19 -10 10-11! - !												
.10!	262!	32!	6!	0!	0!	0!	0!	0!	0!	0!	0!	300!
.40!	55!	170!	0!	0!	0!	0!	0!	0!	0!	0!	0!	241!
.70!	0!	27!	75!	0!	0!	0!	0!	0!	0!	0!	0!	102!
1.00!	0!	0!	30!	12!	0!	0!	0!	0!	0!	0!	0!	50!
1.30!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
1.60!	0!	0!	0!	4!	0!	0!	0!	0!	0!	0!	0!	4!
1.90!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.20!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.50!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.80!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.70!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.00!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.30!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.60!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
TOTAL!	317!	237!	127!	24!	0!	0!	0!	0!	0!	0!	0!	705!

DIRECTION 10 TO 20

WAVE !	Wave Period(secs)											Total!
INT(N)!												
> 12 -3 13 -4 14 -5 15 -6 16 -7 17 -8 18 -9 19 -10 10-11! - !												
.10!	237!	57!	23!	5!	0!	0!	0!	0!	0!	0!	0!	322!
.40!	46!	203!	27!	7!	0!	0!	0!	0!	0!	0!	0!	283!
.70!	0!	63!	114!	5!	0!	0!	0!	0!	0!	0!	0!	182!
1.00!	0!	0!	72!	12!	0!	0!	0!	0!	0!	0!	0!	84!
1.30!	0!	0!	0!	22!	0!	0!	0!	0!	0!	0!	0!	22!
1.60!	0!	0!	0!	2!	0!	0!	0!	0!	0!	0!	0!	2!
1.90!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.20!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.50!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.80!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.70!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.00!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.30!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.60!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
TOTAL!	283!	323!	236!	53!	0!	0!	0!	0!	0!	0!	0!	895!

BEAUFORT SEA COASTAL SEDIMENT STUDY
WAVES 25/ 6/78 TO 28/9/83

DIRECTION 20 TO 30

WAVE !	Wave Period(secs)											Total!
INT(N)!												
> 12 -3 13 -4 14 -5 15 -6 16 -7 17 -8 18 -9 19 -10 10-11! - !												
.10!	256!	132!	16!	0!	3!	0!	0!	0!	0!	0!	0!	415!
.40!	72!	248!	37!	0!	3!	0!	0!	0!	0!	0!	0!	368!
.70!	0!	85!	156!	11!	4!	0!	0!	0!	0!	0!	0!	256!
1.00!	0!	0!	96!	10!	5!	0!	0!	0!	0!	0!	0!	119!
1.30!	0!	0!	0!	47!	3!	0!	0!	0!	0!	0!	0!	50!
1.60!	0!	0!	0!	0!	6!	0!	0!	0!	0!	0!	0!	14!
1.90!	0!	0!	0!	0!	7!	0!	0!	0!	0!	0!	0!	7!
2.20!	0!	0!	0!	0!	5!	3!	0!	0!	0!	0!	0!	8!
2.50!	0!	0!	0!	0!	1!	2!	0!	0!	0!	0!	0!	3!
2.80!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.70!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.00!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.30!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.60!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
TOTAL!	320!	465!	305!	100!	37!	5!	0!	0!	0!	0!	0!	1240!

DIRECTION 30 TO 40

WAVE !	Wave Period(secs)											Total!
INT(N)!												
> 12 -3 13 -4 14 -5 15 -6 16 -7 17 -8 18 -9 19 -10 10-11! - !												
.10!	280!	50!	12!	2!	2!	0!	0!	0!	0!	0!	0!	354!
.40!	69!	189!	21!	2!	2!	0!	0!	0!	0!	0!	0!	283!
.70!	0!	94!	90!	2!	0!	0!	0!	0!	0!	0!	0!	186!
1.00!	0!	0!	62!	6!	3!	0!	0!	0!	0!	0!	0!	71!
1.30!	0!	0!	0!	52!	1!	0!	0!	0!	0!	0!	0!	53!
1.60!	0!	0!	0!	12!	2!	0!	0!	0!	0!	0!	0!	14!
1.90!	0!	0!	0!	0!	1!	0!	0!	0!	0!	0!	0!	1!
2.20!	0!	0!	0!	0!	1!	3!	0!	0!	0!	0!	0!	4!
2.50!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.80!	0!	0!	0!	0!	0!	5!	0!	0!	0!	0!	0!	5!
3.10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.70!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.00!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.30!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.60!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
TOTAL!	349!	341!	185!	76!	12!	16!	0!	0!	0!	0!	0!	979!

KUSMALLIT

BEAUFORT SEA COASTAL SEDIMENT STUDY
WAVES 25/ 6/70 TO 28/9/83

DIRECTION 40 TO 50

WAVE !	Wave Period(secs)											Total!
HT(M)!												
	1	2	3	4	5	6	7	8	9	10	11	
.10!	287!	55!	29!	7!	1!	0!	0!	0!	0!	0!	0!	379!
.40!	111!	195!	29!	9!	2!	0!	0!	0!	0!	0!	0!	346!
.70!	0!	64!	83!	10!	1!	0!	0!	0!	0!	0!	0!	158!
1.00!	0!	0!	73!	14!	2!	0!	0!	0!	0!	0!	0!	89!
1.30!	0!	0!	1!	64!	2!	0!	0!	0!	0!	0!	0!	67!
1.60!	0!	0!	0!	38!	1!	0!	0!	0!	0!	0!	0!	39!
1.90!	0!	0!	0!	0!	6!	0!	0!	0!	0!	0!	0!	6!
2.20!	0!	0!	0!	0!	5!	0!	0!	0!	0!	0!	0!	5!
2.50!	0!	0!	0!	0!	0!	5!	0!	0!	0!	0!	0!	5!
2.80!	0!	0!	0!	0!	0!	1!	0!	0!	0!	0!	0!	1!
3.10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.70!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.00!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.30!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.60!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
TOTAL!	398!	314!	215!	142!	20!	6!	0!	0!	0!	0!	0!	1095!

DIRECTION 50 TO 60

WAVE !	Wave Period(secs)											Total!
HT(M)!												
	1	2	3	4	5	6	7	8	9	10	11	
.10!	34!	6!	0!	0!	0!	0!	0!	0!	0!	0!	0!	40!
.40!	12!	17!	0!	0!	0!	0!	0!	0!	0!	0!	0!	29!
.70!	0!	6!	1!	0!	0!	0!	0!	0!	0!	0!	0!	7!
1.00!	0!	0!	2!	0!	0!	0!	0!	0!	0!	0!	0!	2!
1.30!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
1.60!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
1.90!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.20!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.50!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.80!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.70!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.00!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.30!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.60!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
TOTAL!	46!	29!	3!	0!	0!	0!	0!	0!	0!	0!	0!	78!

KUSMALLIT

BEAUFORT SEA COASTAL SEDIMENT STUDY
WAVES 25/ 6/70 TO 28/9/83

DIRECTION 60 TO 70

WAVE !	Wave Period(secs)											Total!
HT(M)!												
	1	2	3	4	5	6	7	8	9	10	11	
.10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
.70!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
1.00!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
1.30!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
1.60!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
1.90!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.20!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.50!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
2.80!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
3.70!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.00!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.30!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
4.60!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
TOTAL!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!

BEAUFORT SEA COASTAL SEDIMENT STUDY

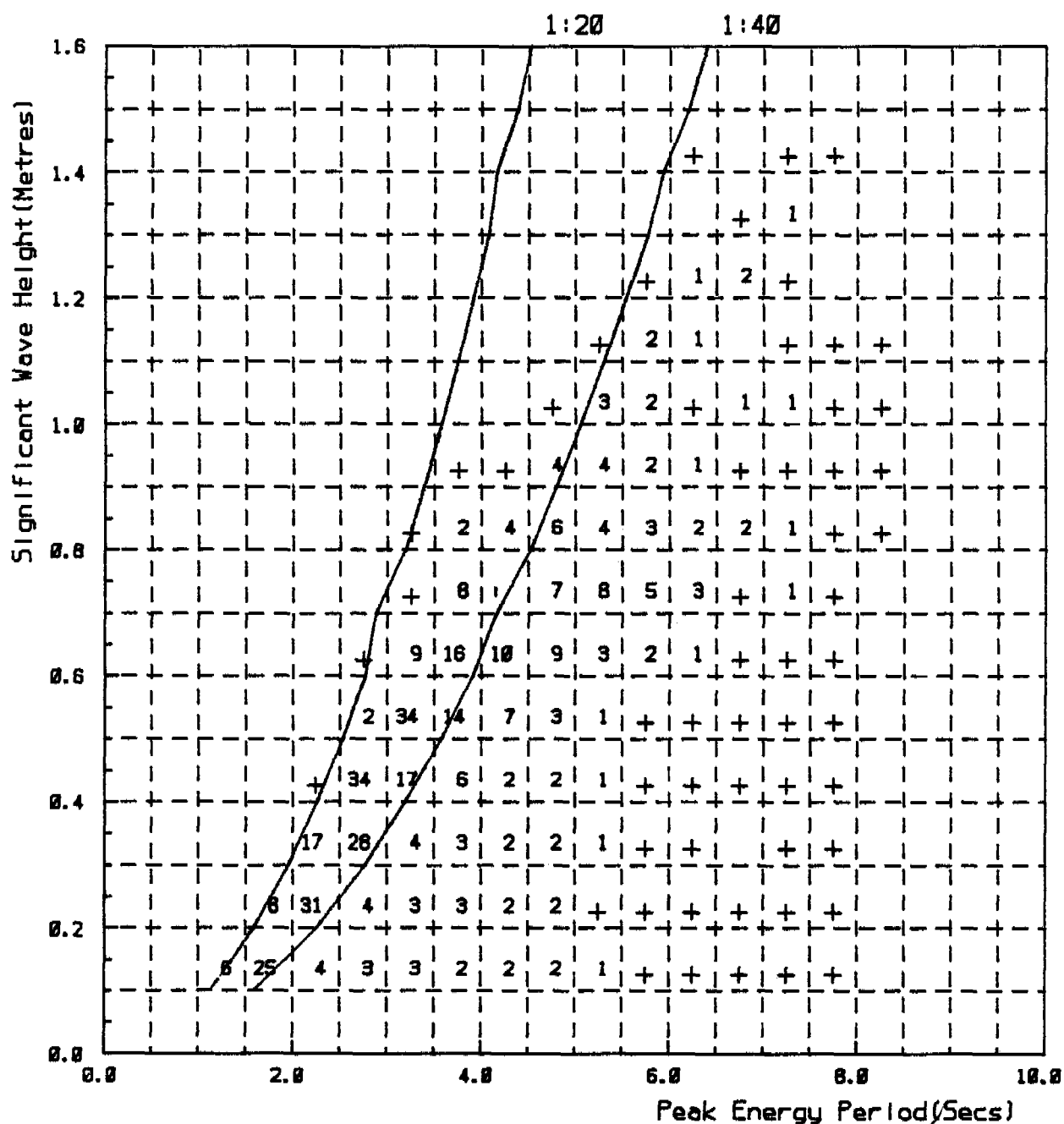
OFFSHORE WAVE STATISTICS - TUKTOYAKTUK

WAVES 3/7/70 TO 28/9/83

SEASON: Summer, Fall

Note: This is one of two sets of "offshore"
wave statistics for Tuktoyaktuk, as explained
in Section 3.6.3. in Part I.

KEITH PHILPOTT CONSULTING LTD.
P.O. BOX 938
THORNHILL
ONTARIO L3T 4A5



Direction Limits: 0.0 TO 360.0

Values in parts per : 1000

Calms: 60.4 %

+- Values less than 1 ppt

Dates: 3/7/70 to 26/9/83

Season: Summer, Fall

Total No. of Records: 36400

Waves Hindcast Using Wind Data from Tuktoyaktuk N.W.T. - FRICTIONAL HINDCAST APPROACH

BEAUFORT SEA COASTAL SEDIMENT STUDY

Date: 16 May 85

Scales as shown

Tuktoyaktuk: Scatter Diagram for Offshore Wave Data

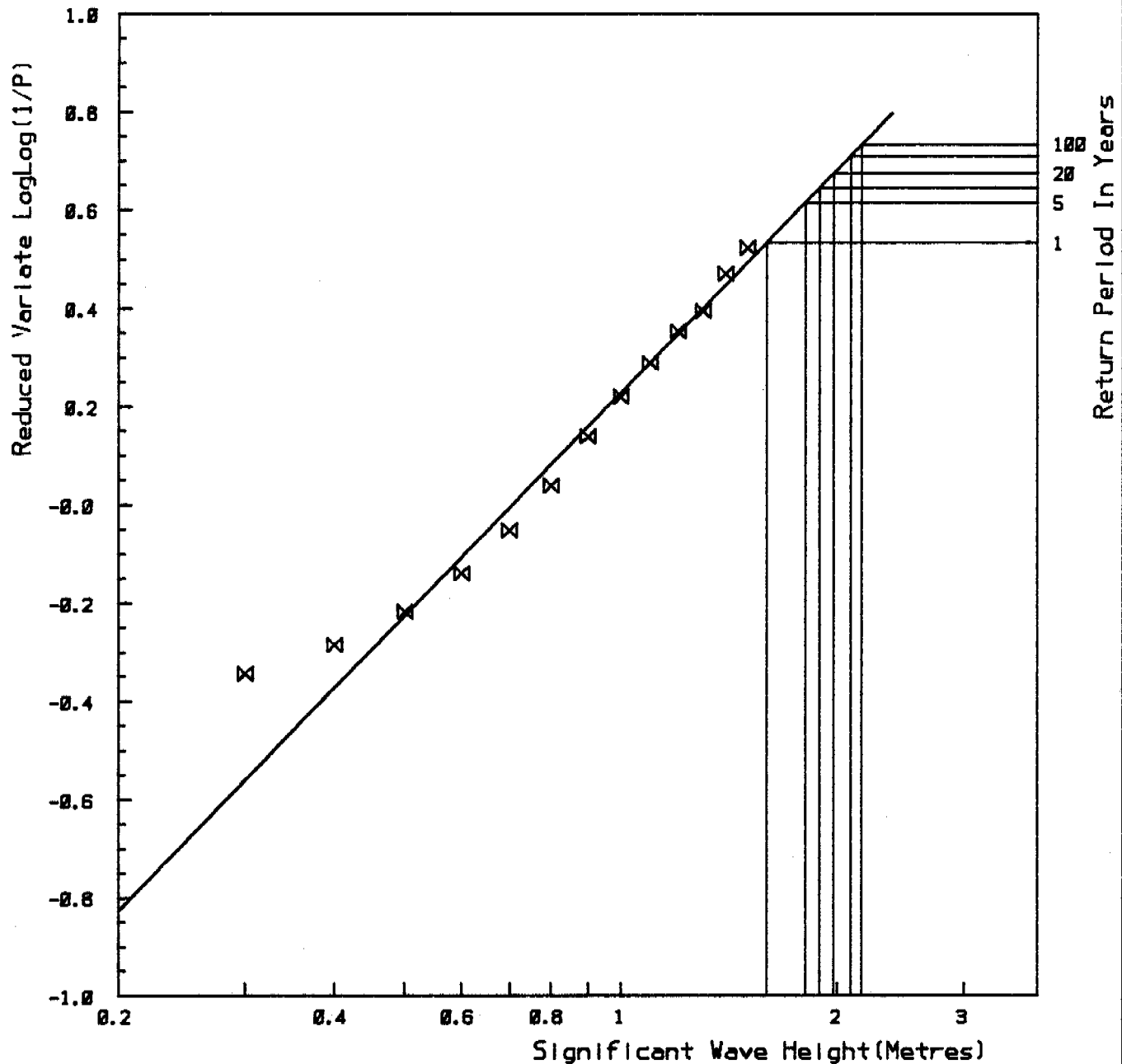
Checked by:

1970 - 1983

Keith Philpott

Consulting Limited

FIGURE



Direction Limits: 220.0 TO 20.0

Calms: 60.4 %

Dates: 3/7/70 to 26/9/83

Season: Summer, Fall

Total No. of Records: 36408

Waves Hindcast Using Wind Data from Tuktoyaktuk N.W.T. - FRICTIONAL HINDCAST APPROACH

BEAUFORT SEA COASTAL SEDIMENT STUDY

Tuktoyaktuk: Weibull Long Term Distribution of
Wave Heights

Date: 16 May 85

Scales as shown

Checked by:

Keith Philpott

Consulting Limited

BEAUFORT SEA COASTAL SEDIMENT STUDY

TUKTOYAKTUK

WAVES 3/ 7/78 TO 28/ 9/83

SEASON: Summer, Fall

WEIBULL PROBABILITY ANALYSIS

WHT LIMIT	CUM TOTAL	CUM PROB(P)	LOGLOG(1./P(H))	LOG(WHT)
< .2	36408	.999973	-4.922299	-.698970
< .3	12806	.351726	-.343140	-.522879
< .4	11016	.302563	-.284678	-.397940
< .5	9823	.247823	-.217629	-.301030
< .6	6839	.187838	-.138934	-.221849
< .7	4712	.129419	-.051585	-.154982
< .8	2947	.080942	.038154	-.096910
< .9	1536	.042187	.138245	-.045757
< 1.0	800	.021973	.219616	.000000
< 1.1	416	.011426	.288275	.041393
< 1.2	201	.005521	.353726	.079181
< 1.3	119	.003268	.395442	.113943
< 1.4	40	.001899	.471167	.146128
< 1.5	17	.000467	.522543	.176091

LEAST SQUARES CURVE FIT ON LOGLOG(1/(1-P))

LOG(WHT)	LOGLOG(1./P(H))	CURVE FIT	RESIDUAL
-.69897	-4.92230	-.81946	-24.22774
-.52288	-.34314	-.14787	137.14210
-.39794	-.28468	-.13930	81.40283
-.30103	-.21763	-.12946	48.44570
-.22185	-.13893	-.11792	27.03633
-.15498	-.05159	-.10511	12.14810
-.09691	.03815	-.09195	1.14895
-.04576	.13825	-.07727	-6.99884
.00000	.21962	-.06534	-13.96704
.04139	.28828	-.05527	-19.95358
.07918	.35373	-.04567	-24.98422
.11394	.39544	-.03955	-29.77228
.14613	.47117	-.02844	-33.09941
.17609	.52254	-.02091	-36.46666

SLOPE= .14666

INTERCEPT= -.09754

CORR COEFF= .75922

2 GROUPS TO BE OMITTED FROM NEXT FIT:

< .2	36488
< .3	12886

LEAST SQUARES CURVE FIT ON LOGLOG(1/(1-P))

LOG(WHT)	LOGLOG(1./P(H))	CURVE FIT	RESIDUAL
-.39794	-.28468	-.33971	14.34866
-.38103	-.21763	-.29525	1.33875
-.22185	-.13893	-.24388	-4.77072
-.15490	-.05159	-.18516	-6.73897
-.09691	.03815	-.12567	-6.48675
-.04576	.13825	-.05930	-3.87898
.00000	.21962	-.00535	-1.22514
.04139	.28828	.04017	-.28142
.07918	.35373	.08356	1.01431
.11394	.39544	.11122	-.62457
.14613	.47117	.16143	3.58603
.17609	.52254	.19549	4.56863

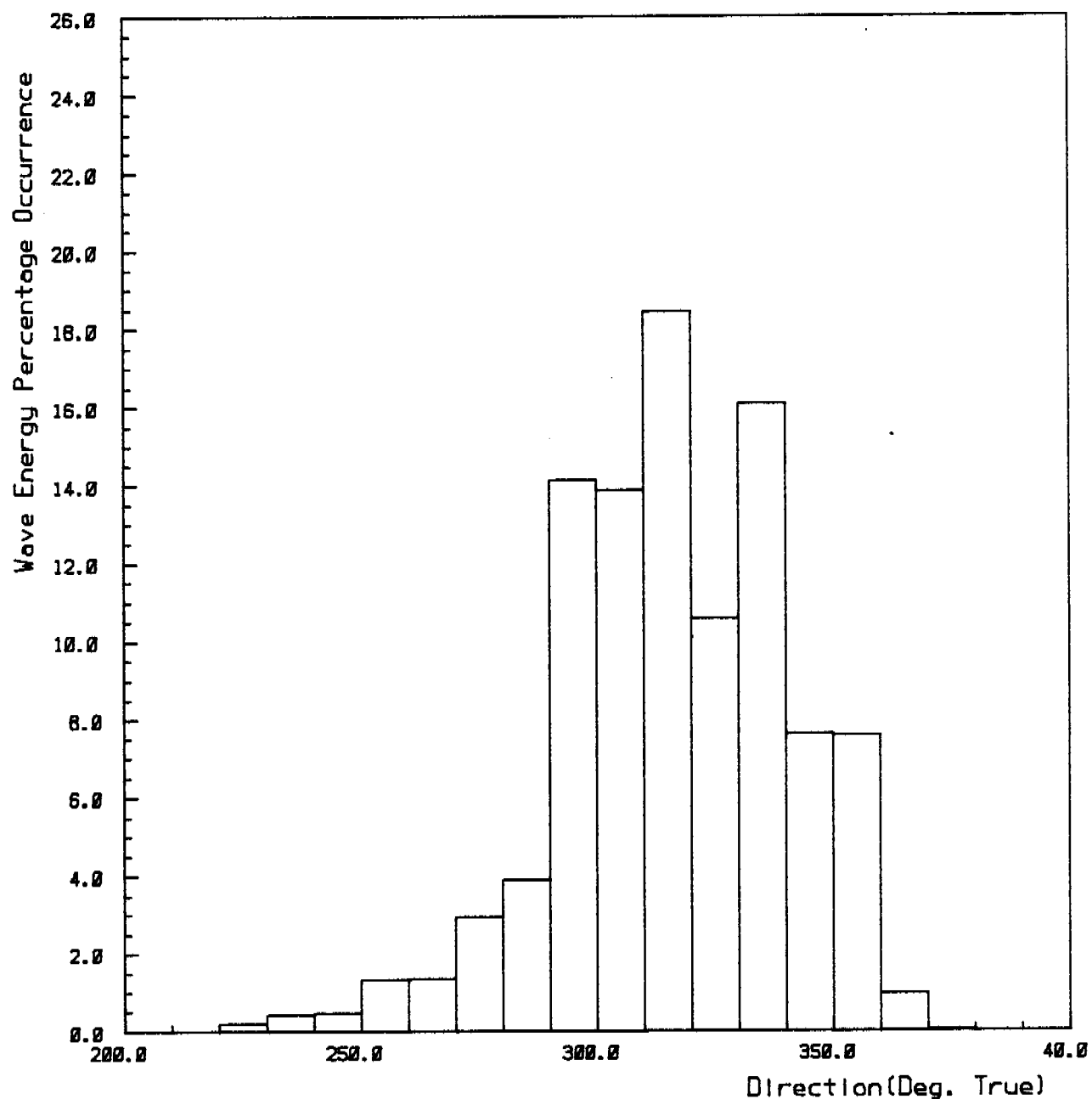
SLOPE= .66382 INTERCEPT= -.15896 CORR COEFF= .99123

PREDICTED WAVE HEIGHTS FOR GIVEN RETURN PERIODS

RETURN PERIOD(YEARS) WAVE HEIGHT(MS)

1.0	1.6
5.0	1.8
10.0	1.9
20.0	2.0
50.0	2.1
100.0	2.2

AVERAGE NUMBER OF RECORDS PER YEAR= 2600.6



Direction Limits: 220.0 TO 20.0

Calms: 60.4 %

Dates: 3/7/70 to 28/9/83

Season: Summer, Fall

Total No. of Records: 36408

Waves Hindcast Using Wind Data from Tuktoyaktuk N.W.T. - FRICTIONAL HINDCAST APPROACH

BEAUFORT SEA COASTAL SEDIMENT STUDY

Tuktoyaktuk: Offshore Wave Energy Distribution
1973 - 1980

Date: 16 May 85

Scales as shown

Checked by:

Keith Philpott
Consulting Limited

BEAUFORT SEA COASTAL SEDIMENT STUDY

TUKTOYAKTUK

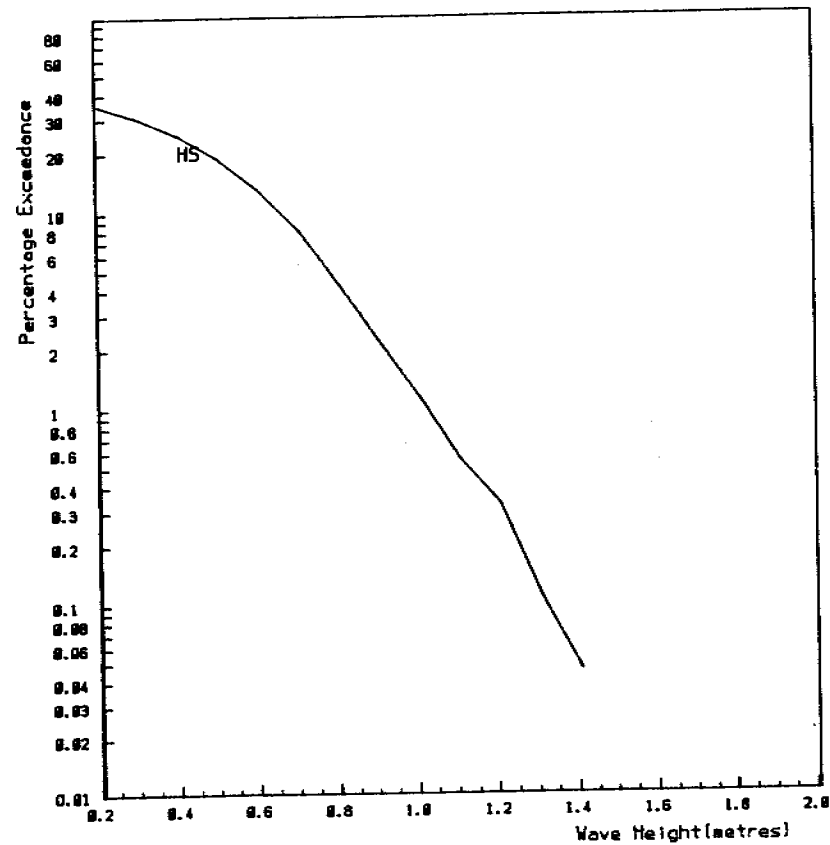
WAVES 3/ 7/78 TO 28/ 9/83

SEASON: Summer, Fall

PERCENTAGE WAVE POWER DISTRIBUTION

DIRECTION SECTOR	PERCENTAGE FREQUENCY	MEAN POWER (KW)	PERCENTAGE ENERGY
220. - 230.	1.24	.11	.21
230. - 240.	1.83	.15	.42
240. - 250.	1.96	.16	.47
250. - 260.	3.83	.23	1.33
260. - 270.	3.65	.25	1.36
270. - 280.	5.16	.38	2.96
280. - 290.	6.24	.42	3.91
290. - 300.	13.82	.68	14.13
300. - 310.	11.55	.88	13.86
310. - 320.	12.92	.96	18.44
320. - 330.	7.99	.89	10.58
330. - 340.	10.62	1.01	16.11
340. - 350.	6.22	.82	7.63
350. - 360.	9.89	.56	7.60
360. - 10.	3.59	.18	.96
10. - 20.	.28	.09	.04

FIGURE



Direction Limits: 228.8 TO 28.8

Calms: 68.4 %

Dates: 3/7/78 to 28/9/83

Season: Summer, Fall

Total No. of Records: 36488

Waves Hindcast Using Wind Data from Tuktoyaktuk N.W.T. - FRICTIONAL HINDCAST APPROACH

BEAUFORT SEA COASTAL SEDIMENT STUDY

Tuktoyaktuk: Offshore Wave Height Exceedance

1978 - 1983

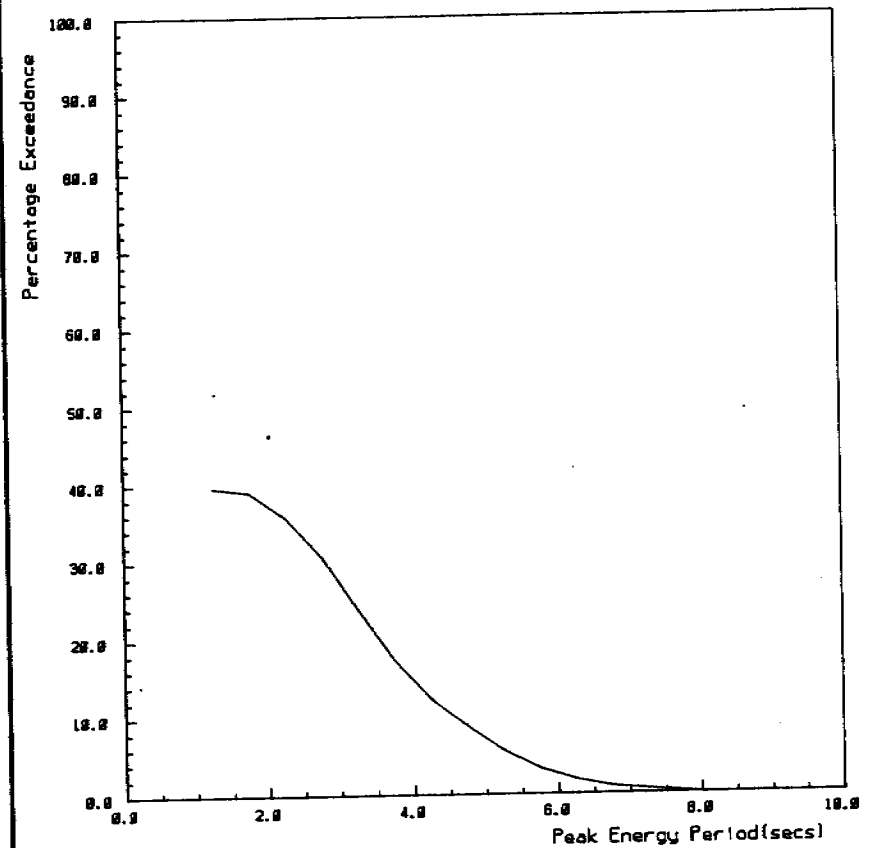
Date: 16 May 85

Scales as shown

Checked by:

Keith Philpott
Consulting Limited

FIGURE



Direction Limits: 228.8 TO 28.8

Calms: 68.4 %

Dates: 3/7/78 to 28/9/83

Season: Summer, Fall

Total No. of Records: 36488

Waves Hindcast Using Wind Data from Tuktoyaktuk N.W.T. - FRICTIONAL HINDCAST APPROACH

BEAUFORT SEA COASTAL SEDIMENT STUDY

Tuktoyaktuk: Offshore Wave Period Exceedance

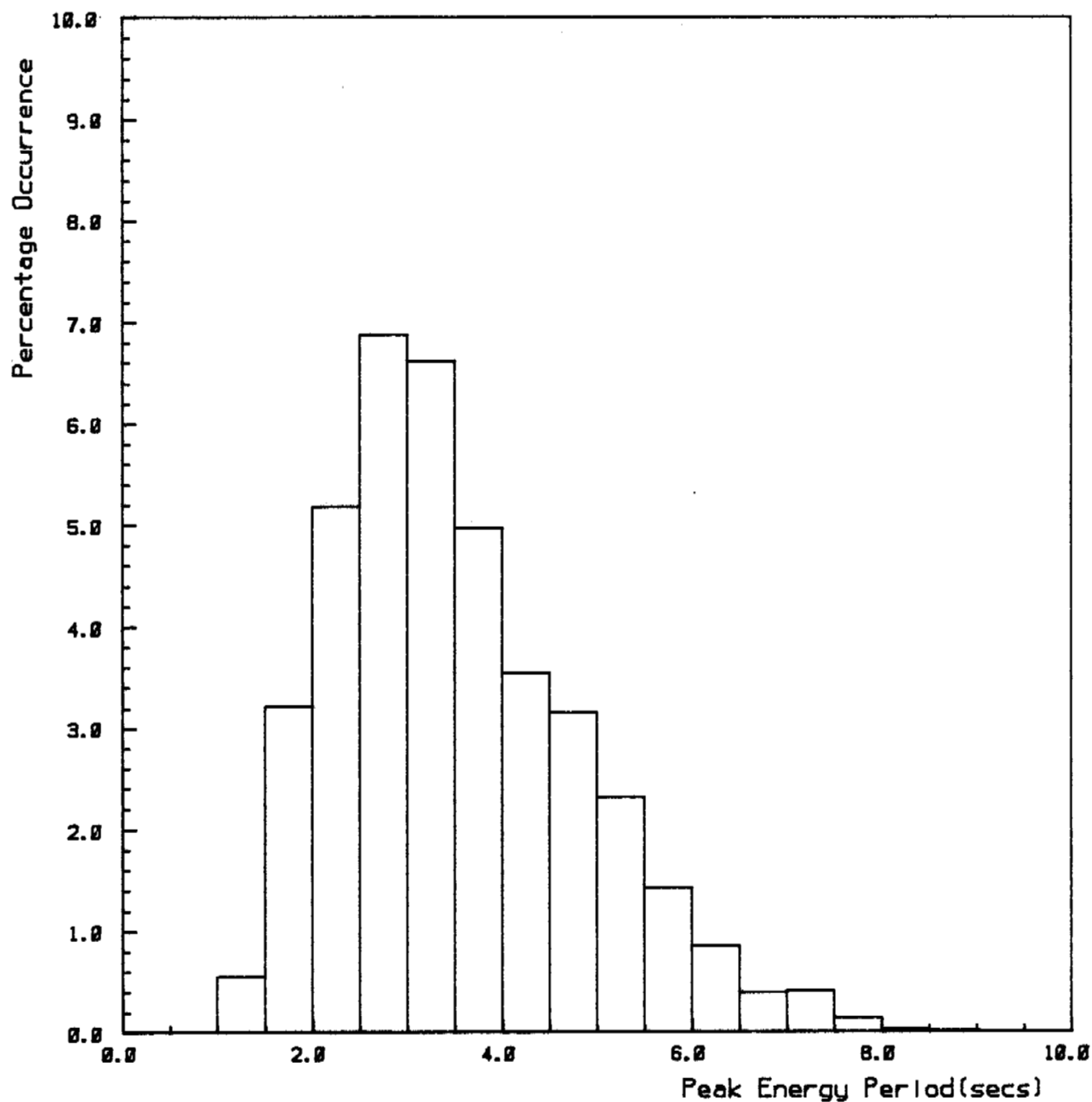
1978 - 1983

Date: 16 May 85

Scales as shown

Checked by:

Keith Philpott
Consulting Limited



Direction Limits: 220.0 TO 20.0

Calms: 60.4 %

Dates: 3/7/70 to 28/9/83

Season: Summer, Fall

Total No. of Records: 36408

Waves Hindcast Using Wind Data from Tuktoyaktuk N.W.T. - FRICTIONAL HINDCAST APPROACH

BEAUFORT SEA COASTAL SEDIMENT STUDY

Tuktoyaktuk: Offshore Wave Period Occurrence
1970 - 1983

Date: 16 May 85

Scales as shown

Checked by:

Keith Philpott
Consulting Limited

BEAUFORT SEA COASTAL SEDIMENT STUDY

TUKTOYAKTUK WAVES 3/ 7/78 TO 28/ 9/83

ALL DIRECTIONS

WAVE !	Wave Period(secs)																Total!
HT(M)!																	
	>	1	2	3	4	5	6	7	8	9	-						
.10!	1101!	238!	140!	89!	33!	4!	5!	0!	1618!								
.20!	260!	1232!	152!	90!	26!	7!	7!	0!	1790!								
.30!	0!	1632!	211!	104!	30!	0!	0!	0!	1993!								
.40!	0!	1225!	796!	112!	34!	11!	6!	0!	2104!								
.50!	0!	59!	1693!	316!	40!	13!	6!	0!	2127!								
.60!	0!	2!	898!	661!	163!	34!	7!	0!	1765!								
.70!	0!	0!	264!	586!	446!	94!	21!	0!	1411!								
.80!	0!	0!	50!	337!	212!	106!	30!	1!	736!								
.90!	0!	0!	1!	124!	189!	43!	26!	1!	384!								
1.00!	0!	0!	0!	0!	139!	25!	36!	7!	215!								
1.10!	0!	0!	0!	0!	44!	29!	7!	2!	82!								
1.20!	0!	0!	0!	0!	4!	73!	2!	0!	79!								
1.30!	0!	0!	0!	0!	0!	3!	20!	0!	23!								
1.40!	0!	0!	0!	0!	0!	1!	16!	0!	17!								
1.50!	0!	0!	0!	0!	0!	0!	0!	0!	0!								
TOTAL!	1369!	4380!	4213!	2435!	1360!	451!	197!	11!	14424!								

SUMMARY :

NO. IN TOTAL SECTOR = 36400

NO. OUTSIDE TOTAL SECTOR = 0

NO. OF CALMS = 21904

TOTAL NO. OF ALL RECORDS = 36400

PERCENTAGE CALMS = 60.42

BEAUFORT SEA COASTAL SEDIMENT STUDY

TUKTOYAKTUK

WAVES 3/ 7/78 TO 28/ 9/83

DIRECTION 220 TO 230

WAVE !	Wave Period(secs)																Total!
HT(M)!																	
	>	1	2	3	4	5	6	7	8	9	-						
.10!	51!	3!	0!	0!	0!	0!	0!	0!	0!	0!	54!						
.20!	18!	31!	0!	0!	0!	0!	0!	0!	0!	0!	49!						
.30!	0!	49!	0!	0!	0!	0!	0!	0!	0!	0!	49!						
.40!	0!	19!	0!	0!	0!	0!	0!	0!	0!	0!	19!						
.50!	0!	3!	2!	0!	0!	0!	0!	0!	0!	0!	5!						
.60!	0!	0!	3!	0!	0!	0!	0!	0!	0!	0!	3!						
.70!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!						
.80!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!						
.90!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!						
1.00!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!						
1.10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!						
1.20!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!						
1.30!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!						
1.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!						
1.50!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!						
TOTAL!	69!	105!	5!	0!	0!	0!	0!	0!	0!	0!	179!						

DIRECTION 230 TO 240

WAVE !	Wave Period(secs)																Total!
HT(M)!																	
	>	1	2	3	4	5	6	7	8	9	-						
.10!	57!	0!	0!	0!	0!	0!	0!	0!	0!	0!	65!						
.20!	14!	47!	0!	0!	0!	0!	0!	0!	0!	0!	61!						
.30!	0!	64!	0!	0!	0!	0!	0!	0!	0!	0!	64!						
.40!	0!	48!	0!	0!	0!	0!	0!	0!	0!	0!	48!						
.50!	0!	2!	21!	0!	0!	0!	0!	0!	0!	0!	23!						
.60!	0!	0!	3!	0!	0!	0!	0!	0!	0!	0!	3!						
.70!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!						
.80!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!						
.90!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!						
1.00!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!						
1.10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!						
1.20!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!						
1.30!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!						
1.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!						
1.50!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!						
TOTAL!	71!	169!	24!	0!	0!	0!	0!	0!	0!	0!	264!						

BEAUFORT SEA COASTAL SEDIMENT STUDY

TUKTOYAKTUK

WAVES 3/ 7/78 TO 28/ 9/83

DIRECTION 240 TO 250

WAVE ! HT(M)!	Wave Period(secs)																Total!
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
.10	69	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	72
.20	17	30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	55
.30	0	84	0	0	0	0	0	0	0	0	0	0	0	0	0	0	84
.40	0	40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	40
.50	0	1	24	0	0	0	0	0	0	0	0	0	0	0	0	0	25
.60	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	4
.70	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
.80	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
.90	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1.10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1.20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1.30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1.40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	86	164	30	0	0	0	0	0	0	0	0	0	0	0	0	0	282

DIRECTION 250 TO 260

WAVE ! HT(M)!	Wave Period(secs)																Total!
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
.10	65	15	1	0	0	0	0	0	0	0	0	0	0	0	0	0	81
.20	38	61	0	0	0	0	0	0	0	0	0	0	0	0	0	0	99
.30	0	110	0	0	0	0	0	0	0	0	0	0	0	0	0	0	110
.40	0	117	13	0	0	0	0	0	0	0	0	0	0	0	0	0	130
.50	0	0	110	0	0	0	0	0	0	0	0	0	0	0	0	0	110
.60	0	1	9	0	0	0	0	0	0	0	0	0	0	0	0	0	10
.70	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	4
.80	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
.90	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1.10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1.20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1.30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1.40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	103	312	137	1	0	0	0	0	0	0	0	0	0	0	0	0	553

BEAUFORT SEA COASTAL SEDIMENT STUDY

TUKTOYAKTUK

WAVES 3/ 7/78 TO 28/ 9/83

DIRECTION 260 TO 270

WAVE ! HT(M)!	Wave Period(secs)																Total!
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
.10	63	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	72
.20	21	71	1	0	0	0	0	0	0	0	0	0	0	0	0	0	93
.30	0	106	0	0	0	0	0	0	0	0	0	0	0	0	0	0	106
.40	0	133	9	0	0	0	0	0	0	0	0	0	0	0	0	0	142
.50	0	1	70	0	0	0	0	0	0	0	0	0	0	0	0	0	71
.60	0	0	28	0	0	0	0	0	0	0	0	0	0	0	0	0	28
.70	0	0	14	0	0	0	0	0	0	0	0	0	0	0	0	0	14
.80	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
.90	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1.10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1.20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1.30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1.40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	84	320	122	1	0	0	0	0	0	0	0	0	0	0	0	0	527

DIRECTION 270 TO 280

WAVE ! HT(M)!	Wave Period(secs)																Total!
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
.10	41	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	50
.20	15	87	6	0	0	0	0	0	0	0	0	0	0	0	0	0	108
.30	0	103	1	0	0	0	0	0	0	0	0	0	0	0	0	0	104
.40	0	145	0	0	0	0	0	0	0	0	0	0	0	0	0	0	153
.50	0	4	167	0	0	0	0	0	0	0	0	0	0	0	0	0	171
.60	0	0	98	0	0	0	0	0	0	0	0	0	0	0	0	0	98
.70	0	0	49	0	0	0	0	0	0	0	0	0	0	0	0	0	49
.80	0	0	2	9	0	0	0	0	0	0	0	0	0	0	0	0	11
.90	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1.10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1.20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1.30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1.40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	56	347	332	9	0	0	0	0	0	0	0	0	0	0	0	0	744

BEAUFORT SEA COASTAL SEDIMENT STUDY

TUKTOYAKTUK

WAVES 3/ 7/78 TO 28/ 9/83

DIRECTION 280 TO 290

WAVE !	Wave Period(secs)																Total!
INT(N)!																	!
	>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
.10!	43!	2!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	45!
.20!	18!	65!	3!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	86!
.30!	0!	100!	1!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	101!
.40!	0!	207!	12!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	219!
.50!	0!	5!	223!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	228!
.60!	0!	0!	150!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	150!
.70!	0!	0!	60!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	60!
.80!	0!	0!	4!	7!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	11!
.90!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
1.00!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
1.10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
1.20!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
1.30!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
1.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
1.50!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
TOTAL!	61!	379!	453!	7!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	980!

DIRECTION 290 TO 300

WAVE !	Wave Period(secs)																Total!
INT(N)!																	!
	>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
.10!	63!	34!	22!	21!	11!	2!	1!	0!	0!	0!	0!	0!	0!	0!	0!	0!	154!
.20!	25!	98!	29!	20!	11!	2!	2!	0!	0!	0!	0!	0!	0!	0!	0!	0!	187!
.30!	0!	122!	37!	33!	11!	5!	2!	0!	0!	0!	0!	0!	0!	0!	0!	0!	210!
.40!	0!	111!	175!	33!	11!	7!	2!	0!	0!	0!	0!	0!	0!	0!	0!	0!	339!
.50!	0!	9!	215!	158!	13!	0!	1!	0!	0!	0!	0!	0!	0!	0!	0!	0!	404!
.60!	0!	0!	59!	162!	186!	31!	2!	0!	0!	0!	0!	0!	0!	0!	0!	0!	360!
.70!	0!	0!	42!	16!	113!	49!	16!	0!	0!	0!	0!	0!	0!	0!	0!	0!	236!
.80!	0!	0!	11!	9!	0!	40!	23!	1!	0!	0!	0!	0!	0!	0!	0!	0!	92!
.90!	0!	0!	0!	0!	1!	4!	5!	0!	0!	0!	0!	0!	0!	0!	0!	0!	10!
1.00!	0!	0!	0!	0!	0!	2!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	2!
1.10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
1.20!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
1.30!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
1.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
1.50!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
TOTAL!	88!	374!	590!	452!	285!	150!	54!	1!	0!	0!	0!	0!	0!	0!	0!	0!	1994!

BEAUFORT SEA COASTAL SEDIMENT STUDY

TUKTOYAKTUK

WAVES 3/ 7/78 TO 28/ 9/83

DIRECTION 300 TO 310

WAVE !	Wave Period(secs)																Total!
INT(N)!																	!
	>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
.10!	56!	0!	32!	17!	3!	1!	4!	0!	0!	0!	0!	0!	0!	0!	0!	0!	121!
.20!	0!	74!	31!	23!	2!	2!	5!	0!	0!	0!	0!	0!	0!	0!	0!	0!	145!
.30!	0!	111!	43!	20!	3!	1!	6!	0!	0!	0!	0!	0!	0!	0!	0!	0!	184!
.40!	0!	57!	132!	21!	3!	3!	4!	0!	0!	0!	0!	0!	0!	0!	0!	0!	220!
.50!	0!	6!	192!	83!	9!	3!	5!	0!	0!	0!	0!	0!	0!	0!	0!	0!	290!
.60!	0!	0!	57!	130!	34!	3!	5!	0!	0!	0!	0!	0!	0!	0!	0!	0!	237!
.70!	0!	0!	22!	64!	192!	42!	5!	0!	0!	0!	0!	0!	0!	0!	0!	0!	325!
.80!	0!	0!	0!	9!	42!	33!	7!	0!	0!	0!	0!	0!	0!	0!	0!	0!	91!
.90!	0!	0!	0!	0!	0!	7!	11!	7!	1!	0!	0!	0!	0!	0!	0!	0!	26!
1.00!	0!	0!	0!	0!	0!	0!	9!	6!	4!	0!	0!	0!	0!	0!	0!	0!	19!
1.10!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
1.20!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
1.30!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
1.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
1.50!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
TOTAL!	64!	256!	509!	375!	295!	180!	54!	5!	0!	0!	0!	0!	0!	0!	0!	0!	1666!

DIRECTION 310 TO 320

WAVE !	Wave Period(secs)																Total!
INT(N)!																	!
	>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
.10!	55!	29!	16!	10!	1!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	129!
.20!	4!	105!	16!	19!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	152!
.30!	0!	126!	24!	16!	1!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	177!
.40!	0!	53!	116!	19!	9!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	197!
.50!	0!	0!	106!	34!	6!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	234!
.60!	0!	0!	61!	261!	12!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	334!
.70!	0!	0!	10!	174!	114!	2!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	300!
.80!	0!	0!	12!	23!	139!	24!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	190!
.90!	0!	0!	0!	0!	9!	44!	20!	14!	0!	0!	0!	0!	0!	0!	0!	0!	87!
1.00!	0!	0!	0!	0!	1!	12!	30!	3!	0!	0!	0!	0!	0!	0!	0!	0!	46!
1.10!	0!	0!	0!	0!	0!	0!	0!	7!	2!	0!	0!	0!	0!	0!	0!	0!	9!
1.20!	0!	0!	0!	0!	0!	0!	0!	1!	0!	0!	0!	0!	0!	0!	0!	0!	1!
1.30!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
1.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
1.50!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!
TOTAL!	59!	321!	441!	573!	335!	50!	52!	5!	0!	0!	0!	0!	0!	0!	0!	0!	1864!

BEAUFORT SEA COASTAL SEDIMENT STUDY

TUKTOYAKTUK

WAVES 3/ 7/78 TO 28/ 9/83

DIRECTION 328 TO 338

WAVE !	Wave Period(secs)										Total!
HT(M)!											!
!	1	2	3	4	5	6	7	8	9	!	
.10!	46!	18!	12!	28!	5!	0!	0!	0!	0!	101!	
.20!	0!	86!	10!	20!	3!	0!	0!	0!	0!	127!	
.30!	0!	85!	26!	22!	3!	0!	0!	0!	0!	136!	
.40!	0!	34!	68!	25!	7!	0!	0!	0!	0!	134!	
.50!	0!	16!	97!	23!	7!	0!	0!	0!	0!	143!	
.60!	0!	0!	65!	72!	6!	0!	0!	0!	0!	143!	
.70!	0!	0!	11!	52!	24!	0!	0!	0!	0!	87!	
.80!	0!	0!	13!	93!	21!	0!	0!	0!	0!	135!	
.90!	0!	0!	0!	32!	47!	7!	0!	0!	0!	86!	
1.00!	0!	0!	0!	1!	43!	2!	0!	0!	0!	46!	
1.10!	0!	0!	0!	0!	2!	5!	0!	0!	0!	7!	
1.20!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
1.30!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
1.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
1.50!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
TOTAL!	54!	239!	302!	360!	168!	30!	0!	0!	0!	1153!	

DIRECTION 338 TO 348

WAVE !	Wave Period(secs)										Total!
HT(M)!	1	2	3	4	5	6	7	8	9	!	
.10!	108!	24!	17!	5!	1!	0!	0!	0!	0!	155!	
.20!	16!	99!	19!	7!	0!	2!	0!	0!	0!	143!	
.30!	0!	123!	18!	5!	0!	1!	0!	0!	0!	147!	
.40!	0!	63!	96!	6!	1!	1!	0!	0!	0!	167!	
.50!	0!	1!	154!	5!	3!	1!	0!	0!	0!	164!	
.60!	0!	1!	140!	18!	3!	0!	0!	0!	0!	154!	
.70!	0!	0!	27!	164!	2!	0!	0!	0!	0!	193!	
.80!	0!	0!	5!	131!	1!	0!	0!	0!	0!	137!	
.90!	0!	0!	0!	57!	70!	0!	0!	0!	0!	127!	
1.00!	0!	0!	0!	4!	67!	0!	0!	0!	0!	71!	
1.10!	0!	0!	0!	0!	25!	12!	0!	0!	0!	37!	
1.20!	0!	0!	0!	0!	4!	32!	0!	0!	0!	36!	
1.30!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
1.40!	0!	0!	0!	0!	0!	1!	0!	0!	0!	1!	
1.50!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
TOTAL!	124!	311!	476!	394!	177!	50!	0!	0!	0!	1532!	

BEAUFORT SEA COASTAL SEDIMENT STUDY

TUKTOYAKTUK

WAVES 3/ 7/78 TO 28/ 9/83

DIRECTION 348 TO 358

WAVE !	Wave Period(secs)										Total!
HT(M)!	1	2	3	4	5	6	7	8	9	!	
> !	1	2	3	4	5	6	7	8	9	!	
! .10!	97!	14!	12!	2!	2!	0!	0!	0!	0!	127!	
! .20!	9!	84!	11!	2!	2!	0!	0!	0!	0!	108!	
! .30!	0!	116!	18!	2!	2!	0!	0!	0!	0!	138!	
! .40!	0!	56!	49!	1!	3!	0!	0!	0!	0!	109!	
! .50!	0!	0!	64!	1!	2!	0!	0!	0!	0!	67!	
! .60!	0!	0!	114!	9!	2!	0!	0!	0!	0!	125!	
! .70!	0!	0!	13!	74!	1!	0!	0!	0!	0!	88!	
! .80!	0!	0!	0!	35!	1!	0!	0!	0!	0!	36!	
! .90!	0!	0!	0!	13!	20!	0!	0!	0!	0!	33!	
! 1.00!	0!	0!	0!	2!	12!	0!	0!	0!	0!	14!	
! 1.10!	0!	0!	0!	0!	11!	2!	0!	0!	0!	13!	
! 1.20!	0!	0!	0!	0!	0!	25!	1!	0!	0!	26!	
! 1.30!	0!	0!	0!	0!	0!	1!	12!	0!	0!	13!	
! 1.40!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
! 1.50!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
! TOTAL!	106!	270!	281!	141!	58!	28!	13!	0!	0!	897!	

DIRECTION 358 TO 368

WAVE !	Wave Period(secs)										Total!
HT(M)!	1	2	3	4	5	6	7	8	9	!	
.10!	156!	50!	27!	6!	0!	1!	0!	0!	0!	240!	
.20!	35!	184!	20!	7!	0!	1!	0!	0!	0!	247!	
.30!	0!	198!	31!	6!	0!	1!	0!	0!	0!	236!	
.40!	0!	88!	104!	7!	0!	0!	0!	0!	0!	199!	
.50!	0!	0!	134!	12!	0!	1!	0!	0!	0!	147!	
.60!	0!	0!	80!	9!	0!	0!	0!	0!	0!	89!	
.70!	0!	0!	9!	39!	0!	1!	0!	0!	0!	49!	
.80!	0!	0!	2!	19!	0!	1!	0!	0!	0!	22!	
.90!	0!	0!	1!	13!	0!	1!	0!	0!	0!	15!	
1.00!	0!	0!	0!	1!	16!	0!	0!	0!	0!	17!	
1.10!	0!	0!	0!	0!	6!	10!	0!	0!	0!	16!	
1.20!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
1.30!	0!	0!	0!	0!	0!	2!	0!	0!	0!	10!	
1.40!	0!	0!	0!	0!	0!	0!	16!	0!	0!	16!	
1.50!	0!	0!	0!	0!	0!	0!	0!	0!	0!	0!	
TOTAL!	191!	520!	408!	119!	22!	27!	24!	0!	0!	1311!	

BEAUFORT SEA COASTAL SEDIMENT STUDY

OFFSHORE TO ONSHORE WAVE TRANSFORMATION FUNCTIONS

TUKTOYAKTUK

KEITH PHILPOTT CONSULTING LTD.
P.O. Box 938
THORNHILL
ONTARIO L3T 4A5

KEY

Grid Number
Nodal Dimensions (XxY)
Mesh Size (metres)

1
39X47
50X50

7
28X8
600X600

2
53X23
100X100

16
2X27
500X500

3
37X37
150X150

4
40X33
150X150

5
38X33
150X150

6
9X18
600X600

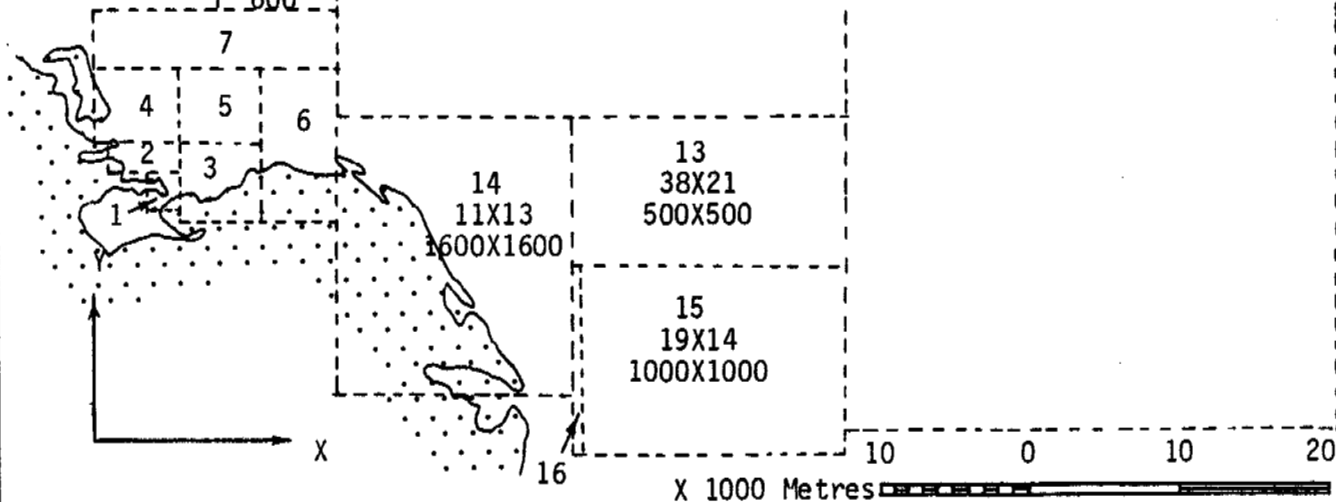
8
14X17
600
X
600

10
37X45
400X400

11
37X45
400X400

9
24X17
1500X1500

12
12X22
3000X3000



BEAUFORT SEA COASTAL SEDIMENT STUDY

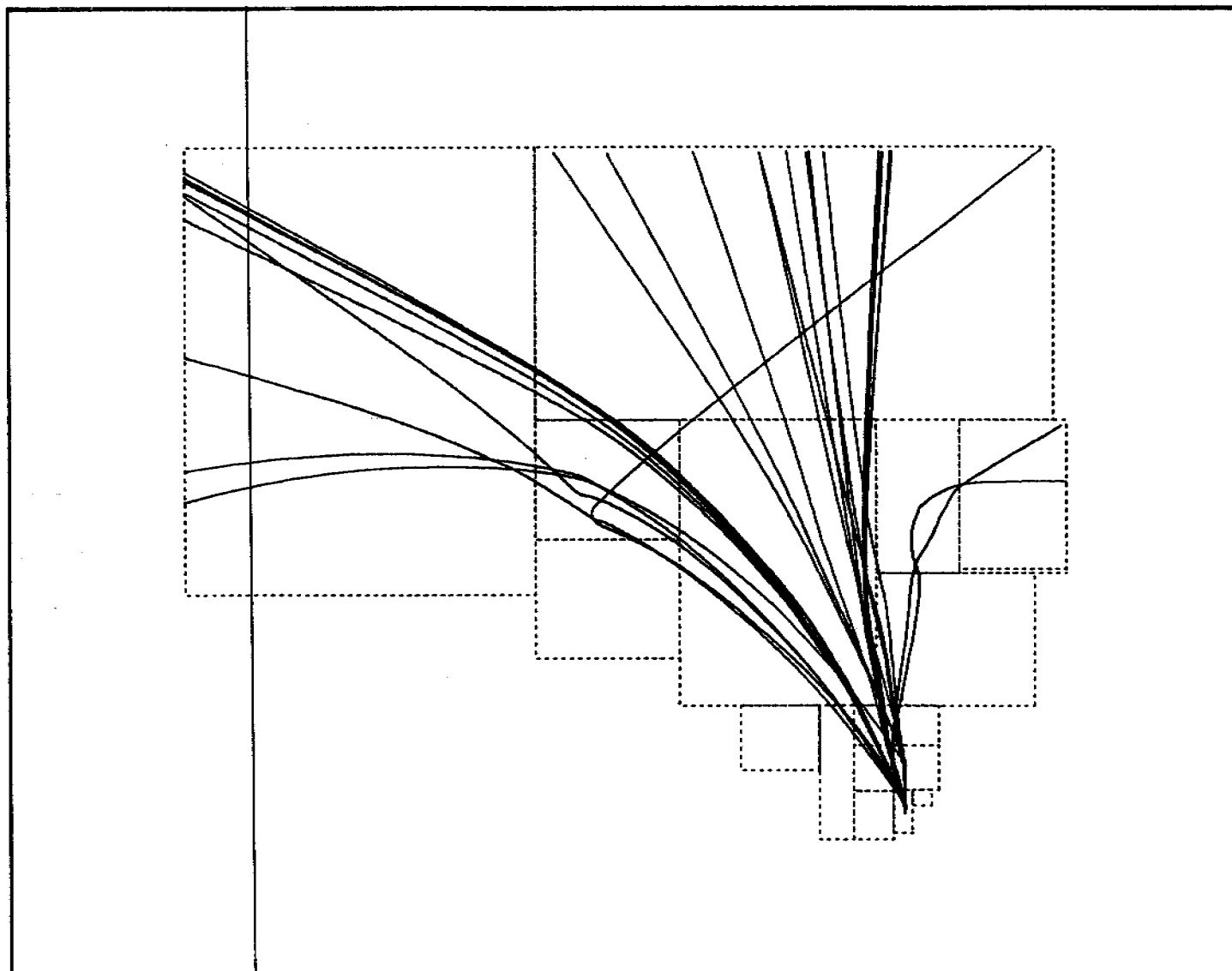
Tuktoyaktuk: Nodal Dimensions and Mesh Size of
Refraction Model Grids

Date: 14 May 85

Scales as shown

Checked by:

Keith Philpott
Consulting Limited



FIGURE

WAVE RAY DETAILS

Tide Level= 0.50 m.

Wave Period= 5.0 secs

Position No:2

Bathymetry information used for
grids obtained from the Canadian
Hydrographic Service. Field Sheets
numbered:

W.A. 10128 (1970)
F.S. 2758 (1957)



BEAUFORT SEA COASTAL STUDY

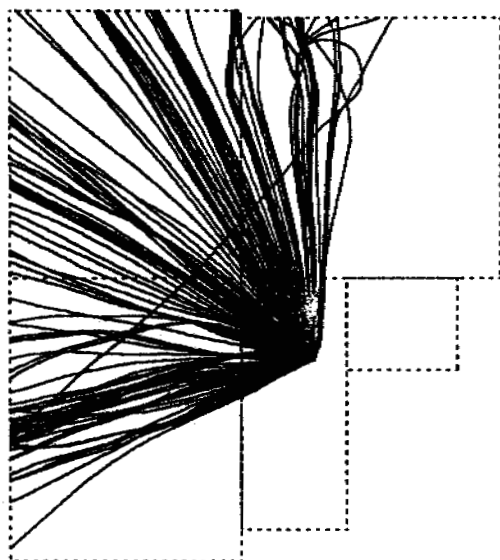
TUKTOYAKTUK - BACKWARD TRACKING

Date: 8 Mar 85

Scale 1:500000

Checked by:

Keith Philpott
Consulting Limited



FIGURE

WAVE RAY DETAILS

Tide Level= 0.50 m.

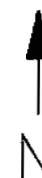
Wave Period= 5.0 secs

Position No:2

Bathymetry information used for
grids obtained from the Canadian
Hydrographic Service. Field Sheets
numbered:

W.A. 10128 (1970)

F.S. 2758 (1957)



BEAUFORT SEA COASTAL STUDY

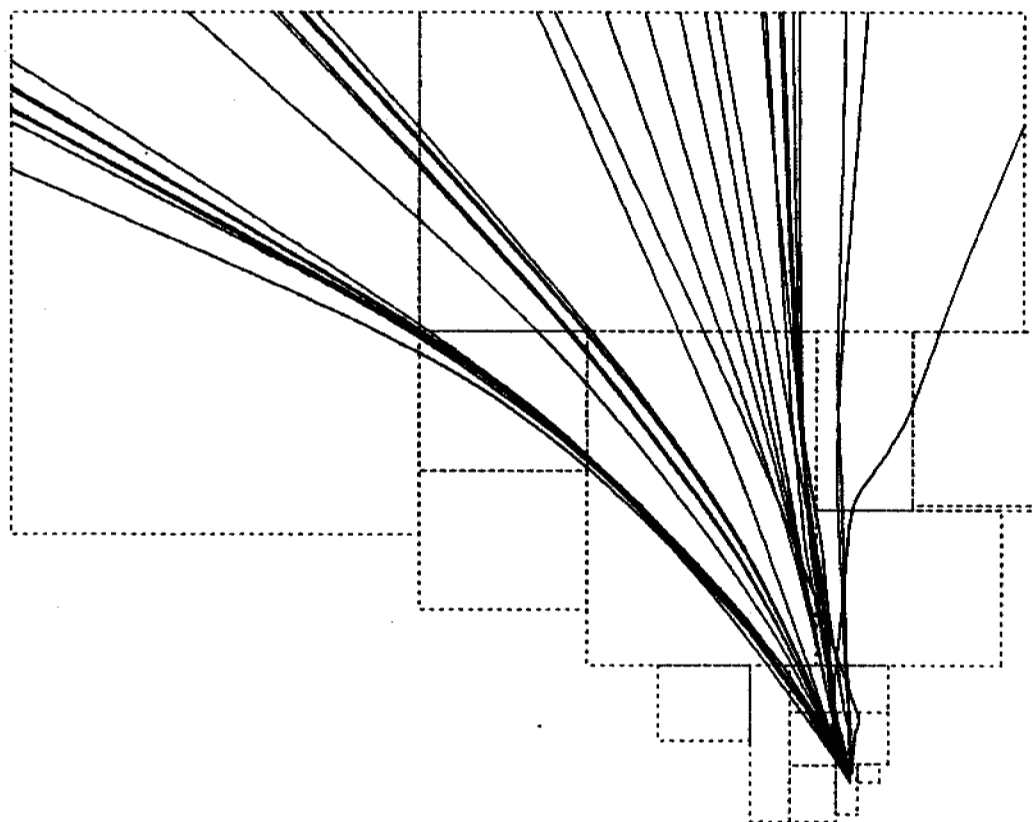
TUKTOYAKTUK - BACKWARD TRACKING

Date: 27 Mar 85

Scale 1:100000

Checked by:

Keith Philpott
Consulting Limited



FIGURE

WAVE RAY DETAILS

Tide Level= 2.25 m.

Wave Period= 5.0 secs

Position No:2

Bathymetry information used for
grids obtained from the Canadian
Hydrographic Service. Field Sheets
numbered:

W.A. 10128 (1970)
F.S. 2758 (1957)



BEAUFORT SEA COASTAL STUDY

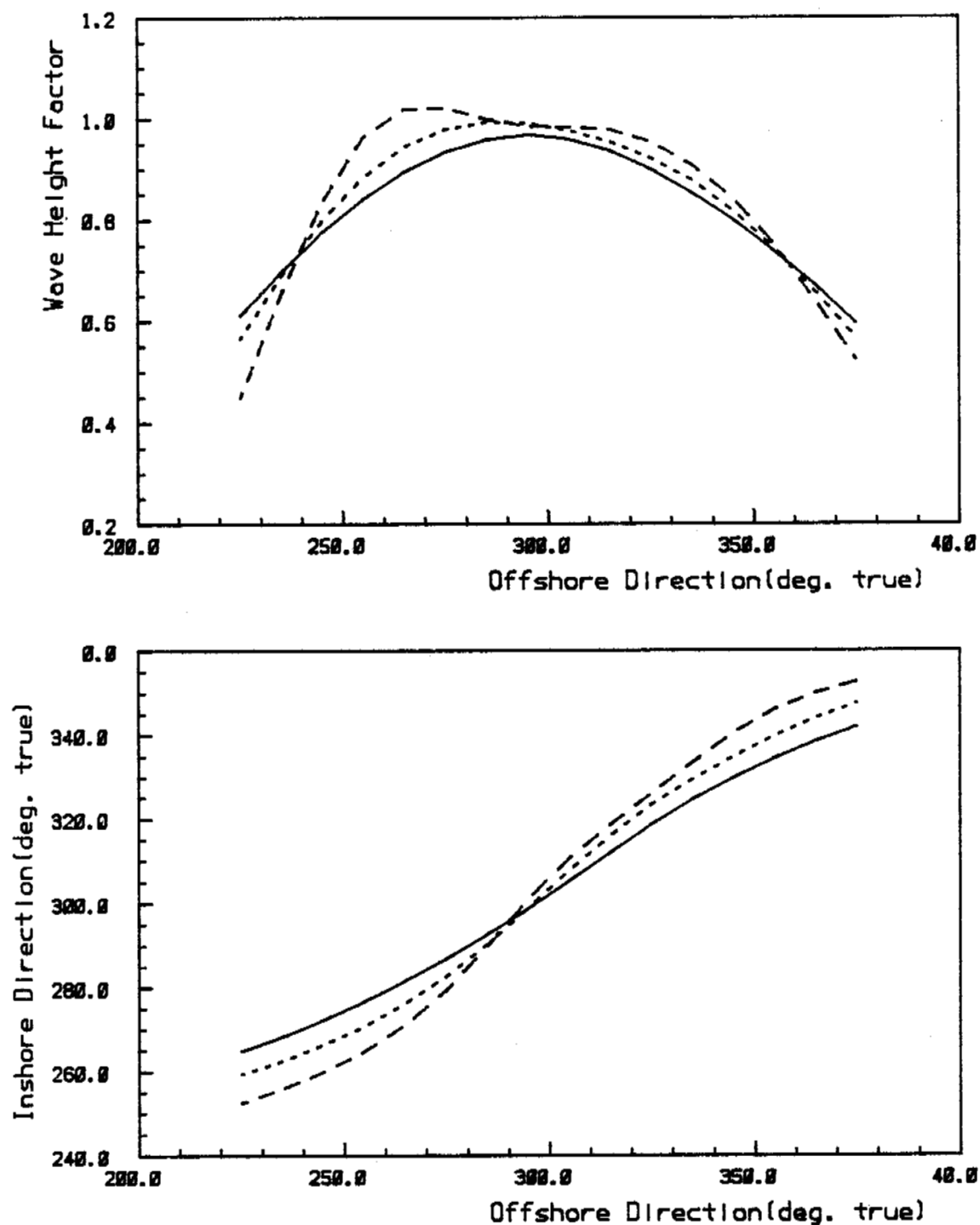
TUKTOYAKTUK - BACKWARD TRACKING

Date: 13 Mar 85

Scale 1:500000

Checked by:

Keith Philpott
Consulting Limited



Node No: 1

Spreading Index:

2

Tide Level: 0.50 m.

4

Peak Period: 3.2 secs

10

BEAUFORT SEA COASTAL SEDIMENT STUDY

Tuk Local: Wave Spectrum Transformation Results for Node
Number 01

Date: 26 Mar 85

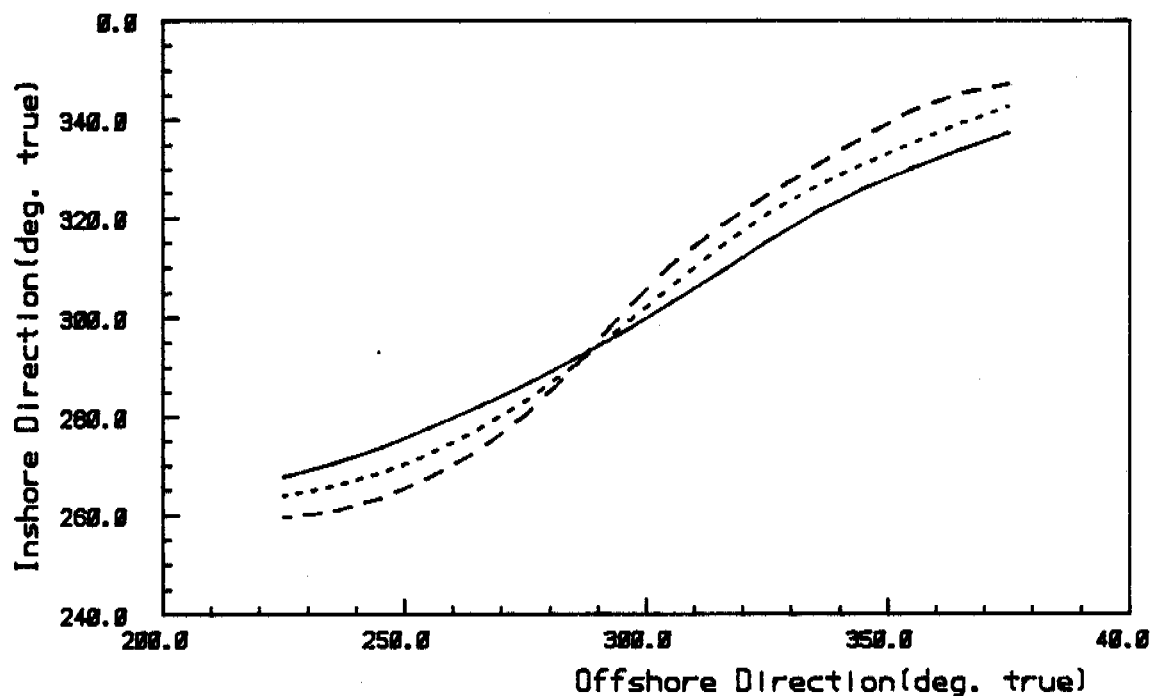
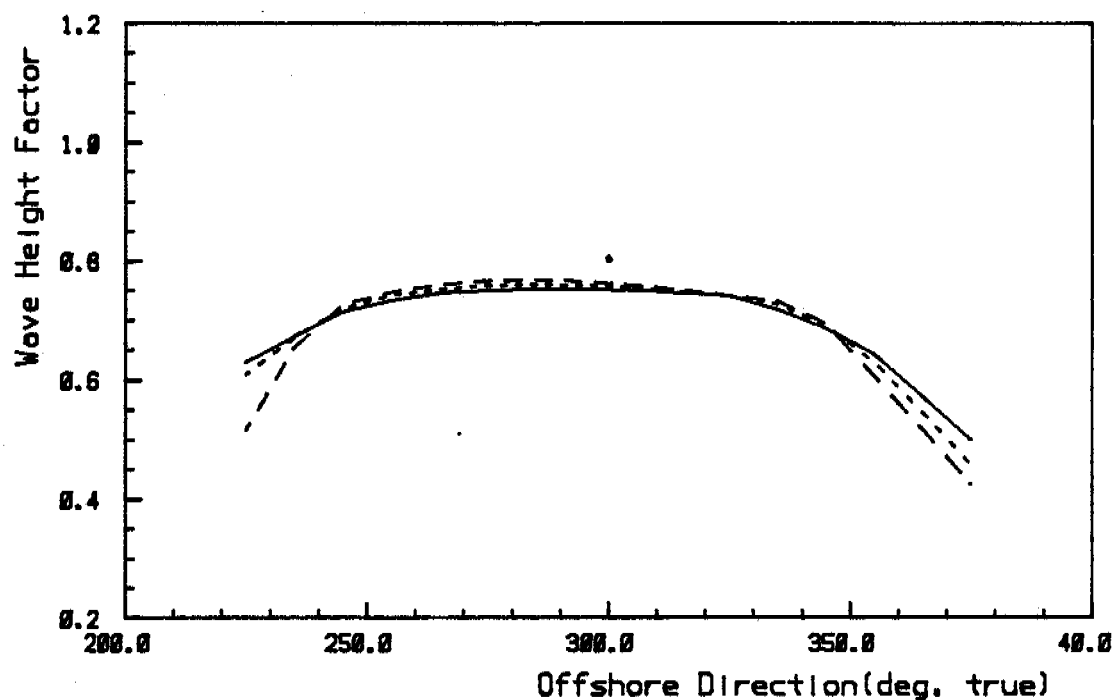
Scale: as shown

Checked by:

Keith Philpott

Consulting Limited

FIGURE



Node No: 1

Spreading Index:

2

Tide Level: 0.50 m.

4

Peak Period: 5.0 secs

10

BEAUFORT SEA COASTAL SEDIMENT STUDY

Date: 26 Mar 85

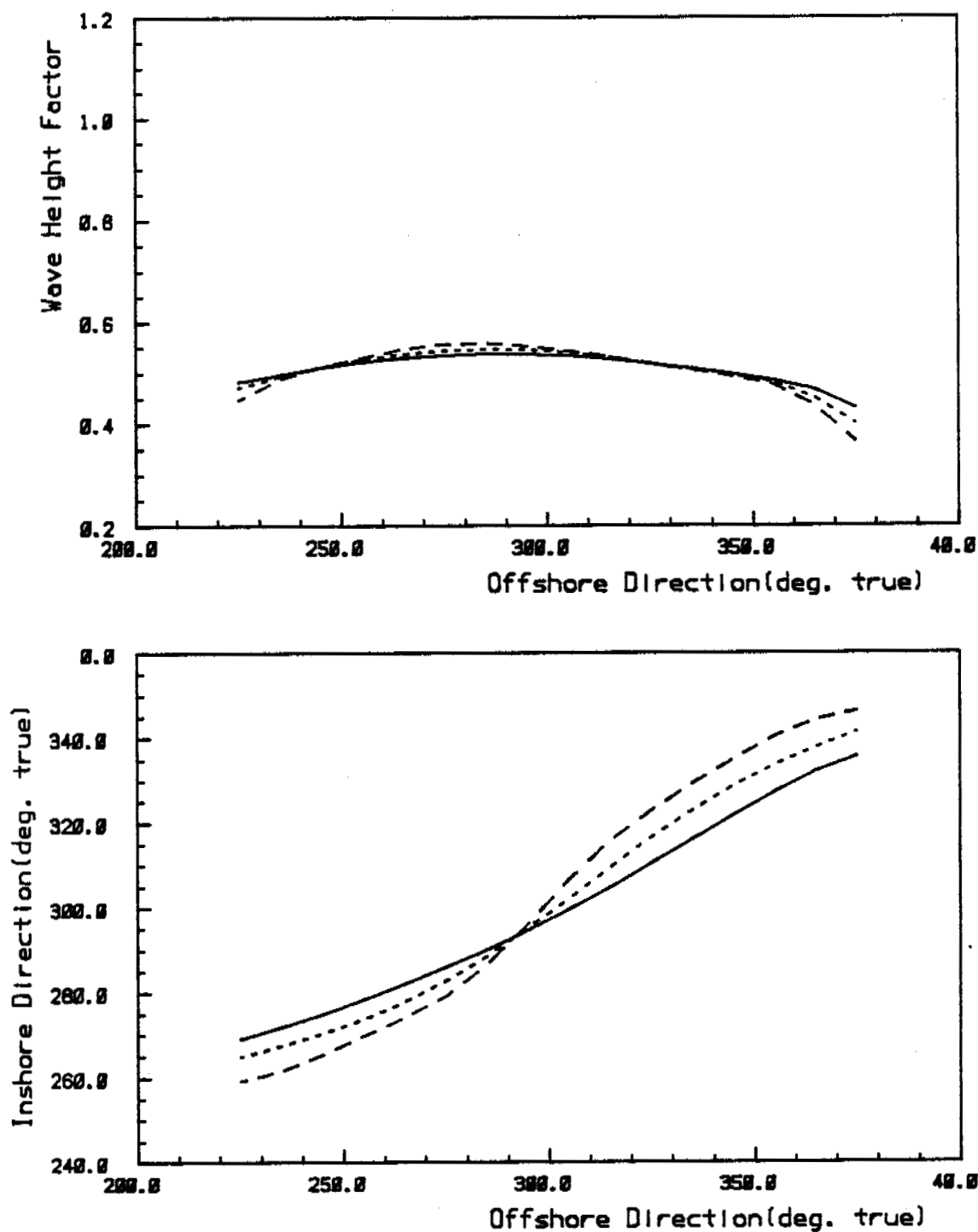
Scales as shown

Tuk Local: Wave Spectrum Transformation Results for Node
Number 01

Checked by:

Keith Philpott

Consulting Limited



Node No: 1

Tide Level: 0.50 m.

Peak Period: 7.9 secs

Spreading Index:

2

4

10

BEAUFORT SEA COASTAL SEDIMENT STUDY

Tuk Local: Wave Spectrum Transformation Results for Node
Number 01

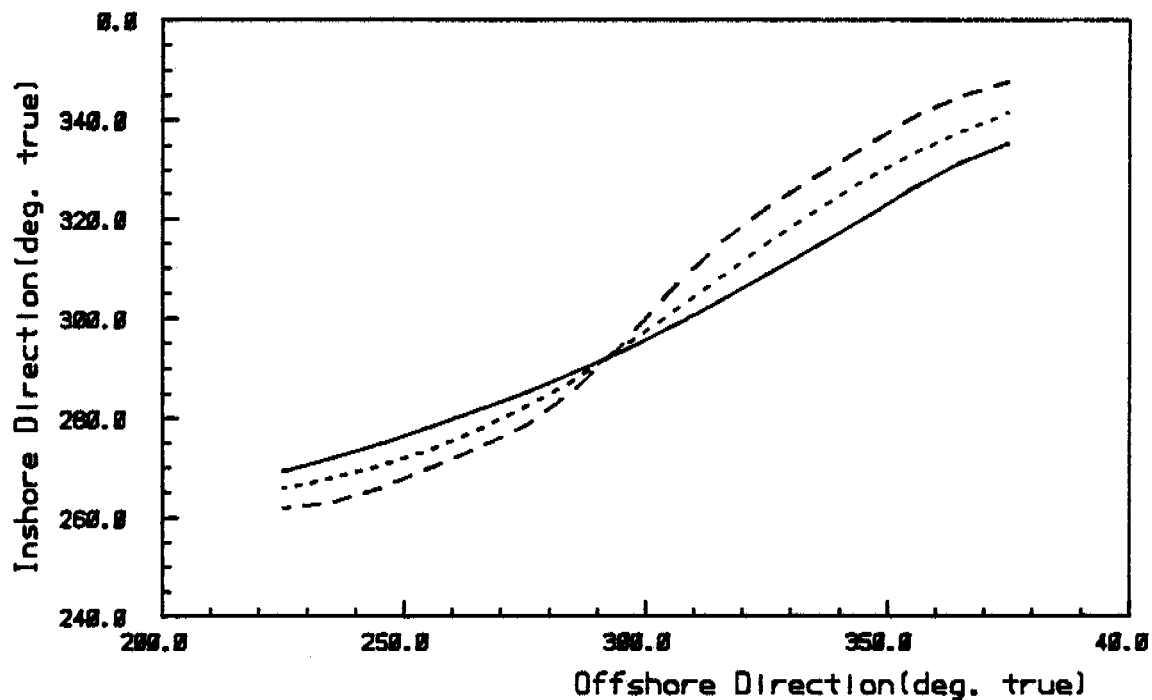
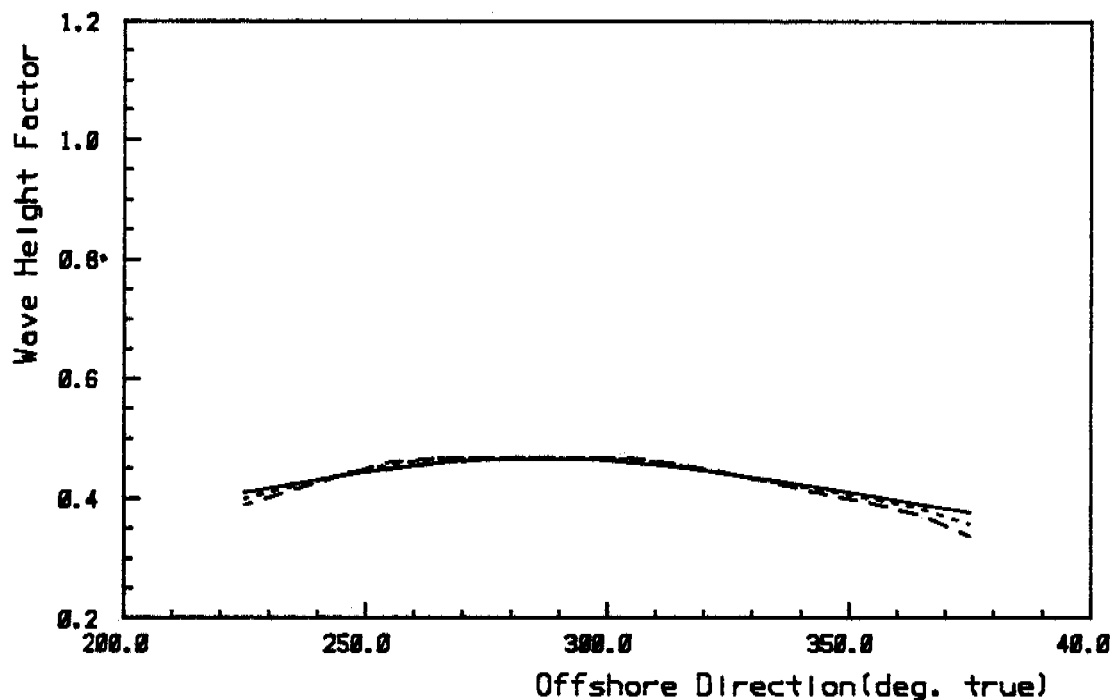
Date: 26 Mar 85

Scale as shown

Checked by:

Keith Philpott
Consulting Limited

FIGURE



Node No: 1

Spreading Index:

2

Tide Level: 0.50 m.

4

Peak Period: 10.0 secs

10

BEAUFORT SEA COASTAL SEDIMENT STUDY

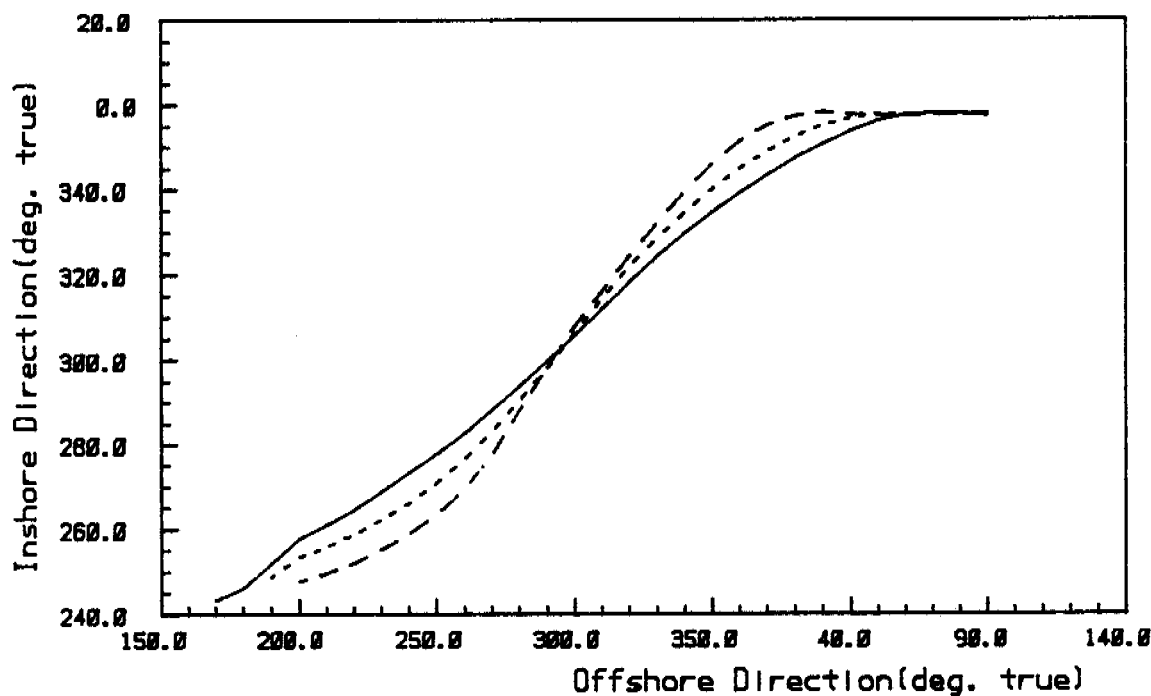
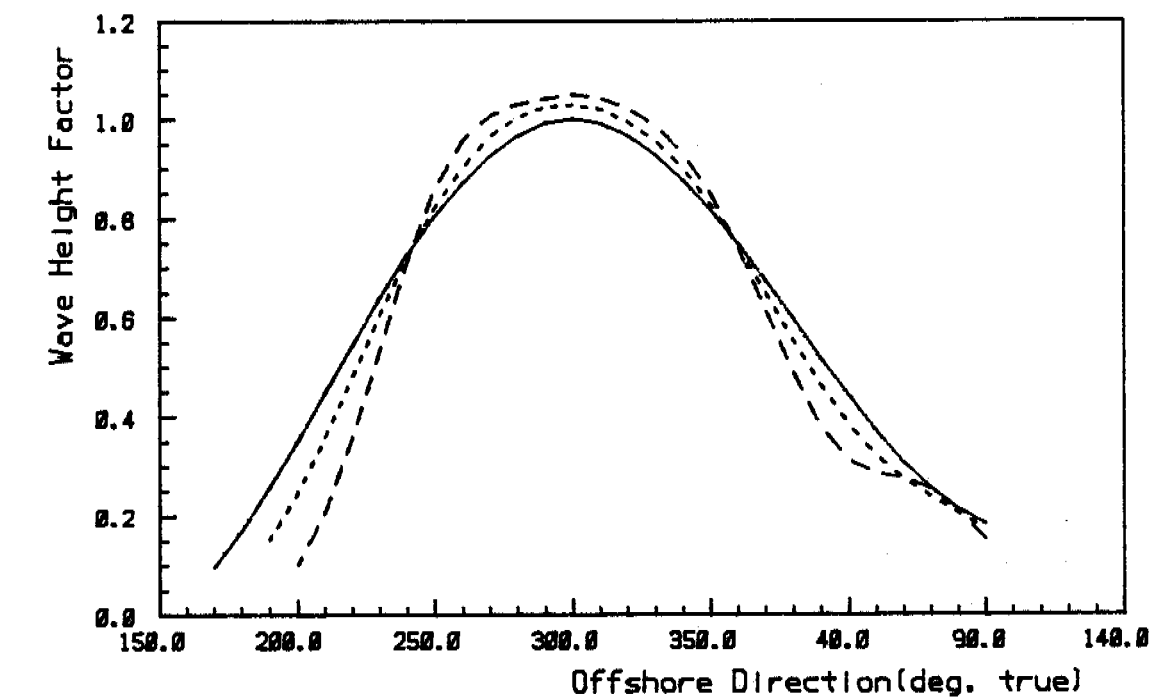
Date: 26 Mar 85

Scales as shown

Tuk Local: Wave Spectrum Transformation Results for Node
Number 01

Checked by:

Keith Philpott
Consulting Limited



Node No: 2

Spreading Index: 2

Tide Level: 0.50 m.

4

Peak Period: 3.2 secs

10

BEAUFORT SEA COASTAL SEDIMENT STUDY

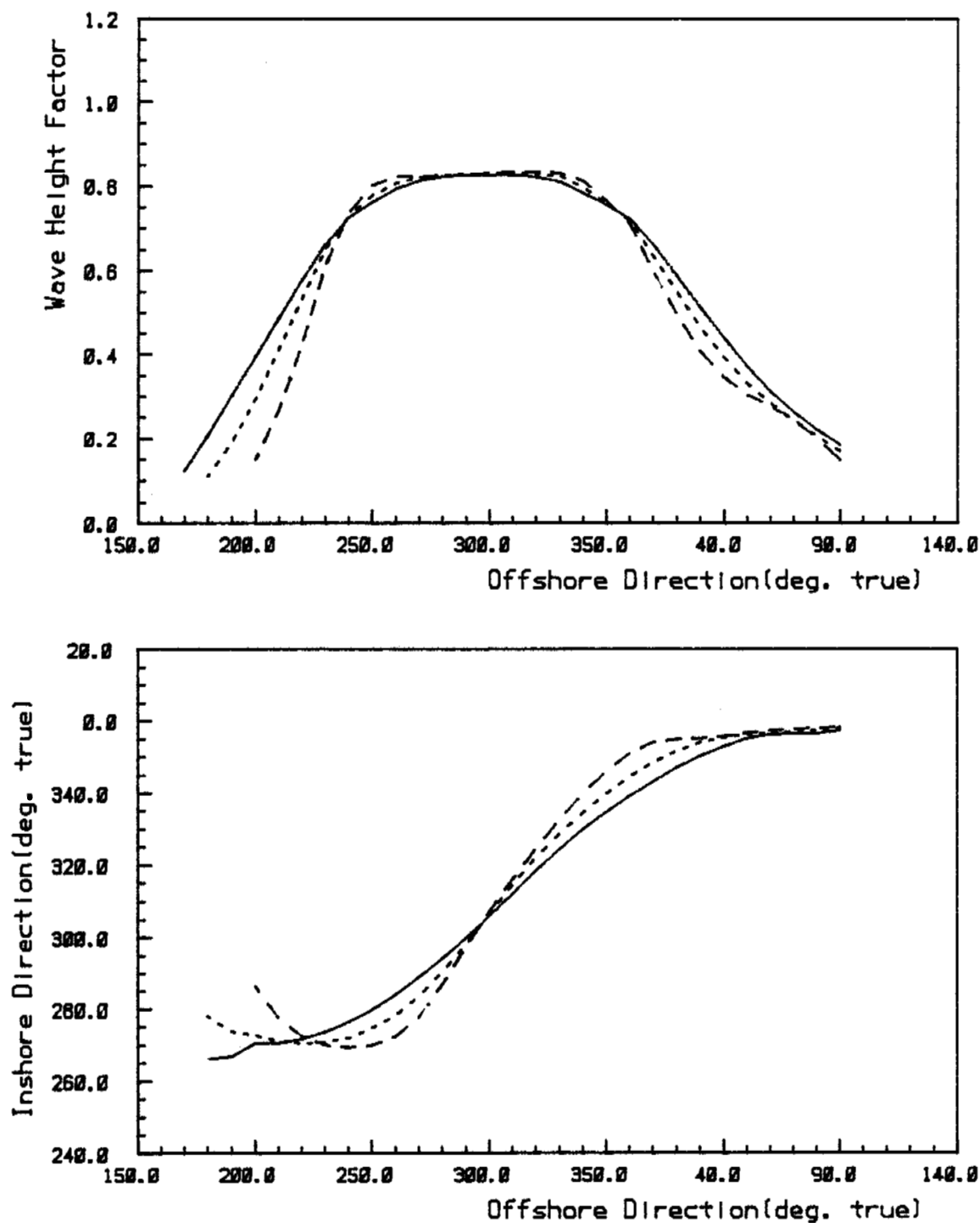
Date: 17 May 85

Scales as shown

Tuktoyaktuk: Wave Spectrum Transformation Results for
Node Number 02

Checked by:

Keith Philpott
Consulting Limited



Node No: 2

Spreading Index:

2

Tide Level: 0.50 m.

4

Peak Period: 5.0 secs

10

BEAUFORT SEA COASTAL SEDIMENT STUDY

Date: 17 May 85

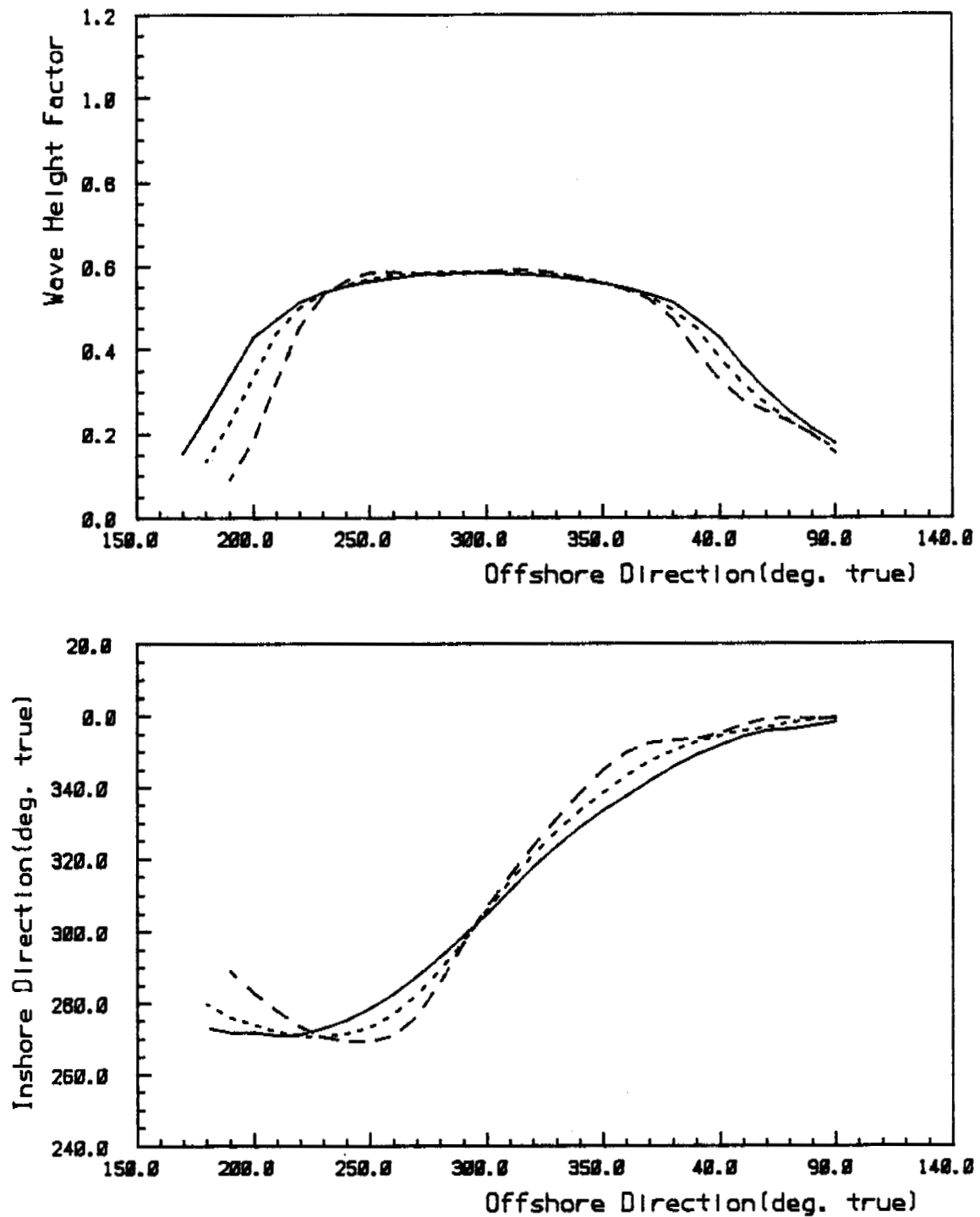
Scales as shown

Checked by:

Keith Philpott

Consulting Limited

Tuktoyaktuk: Wave Spectrum Transformation Results for
Node Number 02



Node No: 2

Spreading Index:

2

Tide Level: 0.50 m.

4

Peak Period: 7.9 secs

10

BEAUFORT SEA COASTAL SEDIMENT STUDY

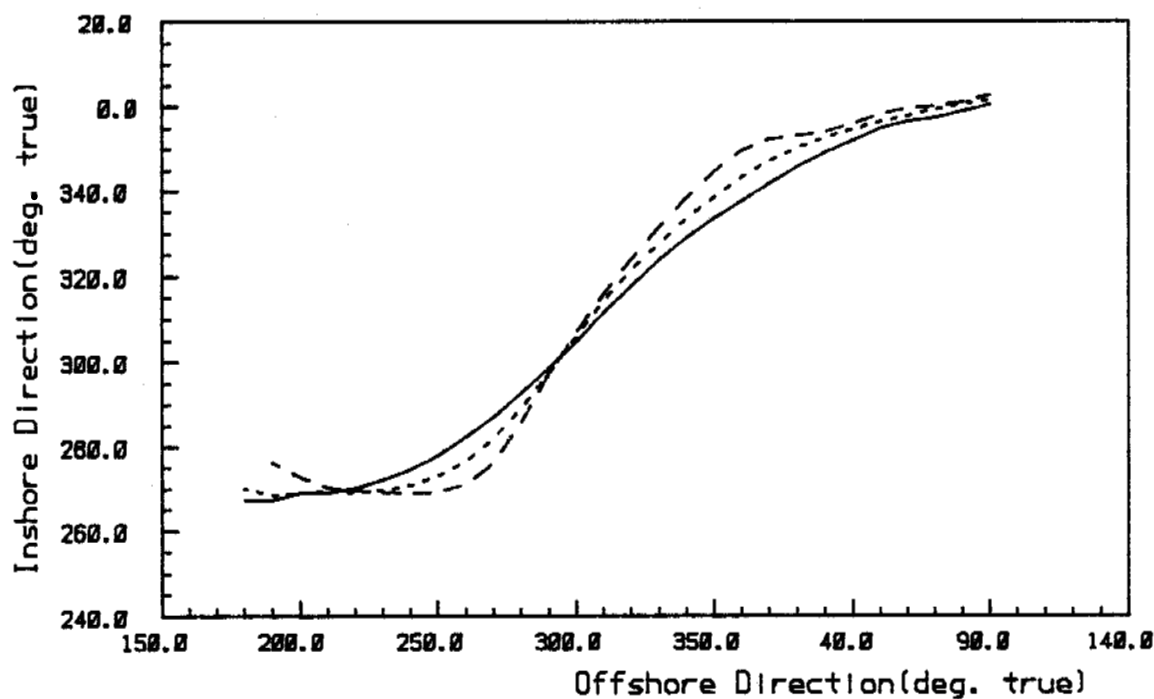
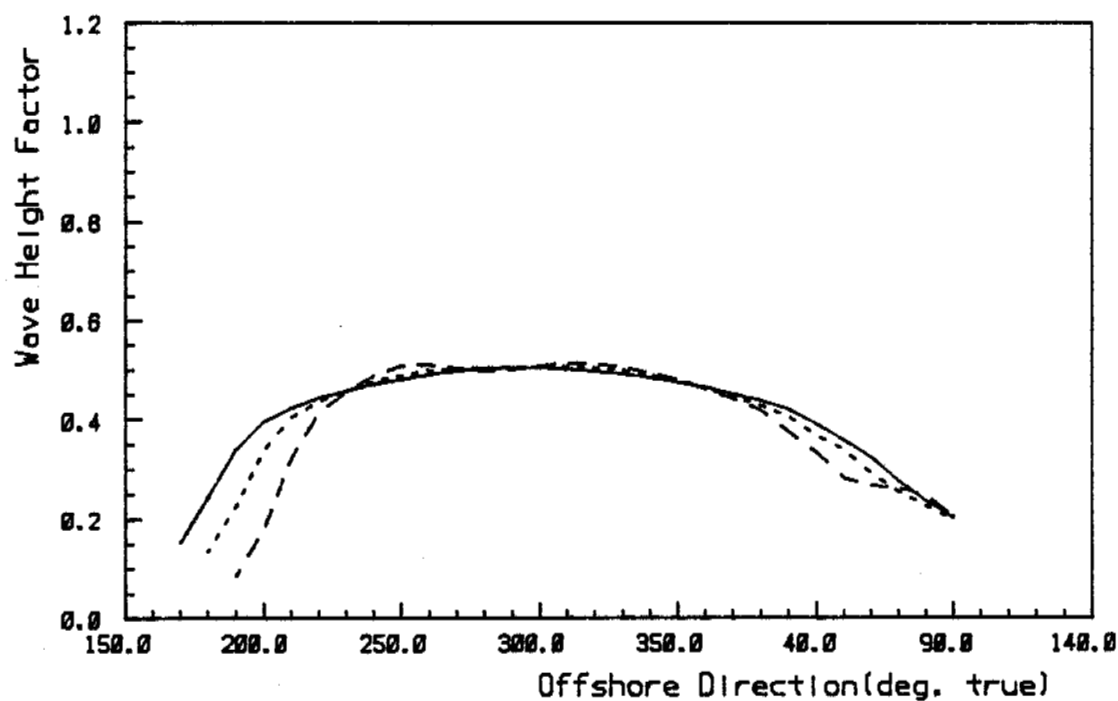
Date: 17 May 85

Scales as shown

Tuktoyaktuk: Wave Spectrum Transformation Results for
Node Number 02

Checked by:

Keith Philpott
Consulting Limited



Node No: 2

Spreading Index:

2

Tide Level: 0.50 m.

4

Peak Period: 10.0 secs

10

BEAUFORT SEA COASTAL SEDIMENT STUDY

Date: 17 May 85

Scales as shown

Checked by:

Keith Philpott

Consulting Limited

Tuktoyaktuk: Wave Spectrum Transformation Results for
Node Number 02

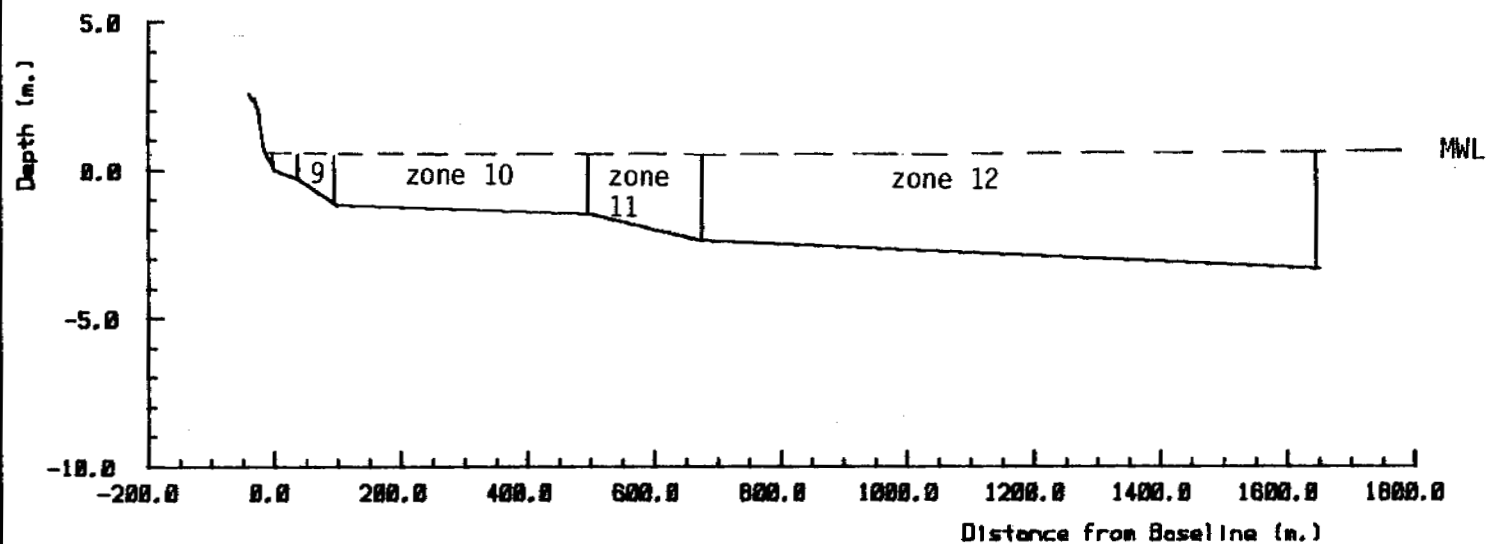
BEAUFORT SEA COASTAL SEDIMENT STUDY

ALONGSHORE SEDIMENT TRANSPORT RESULTS

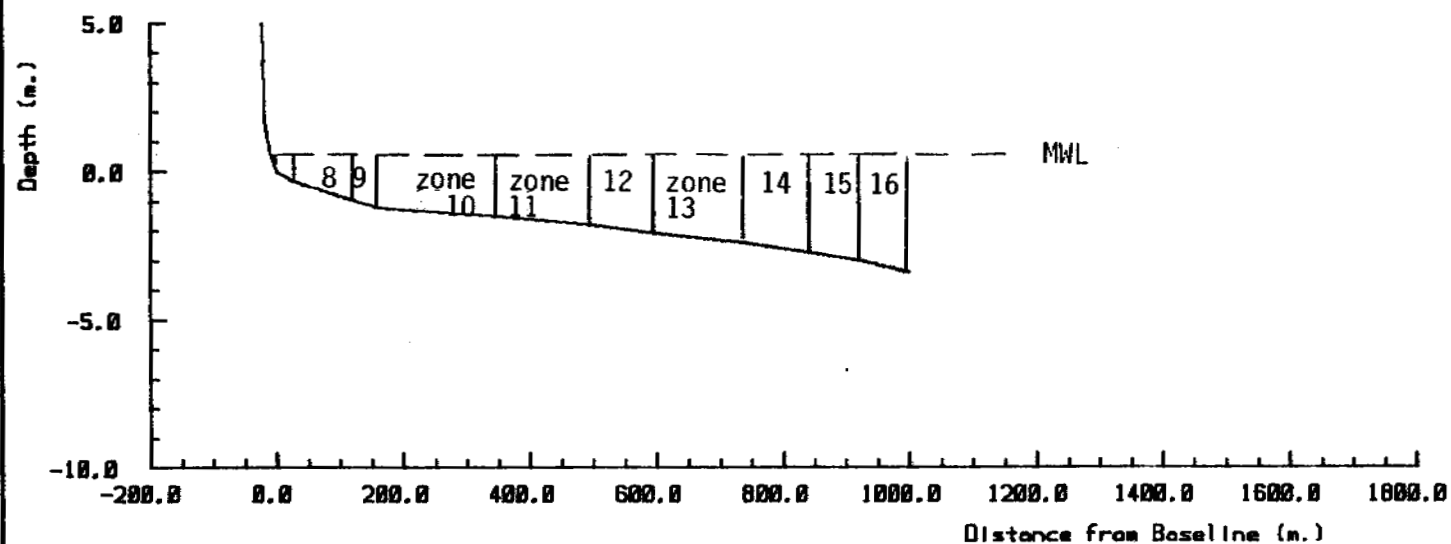
FOURTEEN YEAR AVERAGES

(1970 - 1983)

KEITH PHILPOTT CONSULTING LTD.
P.O. Box 938
THORNHILL
ONTARIO L3T 4A5



(a) Profile at Node 1



(b) Profile at Node 2

BEAUFORT SEA COASTAL SEDIMENT STUDY

Tuk Local: Beach Profiles used in Sediment Transport

Predictions

Date: 15 Mar 85

Scale as shown

Checked by:

Keith Philpott

Consulting Limited

BEAUFORT SEA COASTAL SEDIMENT STUDY

Current date is 03/25/85

Current time is 13:47:16.92

14 YEAR AVERAGE SEDIMENT TRANSPORT HINDCAST

WAVE DATA IS HINDCAST FROM TUKTOYAKTUK N.W.T. WINDS

This run used the following sediment transport models

- 1 CERC formula
- 2 Queen's modified CERC (March 1985)
- 3 Swart modified CERC
- 4 Bijker formula
- 5 Engelund and Hansen (by Swart)
- 7 Swart model
- 8 Willis model
- 9 Van Der Graaf and Overeen model
- 10 Nielsen model (breaking waves)
- 11 Nielsen model (non breaking waves)
- 12 Fleming model
- 13 Swart and Lenhoff model

TUK LOCAL NODE 1, MEAN WATER LEVEL

Profile Data

Zone	1	2	3	4	5	6
Shoreline O/S to mid-zone	5.8	30.6	80.6	311.6	599.1	1174.1
Sed. Transport Zone Width	11.6	38.0	62.0	400.0	175.0	975.0
Depth at Centre of Zone	.25	.65	1.25	1.85	2.45	3.38
Sediment Transport Switch	On	On	On	On	On	On

Input Grain Size Distribution (mm)

Zone	D16	D25	D35	D50	D65	D75	D84	D90	
1 to 4	.180	.200	.450	.700	7.000	10.200	10.400	10.600	Roughness Based on 2090
5 to 6	.180	.130	.150	.180	.200	.220	.240	.260	Roughness Based on Ripple Height

refraction analysis was to a depth of 3.3 meters

beach normal azimuth =283.5 degrees

weighted breaker depth = .59 meters

TUK LOCAL NODE 2, MEAN WATER LEVEL

Profile Data

Zone	1	2	3	4	5	6	7	8	9	10	11
Shoreline O/S to mid-zone	4.3	21.0	77.5	146.5	265.0	433.5	558.5	677.5	802.5	896.0	971.0
Sed. Transport Zone Width	8.5	25.0	88.0	50.0	187.0	150.0	100.0	130.0	112.0	75.0	75.0
Depth at Centre of Zone	.25	.65	1.10	1.56	1.86	2.15	2.45	2.75	3.07	3.37	3.70
Sediment Transport Switch	On	On	On	On	On	On	On	On	On	On	On

Input Grain Size Distribution (mm)

Zone	D16	D25	D35	D50	D65	D75	D84	D90	
1 to 7	.180	.150	.350	.600	1.000	1.500	3.500	6.000	Roughness Based on 2090
8 to 11	.180	.130	.150	.180	.200	.220	.240	.260	Roughness Based on Ripple Height

refraction analysis was to a depth of 4.2 meters

beach normal azimuth =286.5 degrees

weighted breaker depth = .60 meters

RESULTS OF ALL WAVE CONDITIONS

TUK LOCAL NODE 1, MEAN WATER LEVEL

GROSS SEDIMENT TRANSPORT RATES (cu.m./m./yr.)

Model	B(1)	B(2)	B(3)	B(4)	B(5)	B(6)	Total Transport(cu.m./yr.)
1							.2306E+05
2							.1576E+04
3							.1079E+05
4	.0000E+00	.1071E-21	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.4071E-20
5	.1690E+03	.2060E+03	.1340E+02	.5180E-01	.0000E+00	.0000E+00	.1064E+05
7	.0000E+00	.1305E-02	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.4960E-01
8	.1797E+03	.2683E+03	.4494E+02	.8288E+00	.0000E+00	.0000E+00	.1540E+05
9	.7052E+02	.9092E+02	.5212E+01	.1739E-01	.0000E+00	.0000E+00	.4603E+04
10	.6025E+02	.1667E+03	.8641E+01	.3289E-01	.0000E+00	.0000E+00	.7581E+04
11	.3426E+02	.9042E+02	.8351E+01	.3288E-01	.0000E+00	.0000E+00	.4364E+04
12	.6598E+02	.5873E+02	.3765E+01	.4376E-01	.0000E+00	.0000E+00	.3248E+04
13	.3487E+02	.4550E+02	.2367E+01	.2524E-01	.0000E+00	.0000E+00	.2290E+04

MEAN	.6828E+02	.1029E+03	.9631E+01	.1148E+00	.0000E+00	.0000E+00	.6962E+04
S.D.	.6540E+02	.9272E+02	.1395E+02	.2684E+00	.0000E+00	.0000E+00	.6959E+04

TUK LOCAL NODE 1, MEAN WATER LEVEL

NET SEDIMENT TRANSPORT RATES (cu.m./m./yr.)

Model	B(1)	B(2)	B(3)	B(4)	B(5)	B(6)	Total Transport(cu.m./yr.)
1							-.2192E+05
2							-.1528E+04
3							-.1026E+05
4	.0000E+00	-.1071E-21	.0000E+00	.0000E+00	.0000E+00	.0000E+00	-.4071E-20
5	-.1313E+03	-.1851E+03	-.1275E+02	-.5180E-01	.0000E+00	.0000E+00	-.9369E+04
7	.0000E+00	-.1305E-02	.0000E+00	.0000E+00	.0000E+00	.0000E+00	-.4960E-01
8	-.1427E+03	-.2393E+03	-.4345E+02	-.8288E+00	.0000E+00	.0000E+00	-.1377E+05
9	-.5667E+02	-.8325E+02	-.4979E+01	-.1739E-01	.0000E+00	.0000E+00	-.4136E+04
10	-.5095E+02	-.1572E+03	-.8356E+01	-.3289E-01	.0000E+00	.0000E+00	-.7094E+04
11	-.2915E+02	-.8490E+02	-.8065E+01	-.3288E-01	.0000E+00	.0000E+00	-.4078E+04
12	-.5295E+02	-.5331E+02	-.3618E+01	-.4376E-01	.0000E+00	.0000E+00	-.2882E+04
13	-.2836E+02	-.4205E+02	-.2271E+01	-.2524E-01	.0000E+00	.0000E+00	-.2077E+04

MEAN	-.5467E+02	-.9390E+02	-.9278E+01	-.1148E+00	.0000E+00	.0000E+00	-.6427E+04
S.D.	.5118E+02	.8339E+02	.1348E+02	.2684E+00	.0000E+00	.0000E+00	.6514E+04

TUK LOCAL NODE 1, MEAN WATER LEVEL

POSITIVE SEDIMENT TRANSPORT RATES (clockwise wrt. beach normal)

Model	B(1)	B(2)	B(3)	B(4)	B(5)	B(6)	Total Transport(cu.m./yr.)
1							.5675E+03
2							.2385E+02
3							.2656E+03
4	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00
5	.1883E+02	.1045E+02	.3213E+00	.0000E+00	.0000E+00	.0000E+00	.6356E+03
7	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00
8	.1851E+02	.1447E+02	.7440E+00	.0000E+00	.0000E+00	.0000E+00	.8106E+03
9	.6924E+01	.3833E+01	.1167E+00	.0000E+00	.0000E+00	.0000E+00	.2332E+03
10	.4648E+01	.4740E+01	.1429E+00	.0000E+00	.0000E+00	.0000E+00	.2432E+03
11	.2555E+01	.2758E+01	.1429E+00	.0000E+00	.0000E+00	.0000E+00	.1433E+03
12	.6512E+01	.2709E+01	.7332E-01	.0000E+00	.0000E+00	.0000E+00	.1830E+03
13	.3255E+01	.1727E+01	.4820E-01	.0000E+00	.0000E+00	.0000E+00	.1063E+03

MEAN	.6804E+01	.4522E+01	.1766E+00	.0000E+00	.0000E+00	.0000E+00	.2677E+03
S.D.	.7156E+01	.4871E+01	.2341E+00	.0000E+00	.0000E+00	.0000E+00	.2651E+03

TUK LOCAL NODE 1, MEAN WATER LEVEL

NEGATIVE SEDIMENT TRANSPORT RATES (counter clockwise wrt. beach normal)

Model	B(1)	B(2)	B(3)	B(4)	B(5)	B(6)	Total Transport (cu.m./yr.)
1							.2249E+05
2							.1552E+04
3							.1053E+05
4	.0000E+00	.1071E-21	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.4071E-20
5	.1501E+03	.1956E+03	.1300E+02	.5100E-01	.0000E+00	.0000E+00	.1000E+05
7	.0000E+00	.1305E-02	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.4960E-01
8	.1612E+03	.2538E+03	.4420E+02	.8280E+00	.0000E+00	.0000E+00	.1458E+05
9	.6360E+02	.8708E+02	.5096E+01	.1739E-01	.0000E+00	.0000E+00	.4369E+04
10	.5560E+02	.1619E+03	.8498E+01	.3289E-01	.0000E+00	.0000E+00	.7338E+04
11	.3170E+02	.8766E+02	.8208E+01	.3288E-01	.0000E+00	.0000E+00	.4221E+04
12	.5947E+02	.5602E+02	.3692E+01	.4376E-01	.0000E+00	.0000E+00	.3065E+04
13	.3162E+02	.4377E+02	.2319E+01	.2524E-01	.0000E+00	.0000E+00	.2184E+04

MEAN	.6147E+02	.9843E+02	.9454E+01	.1140E+00	.0000E+00	.0000E+00	.6695E+04
S.D.	.5828E+02	.8804E+02	.1371E+02	.2684E+00	.0000E+00	.0000E+00	.6735E+04

TUK LOCAL NODE 1, MEAN WATER LEVEL

CUMULATIVE DISTRIBUTION OF NET SEDIMENT TRANSPORT (cu.m./yr.)

Model	B(1)	B(2)	B(3)	B(4)	B(5)	B(6)
4	.0000E+00	-.4071E-20	-.4071E-20	-.4071E-20	-.4071E-20	-.4071E-20
5	-.1522E+04	-.8557E+04	-.9348E+04	-.9369E+04	-.9369E+04	-.9369E+04
7	.0000E+00	-.4960E-01	-.4960E-01	-.4960E-01	-.4960E-01	-.4960E-01
8	-.1654E+04	-.1075E+05	-.1344E+05	-.1377E+05	-.1377E+05	-.1377E+05
9	-.6571E+03	-.3821E+04	-.4129E+04	-.4136E+04	-.4136E+04	-.4136E+04
10	-.5907E+03	-.6563E+04	-.7081E+04	-.7094E+04	-.7094E+04	-.7094E+04
11	-.3380E+03	-.3564E+04	-.4064E+04	-.4078E+04	-.4078E+04	-.4078E+04
12	-.6140E+03	-.2640E+04	-.2864E+04	-.2882E+04	-.2882E+04	-.2882E+04
13	-.3288E+03	-.1927E+04	-.2067E+04	-.2077E+04	-.2077E+04	-.2077E+04

MEAN	-.6339E+03	-.4202E+04	-.4777E+04	-.4823E+04	-.4823E+04	-.4823E+04
S.D.	.5934E+03	.3723E+04	.4456E+04	.4539E+04	.4539E+04	.4539E+04

TUK LOCAL NODE 1, MEAN WATER LEVEL

PERCENTAGE DISTRIBUTION OF NET SEDIMENT TRANSPORT

Model	B(1)	B(2)	B(3)	B(4)	B(5)	B(6)
4	.00	.00	.00	.00	.00	.00
5	39.08	56.23	3.87	.02	.00	.00
7	.00	.00	.00	.00	.00	.00
8	33.47	56.14	10.19	.19	.00	.00
9	39.11	57.45	3.44	.01	.00	.00
10	23.53	72.59	3.86	.02	.00	.00
11	23.86	69.51	6.60	.03	.00	.00
12	48.17	48.50	3.29	.04	.00	.00
13	39.01	57.83	3.12	.03	.00	.00

MEAN	27.45	46.47	3.82	.04	.00	.00
S.D.	17.41	27.33	3.13	.00	.00	.00

RESULTS OF ALL WAVE CONDITIONS

TUK LOCAL NODE 2, MEAN WATER LEVEL

GROSS SEDIMENT TRANSPORT RATES (cu.ft./sq.ft./yr)

[illegible]

TUK LOCAL NODE 2, MEAN WATER LEVEL

NET SEDIMENT TRANSPORT RATES (cu.m./m./yr.)

[illegible]

TUK LOCAL NODE 2, MEAN WATER LEVEL

POSITIVE SEDIMENT TRANSPORT RATES (clockwise wrt. beach normal)

[illegible]

TUK LOCAL NODE 2, MEAN WATER LEVEL

NEGATIVE SEDIMENT TRANSPORT RATES (counter clockwise wrt. beach normal)

Model	B(1)	B(2)	B(3)	B(4)	B(5)	B(6)	B(7)	B(8)	B(9)	B(10)	B(11)	Total Transport (cu.m./yr.)
1												.2605E+05
2												.2542E+04
3												.1475E+05
4	.0000E+00	.6465E-15	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.1616E-13
5	.1520E+03	.2298E+03	.4651E+02	.3238E+01	.2116E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.1133E+05
7	.0000E+00	.8045E-01	.1150E-02	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.2112E+01
8	.1890E+03	.3392E+03	.1185E+03	.2582E+02	.3379E+01	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.2244E+05
9	.9153E+02	.1550E+03	.2858E+02	.1636E+01	.1856E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.7271E+04
10	.6686E+02	.2273E+03	.4397E+02	.2196E+01	.1667E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.1826E+05
11	.3582E+02	.1159E+03	.3220E+02	.2196E+01	.1667E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.6178E+04
12	.7447E+02	.7875E+02	.1559E+02	.1916E+01	.2893E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.4110E+04
13	.5898E+02	.8481E+02	.1407E+02	.1316E+01	.1459E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.3886E+04

MEAN	.7332E+02	.1368E+03	.3327E+02	.4257E+01	.4872E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.9869E+04
S.D.	.6385E+02	.1129E+03	.3619E+02	.8153E+01	.1887E+01	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.8488E+04

TUK LOCAL NODE 2, MEAN WATER LEVEL

CUMULATIVE DISTRIBUTION OF NET SEDIMENT TRANSPORT (cu.m./yr.)

Model	B(1)	B(2)	B(3)	B(4)	B(5)	B(6)	B(7)	B(8)	B(9)	B(10)	B(11)
4	.0000E+00	-.1616E-13	-.1616E-13	-.1616E-13	-.1616E-13	-.1616E-13	-.1616E-13	-.1616E-13	-.1616E-13	-.1616E-13	-.1616E-13
5	-.1188E+04	-.6573E+04	-.1858E+05	-.1874E+05	-.1878E+05	-.1878E+05	-.1878E+05	-.1878E+05	-.1878E+05	-.1878E+05	-.1878E+05
7	.0000E+00	-.2802E+01	-.2103E+01	-.2103E+01	-.2103E+01	-.2103E+01	-.2103E+01	-.2103E+01	-.2103E+01	-.2103E+01	-.2103E+01
8	-.1410E+04	-.9462E+04	-.1954E+05	-.2881E+05	-.2144E+05	-.2144E+05	-.2144E+05	-.2144E+05	-.2144E+05	-.2144E+05	-.2144E+05
9	-.6824E+03	-.4486E+04	-.6877E+04	-.6958E+04	-.6977E+04	-.6977E+04	-.6977E+04	-.6977E+04	-.6977E+04	-.6977E+04	-.6977E+04
10	-.5885E+03	-.6848E+04	-.9875E+04	-.9984E+04	-.1001E+05	-.1001E+05	-.1001E+05	-.1001E+05	-.1001E+05	-.1001E+05	-.1001E+05
11	-.2769E+03	-.3893E+04	-.5892E+04	-.6881E+04	-.6832E+04	-.6832E+04	-.6832E+04	-.6832E+04	-.6832E+04	-.6832E+04	-.6832E+04
12	-.5582E+03	-.2440E+04	-.3771E+04	-.3865E+04	-.3984E+04	-.3984E+04	-.3984E+04	-.3984E+04	-.3984E+04	-.3984E+04	-.3984E+04
13	-.3855E+03	-.2434E+04	-.3643E+04	-.3788E+04	-.3735E+04	-.3735E+04	-.3735E+04	-.3735E+04	-.3735E+04	-.3735E+04	-.3735E+04

MEAN	-.5478E+03	-.3828E+04	-.6688E+04	-.6897E+04	-.6988E+04	-.6988E+04	-.6988E+04	-.6988E+04	-.6988E+04	-.6988E+04	-.6988E+04
S.D.	.4714E+03	.3127E+04	.6188E+04	.6454E+04	.6625E+04	.6625E+04	.6625E+04	.6625E+04	.6625E+04	.6625E+04	.6625E+04

TUK LOCAL NODE 2, MEAN WATER LEVEL

PERCENTAGE DISTRIBUTION OF NET SEDIMENT TRANSPORT

PERCENTAGE DISTRIBUTION OF NET SEDIMENT TRANSPORT											
Model	B(1)	B(2)	B(3)	B(4)	B(5)	B(6)	B(7)	B(8)	B(9)	B(10)	B(11)
4	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
5	32.72	54.97	11.46	.88	.05	.00	.00	.00	.00	.00	.00
7	.00	98.58	1.42	.00	.00	.00	.00	.00	.00	.00	.00
8	26.25	51.84	18.15	4.82	.54	.00	.00	.00	.00	.00	.00
9	38.95	57.53	18.85	.62	.04	.00	.00	.00	.00	.00	.00
10	18.27	67.69	13.33	.66	.05	.00	.00	.00	.00	.00	.00
11	18.14	62.82	17.74	1.21	.89	.00	.00	.00	.00	.00	.00
12	41.48	47.62	9.57	1.19	.13	.00	.00	.00	.00	.00	.00
13	31.79	57.54	9.66	.91	.10	.00	.00	.00	.00	.00	.00

MEAN	22.18	55.31	18.24	1.85	.11	.00	.00	.00	.00	.00	.00
S.D.	14.51	25.57	6.26	1.28	.16	.00	.00	.00	.00	.00	.00

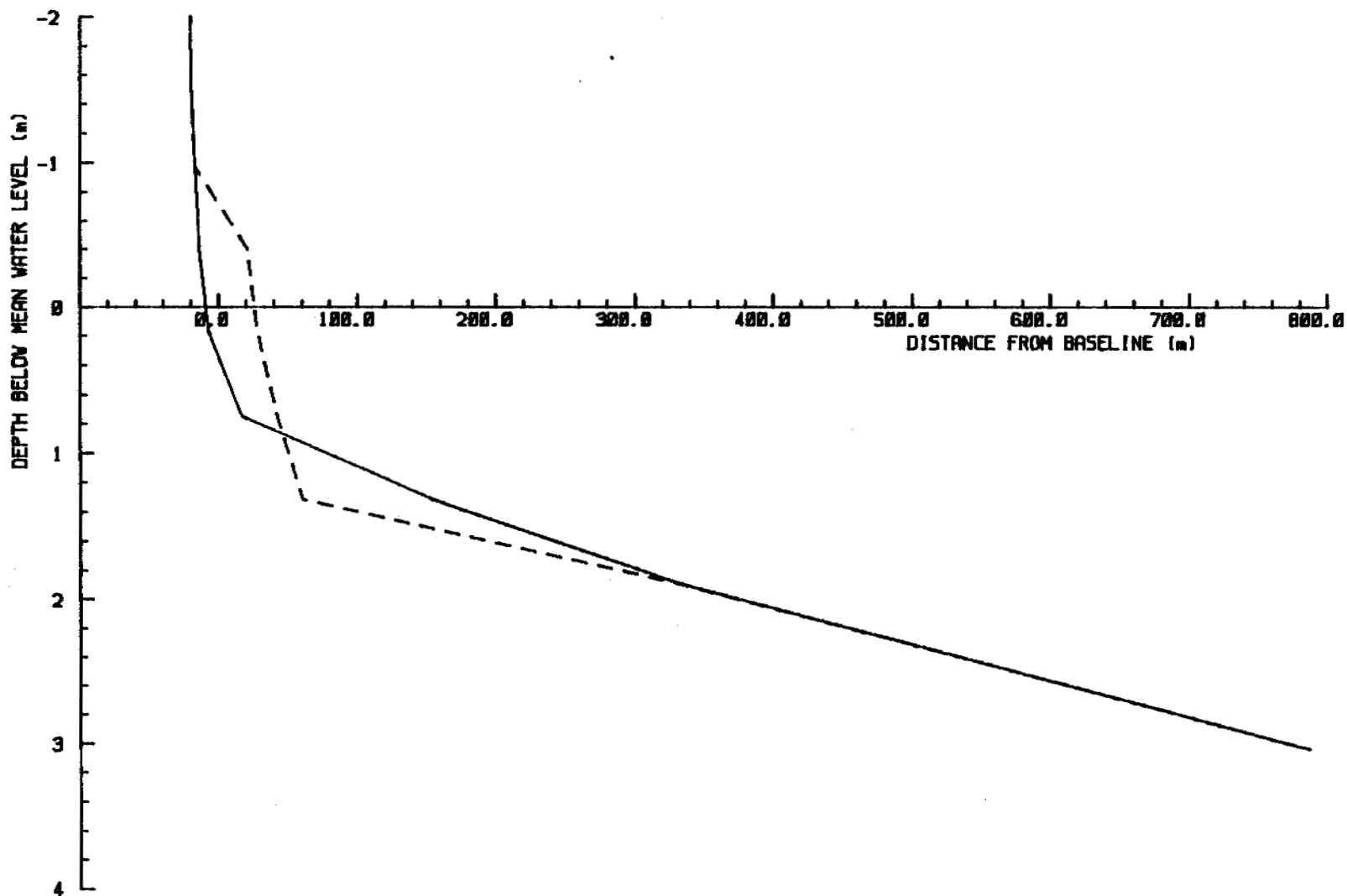
BEAUFORT SEA COASTAL SEDIMENT STUDY

NEARSHORE PROFILE ADJUSTMENT RESULTS - TUKTOYAKTUK

NODE 2

Calibration Runs

KEITH PHILPOTT CONSULTING LTD
P.O BOX 938
THORNHILL
ONTARIO L3T 4A5

LEGEND

— Initial profile

- - - End of run profile

CALIBRATION RUN 1

SUPPLEMENTARY DATA

Calibration run for 56 wave conditions
 Total time all waves was 912.8 hours

Shoreline advance = 35.41 metres

TUKTOYAKTUK PROFILE ADJUSTMENT

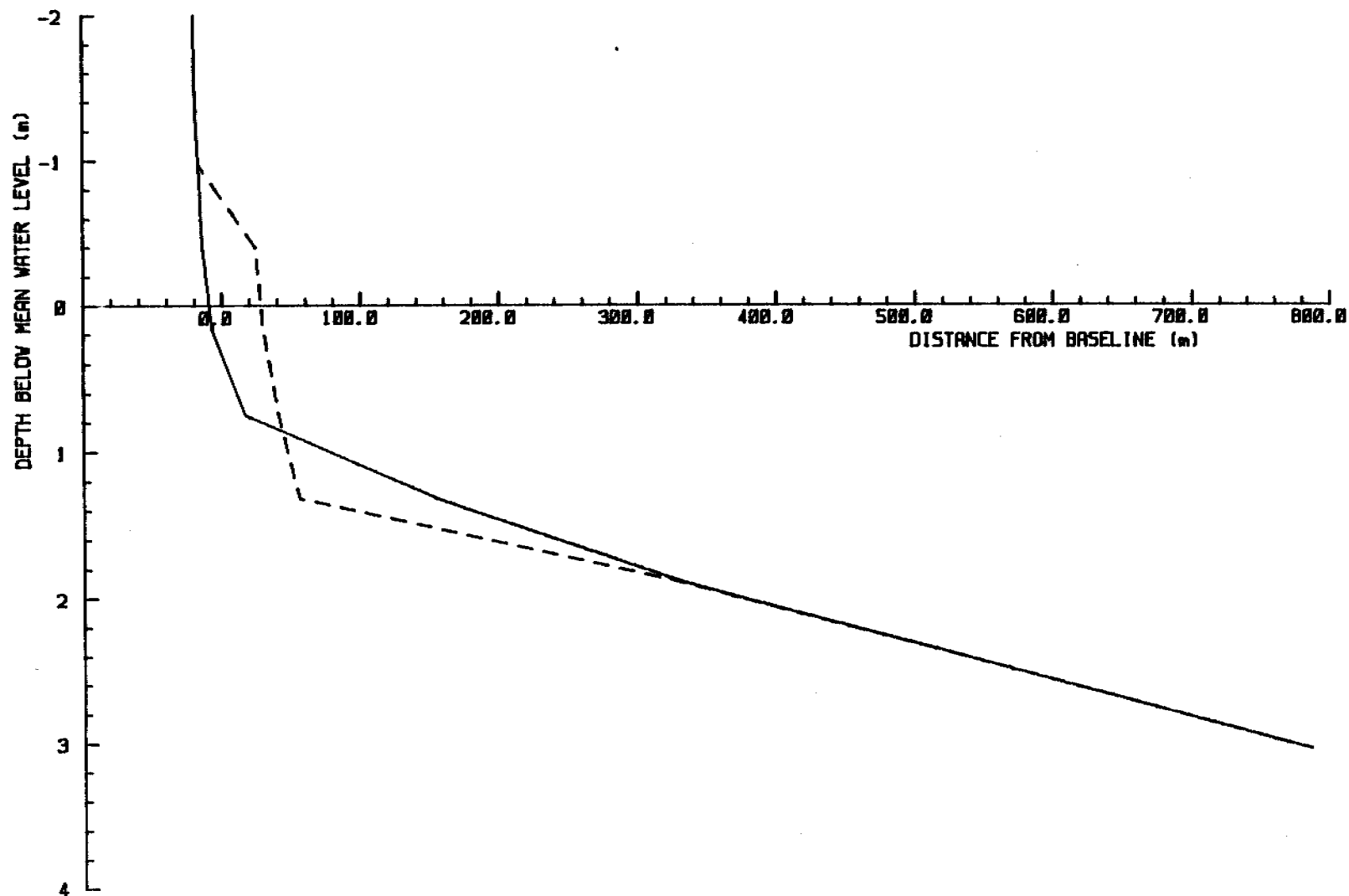
CALIBRATION RUN / VSKARL = 0.9 / MEASURED PROFILE

Date: 24 Apr 85

Scales as shown

Checked by:

Keith Philpott
Consulting Limited

LEGEND

— Initial profile

- - - - - End of run profile

CALIBRATION RUN 2

SUPPLEMENTARY DATA

Calibration run for 56 wave conditions
 Total time all waves was 912.0 hours

Shoreline advance = 37.29 metres

TUKTOYAKTUK PROFILE ADJUSTMENT

Date: 24 Apr 85

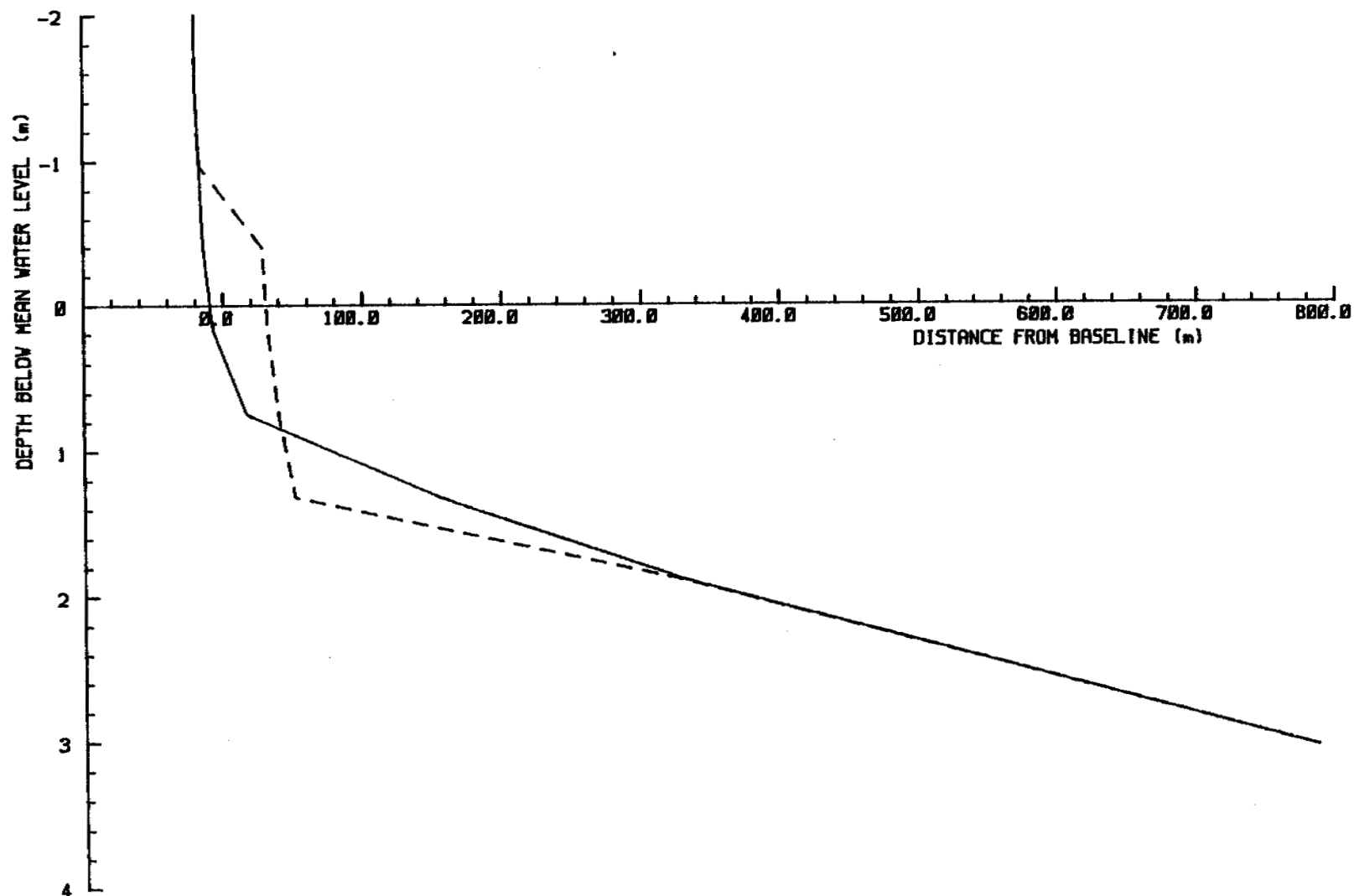
Scales as shown

Checked by:

Keith Philippott

Consulting Limited

CALIBRATION RUN / VSKRAL = 0.7 / MEASURED PROFILE

LEGEND

— Initial profile

- - - - - End of run profile

CALIBRATION RUN 3

SUPPLEMENTARY DATA

Calibration run for 56 wave conditions
 Total time all waves was 912.0 hours

Shoreline advance = 39.99 metres

TUKTOYAKTUK PROFILE ADJUSTMENT

Date: 24 Apr 85

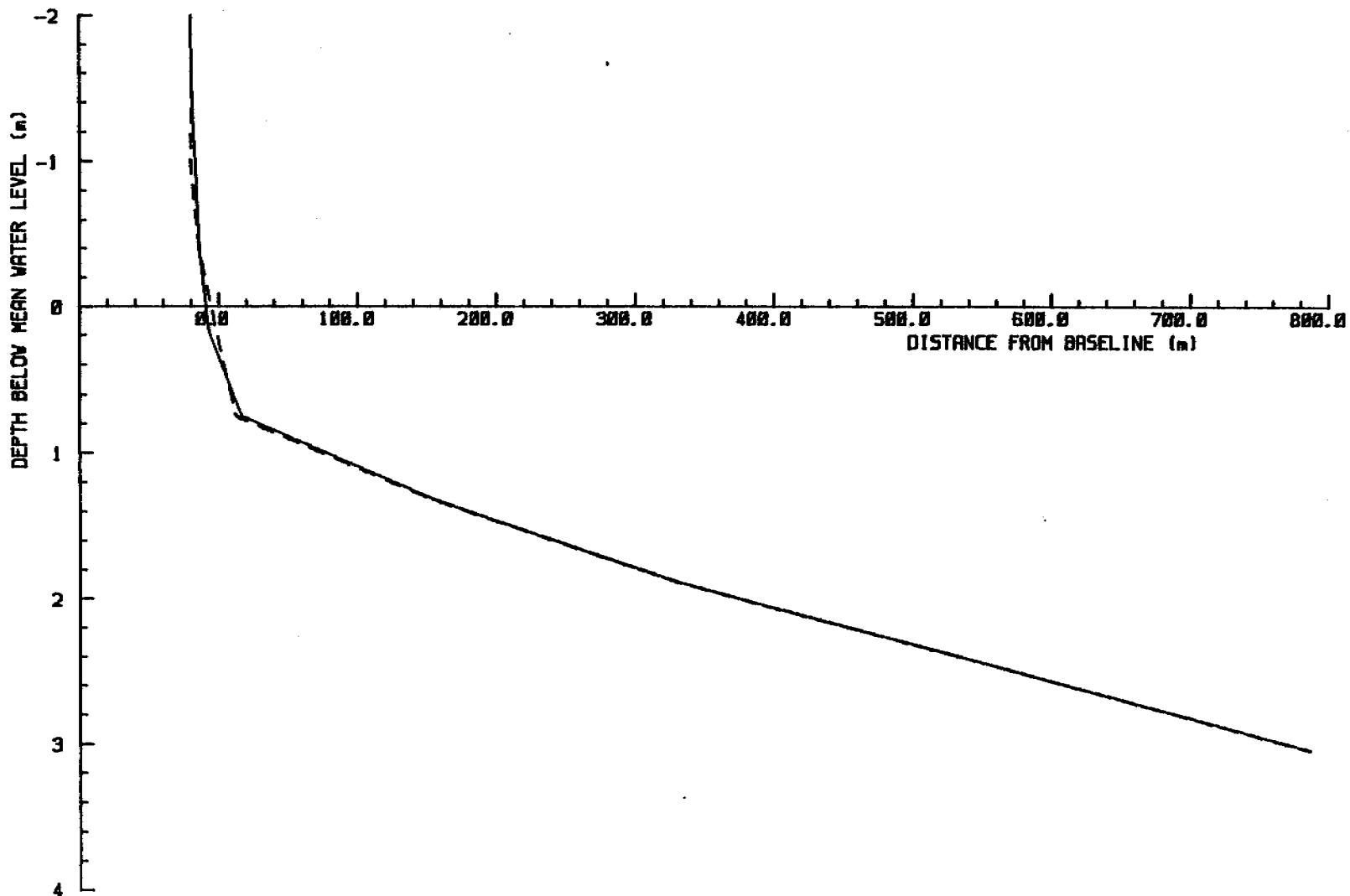
Scales as shown

Checked by:

Keith Philpott

Consulting Limited

CALIBRATION RUN / WSKAAL = 0.5 / MEASURED PROFILE

LEGEND

— Initial profile

- - - - - End of run profile

CALIBRATION RUN 4

SUPPLEMENTARY DATA

Calibration run for 56 wave conditions
 Total time all waves was 912.0 hours

Shoreline advance = 3.85 metres

TUKTOYAKTUK PROFILE ADJUSTMENT

CALIBRATION RUN / VSKAAL = 0.7 / MEASURED PROFILE

TIDE = 0.5 m

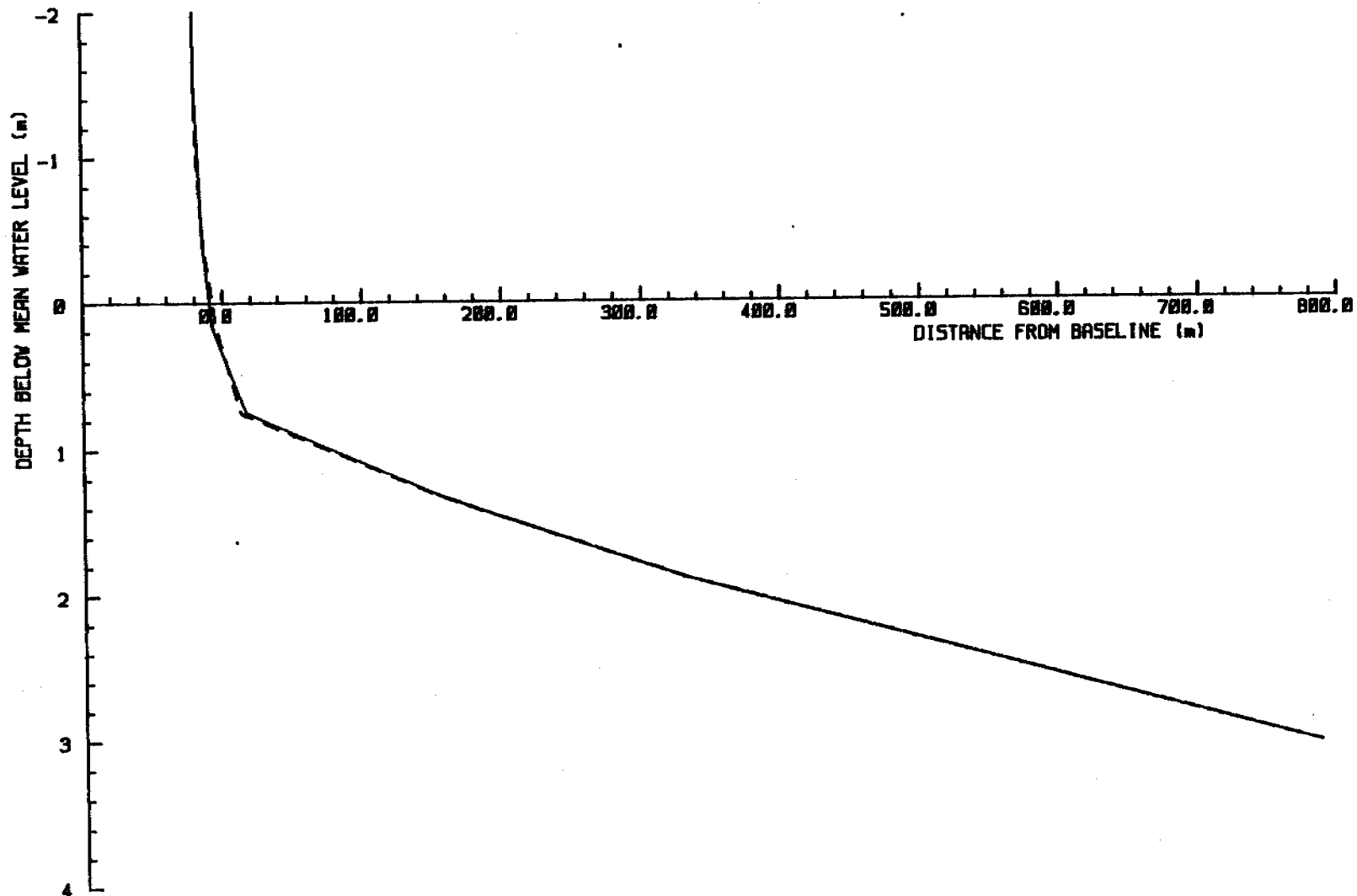
Date: 24 Apr 85

Scales as shown

Checked by:

Keith Philpott

Consulting Limited

LEGEND

— Initial profile

- - - - - End of run profile

CALIBRATION RUN 5

SUPPLEMENTARY DATA

Calibration run for 56 wave conditions
 Total time all waves was 912.0 hours

Shoreline advance = 2.13 metres

TUKTOYAKTUK PROFILE ADJUSTMENT

ONE THIRD ROLLBACK / VSKAAL = 0.7 / MEASURED PROFILE

TIDE = 0.5 m

Date: 24 Apr 85

Scales as shown

Checked by:

Keith Philpott

Consulting Limited

TUKTOYAKTUK
Storm Wave Climate for Nearshore
Profile Adjustment Runs

Hs(m)	Tp(s)	HR	DD/MM/Y
.55	3.67	0	1/ 9/72
.60	3.66	1	1/ 9/72
.63	4.26	2	1/ 9/72
.64	4.48	3	1/ 9/72
.64	4.55	4	1/ 9/72
.56	4.68	5	1/ 9/72
.52	3.05	6	1/ 9/72
.43	2.86	7	1/ 9/72
.40	2.83	8	1/ 9/72
.59	3.45	9	1/ 9/72
.70	4.44	10	1/ 9/72
.70	4.73	11	1/ 9/72
.69	4.80	12	1/ 9/72
.69	5.10	13	1/ 9/72
.61	5.72	14	1/ 9/72
.59	6.07	15	1/ 9/72
.59	6.19	16	1/ 9/72
.58	6.45	17	1/ 9/72
.57	6.66	18	1/ 9/72
.56	6.86	19	1/ 9/72
.63	6.07	20	1/ 9/72
.59	6.65	21	1/ 9/72
.57	7.23	22	1/ 9/72
.56	7.41	23	1/ 9/72
.55	7.58	0	2/ 9/72
.54	7.80	1	2/ 9/72
.73	5.59	2	2/ 9/72
.66	6.83	3	2/ 9/72
.69	6.86	4	2/ 9/72
.77	7.40	5	2/ 9/72
1.00	6.29	6	2/ 9/72
.94	5.65	7	2/ 9/72
.67	7.92	8	2/ 9/72
.66	8.03	9	2/ 9/72
.65	7.99	10	2/ 9/72
.64	8.07	11	2/ 9/72
.63	8.00	12	2/ 9/72
.62	8.06	13	2/ 9/72
.61	8.15	14	2/ 9/72
.58	8.72	15	2/ 9/72
.58	8.57	16	2/ 9/72
.58	8.41	17	2/ 9/72
.58	8.24	18	2/ 9/72
.57	7.99	19	2/ 9/72
.60	7.22	20	2/ 9/72
.56	7.22	21	2/ 9/72
.52	7.22	22	2/ 9/72
.48	7.22	23	2/ 9/72
.44	7.22	0	3/ 9/72
.40	7.22	1	3/ 9/72
.36	7.22	2	3/ 9/72
.32	7.22	3	3/ 9/72
.29	7.22	4	3/ 9/72
.25	7.22	5	3/ 9/72