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# KING POINT COASTAL ZONE SEDIMENT TRANSPORT STUDY

Phase 2: Field Data Reduction and Preliminary Interpretation

**by** 

R. D. Gillie Dobrocky Seatech Ltd.

(Edited by R. B. Taylor)



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# Phase 2: Field Data Reduction and Preliminary Interpretation

by

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January, 1991.

This report was written in March 1986 but was never finished because of the collapse and demise of Dobrocky SeaTech Ltd. The report was the second of two reports summarizing the 1985 coastal field study at King Point, Yukon Territory. The first report (Gillie, 1985a) summarized the field operations, which included a description of equipment, methods used and lists of field data collected including the daily Littoral Environmental Observations originally entitled report which was second This "Continuation of King Point Coastal Zone Sediment Transport Study, Reduction and Preliminary Interpretation" describes how the field data was analysed. Plots and tables of the analysed field data are presented in the appendices. Preliminary interpretations are presented with respect to data quality and some of the more significant aspects of the data. The title of the original report was changed and the text was edited in 1990 to reduce duplication with the earlier field report (Gillie, 1985a). Also, where necessary, diagrams and references have been inserted to clarify the data presented. It should be noted that much of the data included in this report has been evaluated and incorporated into other contract reports and scientific papers (Morgan, 1986; Pinchin and Nairn, 1987; and Hill, 1990, Hill et al. 1990). The value in releasing this report is that it documents the field data and how it was analysed which is an invaluable reference if future surveys are undertaken at King Point. The editing and release of this report is part of a more general effort to release all of the scientific reports prepared under Project D.1, "Coastal Zone Geotechnics" which was part of the original Northern Oil and Gas Action Program (NOGAP) 1984-1988.

R.B. Taylor Atlantic Geoscience Centre, Dartmouth, N.S. Field surveys at King Point, Yukon Territory in August-September 1985 produced a detailed plan map and cross-sectional profiles of the barrier beach and adjacent lagoon and nearshore waters. The barrier beach which extends to only 1.6 m above mean sea level, increases in width from 50 m in the northwest to 215 m at the southeast end. The shoreface profiles also varied along the barrier from a steep concave slope at the northwest end to a shoreface with a distinct break in slope at a depth of 3 m at the distal end of the barrier. Water depths varied from 3-3.6 m within the central portion of the lagoon.

Sediment samples were collected at the berm, mid-swash and at 20 m and 50 m offshore along the 17 range lines surveyed across the King Point barrier. The barrier beach consists of a coarse sand and gravel with a mean grain size of -0.2 to -4.5 phi. Mud contents increased offshore, particularly toward the southeast end of the barrier. An analysis of sediment characteristics by GeoSea Consulting suggested that sediment transport trends were southeast at mid-swash and northwest along the nearshore zone.

The establishment of an Aanderaa weather station, and deployment of five current meters and two Sea Data directional wave/current meters was accomplished but the success of the oceanographic monitoring program was poor because of mooring problems and instrument failures. Moreover, the analysis of the current and wave records and visual observations of waves during the program showed that the oceanographic instruments were deployed seaward of the 'normal' wave breaking zone. Therefore very little of the oceanographic data could be used to calibrate numerical models of sediment transport as was originally planned. Nevertheless, a moderate storm event with onshore winds was monitored on 3-5 September and another storm was observed after the instruments were recovered on 15, 16 September. Unfortunately, repetitive surveys across the barrier beach were not completed during these storm events so little quantitative information was obtained on beach Sixteen suspended sediment samples were successfully collected on four occasions at the Sea Data 621 current meter. The sediment concentrations varied from less than 0.003 to 0.13 q/L.

This first attempt at monitoring directional wave measurements in the nearshore, although not completely successful, provided some invaluable lessons on how to conduct future coastal monitoring programs. The survey data also provides an excellent reference data set for documenting future changes at the King Point barrier system.

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This report describes the reduction and preliminary interpretation of field data collected as part of the King Point Coastal Zone Sediment Transport Study. King Point is located along the Yukon coast of the Beaufort Sea (Fig. 1.1, 1.2). The field work was conducted by Dobrocky Seatech Ltd. and Geological Survey of Canada personnel from 24 August to 16 September, 1985. A separate report has been prepared on the field operations which includes a description of the study tasks, equipment and methods used and an inventory of the data collected (Gillie, 1985a).

The study was funded by the Northern Oil and Gas Action Program (NOGAP), a research and planning program intended to anticipate research needs and management problems associated with Arctic hydrocarbon development. King Point has been proposed as a site for port development and information is required on the wind and wave climate, coastal geology and rates and directions of sediment transport. The data collected in this study have been used to provide input to coastal sediment transport model predictions for the King Point area (Pinchin and Nairn, 1987).

This report contains a brief review of the field data collected and the procedures used to analyse the data tapes, chart recordings, field samples and survey data. Preliminary interpretations are made of the data with respect to data quality and significant features of the data sets. The data sets are correlated, where possible to summarize and review significant sediment transport events.

# 2.0 FIELD PROGRAM AND DATA COLLECTION

The field report (Gillie, 1985a) provides a more detailed account of the data collection phase of the coastal program. The type of data collected and the timetable of data acquisition during the 24 day field program are summarized in Table 2.1. The field component consisted of essentially three main objectives. Firstly, to provide a detailed plan and cross-sectional map of the King Point to define the surficial site; secondly, characteristics of the barrier, lagoon and nearshore zones; and thirdly, to document the littoral processes, ie. near-bottom affecting this segment of coast. currents and waves, oceanographic measurements were collected to verify hindcasted nearshore wave characteristics (Pinchin and Nairn, 1987) which would be used in the development of a sediment transport model for this part of the Beaufort Sea coast.

The plan map and cross-sectional surveys of King Point were accomplished by establishing a baseline along the length of the

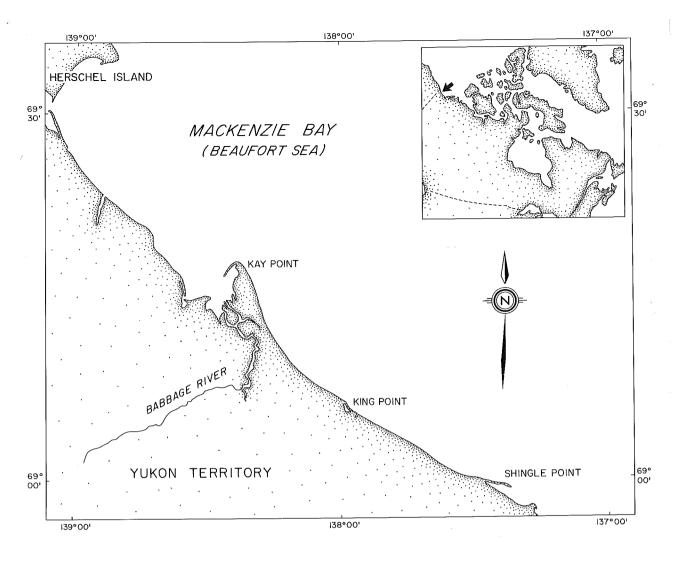


Figure 1.1. Location map of the study site, King Point, Yukon Territory.



Figure 1.2 Aerial view of the King Point coastal barrier looking toward the wider southeast end of the barrier (photo by D.L. Forbes, July 28, 1984).

SEPTEMBER

AUGUST

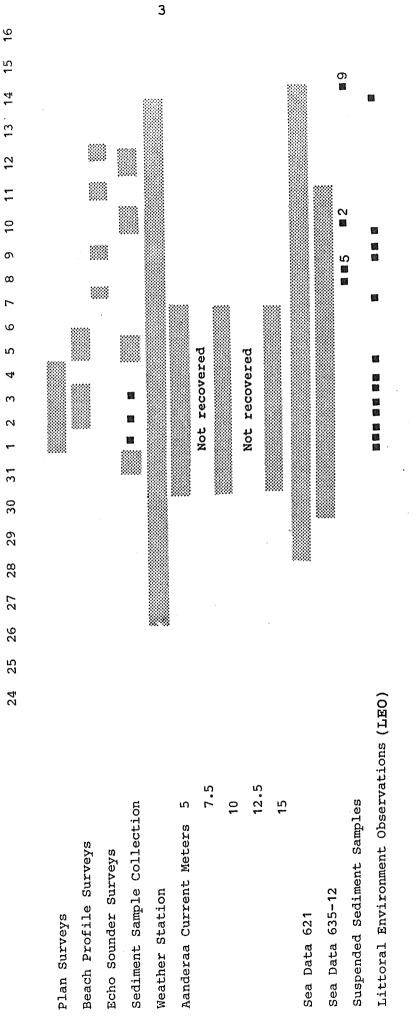


Table 2.1. Timetable of scientific data collection during the 1985 coastal field program at King Point, Yukon Territory.

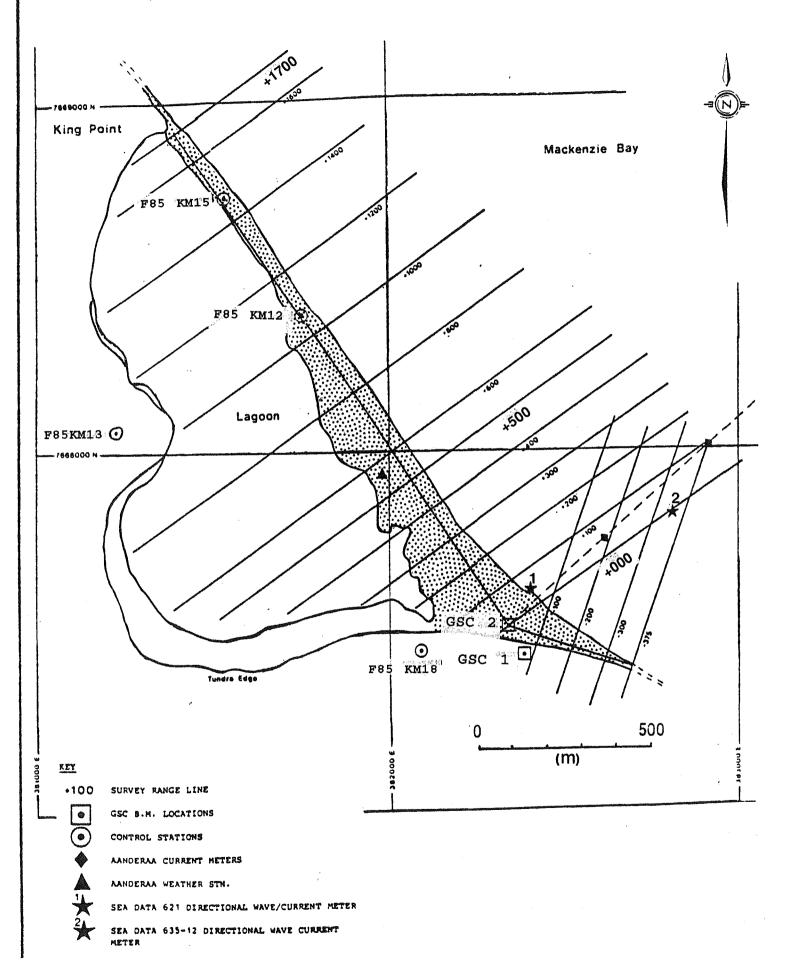


Figure 2.1 Location map of survey benchmarks, baseline and range lines used to compile the King Point site map.

barrier and 17 range lines or profiles at right angles to the baseline (Fig. 2.1). Horizontal control for the baseline survey was provided by establishing two new benchmarks (GSC1, GSC2, Fig. 2.1) and by using a series of control stations established at boreholes during a coring program in the spring of 1985 (O'Connor and Assoc. 1986).

Profiles across the King Point barrier were surveyed from the lagoon waterline to water depths of 1.0 to 1.5 m below sea level using a level, tape and survey rod. The lines were then extended across the lagoon and seaward of the barrier using echo-sounder equipment and a Zodiac pneumatic boat. The survey vessel was positioned using an electronic distance measurement (EDM) device.

Sediment samples were collected to define the particle size characteristics of the active beach and nearshore areas. Beach sediment samples were collected by hand at berm and mid-swash locations and nearshore samples were collected with a small pipe dredge at a distance of 20 m and 50 m from the beach on all 17 survey lines (Table 2.2). The beach samples were collected on September 5, the nearshore samples on September 10 and 12 and samples 6,7,8 (Appendix 2) were collected from the mid-swash slope on September 1-3 respectively as part of the LEO program. Sediment samples were also collected by divers at the Aanderaa current meter deployment sites on August 31 (Gillie, 1985a). A total of 76 sediment samples were collected.

A total of 16 suspended sediment samples were collected (Table 2.3, 3.6) using a well established pumping method. A gasoline powered pump was used to draw water through a 1.9 cm diameter hose attached to one of the tripod legs of the Sea Data 621 nearshore wave/current meters. Sample intake elevations of 20 and 50 cm above the seabed were used.

An Aanderaa weather station was deployed near the mid-point of the barrier (Fig. 2.2) to measure wind speed, wind direction and barometric pressure (Table 2.1). The anemometer cup was located at 10 m above the ground or 12 m above sea level. The directional sensor was oriented to magnetic north using a hand-held compass. Visual observations of wind direction were made at various times during the study period to confirm the data collected at the weather station. The weather data was to provide a benchmark for comparison with other nearby wind data sets.

Five Aanderaa current meters were supplied by the Bedford Institute of Oceanography (BIO) to measure near-bottom currents offshore of the study site. The current meters were deployed in a line extending offshore between water depths of 5 and 15 m (Fig. 2.2, Table 2.1). Two of the five current meter moorings were lost because of presumed mooring component defects. Of the three instruments recovered, one had not recorded any data because of a tape drive malfunction. Thus, data was only available for the

Table 2.2 Sediment samples (listed by field number) collected from across the beach and nearshore zones at King Point, Yukon Territory. The textural analyses of these samples are listed in Appendix 2.

Survey	Act	ive Beach	Shore		
Range	Berm	Mid-Swash	20 m#	50 m#	
Line					
(A)					
-375	11	10	50	71*	
-300	13	12	51	72*	
-200	15	14	52	73*	
-100	17	16	53	74*	
000	19	18	54	75*	
+100	21	20	. 55	76*	
+200	23	22	56	77*	
+300	25	24	57	78*	
+400	27	26	58	79*	
+500	29	28	59	80*	
+600	31	30	60	81*	
+800	33	32	61	82	
+1000	35	34	62	84*	
+1200	37	36	63	85*	
+1400	39	38	65	86*	
+1600	41	40	66	87*	
+1700	43	42	67	88*	
11700	7.5	·	٠.	-	

(B) Sediment samples collected from the mid-swash limit during the littoral environmental observations (LEO)

Sample Number	Time (GMT)	Date	
6	21:00	Sept. 1 Sept. 2 Sept. 3	
7	21:00	Sept. 2	
8	18:00	Sept. 3	

<sup>\*</sup> Indicates Sedigraph analysis of mud particle size distribution. # Distance (metres) from the shoreline at the time of the survey. The beach samples were collected by hand and the nearshore samples with a pipe dredge (Gillie, 1985a).

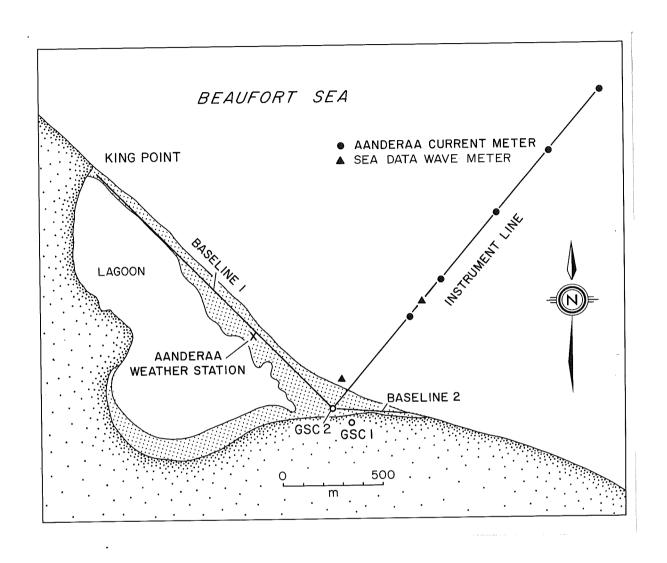


Figure 2.2 Location of weather station and oceanographic instruments established during the 1985 coastal field program at King Point.

two instruments at 5 m and 10 m water depths.

In order to record directional wave spectra and current velocities in the nearshore and offshore zones, two Sea data instruments were deployed during the field program (Gillie, 1985a). A Sea Data 621 directional wave/current meter was deployed approximately 20 m from shore in 2.7 m of water, and a Sea Data 635-12 directional wave/current meter was deployed an estimated 400 m offshore in 5.6 m of water.

#### 3.0 DATA REDUCTION AND PRELIMINARY INTERPRETATIONS

This section of the report describes the data reduction procedures used to analyse the field data, presents the results of data reduction, and provides a preliminary interpretation of the data with respect to data quality and significance.

#### 3.1 SITE MAP

Using field survey data, a site map was prepared of the King Point study area. The site map shows the location of survey control points, new benchmarks (GSC1,GSC2) established during the survey, the survey range lines, instrument locations and the lagoon shoreline (Fig. 2.1).

During the compilation of the site map the new benchmarks were plotted using field survey angles and the coordinates of boreholes provided by M.J. O'Connor and Assoc.(1986) (Table 3.1). This procedure was used despite the fact that a comparison of calculated angles between control stations with angles measured in the field indicated differences which were much greater than expected normal instrument errors. Possible causes of the differences included: incorrect field angle measurements, incorrect location of coring sites during the field survey or that incorrect northing and easting coordinates were provided for the control stations.

The shoreline at the landward side of the lagoon and tundra edge, were not surveyed in the field. They were obtained by enlarging a 1970 vertical air photo to the scale of the site map. The shoreline position of the barrier was determined using field distance measurements from the survey baseline.

#### 3.2 BEACH/BATHYMETRIC PROFILES

Seventeen range lines were surveyed across the King Point barrier beach. The lines, which were spaced 100 to 200 m apart, extended

Table 3.1. Geographic coordinates for the Borehole sites (O'Connor and Assoc., 1986) and new benchmarks established for the site survey of King Point.

Coring Site	Northing	<u>Easting</u>	
F85 - KM12	7668392	381750	
F85 - KM13	7668057	381221	
F85 - KM15	7668724	381530	
F85 - KM18	7667441	382097	
<u>Angle</u>	<u>Calculated</u>	Field Measurement	<u>Difference</u>
KM 15/13/12	32.798°	31.551°	1.247°
KM 12/13/18	67.460°	65.744°	1.716°
KM 15/13/18	100.258°	97.295°	2.963°
Computed B.M.	<u>Northing</u>	<u>Easting</u>	
GSC # 1	7667429	382397	
GSC # 2	7667504	382349	

NOTE: The geographic positions for new BM's (GSC #1 and GSC #2) were computed using coring site coordinates provided by O'Connor and Assoc. (1986) and field measured angles to the new benchmarks.

at right angles to the survey baseline (Fig. 2.1). The beach lines were extended seaward to depths of 7 to 8 m below mean sea level (MSL) and landward across the lagoon to the tundra edge with the use of a boat and echo sounder (Gillie, 1985a).

#### 3.2.1 Beach Profiles

Each of 17 range lines or beach profiles was only surveyed once but each line was comprised of several survey data sets which were completed at different times. The subaerial beach surveys consisted of an active beach portion and an inactive beach portion, which were tied together by a common distance and elevation survey point along each profile. In the office, the two data sets were first combined by referencing all distance and elevation data to the profile benchmark (B.M.) on the survey baseline. The profile B.M. was defined as 0.0 m and distances were designated as positive seaward and negative landward. For the purpose of simplified data reduction at this stage, all ground surface elevations were defined as 3.0 m at the location of the profile B.M.

The distance and elevation data points for each profile line were first reduced by hand on data sheets and then keyed into a DEC PDP11/34A computer. Correct data entry was verified by a visual check of a computer printout of the data. Next, corrections for relative height differences of survey line benchmarks and the height of the ground surface with respect to mean sea level were applied as indicated in Table 3.2. This included the correction for ground surface elevation which had initially been defined at 3.0 m. The corrections in column five of Table 3.2 were made to each computer profile to yield a distance and elevation data set referenced to mean sea level (Appendix 1).

#### 3.2.2 Bathymetric Profiles

Bathymetric data consisted of graphic recordings from a Raytheon DE-719B echo-sounder (Gillie, 1985a) with distance fix marks referenced to the survey baseline. Depths along the graphic recordings were digitized at a 10 m distance interval, except where depths changed abruptly, and a 2 or 5 m distance interval was utilized. The depths were digitized to a 0.1 m resolution. Surface wave effects were smoothed out when required. An attempt was made to use a 0.05 m depth resolution but this could not be achieved because of surface wave affects on the echo-sounder record.

All digitized bathymetric data were recorded on tables of distance and depth and then keyed into the computer as a separate lagoon and nearshore data set for each survey line. Data entry was verified by a visual check of the computer printout. Next, corrections were made to each data set. All lagoon distances were designated as negative since they were on the landward side of the survey baseline and all nearshore distances were positive.

The data was referenced to mean sea level using the tidal data collected by the Sea Data 635-12 wave gauge and the air pressure data collected by the Aanderaa weather station. The absolute mean pressure of the wave gauge (14.35 decibars) minus the mean atmospheric pressure (10.12 decibars) yields a relative mean pressure of 4.23 decibars which corresponds to a water depth of 4.23 m below sea level. Deviations from this water depth, due to tidal or other causes, were used to correct the sounding data. Corrections of 0.01 to 0.2 m were applied to a 0.1 m resolution. This was accomplished by adding these corrections to the echosounder data previously entered into the computer.

# 3.2.3 Survey Results and Preliminary Interpretation

The results of the beach and bathymetric surveys have been plotted as composite cross-sectional profiles and tables of distance and elevation data for each survey line (Appendix 1).

In general the data quality was excellent. Any differences between beach and nearshore profiles where the two sets of data overlaped or were in close proximity were due to the very steep nature of the profile at that point. Since the beach profile data were more accurate, they should be used wherever a significant difference exists between the data sets.

The barrier beach (Fig. 1.2) extended to elevations of 1.5 to 1.6 m above mean sea level. The active beach foreshore slope varied from 2° to 10°. The shoreface profile was steepest at the northwest end of the barrier and decreased slightly toward the southeastern end (Lines +200 to -375) of the barrier, where a well-defined break in slope at depths of 2.3 to 2.8 m occurred within 15 m to 20 m of the shoreline. The nearshore profiles landward of 4 to 5 m depths were generally smooth, whereas in deeper water, trench features, thought to be caused by grounding ice ridge keels, were observed (Appendix 1).

Lagoon water depths in the central portion were generally greater than 3.0 m and were a maximum of 3.6 m along survey line +1200. The lagoon bottom was relatively featureless. The bottom sloped very gradually from the landward side and very steeply along the back of the barrier beach (Appendix 1).

#### 3.3 SEDIMENT SAMPLE ANALYSIS

#### 3.3.1 Laboratory Sediment Analysis

Samples received from the field were checked off against a log sheet and sorted for processing. The field sample was homogenized in a bucket and the entire sample, if gravel, or a representative sub-sample, was then wet sieved through a 4.00 phi (63 micron)

Table 3.2 Corrections For Bench Mark Elevation Differences.

Survey Range	Height of B.M. Stake Above Local Ground Surface (m)	Differences in Height Of Top Of BM Relative To GSC # 2 BM (m)	Correction To Be Applied To Each Line To Relate All Elevations To Ground Surface at GSC # 2 (m)	Elevation Correction to Mean Sea Level* (m)
-375	0.59	-0.65	-1.24	-2.55
-300	0.68	0.27	-0.41	-1.72
-200	0.85	0.66	-0.19	-1.50
-100	0.98	0.79	-0.19	-1.50
000	0.24	0.00	-0.24	-1.55
100	0.62	0.27	-0.35	-1.66
200	09.0	0.10	-0.50	-1.81
300	0.63	-0.27	06.0-	-2.21
400	0.74	0.08	99.0-	-1.97
200	0.64	0.03	-0.61	-1.92
009	0.50	0.44	90.0-	-1.37
800	0.92	69.0	-0.23	-1.54
1,000	0.78	0.68	-0.10	-1.41
1,200	1.13	-0.10	-1.23	-2.54
1,400	0.83	0.48	-0.35	-1.66
1,600	0.79	0.34	-0.45	-1.76
1,700	0.89	80.0-	76.0-	-2.28

These elevation corrections include the correction for the ground surface elevation for each line being defined as 3.0 m during the initial data reduction. \*Note:

screen to separate the gravel/sand fraction from the mud fraction. The gravel/sand fraction was then dried at 60°C overnight in preparation for dry sieving. The mud sediment in the buckets was allowed to settle out after which the clean water was decanted off. The total mud content was then determined from the dry weight of the remaining sediment. If mud content exceeded 1 % of the total sample weight, a textural analysis was performed as described below.

Sieve analysis was performed on the dry gravel/sand fraction using a 0.5 phi sieve interval for the gravel fraction and a 0.25 phi sieve interval for the sand fraction. General procedures for sieve analysis followed those outlined in Folk (1974). The entire gravel and sand sample was sieved through a stack of sieves ranging from -5.0 to -1.0 phi. After sieving the gravel portion, the sand fraction was then split to obtain a 20 to 50 gram sub-sample for additional sieving through screens of -0.75 to +4.0 phi. The sand sample was sieved for 20 minutes. Any sediment passing the 4.00 phi sieve was collected in the pan and added to the total mud content. All weights were read on a balance to 0.001 grams and rounded off to 0.01 grams.

Mud size analysis was conducted with a Sedigraph at Simon Fraser University. Sample preparation included treatment with  $\rm H_2O_2$  to remove any fine organics, dispersion in a Calgon solution and sonification for two minutes. The graphic results of the Sedigraph analysis were digitized at 0.5 phi intervals over the range 4.0 to < 10.0 phi (Appendix 2).

# 3.3.2 Computer and Statistical Analysis

Raw sieve weights and percent mud size derived from the laboratory analyses were entered into files on the Dobrocky Seatech Ltd. DEC PDP 34/11A computer. To derive the total sample weight for each sieve interval all of the sieved sand sample weights were corrected for weight loss during sieving and the sand sub-sample split ratio. Statistical analysis was then conducted on the sediment particle Prior to the actual application of the size distribution data. statistical analysis program an intermediate data file was created to make the data suitable for statistical analysis. First, gravel sieve weights were interpolated to 0.25 phi intervals in order to be compatible with the sand sieve weights. Second, the mid-class point of each 0.25 phi sieve interval was designated as the The results of the statistical analysis for representative size. each sample are included in Appendix 2. Moment measures and common graphic statistics (Inman, 1952; Folk and Ward, 1957) were computed as well as percentages of gravel, sand and mud. Note that the results of the statistical analysis are in phi units.

For samples where the fine fraction from the Sedigraph analysis was included the statistical analysis was modified slightly from the normal procedure. Since the existing computer program could not

Table 3.3. Percent Gravel in sediment samples (listed by location of sample) collected from King Point, Yukon Territory.

Survey	Active	Beach	Nea	rshore
Range	Berm	Mid-Swash	20 m#	50 m#
-375	100	82	0	4
-300	70	92	0	15
-200	54	78	0	1
-100	100	99	0	0
+000	73	100	19	0
+100	88	100	0	0
+200	88	84	1	1
+300	96	80	0	1
+400	78	57	0	9
+500	97	63	0	0
+600	75	85	3	4
+800	90	84	0	99
+1000	91	24	0	28
+1200	91	85	0	1
+1400	100	87	0	0
+1600	85	99	0	1
+1700	99	99	0	0

<sup>#</sup> distance from the shoreline at the time of the survey.

Table 3.4 Percent Sand in sediment samples (listed by sample location) collected from King Point, Yukon Territory.

Survey	Active	Beach	Nearsho	
Range Line	Berm	Mid-Swash	20 m#	50 m#
<del>-</del> 375	0	18	99	40
-300	31	8	99	56
-200	46	23	99	94
-100	0	1	99	95
+000	27	0	81	84
+100	12	0	99	97
+200	12	16	98	98
+300	5	20	99	96
+400	22	43	99	90
+500	3	37	100	98
+600	25	15	97	95
+800	10	16	99	1
+1000	9	76	99	71
+1200	9	15	99	98
+1400	0	13	99	98
+1600	15	9	99	97
+1700	1	1	99	98

<sup>#</sup> Distance from the shoreline at the time of the survey.

Table 3.5. Percent Mud analysed in the sediment samples collected from the shoreface of King Point (Listed by sample location). The active beach samples contained little or no mud content.

Survey	Nearshore			
Range Line	20 m#	50 m#		
<del>-375</del>	1	56		
-300	1	29		
-200	1	6		
-100	1	5		
+000	1	16		
+100	1	3		
+200	1	2		
+300	1	3		
+400	1	2		
+500	0	2		
+600	0	1		
+800	1	0		
+1000	1	1		
+1200	1	1		
+1400	1	2		
+1600	1	2		
+1700	1	2		

<sup>#</sup> Distance offshore at the time of the survey.

accommodate 0.25 phi sand fraction sieve data when the fine fraction was added, the raw sand sieve weights were combined into a 0.5 phi interval prior to statistical analyses. The results of the statistical analysis using a 0.5 phi interval for the sand is provided as a separate tabulation (Appendix 2).

# 3.3.3 Results of Statistical Analyses

A total of 76 samples were collected (Table 2.2) but only 71 were analysed for sediment texture. Sediment samples 1 through 5 collected at the Aanderaa current meters were not included in the tabulated data and are only described by Gillie (1985a, Appendix 4a). A summary of the percent content of gravel, sand and mud in each sample is presented respectively in Tables 3.3, 3.4 and 3.5.

On the basis of the textural analysis, the active beach berm and mid-swash samples consisted of gravel with a minor fraction of sand and essentially no mud. The mean size (moment measure) of the berm samples varied from -4.48 to -1.94 phi and the swash samples varied from -4.14 to -0.20 phi (Appendix 2). Conversely, the nearshore samples consisted of sand with a minor gravel fraction. The mean size of the sediment collected 20 m from shore varied from 0.7 to 2.1 phi and the sediment sampled at a distance of 50 m was slightly finer with mean grain sizes varying from 0.4 to 4.0 phi. The mud content was about 1% for samples at 20 m from the beach and 1% to 3% for samples taken at 50 m from the beach. An exception was the samples collected from the southeast portion of the study area where mud percentages varied between 5% and 56%. The best sorted of all samples were those collected from 20 m offshore.

Sediment samples were collected during the Littoral Environment Observations (LEO) on September 1,2,3, 1985. The results of the seive analysis showed that sediment size increased and sorting decreased between September 1st and the 3rd (Table 2.2; Appendix 2). The mean clast size increased from -0.25 phi to -1.98 phi and the percent gravel increased from 3.2% to 90.5%.

# 3.3.4 Sediment Transport Trends

A review of the sediment particle size analysis was made using the method of McLaren and Bowles (1985) in order to determine if directions of sediment transport could be derived from the particle size distributions. This work was subcontracted to GeoSea Consulting and their report is attached as Appendix 3.

The following conclusions about trends in sediment transport were made by GeoSea Consulting following their analysis of the sediment data. (i) Beach Berm Samples: No transport trends could be derived. This was accounted for by the reasoning that berm deposits are formed in a beach environment that enables sediment in transport to be completely deposited. As a result, a sequence of berm samples was not expected to show a transport direction.

- (ii) <u>Mid-Swash Samples</u>: The trends for these samples showed a significant southeast fining transport direction.
- (iii) <u>Shoreface Samples (20 m from shore</u>): Changes in particle size distributions showed good evidence for sediment transport in the northwest direction, parallel to the shore.
- (iv) Shoreface Samples (50 m from shore): As for the samples at 20 m, this sequence showed a strong transport direction to the northwest.

In summary, the mid-swash samples indicated transport in a southeast direction while the sediment samples collected at 20 m and 50 m offshore suggested transport in a northwest direction.

#### 3.4 AANDERAA WEATHER STATION

An Aanderaa weather station was deployed near the middle of the barrier beach (Fig. 2.1) for the period 26 August to 14 September, 1985. Wind speed, wind direction and air pressure sensors were mounted on a mast at 10 m above the ground or 12 m above sea level. The data sample interval was 15 minutes. Wind speed was recorded as a time-integrated average over 15 minutes while the wind direction and air pressure were instantaneous readings taken at the end of each sample interval. Further details of the instrument function and field deployment were presented by Gillie (1985a).

The field data tape recovered from the instrument recorder was read in the office and examined for the actual number of records on tape versus the expected number, as well as for any other data quality indicators (for example, instrument reference number). These checks indicated correct recorder function and each record was assigned a local time based upon the field log sheets. The three channels of digital data were then calibrated to derive wind speed (m/s), wind direction (degrees true north) and air pressure (millibars). The data results are plotted in Appendix 4. Comparison of the data with visual observations and estimates of wind speed and direction made in the field confirmed the accuracy of the instument data. The only instrument malfunction occurred on 8 September when the pressure sensor did not respond to a rapidly falling pressure and became "stuck" at 987 mb for about 6 hours.

The mean air pressure over the deployment period was approximately 1010 to 1015 mb which was typical for this coastal area in September (Fisheries and Oceans Canada, 1982). The extreme pressures recorded ranged from 1033 to below 987 mb. Winds reached maximum velocities of 15-20 m/s during the monitoring program. The strongest winds blew from the south and southwest on two occasions. Onshore winds were strongest during 3, 4, 5 September when north-northwest (330 degrees true) winds blew at 10-12 m/s. Maximum onshore winds of 10-15 m/s blew from the northwest during 15 September after the station had been dismantled (Table 2.1).

During this storm an estimated storm surge of 0.8 m occurred with waves of estimated 1.5 m height. The beach was submerged to a height of the first major log debris line (Morgan, 1986). The storm lasted 5 hours. There were also a number of northeast to southeast wind events of limited duration and strength. For example, northwest winds of 5-7 m/s followed two of the southwest storm events on the 8 and 14 September. No strong winds blew from the north or northeast which were the directions of maximum fetch.

Northwest and southeast wind directions produced higher wave energy conditions and because of the low oblique angle of wave approach to the shore significant longshore currents were also generated (see Section 3.6). Swell waves were also experienced on occasion at the site. For example, swell waves of 5 second period and wave height of 0.4 to 0.8 m approached the shore from the northeast on 2 September (Gillie, 1985a, Appendix 6).

# 3.5 AANDERAA CURRENT METERS

Near-bottom currents were measured in a line offshore of King Point with five Aanderaa current meters (Fig. 2.1). Currents were also measured by the Sea data 621 and 635-12 instruments (see section 3.6). Only the Aanderra current meters at 5, 10 and 15 m were recovered but the tape drive had malfunctioned on the 15 m deep current meter which had been dragged 300 m from its original deployment site. The other two current meters were coated with mud suggesting that they had contacted the seabed at a severe angle of inclination from the vertical (Gillie, 1985a). The recovered data tapes were processed at the Bedford Institute of Oceanography. Although the data contained many inconsistencies, they are provided The data consist of time series plots of current in Appendix 5. speed, direction and water temperature for the period 30 August to Note that the time scale is GMT which is 6 6 September, 1985. hours later than local time (Mountain Daylight Time). Also note that the current speed and water temperature scales are different for each instrument plot.

A preliminary examination of the data indicated that there were apparent features of the current direction plots which may be related to tides or inertial currents. These features occurred as reversing and rotary current direction patterns of approximately 12 hours period. The current direction for the meter at 5 m depth also showed unidirectional currents for two periods. On September 2 and 3, current direction was generally to the west and on September 4 and 5, it was generally to the northeast. These directions were possibly in response to the wind and wave conditions which occurred over the same two periods. However current velocity did not appear to be related to wind or wave events. The current velocities were 0.05 to 0.15 m/s with occasionally higher bursts of 0.20 to 0.30 m/s currents. In summary, although some near-bottom current data were obtained,

they should be used with extreme caution because of the problems with instrument moorings.

# 3.6 SEA DATA DIRECTIONAL WAVE/CURRENT METERS

In order to record directional wave spectra and current velocities in the nearshore zone, two Sea Data instruments were deployed during the study. A Sea Data 621 was deployed in 2.7 m of water approximately 20 m from the shoreline and a Sea Data 635-12 was deployed in 5.6 m of water aproximately 400 m from the shore (Fig. 2.2).

#### 3.6.1. Sea Data 621 Current Data

The instrument was deployed from 28 August to 14 September 1985. It was set to record data at a 0.5 second rate for 1,024 seconds every three hours. The instrument was equipped with a pressure sensor, electromagnetic current meter and a compass. In the field, prior to deployment and immediately after deployment, zero current speed calibrations were conducted and recorded on tape. During the deployment, periodic observations and measurements were made of wave height and period, and current speed and direction over the instrument (Gillie, 1985a-LEO's). These field measurements were used to verify the working condition of the instrument.

Initial data reduction consisted of reading the field cassette tape and transferring the data to nine track tape. The nine track tape Various statistics were also was then read and calibrated. calculated for each channel of data to indicate mean and anomalous values. When the data were examined in detail it was observed that 40-50 % of the pressure data were bad and these values were discarded. Therefore, the wave characteristics at this site could not be determined. However a later spectral density analysis of the current meter velocity components showed that the some of the highest densities corresponded very well with the LEO observations. (See p.2-4 in Pinchin and Nairn, 1987, for more details about the followup analyses). In this report only the current data from the instrument have been analysed. In general, the current meter data were excellent with less than 5% "spikey" data. Data spikes took the form of individually bad data points which on average occurred Therefore, the data could be easily once every 20 data points. despiked by removing all data points which exhibited a change in of more than +/- three standard deviations between consecutive data points. After the data were despiked, the zero current speed offsets were applied. Based upon an average of preand post-deployment measurements, the offsets were determined to be + 0.7 cm/s for the north component and -2.1 cm/s for the east component.

The results of the data reduction are contained in Appendix 6 as time series plots and tables. In the tabulated data, the time of each recording (record number 1, 2, 3,..., 148, 149, 150) is shown

as 8 minutes after each 3 hour recording period of approximately 17 minutes (1024 seconds). In this respect, 8 minutes represents the mid-point of the data averaged over the sample duration. The first pertinent value is record number 9 at 21:08 on 28 August; the last is record number 144 at 18:08 on 14 September.

In columns 2 and 4 (respectively, the North Mean and East Mean) the convention for direction is for currents directed to the major compass points (N,S,E,W) to have the following signs:

North/South +/East/West +/-

The current speed and direction in columns 6 and 7 are the vector resultant of the data in columns 2 and 4. Current direction is referenced to true north. Compass direction (column 8) is with respect to true north. The variation in the compass reading between about 282° and 286° is due to the compass bit resolution of 1.4° and slight drift in this value about the mean of 284°.

From the data it can be seen that significant fluctuations in current speed and direction occurred over short periods. When wind and wave energy conditions were low, current speeds were less than 5 cm/s. For higher energy wind and wave events current speeds increased to maximum velocities of 35 cm/s on 4 September. This period corresponded to the only major storm event from the northwest monitored during the study. There was another event on 15 September but the instruments had been taken out of the water. At other times, short duration (12 hour) northwest and southeast wind and wave events produced current speeds of 10 to 20 cm/s. Current directions for the higher energy events were directed toward either 120° - 130° or 300° - 320°. These two directions represented currents to the southeast or northwest parallel to the shore as would be expected from the corresponding winds and waves.

#### 3.6.2 Sea Data 635-12 Wave Data

The Sea Data 635-12 instrument was deployed in 5.6 m of water approximately 400 m from shore (Fig. 2.2, Table 2.1). instrument was set to record data at a 0.5 second rate for 1024 In addition, a sampling interval of 15 seconds every 3 hours. minutes was also set up for tides. The instrument was equipped with a pressure sensor, electromagnetic current meter, compass and temperature sensor. However when the instrument was recovered its tripod frame had fallen over with the current meter sensor lying near the seabed. It was also found that the data were collected for only 256 seconds every 3 hours rather than the intended 1024 It is not known when the tripod fell over. This may be seconds. the main reason for the problems with the wave directional data (Pinchin and Nairn, 1987). Wave periods do however appear to have been measured accurately. The data records suggested that the instrument was stable in attitude and orientation until

September but this could not be confirmed.

Initial data reduction consisted of reading the field cassette tape and transferring the data to nine track tape. The nine track tape was then read and calibrated. Routine statistical analysis of the various channels of data indicated that mean and standard deviation values were representative of the values to be expected. Only one of the approximately 100 wave recordings had "spikey" data. The correction of the total pressure signal (atmosphere and water) consisted of first subtracting the mean atmospheric pressure of 10.12 decibars to yield a mean water pressure of approximately 4.23 decibars. This refers to the depth of the pressure sensor. The water depth was 5.6 m and the sensor was 1.47 m above the seabed (Gillie, 1985, Appendix 8).

Since the pressure sensor measured the changing wave-induced pressure beneath waves and since wave pressure fluctuations decrease with increasing depth below the surface and decreasing wave period, a correction was applied to account for the signal attenuation. A standard procedure for the analysis of pressure data is the computation of the pressure spectrum at the sensor depth and the correction to provide the surface spectrum for wave height. In this procedure the corrections applied are different for each attenuation bandwidth because of the coefficient dependence on wave period or length. Because of the low mean tidal range of 0.2 to 0.5 m at the study site, constant bottom depth and sensor depth values were used to compute shallow water wavelengths.

The surface wave height spectral analyses were then used to derive standard wave characteristics such as the significant wave height, the peak period and wave height exceedance data. The results of the analysis of wave height data are presented in Appendix 6.2. The wave directional data have been suggested by Pinchin and Nairn (1987) to be incorrect and could not be used in sediment transport models.

#### 3.7 SUSPENDED SEDIMENT TRANSPORT

A total of 16 suspended sediment samples were collected during four occasions in this study (Table 3.7). All of the sediment sampled was fine sand or finer (minor amounts of silt and clay were present). Details about the sample analysis are contained in the earlier report by Gillie (1985a). Suspended sediment concentrations ranged from less than 0.03 g for background conditions up to a maximum measured value of 0.13 g/L taken under moderate wave energy conditions (Table 3.6). However, the sampling equipment had not been deployed during the major storm which occurred earlier in the study period (September 4-5). Based upon other recent studies of suspended sediment (Gillie, 1984, 1985b), and the higher energy conditions on September 4-5, it is likely that suspended sediment concentrations may have reached over 0.5 g/L at the sampling height of 20 cm.

Table 3.6 Suspended Sediment Samples collected at the Sea Data 621 current meter moored in 2.7 m water depth, King Point, Yukon Territory.

Sample Id.	Date (Sept)	Time (MDT)	Sample Height (cm)	Concentration (g/L)	Longshore Current (cm/s)
1	8	22:00	50	0.10	_
2	9	00:01	50	0.09	17
3	9	00:04	50	0.06	17
4	9	00:06	50	0.05	17
5	9	00:08	50	0.05	17
6	10	15:06	50		****
				0.003	-
7	10	15:10	50		****
8	14	09:04	20	0.06	7
9	14	09.06	20	0.08	7
10	14	09:08	20	0.04	7
11	14	09:10	20	0.13	7
12	14	09:12	20	0.05	7
13	14	09:14	20	0.04	7
14	14	09:16	20	0.07	7
15	14	09:18	20	0.07	7
16	14	09:20	20	0.12	7

### NOTE:

- 1. All samples were 7 litres.
- 2. Sampling durations varied from 33 to 43 seconds.
- 3. Sample delay between hose intake and outlet was approximately 60 seconds.

It is possible to combine the quantities of suspended sediment and longshore current velocities measured concurrently at the Sea Data 621 current meter site to derive estimates of the transport of suspended sediment for the prevailing conditions. For example, using a suspended sediment concentration of 0.1 g/L and a current speed of 10 cm/s, which are representative values from Table 3.6, for a unit volume of water 1 m3 above the seabed there is a computed flux of suspended sediment of 36 kg/hr or 864 kg/day. These estimates are in dry weight of sand. For the purpose of conversion, 1,000 kg of dry sand is equivalent to  $0.64~\text{m}^3$  of deposited sand volume. This assumes a density of 2.6 g/cm $^3$  for the sand and a deposited sand porosity of 40 %. Therefore 864 kg would convert to 0.55 m3. Under higher energy conditions, when suspended sediment concentration may reach 0.5 g/L with current speeds of 40 cm/s, then suspended sediment transport rates of 17,280 kg/day or 11.05 m³/day could occur.

The rates of transport calculated above are for a unit volume of the seabed only. If the rates applied to a 50 m wide portion of the nearshore zone, then the total would be increased by 50 times. Computation of the total suspended sediment transport for an open water season would depend upon the number of days with certain rates of suspended sediment transport. Only then, would it be possible to derive a gross estimate of the percentage of suspended sediment transport as a percentage of the total longshore sediment transport. However, the field measurements presented above give some indication of the absolute magnitude for the given conditions.

#### 4.0 POST-MORTEM

During the short field season of 1985 a very detailed plan map and cross-sectional profile of the King Point coastal segment was completed. The data will serve as a reference for understanding future changes to this coastal feature. Unfortunately, profiles were only completed once at each range line so there is no information about beach response to the oceanographic conditions that were monitored. Furthermore, the absence of sequential profiles prevented the comparison of a profile adjustment model (Pinchin and Nairn, 1987) and its calibration against wave conditions.

A very detailed suite of sediment samples was collected from the seaward side of the barrier and parts of the nearshore. An analysis of the textural characteristics of each sample provided an indication of sediment transport directions. The lower beach samples suggested that there was a fining to the southeast and the samples from the shoreface suggested sediment transport in a northwest direction (McLaren and Bowles, Appendix 3-this report). Unfortunately, the sampling did not include the surf zone where most of the sediment transport would be expected to occur.

According to Pinchin and Nairn (1987) the waves recorded would have had a significant breaker depth of only 0.6 m but the innermost oceanographic instrument was at 2.6 m. Therefore the instruments were deployed in water too deep to measure the longshore and offshore variations in the currents produced by the observed waves. There were also major problems with the stability of the oceanographic instruments because of the type of moorings and seaice interaction.

Although one of the major objectives was to provide field data which could be used to calibrate numerical models of sediment transport, problems arose when Pinchin and Nairn (1987) tried to match the predicted alongshore currents to the measured alongshore currents. Pinchin and Nairn (1987) contended that a major cause of the problem was the site of the instrument deployment. The instruments were placed in a straight line offshore of a strongly curved section of beach instead of at the straighter mid-portion of the King Point barrier.

The weather data and the littoral environmental observations proved to be very useful in determining the working condition of the oceanographic instruments and in the later wave hindcast project. The main value of the weather data was to point out differences with other nearby, longer meteorological data sets which would normally be used in wave hindcasting.

Although the field program provided little data for the testing of numerical models for coastal sediment transport in the Beaufort Sea, the survey data have been used in some later reports to determine the evolution of the barrier at King Point (Hill, 1990). The lessons learned during the program were also helpful in a subsequent sediment transport study at Tibjak Beach (Héquette et al. 1990).

5.0 REFERENCES

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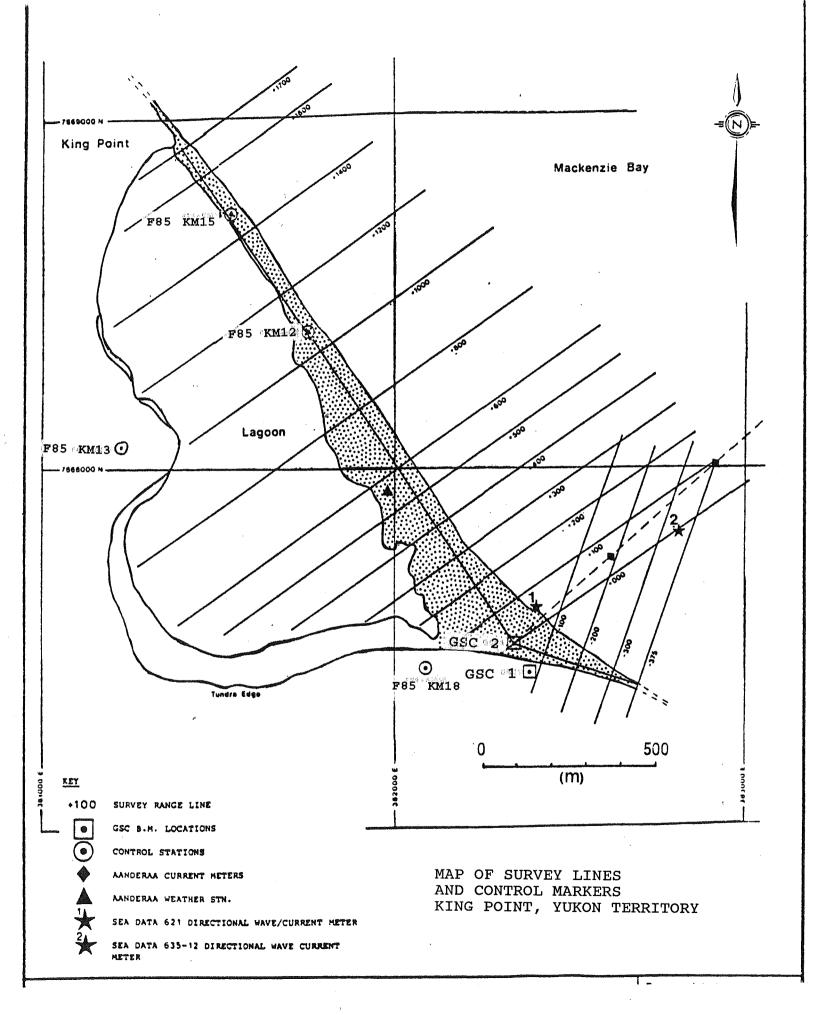
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# DATA APPENDICES

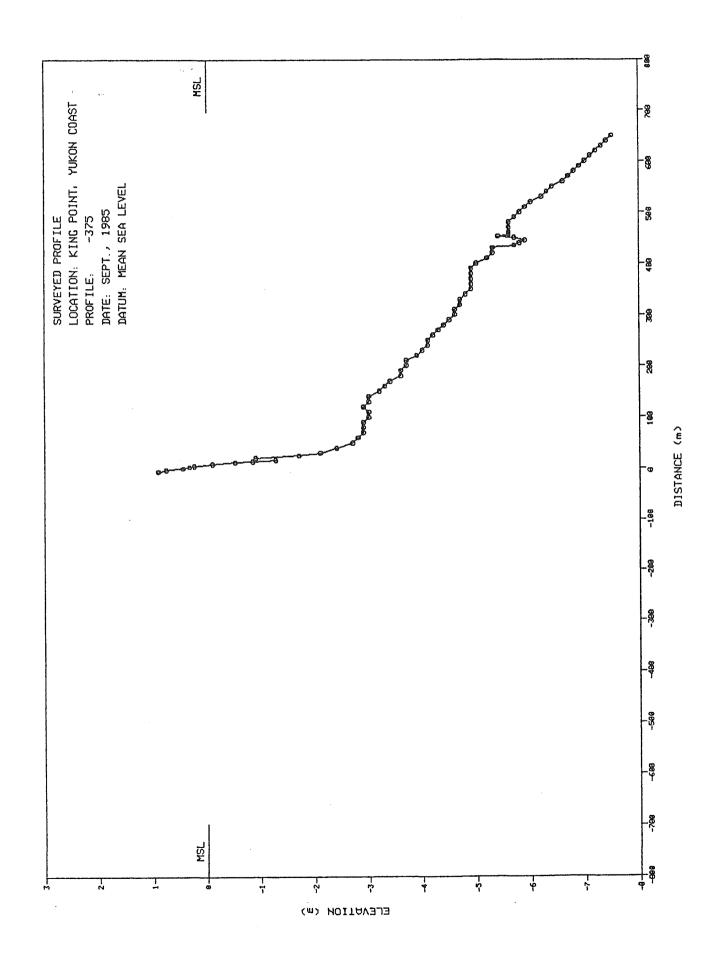
# SURVEY DATA **AND CROSS-SECTIONAL PROFILES** OF KING POINT COASTAL BARRIER



-375

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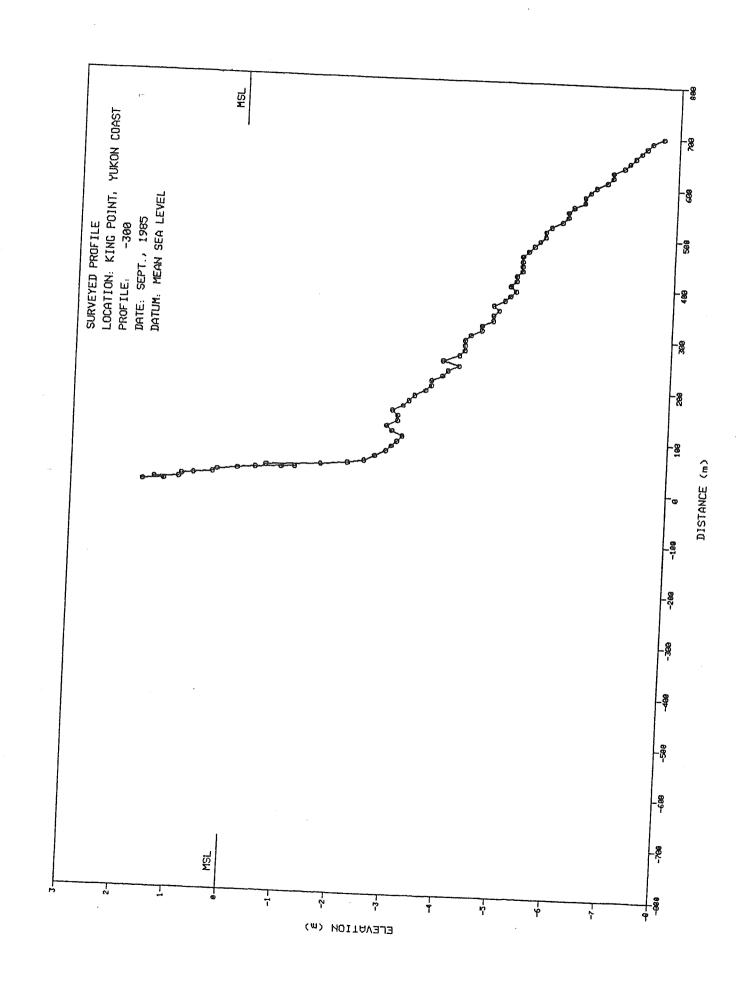
NEARSHORE		BE	BEACH		LAGOON	
DISTANCE	ELEVATION	DISTANCE	ELEVATION	DISTANCE	ELEVATION	
00000000000000000000000000000000000000	00000000000000000000000000000000000000	16.30 11.80 8.60 4.40 2.70 0.60 -6.90	-1.855 -0.104 -0.234 -0.345 -0.91			
25.00 20.00	-1.70 -0.90					



LOCATION: KING POINT, YUKON COAST PROFILE: -300 DATE: SEPT., 1985 VERTICAL DATUM: MEAN SEA LEVEL HORIZONTAL DATUM: BASELINE AT

-300

NEARSHORE		BE	BEACH		LAGOON	
DISTANCE	ELEVATION	DISTANCE	ELEVATION	DISTANCE	ELEVATION	
00000000000000000000000000000000000000	00000000000000000000000000000000000000	31.540 31.540 31.540 31.540 31.540 31.570 31.5500 31.5500 31.5500 31.5500 31.5500 31.5500 31.5500	-1.13 -0.841 -0.038 -0.338 -0.95 1.468 1.67			

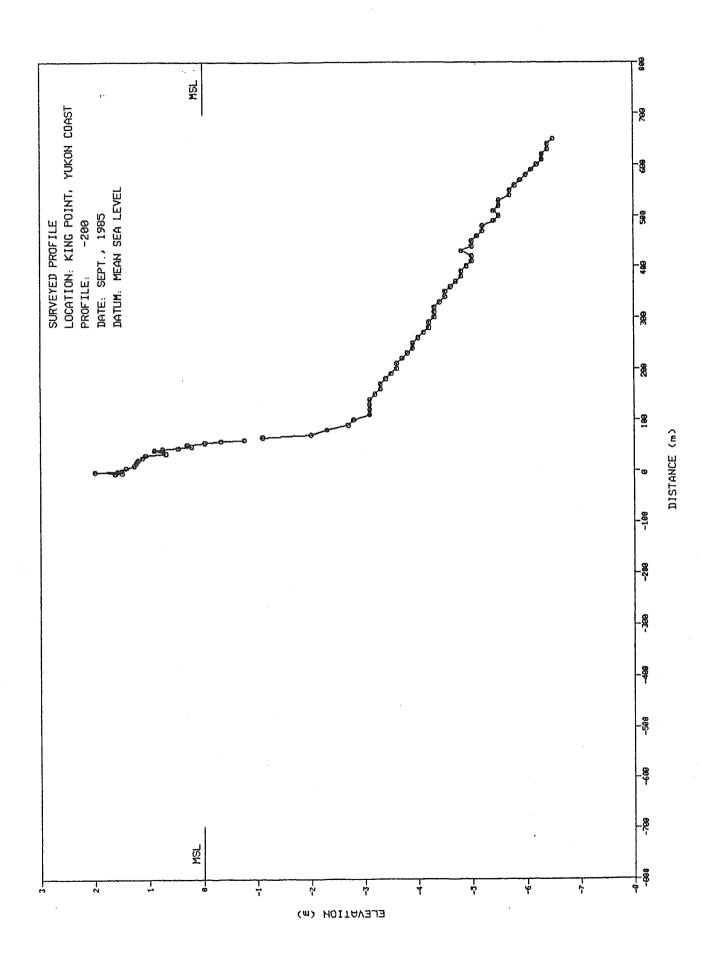


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-200

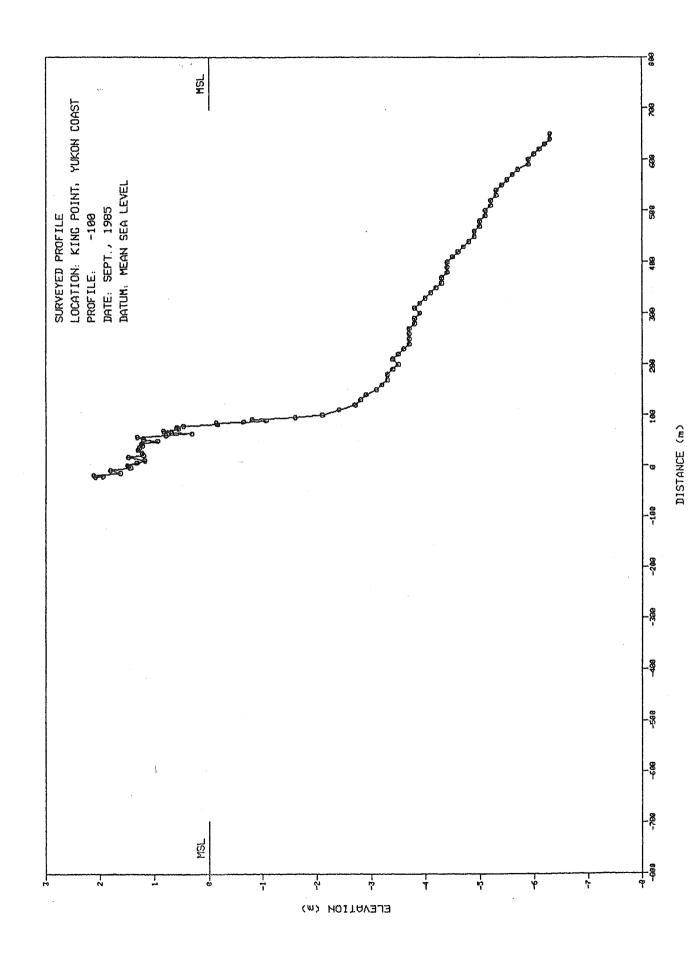
NEARSHORE	BEACH	LAGOON

DISTANCE	ELEVATION	DISTANCE	ELEVATION	DISTANCE	ELEVATION
00000000000000000000000000000000000000	00000000000000000000000000000000000000	60.10 57.70 54.60 50.90 48.10 44.50 39.50 30.00 10.00 10.00 -3.50 -6.60	-0.33 -0.32		



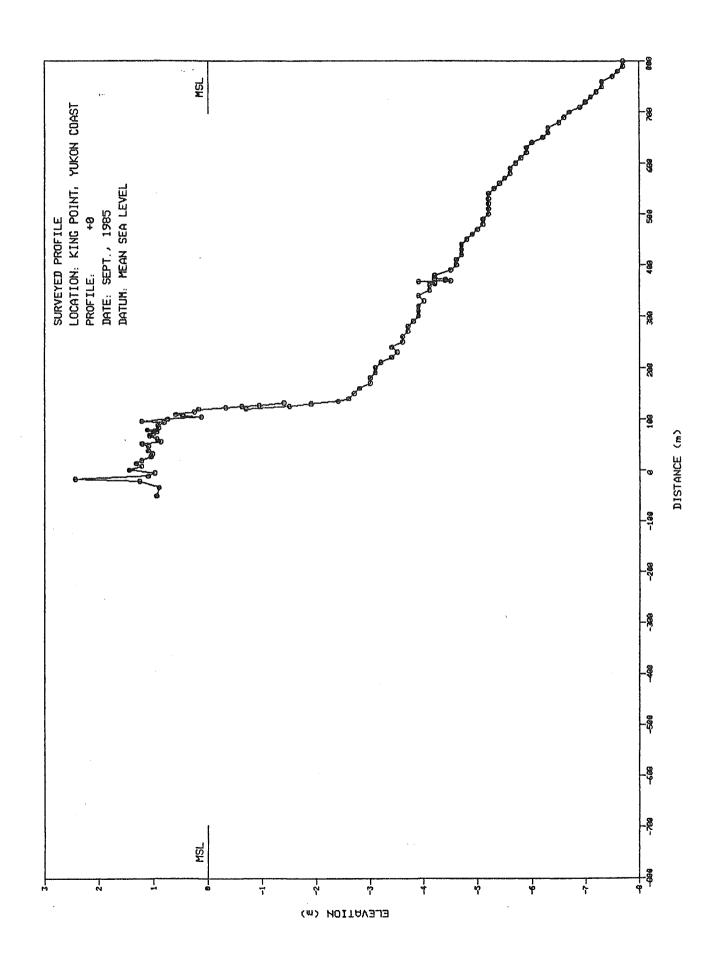
LOCATION: KING POINT, YUKON COAST PROFILE: -100 DATE: SEPT., 1985 VERTICAL DATUM: MEAN SEA LEVEL HORIZONTAL DATUM: BASELINE AT -100

NEARSHORE		BE	BEACH		LAGOON	
DISTANCE	ELEVATION	DISTANCE	ELEVATION	DISTANCE	ELEVATION	
00000000000000000000000000000000000000	00000000000000000000000000000000000000	89.20 84.40 75.80 81.30 71.80 642.40 75.80 669.40 6	-1.0644964992920542813088130413548900 -00000000110111111111111111111111111			



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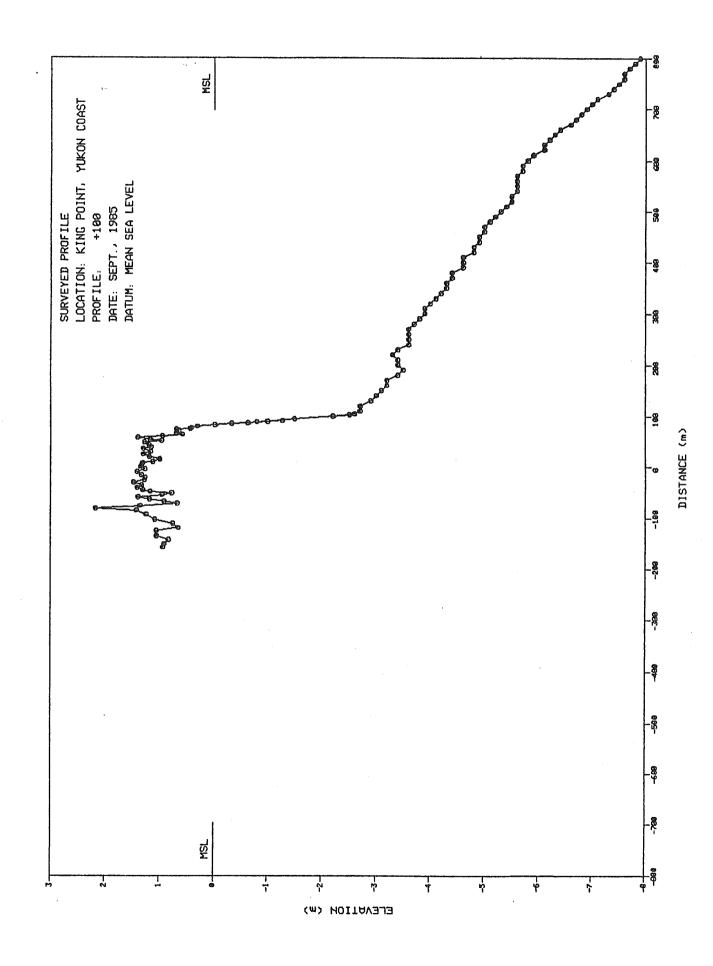
NEARSHORE		BEACH		LAGOON	
DISTANCE	ELEVATION	DISTANCE	ELEVATION	DISTANCE	ELEVATION
00000000000000000000000000000000000000	00000000000000000000000000000000000000	131.50 126.550 127.50 1127.50 1138.900 1108.900	-1.40 -0.633 -0.1259 -		



LOCATION: KING POINT, YUKON COAST PROFILE: +100 DATE: SEPT., 1985 VERTICAL DATUM: MEAN SEA LEVEL HORIZONTAL DATUM: BASELINE AT +100

> NEARSHORE BEACH LAGOON

NEARSHORE		BE	BEACH		LAGOON	
DISTANCE	ELEVATION	DISTANCE	ELEVATION	DISTANCE	ELEVATION	
00000000000000000000000000000000000000	00000000000000000000000000000000000000	91.70 91	84433013848749667959698920246036772107759817572485555313 			



LOCATION: KING POINT, YUKON COAST PROFILE: +200 DATE: SEPT., 1985
VERTICAL DATUM: MEAN SEA LEVEL

LAGOON

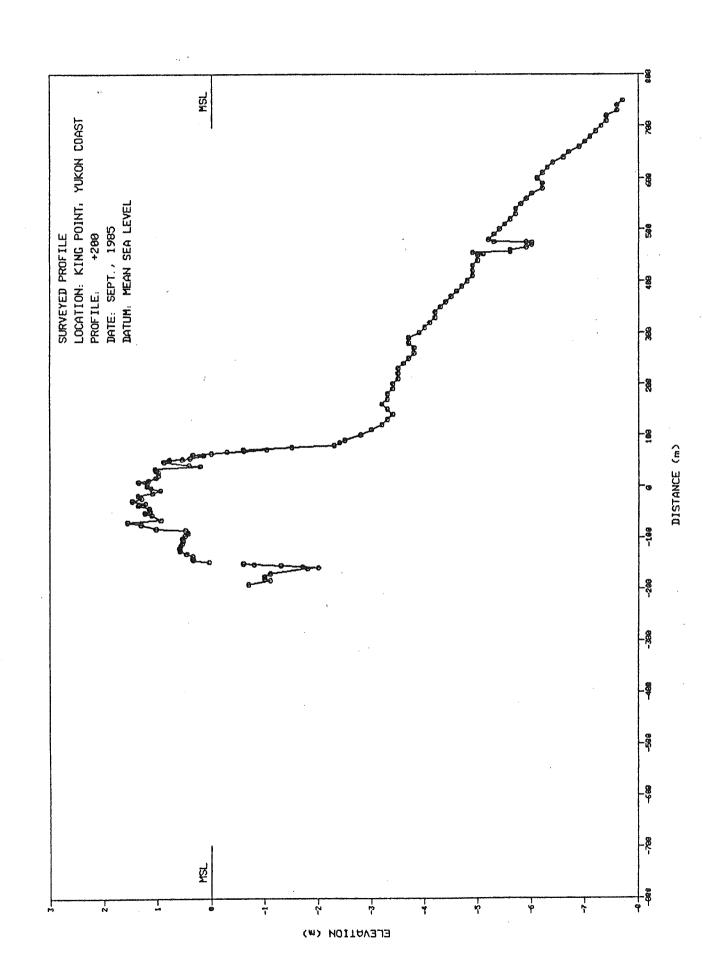
DISTANCE

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ELEVATION

-0.60 -0.80 -1.70 -2.00 -1.80 -1.10 -1.00 -1.70

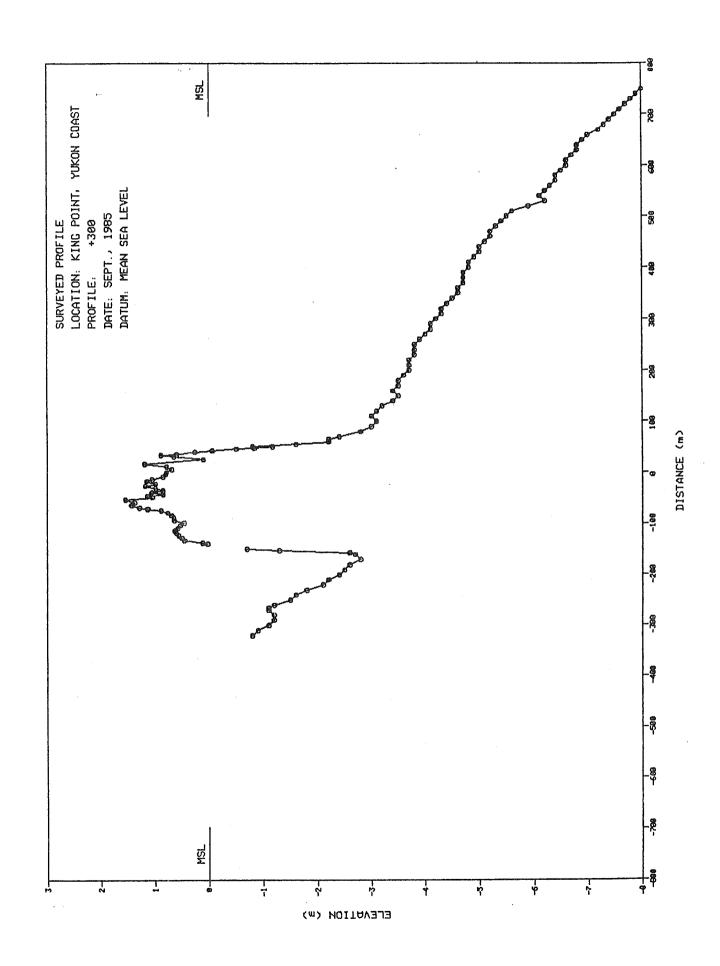
VERTICAL DATUM: MEAN SEA LEVEL HORIZONTAL DATUM: BASELINE AT +200					
NEARS	SHORE	BEA	АСН		
DISTANCE	ELEVATION	DISTANCE	ELEVATION		
00000000000000000000000000000000000000	00000000000000000000000000000000000000	70.00 66.60 67.50 66.70	31905504888214288265992496972553303602839479865544 		



LOCATION: KING POINT, YUKON COAST PROFILE: +300 DATE: SEPT., 1985 VERTICAL DATUM: MEAN SEA LEVEL HORIZONTAL DATUM: BASELINE AT +300

### MEADGHUDE

NEARSHORE		BEACH		LAGOON	
DISTANCE	ELEVATION.	DISTANCE	ELEVATION	DISTANCE	ELEVATION
00000000000000000000000000000000000000	00000000000000000000000000000000000000	50.400 476.4500 50.400 476.4500 50.5000 50.5000 50.5000 50.5000 60.50000 60.5000 60	10.00000000000000000000000000000000000	-150.00 -157.00 -160.00 -170.00 -190.00 -210.00 -220.00 -230.00 -240.00 -250.00 -250.00 -265.00 -280.00 -390.00 -311.00	-0.3600 -1.36700 -1.36.5400 -1.36.5400 -1.36.5000 -1.36



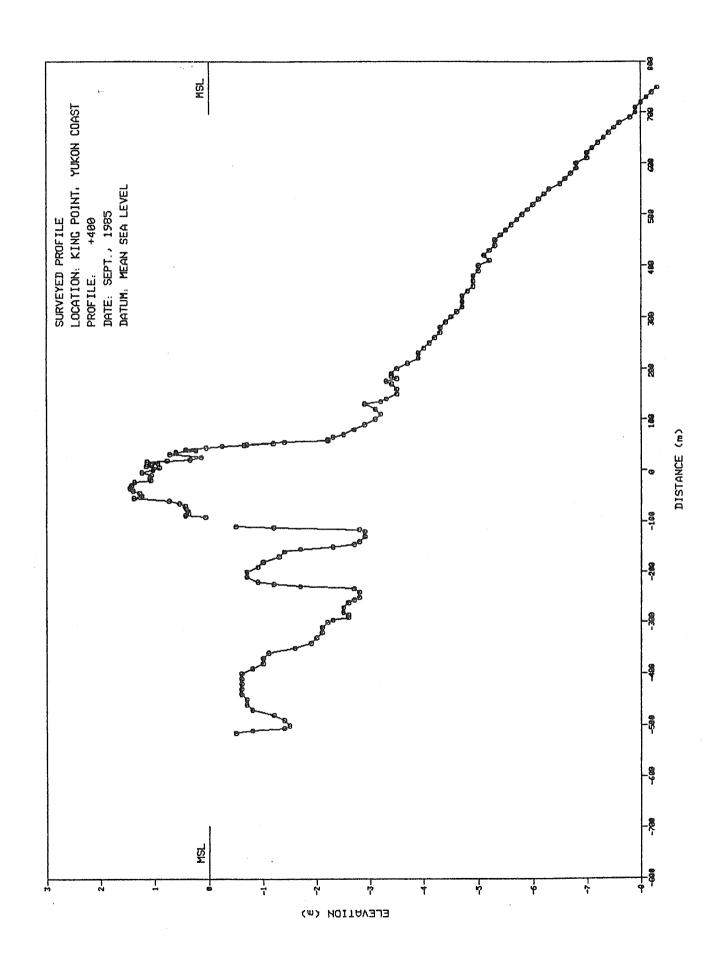
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-3.500 -3.500 -3.500 -3.000 -3

170.00 160.00 150.00 140.00 135.00 130.00 120.00 110.00 90.00 90.00 70.00 65.00 58.00 55.00

NEARSHORE	BEACH	LAGOON

NEARSHORE		BEACH		LAGUUN	
DISTANCE	ELEVATION	DISTANCE	ELEVATION	DISTANCE	ELEVATION
77430.0000000000000000000000000000000000	00000000000000000000000000000000000000	52.80 48.90 46.90 46.90 47.70 33.00 30.00 30.00 16.10 6.10 6.10 6.10 6.10 6.10 6.10	-1.624 -0.195445 -0.4245 -0.4245 -0.195445 -0.195445 -0.195445 -0.195445 -0.195445 -0.195446 -0.195446 -0.195446 -0.195446 -0.195446 -0.195446 -0.195446 -0.195446 -0.195446 -0.195446 -0.19546	-112.000 -112.000 -112.000 -112.000 -112.000 -1145.000 -1145.000 -1145.000 -1155.000 -1156.000 -	0.1.899000000000000000000000000000000000



LOCATION: KING POINT, YUKON COAST PROFILE: +500 DATE: SEPT., 1985 VERTICAL DATUM: MEAN SEA LEVEL HORIZONTAL DATUM: BASELINE AT

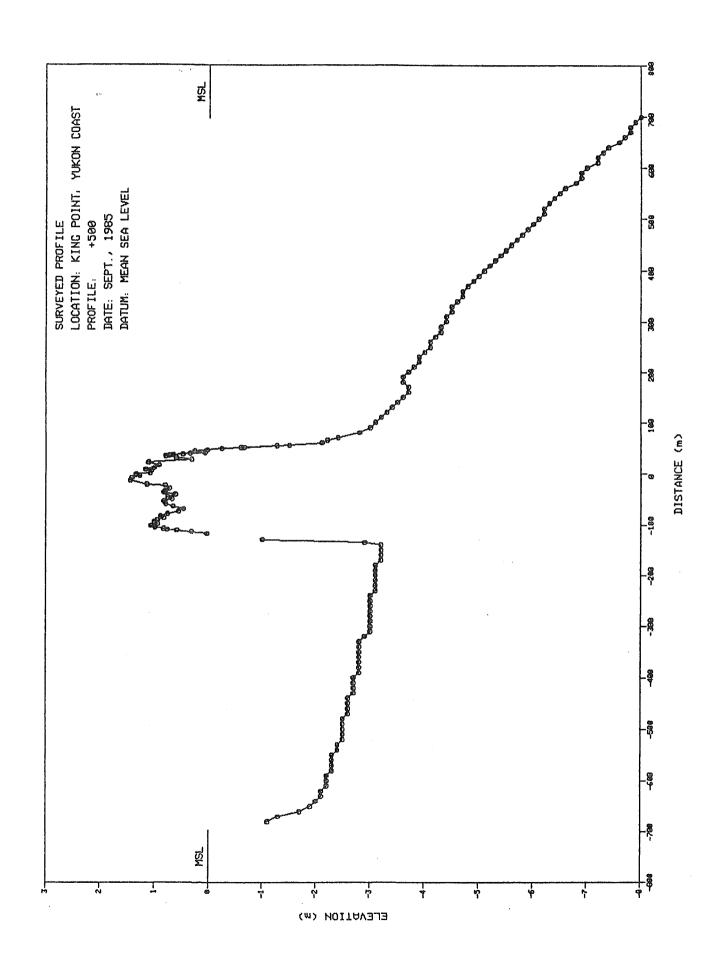
+500

#### NEARSHORE

#### BEACH

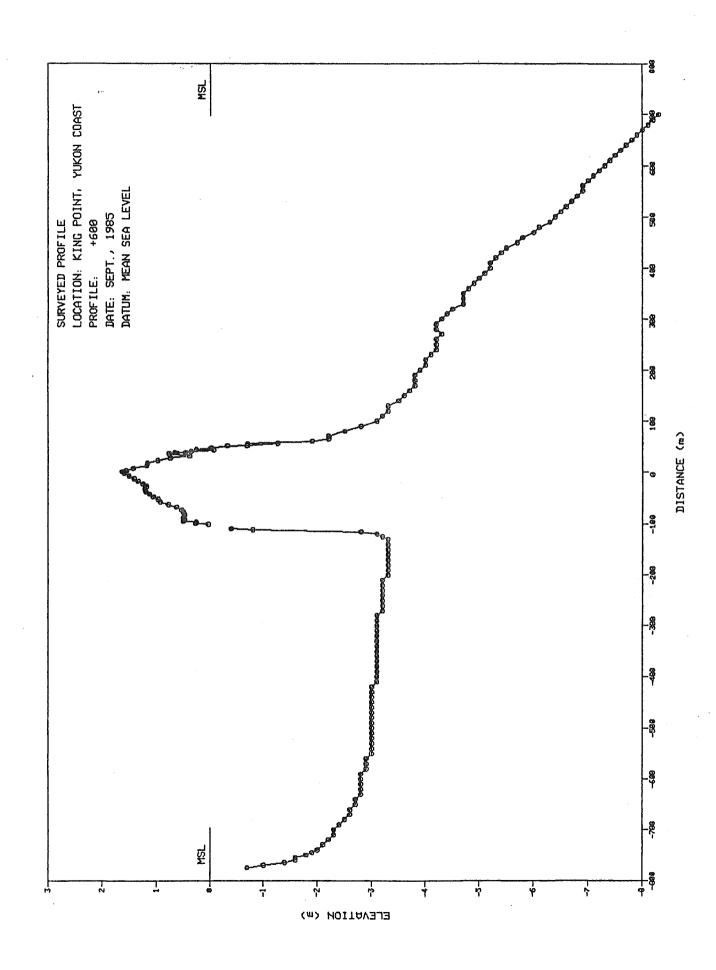
### LAGOON

DISTANCE	ELEVATION	DISTANCE	ELEVATION	DISTANCE	ELEVATION
00000000000000000000000000000000000000	00000000000000000000000000000000000000	36000000000000000000000000000000000000	7543675863002121668472541313268306766935056937923 	-135.00 -135.00 -135.00 -135.00 -135.00 -135.00 -136.0	00000000000000000000000000000000000000



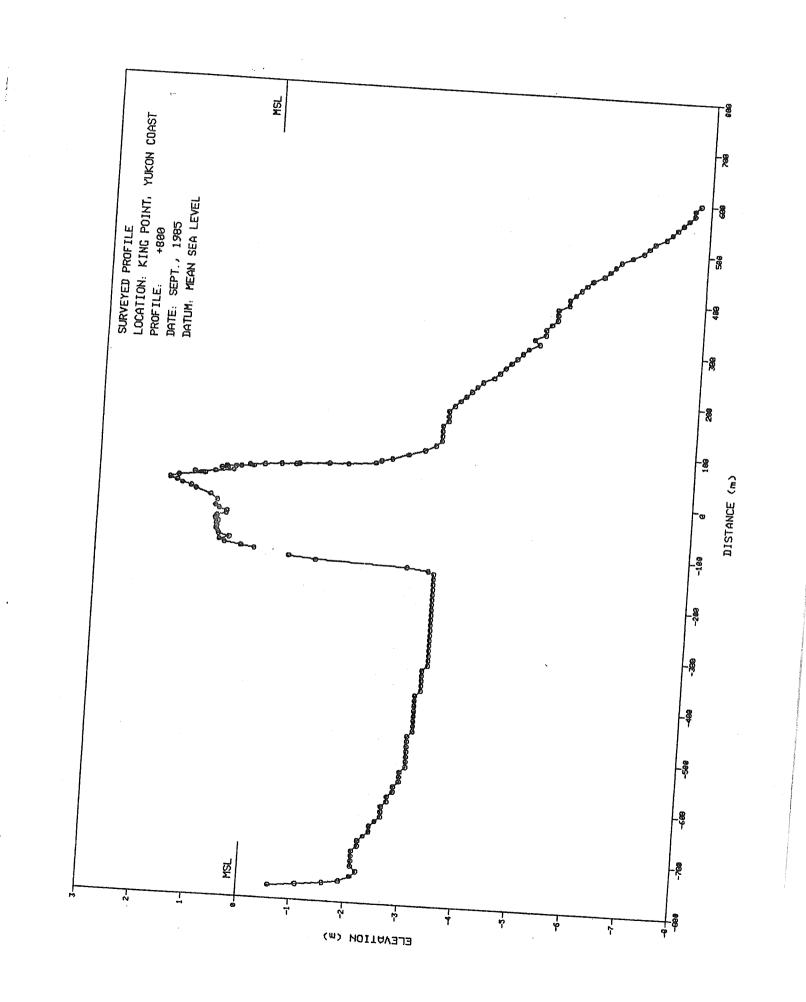
LOCATION: KING POINT, YUKON COAST PROFILE: +600 DATE: SEPT., 1985 VERTICAL DATUM: MEAN SEA LEVEL HORIZONTAL DATUM: BASELINE AT +600

NEARSHORE		BE	<b>АСН</b>	LAC	300N
DISTANCE	ELEVATION	DISTANCE	ELEVATION	DISTANCE	ELEVATION
00000000000000000000000000000000000000	00000000000000000000000000000000000000	849000000000000000000000000000000000000	26922676669794878363012445820367383407080673 10000000000011111111111111111000000000	00000000000000000000000000000000000000	00000000000000000000000000000000000000



LOCATION: KING POINT, YUKON COAST PROFILE: +800 DATE: SEPT., 1985 VERTICAL DATUM: MEAN SEA LEVEL HORIZONTAL DATUM: BASELINE AT +800

NEARSHORE		BE	ACH	LAC	300N
DISTANCE	ELEVATION	DISTANCE	ELEVATION	DISTANCE	ELEVATION
000 000 000 000 000 000 000 000 000 00	00000000000000000000000000000000000000	54.00 48.90 47.70 44.80 42.60 37.20 37	100.000.000000000000000000000000000000	-130.000 -145.000 -145.000 -145.000 -180.000 -18	00000000000000000000000000000000000000



LOCATION: KING POINT, YUKON COAST

+1000 PROFILE: DATE: SI SEPT., 1985

55.00

50.00 47.00

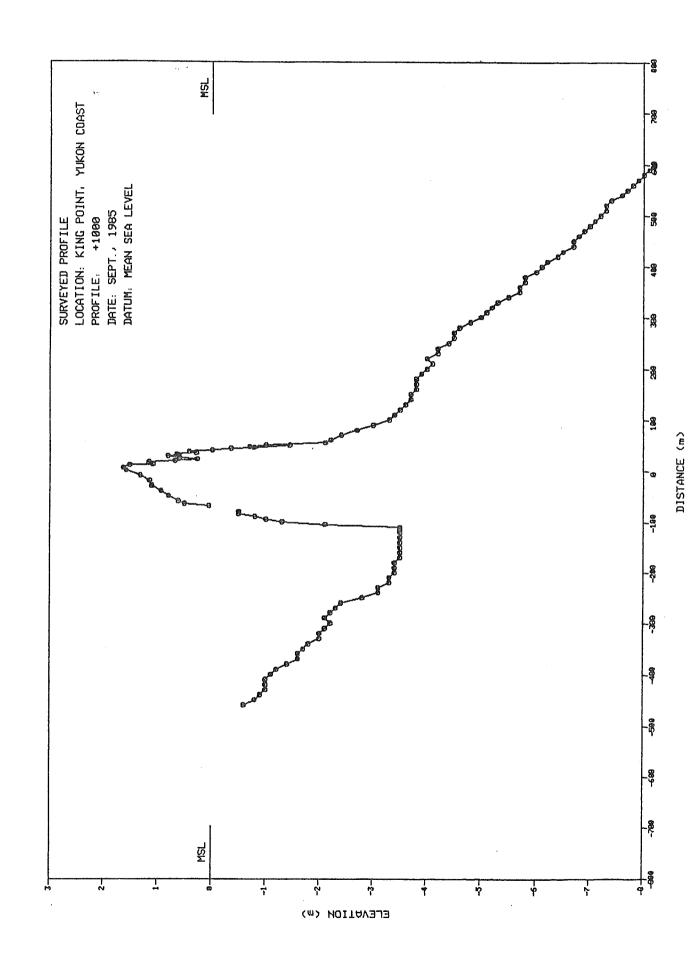
-2.10-1.00

-0.70

8

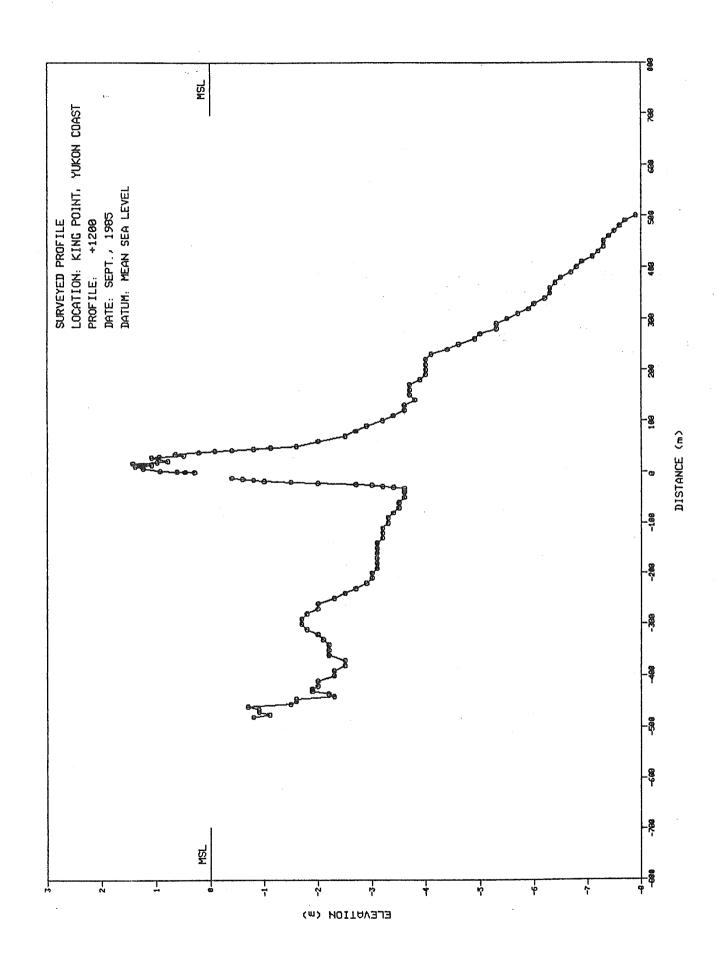
VERTICAL DATÚM: MEAN SEA LEVEL HORIZONTAL DATÚM: BASELINE AT +1000

#### BEACH LAGOON NEARSHORE DISTANCE DISTANCE ELEVATION DISTANCE ELEVATION ELEVATION -0.50 -0.50 -1.44 -0.78 -0.36 -0.01 -80.00 -85.00 -90.00 50.00 45.60 43.90 600.00 -8.20 -8.10 -0.80 580.00 -8.00 -1.00 570.00 -7.90 40.20 -95.00 -7.80 -7.70 -7.60 37.10 34.00 -1.30 -2.100.42 -100.00 560.00 550.00 -105.0031.60 0.65 -110.00-3.50540.00 -3.50 530.00 -7.40 30.00 0.62 -115.00-7.40 -7.30 -7.20 -7.10 -7.00 28.20 24.90 22.10 19.20 -120.00 -130.00 -3.50 -3.50 0.81 520.00 510.00 0.60 -3.50 -3.50 -3.50 0.27 -140.00 -150.00 500.00 0.68 490.00 -160.00 -170.00 -180.00 -190.00 -200.00 -210.00 15.90 11.60 1.16 480.00 -3.50470.00 10.40 5.00 0.00 -10.00 -3.40 -3.40 1.52 1.64 1.59 1.32 460.00 -6.80 -6.70 -6.70 -6.50 450.00 -3.40 -3.30 -3.30 -3.10 440.00 -220.00 -230.00 -6.40 -6.20 -6.10 -6.00 -20.00 -30.00 -40.00 1.15 420.00 410.00 1.11 -3.10 -2.80 -2.40 -2.30 -240.00 -250.00 0.94 400.00 390.00 -50.00 0.80 -5.80 -5.80 -5.70 -5.70 -260.00 -270.00 -60.00 -64.70 0.62 380.00 370.00 -2.20 -2.10 -2.20 -2.10 -280.00 -290.00 0.05 360.00 -68.60 350.00 -5.50 -5.30 -300.00 -310.00 340.00 330.00 -5.20 -5.10 -5.00 -4.80 -2.00 -320.00 320.00 -2.00 -330.00 310.00 -340.00 -350.00 -1.80 300.00 -1.70-4.60 -4.50 -4.50 -4.40 -1.60 280.00 270.00 -360.00 -1.60-370.00 -380.0ŏ -1.40 260.00 -1.20 250.00 -390.00-400.00 -410.00 -1.10-4.20 -4.20 240.00 -1.00230.00 220.00 -420.00 -1.00-4.00 -1.00-430.00 -4.10 -4.00 -3.90 -3.80 200.00 -440.00 -450.00 -0.90-0.80 -0.60 -460.00 180.00 -3.80 -3.80 -3.70 170.00 160.00 150.00 140.00 -3.70 -3.60 -3.50 -3.40 120.00 110.00 -3.30 -3.00 -2.70 -2.40 100.00 90.00 80.00 70.00 -2.2060.00



LOCATION: KING POINT, YUKON COAST PROFILE: +1200 DATE: SEPT., 1985 VERTICAL DATUM: MEAN SEA LEVEL HORIZONTAL DATUM: BASELINE AT +: +1200

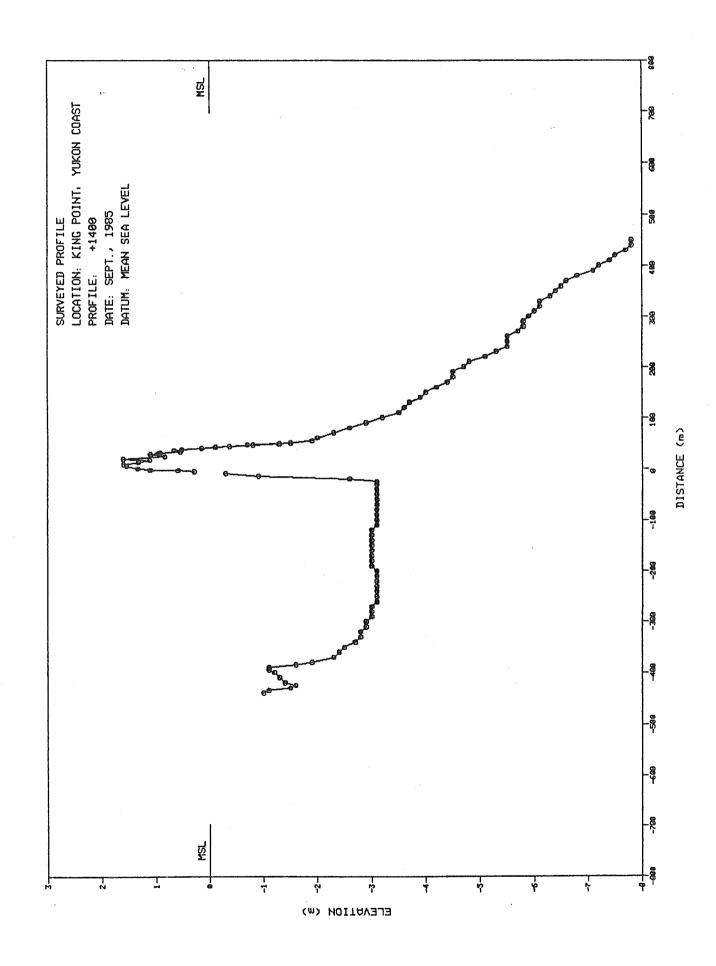
NEARSHORE		BE	<b>асн</b>	LA	GOON
DISTANCE	ELEVATION	DISTANCE	ELEVATION	DISTANCE	ELEVATION
00000000000000000000000000000000000000	97000000000000000000000000000000000000	47.40 42.40 41.20 38.50 32.400 38.400 16.900 14.400 16.700 0.100	1.409 1.409 1.409 1.409 1.649	-116.00000000000000000000000000000000000	00000000000000000000000000000000000000



LOCATION: KING POINT, YUKON COAST PROFILE: +1400 DATE: SEPT., 1985 VERTICAL DATUM: MEAN SEA LEVEL HORIZONTAL DATUM: BASELINE AT +:

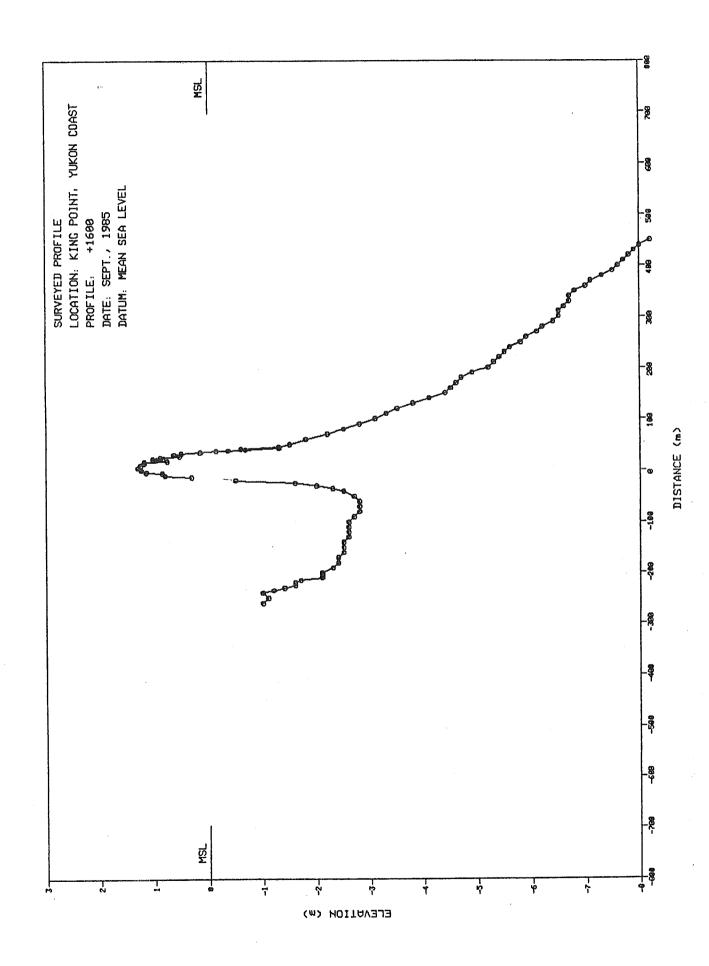
NEARSHORE BEACH LAGOO
( ) Prof ( ( ) And ( )

DISTANCE	ELEVATION	DISTANCE	ELEVATION	DISTANCE	ELEVATION
450.000 4400.000 4100.00	00000000000000000000000000000000000000	48.90 46.30 49.80 39.80 37.30 35.10 33.40 30.80 30.00 23.50 19.00 16.70 13.00 -4.00 -6.10	-1.29 -0.31152752611411529 -0.567526114113005341199	-10.00 -15.00 -15.00 -15.00 -15.00 -15.00 -15.00 -15.00 -15.00 -15.00 -15.00 -16.00 -1	00000000000000000000000000000000000000



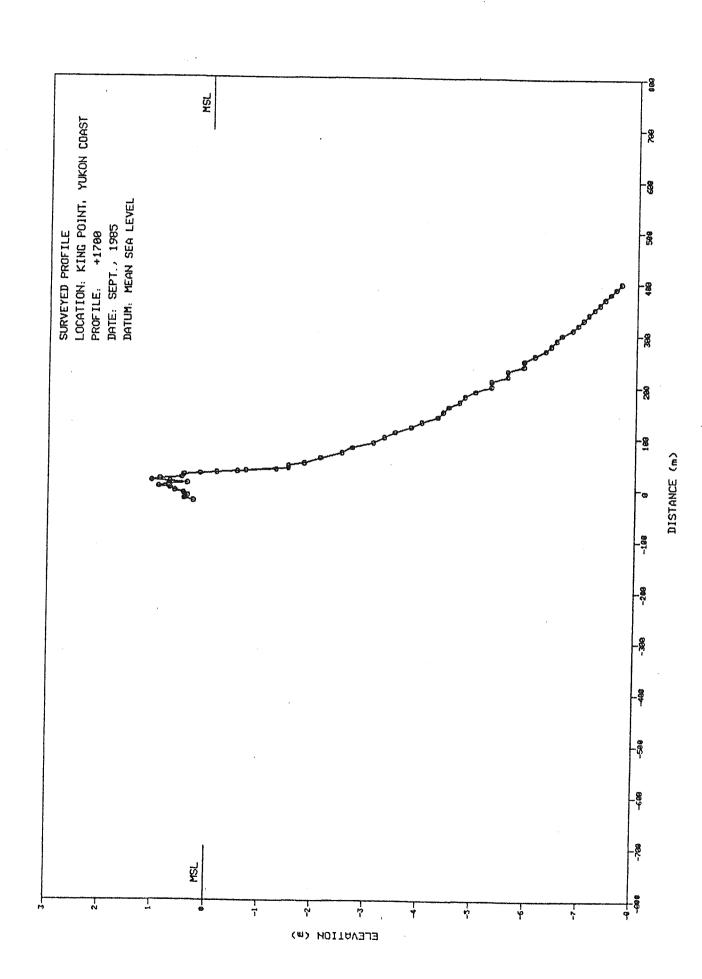
LOCATION: KING POINT, YUKON COAST PROFILE: +1600 DATE: SEPT., 1985 VERTICAL DATUM: MEAN SEA LEVEL HORIZONTAL DATUM: BASELINE AT +: +1600

NEARSHORE		BE	ACH	LAG	300N
DISTANCE	ELEVATION	DISTANCE	ELEVATION	DISTANCE	ELEVATION
450.000 420.0000 420.0000 420.000 420.000 420.000 420.000 420.000 420.000 420.0000 420.000 420.000 420.000 420.000 420.000 420.000 420.0000 420.000 420.000 420.000 420.000 420.000 420.000 420.0000 420.000 420.000 420.000 420.000 420.000 420.000 420.0000 420.000 420.000 420.000 420.000 420.000 420.000 420.0000 420.000 420.000 420.000 420.000 420.000 420.000 420.0	00000000000000000000000000000000000000	43.40 39.80 37.10 34.10 30.00 24.50 21.400 116.30 110.00 -4.50 -6.40 -13.90	-1.30 -0.365 -0.151 -0.56449436658943550455502	-20.00 -25.00 -30.00 -30.00 -30.00 -50.00 -60.00 -70.00 -100.00 -110.00 -110.00 -110.00 -110.00 -110.00 -120.00 -120.00 -205.00 -225.00 -225.00 -225.00 -225.00 -225.00 -225.00 -225.00 -2260.00 -250.00 -250.00	00000000000000000000000000000000000000



LOCATION: KING POINT, YUKON COAST PROFILE: +1700 DATE: SEPT., 1985 VERTICAL DATUM: MEAN SEA LEVEL HORIZONTAL DATUM: BASELINE AT +: +1700

NEARSHORE		BE	ACH	LAC	ноом
DISTANCE	ELEVATION	DISTANCE	ELEVATION	DISTANCE	ELEVATION
400.000 390.0000 390.000 390.000 390.000 390.000 390.000 390.000 390.0000 390.000 390.000 390.000 390.000 390.000 390.000 390.0000 390.000 390.000 390.000 390.000 390.000 390.000 390.00000 390.0000 390.0000 390.0000 390.0000 390.0000 390.0000 390.0000 390.0000 390.0000 390.0000 390.0000 390.0000 390.0000 390.0000 390.0000 390.0000 390.0000 390.0000 390.00000 390.00000 390.0000 390.0000 390.0000 390.00000 390.0000 390.0000 390.0000 390.0000 390.0000 390.0000 390.0000 390.00000 39	7.600 -7.540 -7.7.100 -7.7.100 -7.7.100 -7.7.100 -6.5540 -6.5540 -6.5540 -6.55540 -6.5555 -5.5544 -4.300 -6.550 -6.555 -5.5544 -4.300 -6.550 -6.500 -6.500 -6.500 -6.500 -6.500 -	37.40 33.00 31.10 28.70 26.10 20.70 18.00 12.30 6.60 3.10 -10.00 -15.00 -15.00 -24.70	-1.27 -0.156 -0.166 -0.459 -0.459 -0.459 -0.459 -0.479 -0.479 -0.479 -0.479 -0.479 -0.479 -0.479 -0.479 -0.479 -0.479 -0.479		



# SEDIMENT TEXTURAL ANALYSIS DATA

#### REFERENCE FOR SAMPLE NUMBERS

Beach Location	Sample Numbers
Beach Foreshore Mid-Swash Berm	6 - 43 6 - 42 (even numbers) 11 - 43 (odd numbers)
Shoreface 20 m from shore 50 m from shore	50 - 88 50 -67 71 - 88

# 2.1 SEDIMENT TEXTURAL ANALYSES (EXCLUDING MUD CONTENT)

SAMPLE ID 6 LEO

TOTAL SAMPLE WEIGHT 362.86 grans SUB-SAMPLE SPLIT WEIGHT 25.08 grans

SIZE FRA	CTION	UE IGHT	IN GRAMS	UE IGHT	PERCENT	COARSE SHELL	NACRO-ORGANICS
nn	phi	uncor.		cor.	cunn.	(grans)	(grans)
	F 66		۸ ۸۸	0.00	0.00		
32.0	-5.00	0.00	0.00		0.00		
22.6	-4.50	0.00	0.00	00.0			
16.0	-4.00	0.00	0.00	0.00	0.00		
11.3	-3.50	0.00	0.00	0.00	0.00		
00.8	-3.00	0.00	0.00	0.00	0.00		
5.66	-2.50	1.07	1.07	0.29	0.29		
4.00	-2.00	0.88	0.88	0.24			
2.83	-1.50	3.31	3.31	0.91	1.45		
2.00	-1.00	6.63	6.63	1.83	3.28		
1.68	-0.75	0.70	9.79	2.70	5.98		
1.41	-0.50	1.96	27.42	7.56	19.53		
1.19	-0.25	4.04	56.52	15 <i>.</i> 58			
1.00	0.00	6.58	92.05	25.37	54.48		
0.84	0.25	7.41	103.66	28.57			
0.71	0.50	3.50	48 .96	13.49	96.54		
0.59	0.75	0.52	7.27	2.00	98.54		
0.50	1.00	0.14	1.96	0.54	99.08		
0.42	1.25	0.07	0.98	0.27	99.35		
0.35	1.50	0.07	0.98	0.27			
0.30	1.75	0.04	0.56	0.15	99.78		
0.25	2.00	0.02	0.28	0.08	<b>99.8</b> 5		
0.210	2.25	0.01	0.14	0.04			
0.177	2.50	0.01	0.14	0.04			
0.149	2.75	0.01	0.14	0.04			
0.125	3.00	0.00	0.00	00.0			
0.105	3.25	0.00	00.0	0.00			
0.088	3.50	0.00	0.00	0.00			
0.074	3.7Š	0.00	00.00	00.00			
0.0625	4.00	00.0	0.00	0.00			
<0.0625	Pan	0.00	0.11	ěõ. õ			
		0.11	~ * * * *	4440	244 244		
Net sier	ea nan	4.11					
	TOTAL		362.86	100.00			

STATISTIC	MIENT	IHNAH	FOLK-HARD
Nean Deviation Skeuness Kurtosis Nedian Skeuness2	-0 .253 0 .554 -1 .363 8 .033	-0.310 0.410 -0.012 1.154 -0.305 -0.847	-0.308 0.473 -0.202 1.200
Percent Gravel Percent Sand Percent Mud	3.28 96.69 0.03		

SAMPLE ID 7 LEO

TOTAL SAMPLE WEIGHT 658.84 grams SUB-SAMPLE SPLIT WEIGHT 24.63 grams

SIZE FRA		NE 16HT	IN GRAMS		PERCENT	COARSE SHELL	MACRO-ORGANICS
m	phi	uncor.	cor.	cor.	cunn.	(grans)	(grans)
		4 44		0.00	0.00		
32.0	-5.00	0.00	00.0	0.00			
22.6	-4.50	0.00	0.00	0.00	00.0		
16.0	-4.00	0.00	0.00	0.00	00.00		
11.3	-3.50	0.00	0.00	0.00	0.00		
00.8	-3.00	0.00	0.00	0.00	0.00		
5.66	-2.50	0.00	0.00	0.00	0.00		
4.00	-2.00	0.00	0.00	0.00	0.00		
2.83	-1.50	0.00	0.00	0.00	0.00		
2.00	-1.00	34.64	34.64	5.26	5.26		
1.68	-0.75	7.05	178.85	27.15	32.40		
1.41	-0.50	9.93	251.92	38.24			
1.19	-0.25	6.51	165.15	25.07	95.71		
1.00	0.00	1.02	25.88	3.93	99.64		
0.84	0.25	0.08	2.03	0.31	99.94		
0.71	0.50	0.01	0.25	0.04			
0.59	0.75	0.00	0.00	0.00	99.98		
0.50	1.00	0.00	00.0	00.0	99.98		
0.42	1.25	0.00	00.0	0.00	99.98		
0.35	1.50	0.00	0.00	0.00	99.98		
0.30	1.75	0.00	0.00	0.00	99.98	•	
0.25	2.00	0.00	0.00	00.0	99.98		
0.210	2.25	0.00	00.0	0.00	99.98		
0.177	2.50	0.00	0.00	0.00			
0.149	2.75	0.00	0.00	0.00			
0.125	3.00	0.00	0.00	0.00			
0.105	3.25	0.00	00.0	0.00			
0.103	3.50	0.00	0.00	0.00			
0.074	3.75	0.00	00.0	0.00			
	4.00	0.00	0.00	0.00			
0.0625 <0.0625	Pan	0.00	0.12	0.02			
		0.12	A . TC	~	244 1144		
llet sie	שאר שטע	21.12					
	TOTAL		658.84	100.00			

STATISTIC	NONENT	INNON	FOLK-WARD
Mean Deviation Skeuness Kurtosis Median Skeuness2	-0.929 0.325 0.534 2.416	-1.057 0.597 0.386 0.276 -1.265 0.469	-1.127 0.476 0.375 0.675
Percent Gravel Percent Sand Percent Hud	5.26 94.72 0.02		

SAMPLE ID 8 LEO

TOTAL SAMPLE WEIGHT 721.79 grams SUB-SAMPLE SPLIT WEIGHT 33.61 grams

SIZE FRA	CTION	UE IGHT	in grans	UE TGHT	PERCENT	COARSE SHELL	MACRO-ORGANICS
titt	phi	uncor.	cor .	cor .	cunn.	(grans)	(grans)
			0.00	0.00	0.00		
32.0	-5.00	0.00	0.00	0.00	0.00		
22.6	-4.50	0.00	0.00	0.00			
16.0	-4.00	0.00	00.00	0.00	0.00		
11.3	-3.50	0.00	0.00	0.00	0.00		
8.00	-3 .00	0.00	00.0	0.00	0.00		
5.66	-2.50	18.81	18.81	2.61	2.61		
4.00	-2.00	181.03	181.03	25.08			
2.83	-1.50	288.54	288.54	39.98			
2.00	-1.00	164.93	164.93	22.85			
1.68	-0.75	18.92	38 <i>.</i> 52	5.34			
1.41	-0.50	9.88	20.12	2.79	98.64		
1.19	-0.25	3.72	7.57	1.05	99.69		
1.00	0.00	0.75	1.53	0.21	99.90		
0.84	0.25	0.19	Q.39	0.05			
0.71	0.50	0.04	9.08	0.01			
0.59	0.75	0.02	0.04	0.01	99 .97		
0.50	1.00	0.01	0.02	0.00			
0.42	1.25	0.01	0.02	0.00	99 .97		
0.35	1.50	0.01	0.02	0.00	99.98		
0.30	1.75	0.01	0.02	0.00	99.98		
0.25	2.00	0.01	0.02	0.00	99.98		
0.210	2.25	0.01	0.02	0.00	99.98		
0.177	2.50	0.00	0.00	0.00			
0.149	2.75	00.0	0.00	0.00			
0.125	3.00	0.00	0.00	0.00			
0.105	3.25	0.00	0.00	0.00			
0.088	3.50	00.0	0.00	0.00			
0.074	3.75	00.0	0.00	0.00			
0.0625		č0.0	0.00	0.00			
<0.0625		0.00	0.11	0.02			
		0.11	****				
llet sie	PEU NUU	4117					
	TOTAL		721.79	100.00	1		

STATISTIC	MONENT	INNAH	FOLK-UARD
Mean Deviation Skeuness Kurtosis Median Skeuness2	-1 .987 0 .445 0 .355 6 .066	-2.038 0.564 0.274 0.273 -2.192 0.330	-2.089 0.499 0.267 0.672
Percent Gravei Percent Sand Percent Hud	90.51 9.47 0.02		

SAMPLE ID

10

TOTAL SAMPLE NEIGHT 284.04 grans SUB-SAMPLE SPLIT NEIGHT 24.36 grans

SIZE FRA	CTTON	NE IGHT	H EBONC	ne icut	PERCENT	COARSE SHELL	nacro-organics
DIEE FRA	phi	uncor	COF.	cor.	cunn.	(grans)	(grans)
1655	hur	dicui ,	C01 8	00, 2	V 4.111 2	19,	130 2312 7
32.0	-5.00	0.00	00.00	0.00	0.00		
22.6	-4.50	39,91	39.91	14.05	14.05		
16.0	-4.00	20.46	20.46	7.20	21.25		
11.3	-3.50	15.01	15.01	5.28	26.54		
8.00	-3.00	51.55	51.55	18.15	44.69		
5 .66	-2.50	47.89	47.89	16.86	61.55		
4.00	-2.00	23.91	23.91	8.42	69.97		
2.83	-1.50	21.42	21.42	7.54	77.51		
2.00	-1.00	13.73	13.73	4.83	82.34		
1.68	-0.75	3.26	6.60	2.32	84.66		
1.41	-0.50	2.81	5 .69	2.00	86.67 07.88		
1.19	-0.25	2.65	5.77	2.03			
1.00	0.00	2.14	4.33 3.22	1.53 1.13	91.36		
<b>6.84</b>	0.25	1.59	2.55	1.04	92.40		
0.71 0.59	0.50 0.75	1.46 1.32	2.96	0.94	93.34		
0.50	1.00	1.13	2 20	0.81	94.14		
0.42	1.25	1.11	2.29	0.81 0.79	94.93		
0.35	1.50	1.64	3.32	1.17	96.10		
0.30	1.50 1.75	1.49	3.02	1.06	97.16		
0.25	2.00	1.50	3.04	1.07	98.23		
0.210	2.00 2.25	0.98	1.98	0.70	98.93		
0.177	2.50	0.65	1.32	0.46	99.40		
0.149	2.50 2.75	0.65 0.32	0.65	0.23	99.62		
0.125	3.00 3.25	0.12	0.24	0.09	99.71		
0.105	3.25	0.08	0.16	0.06			
880.0	3.50	0.05	0.10	0.04			
0.074	3.75	0.05	0.10	0.04			
0.0625	4.00	0.03	0.06	0.02			
<0.0625	Pan	0.02	0.40	0.14	100.00		
Het sier	ed nud	0.36					
	TOTAL		284.04	100.00			

STATISTIC	nonent	Innon	FOLK-WARD
Nean Deviation Skeuness Kurtosis Hedian Skeuness2	-2.960 1.845 0.898 3.458	-3.006 1.646 0.185 0.922 -3.310 0.656	-3.107 1.782 0.263 1.329
Percent Gravel Percent Sand Percent Mud	82.34 17.52 0.14		

SAMPLE ID 11

TOTAL SAMPLE WEIGHT 1873.91 grans SUB-SAMPLE SPLIT WEIGHT 1.46 grans

	******	tter bester . P	u coeme	ur yeut	SENCEUT	COARSE SHELL	NACRO-ORGANICS
SIZE FR		HEIGHT I			PERCENT		
titi	phi	uncor.	cor.	cor.	cunn.	(grans)	(grans)
32.0	-5.00	73.00	73.00	3.90	3.90		
22.6	-4.50		244.18	13.03	16.93		
16.0	-4.00	92.20	92.20	4.92	21.85		
11.3	-3.50		145 .52	7.77	29.61		
8.00	-3.00		280.34	14.96	44.57		
5.66	-2.50		506.96	27.05	71.62		
4.00	-2.00		363.91	19.42	91.04		
2.83	-1.50		162.67	8.68	99.72		
2.00	-1.00	3.45	3.45	0.18	99.91		
1.68	-0.75	0.05	0.05	0.00	99.91		
1.41	-0.50	0.02	0.02	0.00	99.91		
1.19	-0.25	0.05	0.05	0.00	99.91		
1.00	00.0	80.0	90.0	0.00	99.92		
0.84	0.25	0.10	0.10	0.01	99.92		
0.71	0.50	0.19	0.18	0.01	99.93		
0.59	0.75	0.18	0.17	0.01	99.94		
0.50	1.00	0.15	0.15	0.01	99 .95		
0.42	1.25	0.13	0.13	0.01	99.96		
0.35	1.50	0.17	0.16	0.01	99 .96		
0.30	1.75	0.13	0.13	0.01	99.97		
0.25	2.00	0.12	0.12	0.01	99.98		
0.210	2.25	0.06	0.06	0.00	99.98		
0.177	2.50	0.05	0.05	0.00	99.98		
0.149	2.75	0.03	60.0	0.00	99.98		
0.125	3.00	0.00	0.00	0.00	99.98		
0.105	3.25	0.00	00.0	0.00	99.98		
880.0	3.50	0.00	0.00	0.00	99.98		
0.074	3.75	0.00	00.0	0.00	99.98		
0.0625		0.00	00.0	0.00	99.98		
<0.0625	Pan	0.00	0.29	0.02	100.00		
Wet sie	ved nud	0.29					
	TOTAL	1	873.98	100.00			

STATISTIC	MONENT	INNAN	FOLK-HARD
Nean Deviation Skeuness Kurtosis Nedian Skeuness2	-3,442 1,044 -0,293 2,290	-3 .656 1 .166 -0 .226 0 .395 -3 .392 -0 .422	-3.568 1.076 -0.264 0.826
Percent Gravel Percent Sand Percent Mud	99.91 0.08 0.02		

SAMPLE ID 12

TOTAL SAMPLE NEIGHT 388.29 grams CUB-SAMPLE SPLIT NEIGHT 29.58 grams

SIZE FRE	CTTON	ne tent	IN GRANS	HE TOUT	PERCENT	COARSE SHELL	nacro-organics
						(grans)	(grans)
m	phi	uncor.	. cor.	cor.	cunn.	(gi ans)	tgs wss z
32.0	-5.00	0.00	0.00	0.00	0.00		
22.6	-4.50	0.00	0.00	0.00	0.00		
16.0	-4.00	116.57	116.57	30.02	30.02		
11.3	-3.50	63.68	63.68	16.40	46 .42		
8.00	-3.00	45.25	45.25	11.65	58.08		
5.66	-2.50	53.43	53.43	13.76	71.84		
4.00	-2.00	44.75	44.75	11.53	83.36		
2.83	-1.50	19.73	19.73	5.08	88.44		
	-1.00	15.15	15.15	3.90	92.35		
2.00	-0.75	7.10	7.11	1.83	94.18		
1.68	-0.13		6.03	1.55			
1.41		6.02	5.18	1.33	97.06		
1.19	-0.25	5.17		1.JJ	97.84		
1.00	0.00	3.03	3.03	0.78	98.26		
0.84	0.25	1.63	1.63	0.42	20.60 20.65		
0.71	0.50	1.09	1.09	0.28	98.55		
0.59	0.75	0.82	0.82	0.21	98.76		
0.50	1.00	0.69	0.69	0.18	98.93		
0.42	1.25	0.60	0.60	0.15			
0.35	1.50	0.92	0.92	0.24	99.33	*	
0.30	1.75	0.77	0.77	0.20	99.53		
0.25	2.00	0.74	0.74	0.19	99.72		**
0.210	2.25	0.44	0.44	0.11	99.83		
0.177	2.50	0.28	0.28	0.07	99.90		
0.149	2.75	0.12	0.12	0.03			
0.125	3.00	0.05	0.05	0.01	99.95		
0.105	3.25	0.03	0.03	0.01	99.95		
0.088	3.50	0.02	0.02	0.01	99.96		
0.074	3.75	0.01	0.01	0.00	99.96		
0.0625	4.00	0.01	0.01	0.00			
<0.0625	Pan	00.0	0.14	0.04			
Het sie		0.14					
MC 4 4 EC	r 1016 119696	****					
	TOTAL		388.28	100.00			

STATISTIC	MONENT	innan	FOLK-WARD
Nean Depiation Skeuness Kurtosis Nedian Skeuness2	-3.054 1.169 1.578 6.200	-9.430 1.111 0.202 0.549 -3.654 0.622	-3.504 1.077 0.302 0.791
Percent Gravel Percent Sand Percent Hud	92.35 7.62 0.04		

SAMPLE ID 1

13

TOTAL SAMPLE WEIGHT 308.02 grams SUB-SAMPLE SPLIT WEIGHT 23.73 grams

		1100 5-0115	VII	ue veut	OFOCCUT	COARCE CHELL	MACRO-ORGANICS
SIZE FRA			in grans		PERCENT	COARSE SHELL	
titi	phi	uncor.	cor.	cor.	cunn.	(grans)	(grans)
22 0	-5.00	0.00	0.00	0.00	0.00		
32.0	-4.50	59.03	59.03	19.16	19.16		
22.6				15.03	34.20		
16.0	-4.00	46.30	46.30	46 73	48.91		
11.3	-3.50	45.33	45.33	14.72			
8.00	-3.00	17.57	17.57	5.70	54.62		
5.66	-2.50	18.93	18.93	6.15	60.76		
4.00	-2.00	18.86	18.86	6.12	66.89		
2 .83	-1.50	6.41	6.41	2.08	68.97		
2.00	-1.00	1.57	1.57	0.51	69.48		
1 .68	-0.75	0.12	0.47	0.15	69.63		
1.41	-0.50	0.24	0.95	0.31	69 .94		
1.19	-0.25	0.52	2.05	0.67	70.60		
1.00	0.00	0.85	3.35	1.09	71.69		
0.84	0.25	1.04	4.10	1.09 1.33	73.02		
0.71	0.50	1.45	5.72	1.86	74.88		
0.59	0.75	1.45 1.77	6.98	2.27	77.15		
0.50	1.00	2.10 2.53	8.29	2.69	79.84		
0.42	1.25	2.53	9.98	3.24	89.08		
0.35	1.50	4.12	16.26	5.28	88.36		
0.30	1.75	4.12 3.87	15.27	4.96	93.32		
0 ,25	2.00	3.25	12.82	4.16	97 .48		
0.210	2.25	1.35	5.33	1.73	99.21		
0.177	2.50	0.42	1.66	0.54			
0.149	2.75	80.0	0.32	0.10	99.85		
0.125	3.00	0.02	0.08	60.0	99.88		
0.105	3.25	0.01	0.04	0.01	99.89		
0.103	3.50	0.01	0.04	0.01	99.90		
	3 75	0.01	0.04	0.01	99.92		
0.074	3.75		0.04	0.01	99.93		
0.0625	4,00	0.01		0.07			
<0.0625	Pan	0.00	0.22	0.41	144 44		
Wet sie	eo nuo	0.22					
	TOTAL		308.02	100.00			

STATISTIC	MONENT	Innan	FOLK-UARD
Mean Deviation Skeuness Kurtosis Median Skeuness2	-2.757 2.509 0.795 2.021	-1.963 2.953 0.585 0.202 -3.690 0.593	-2 .538 2 .552 0 .539 0 .597
Percent Gravel Percent Sand Percent Nud	69.48 30.45 0.07		

SAMPLE ID 14

TOTAL SAMPLE WEIGHT 291.21 grams SUB-SAMPLE SPLIT WEIGHT 34.67 grams

A 4 7 P P P P	ATTAN	11F 7F117 T	U CRAMO	HE VEHT	BEBCEUT	COARSE SHELL	MACRO-ORGANICS
SIZE FRA		HE 16HT II			PERCENT		
m	phi	uncor.	cor.	cor.	cunn.	(grans)	(grans)
32.0	-5.00	0.00	0.00	0.00	0.00		
22.6	-4.50	0.00	0.00	0.00	0.00		
16.0	-4.00	0.00	0.00	0.00	0.00		
	-3.50	7.78	7.78	2.67	2.67		
11.3			13.20	4.53	7.20		
8.00	-3.00 -2.50	13.20 26. <del>3</del> 9	26.99	9.27	16.47		
5.66				11.70	28.17		
4.00	-5.00	34.06	34.06	22.47	50.64		
2.83	-1.50	65.44	65.44				
2.00	-1.00	78.12	78.12	26.83	77.47		
1.68	-0.75	14.04	26.54	9.11	86.58		
1.41	-0.50	8.67	16.39	5.63	92.21		
1.19	-0.25	4.81	9.09	3.12	95.33		
1.00	0.00	1.74	3.29	1.13	96.46		
0.84	0.25	0.75	1.42	0.49	96.95		
0.71	0.50	0.59	1.12	0.38	97.33		
0.59	0.75	0.49	0.93	0.32	97.65		
0.50	1.00	0.47	0.89	0.31	97.95		
0.42	1.25	0.41	0.78	0.27	98.22		
0.35	1.50	0.61	1.15	0.40	<b>98 .62</b>		
0.30	1.75	0.51	0.96	0.33	98.95		
0.25	2.00	0.50	0.95	0.32	99.27		
0.210	2.25	0.33	0.62	0.21	99.48		
0.177	2.50	0.31	0.59	0.20	99.69		
0.149	2.75	0.20	0.38	0.13	99.82		
0.125	3.00	0.09	0.17	0.06	99.87		
0.105	3.25	0.06	0.11	0.04			
0.088	3.50	0.04	0.08	0.03	99.94		
0.074	3.75	0.02	0.04	0.01	99,95		
0.0625	4.00	0.01	0.02	0.01	99.96		
<0.0625	Pan	0.00	0.12	0.04			
let sier		0.12	4 5 7 6	4144	244.544		
#5 P 2 E	EN HOU	V. 16					
	TOTAL	;	291.21	100.00			

STATISTIC	NONENT	Innan	FOLK-HAND	
Nean Beviation Skeuness Kurtosis Nedian Skeuness2	-2.035 1.084 0.966 5.793	-2.061 0.741 -0.300 1.158 -1.779 -0.331	-1.967 0.855 -0.267 1.161	
Percent Gravel Percent Sand Percent Mud	77.47 22.49 0.04			

SAMPLE ID

15

TOTAL SAMPLE WEIGHT 322.05 grams SUB-SAMPLE SPLIT WEIGHT 34.41 grams

SIZE FRA	CTION phi	UE IGHT	IN GRANS COT.	WE IGHT	PERCENT cunn.	COARSE SHELL (grans)	NACRO-ORGANICS (grans)
32.0 22.6	-5.00 -4.50	0.00 63.48	0.00 63.48 7.43	0.00 19.71 2.31	0.00 19.71 22.02		
16.0 11.3 8.00	-4.00 -3.50 -3.00	7.43 25.86 8.48 12.31	25.86 8.48 12.31	8.03 2.63 3.82	30.05 32.68 36.50		
5.66 4.00 2.83	-2.50 -2.00 -1.50	19.77 17.08 19.93	19.77 17.08 19.93	6.14 5.30 6.19	42 .64 47 .95 54 .13		
2.00 1.69 1.41 1.19	-1.00 -0.75 -0.50 -0.25	2.18 3.06 4.78	9.36 13.14 20.52	2.91 4.08 6.37	57.04 61.12 67.49		
1.00 0.84 0.71	0.00 0.25 0.50	4.63 3.41 3.48	19.88 14.64 14.94	6.17 4.55 4.64	73.67 78.21 82.85		
0.59 0.50 0.42	0.75 1.00 1.25	3.44 2.85 2.21	14.77 12.24 9.49	4.59 3.80 2.95	87.44 91.24 94.18		
0.35 0.30 0.25	1.50 1.75 2.00	2.23 1.21 0.59	9.57 5.20 2.59 0.73	2.97 1.61 0.79 0.23	97.16 98.77 99.56 99.78		
0.210 0.177 0.149 0.125	2.25 2.50 2.75 3.00	0.17 0.08 0.02 0.01	0.34 0.09 0.04	0.11 0.03 0.01	99.89 99.92 99.93		
0.105 0.088 0.074	3.25 3.50 3.75	0.01 0.01 0.00	0.04 0.04 0.00	0.01 0.01 0.00	99.94 99.96 99.96		
0.0625 <0.0625 Net sie	4.00 Pan	0.00 0.00 0.14	0.00	0.00 0.04	99.96 100.00		
	TOTAL		322.05	100.00			

STATISTIC	MONENT	IHAH	FOLK-UARD		
Hean Deviation Skeuness Kurtosis Hedian Skeuness2	-2.505 2.324 0.274 1.538	-2.311 2.627 -0.248 0.248 -1.659 -0.212	-2 .094 2 .308 -0 .203 0 .647		
Percent Gravel Percent Sand Percent Mud	54.13 45.82 0.04				

SAMPLE ID 16

TOTAL SAMPLE WEIGHT 710.32 grams SUB-SAMPLE SPLIT WEIGHT 7.05 grams

				ue veut	BCBCCUT	COADCE CUELL	97786266.00768
SIZE FRA		HE TOHL	in grans		PERCENT	COARSE SHELL	MACRO-ORGANICS
nn	phi	uncor.	cor .	cor.	cunn .	(grans)	(grans)
	P 44	400 20	400 20	40 67	40 67		
32.0	-5.00	132.62	132.62	18.67	18.67 32.19		
22.6	-4.50	96.00	96.00	13.52			
16.0	-4.00	76.98	76.98	10.84	43.02		
11.3	-3.50	97.86	97.86	13.78	56.80		
8.00	-3.00	121.31	121.31	17.08	73.88		
5.66	-2.50	127.21	127.21	17.91	91.79		
4.00	-2.00	42.33	42.33	5.96	97.75		
2.83	-1.50	5.99	5 <i>.</i> 99	0.84	98.59		
2.00	-1.00	2.89	2.89	0.41	99.00		
1.68	-0.75	1.48	1.47	0.21	99.20		
1.41	-0.50	1.12	1.11	0.16	99.36		
1.19	-0.25	1.09	1.08	0.15	99.51		
1.00	0.00	0.76	0.75	0.11	99.62		
0.84	0.25	Q.59	0.59	0.08	99.70		
0.71	0.50	0.51	0.51	0.07	99.77		
0.59	0.75	0.42	0.42	0.06	99.83		
0.50	1.00	0.30	0.30	0.04	99.87		
0.42	1.25	0.20	0.20	£0.0	99.90		
	1.50	0.22	0.22	0.03	99.93		
0.35	1.75	0.15	0.15	0.02	99.95		
0.30			0.12	0.02			
0.25	2.00	0.12	0.06	0.01	99.98		
0.210	2.25	0.06		0.01	99.98		
0.177	2.50	0.05	0.05	0.00	99.99		
0.149	2.75	0.03	0.03				
0.125	3.00	0.00	0.00	0.00			
0.105	3.25	0.00	0.00	0.00			
0.088	3.50	0.00	0.00	0.00	99.99		
0.074	3.75	0.00	0.00	0.00			
0.0625	4.00	0.00	0.00	0.00			
<0.0625	Pan	0.00	90.9	0.01	100.00		
Wet sie	ved mud	0.08					
	TOTAL		710.32	100.00	-		

STATISTIC	MONENT	INNAN	FOLK-UARD
Nean Deviation Skeuness Kurtosis Nedian Skeuness2	-3 .833 0 .964 0 .472 4 .207	-4.310 1.125 -0.059 0.401 -4.244 0.150	-4.288 1.040 0.024 0.695
Percent Gravel Percent Sand Percent Nud	99.00 0.99 0.01		

SAMPLE ID

17

TOTAL SAMPLE WEIGHT 2182.73 grams SUB-SAMPLE SPLIT WEIGHT 0.38 grams

SIZE FRA	CTION phi	NE 16HT uncor .	IN GRANS		PERCENT cunn.	COARSE SHELL (grans)	nacro-organics (grans)
32.0	-5.00	170.04	170.04	7.79	7.79		
22.6	-4.50	90.99	90.99	4.17	11.96		
16.0	-4.00	218.64	218.64	10.02	21.98		
11.3	-3.50	255.05	255.05	11.68	33.66		
00.8	-3.00	414.95	414.95	19.01	52.67		
5 .66	-2.50	471.96	471.96	21.62	74.29	•	
4.00	-2.00	324.26	324.26	14.86	89.15		
2 .83	-1.50	227.91	227.91	10.44			
2.00	-1.00	8.39	8.39	0.38	99.97		
1 .68	-0.75	0.05	0.05	0.00	99.98		
1.41	-0.50	0.06	0.06	0.00	99.98		
1.19	-0.25	0.04	0.04	0.00			
1.00	00.0	0.02	0.02	0.00			
0.84	0.25	0.02	0.02	0.00			
0.71	0.50	0.02	0.02	0.00			
0.59	0.75	0.03	0.03	0.00			
0.50	1.00	0.03	0.03	0.00			
0.42	1.25	0.02	0.02	0.00			
0.35	1.50	0.02	0.02	0.00			
0.30	1.75	0.02	0.02	00.0			
0.25	2.00	0.02	0.02	0.00			
0.210	2.25	0.01	0.01	0.00			
0.177	2.50	0.01	0.01	0.00			
0.149	2.75	0.01	0.01	0.00			
0.125	3.00	0.00	0.00	0.00			
0.105	3.25	0.00	0.00	0.00			
880.0	3.50	0.01	0.01	0.00	99.99		
0.074	3.75	0.00	0.00	0.00	99.99		
0.0625	4.00	0.00	0.00	0.00			
<0.0625	Pan	0.00	0.20	0.01	100.00		
llet sie		0.20					
	TOTAL		2182.77	100.00			

STATISTIC	MONENT	Innan	FOLK-NARD
Nean Deviation Skeuness Kurtosis Nedian Skeuness2	-3.199 0.914 -0.318 2.603	-3.566 1.057 -0.085 0.564 -3.476 -0.348	-3.536 1.030 -0.153 0.844
Percent Gravel Percent Sand Percent Hud	99.97 0.02 0.01		

SAMPLE ID

18

TOTAL SAMPLE WEIGHT 1847.90 grams SUB-SAMPLE SPLIT WEIGHT 4.04 grams

SIZE FRA	ettem	UEIGHT IN G	Danc he teut	PERCENT	COARSE SHELL	NACRO-ORGANICS
are em	phi		cor. cor.	cunn.	(grans)	(grans)
,,,,	p				,	-
32.0	-5.00		00.00	0.00		
22.6	-4.50		.20 6.50	6.50		
16.0	-4.00		.04 10.17	16.68		
11.3	-3.50		.34 11.17	27.84		
00.8	-3.00		.46 19.53	46.37		
5.66	-2.50		.30 22.96	69.33		
4.00	-2.00		.41 19.34	88.67		
2.83	-1.50		.42 9.01	97.68		
2.00	-1.00		.64 2.09	99.77		
1.68	-0.75		.85 0.10	99.87		
1.41	-0.50		.01 0.05	99.92		
1.19	-0.25		.42 0.02	99.95		
1.00	00.0	0.14 0	.14 0.01	99.95		
0.84	0.25		.04 0.00	99.96		
0.71	0.50	0.04 0	.04 0.00	99.96		
0.59	0.75	0.03	.03 0.00	99.96		
0.50	1.00 1.25		0.00	99.96		
0.42	1.25		0.00	99.96		
0.35	1.50 1.75	0.10	.10 0.01	99.97		
0.30	1.75		.11 0.01	99.98		
0.25	2.00 2.25	0.11 0	.11 0.01	99.98		
0.210	2.25		0.00	99.98		
0.177	2.50 2.75		.05 0.00	99.99		
0.149	2.75		.02 0.00	99.99		
0125	3.00 3.25		00.0	99.99		
0.105	3.25		00.0	99.99		
880.0	3.50 3.75		00.0	99.99		
0.074			00.0	99.99		
0.0625	4.00		00.0	99,99		
<0.0625	Pan		.22 0.01	100.00		
Net sier	ved nud	0.22				
	TOTAL	1848	.07 100.00			

STATISTIC	MONENT	Inun	FOLK-UARD
Hean Deviation Skeuness Kurtosis Hedian Skeuness2	-3.301 0.956 -0.287 2.661	-3.446 1.003 -0.065 0.462 -3.381 -0.134	-3.424 0.946 -0.078 0.875
Percent Gravel Percent Sand Percent Nud	99.77 0.22 0.01		

SAMPLE ID

100

19

TOTAL SAMPLE NEIGHT 311.19 grams SUB-SAMPLE SPLIT NEIGHT 19.85 grams

SIZE FRA	CTION	UFTEHT	IN GRAMS	HE IGHT	PERCENT	COARSE SHELL	nacro-organics
m	phi	uncor.		cor.	cunn.	(grans)	(grans)
22.4			0.00	0.00	0.00		
32.0	-5.00	0.00		0.00	0.00		
22.6	-4.50	0.00	00.0		0.00		
16.0	-4.00	0.00	0.00	0.00			
11.3	-3.50	18.45	18.45	5.93	5.93		•
8 "00	-3.00	14.01	14.01	4.50	10.43		
5 .66	-2.50	19.73	19.73	6.34	16.77		
4.00	-2.00	34.28	34.28	11.02	27.79	•	
2.83	-1.50	77.78	87.77	24.99	52.78		
2.00	-1.00	63.90	63.90	20.53	73.32		
1.68	-0.75	3.91	16.37	5.26	78 .58		
1.41	-0.50	2.81	11.77	3.78	82.36		
1.19	-0.25	2.53	10 .60	3.40	85.76		
1.00	0.00	2.53	10.60	3.40	89.17		
0.84	0.25	2.46	10.30	3.31	92.48		
0.71	0.50	2.38	9.97	3.20	95 .68		
0.59	0.75	1.67	6.99	2.25	97.93		
0.50	1.00	0.89	3.73	1.20	99.13		
0.42	1.25	0.38	1.59	0.51	99.64		
0.35	1.50	0.20	0.84	0.27	99.91		
0.30	1.75	0.04	0.17	0.05			
0.25	2.00	0.01	0.04	0.01			
0.23	2.25	0.00	00.0	0.00			
	2.50	0.00	0.00	0.00			
0.177	2.75	00.0	00.0	0.00			
0.149		0.00	00.0	0.00			
0.125	3.00	0.00		00.0	99.97		
0.105	3.25		00.0	0.00			
0.088	3.50	0.00	0.00				
0.074	3.75	0.00	00.00	0.00			
0.0625	4.00	0.00	0.00	0.00			
<0.0625	Pan	0.00	80.0	0.03	100.00		
llet sier	ed nud	0.08					
	TOTAL		311.19	100.00			

STATISTIC	MONENT	Innon	FOLK-WARD
Nean Deviation Skeuness Kurtosis Nedian Skeuness2	-1.940 1.235 0.252 2.849	-1.752 1.121 0.098 0.831 -1.862 0.006	-1.788 1.102 0.051 1.371
Percent Gravel Percent Sand Percent Nud	73.32 26.66 0.03		

SAMPLE ID

20

TOTAL SAMPLE WEIGHT 2570.33 grams SUB-SAMPLE SPLIT WEIGHT 0.23 grams

				44.00 00.0044.00	0000000	204005 01151 5	MACOO ODEAMICE
SIZE FRO		UE IGHT	in grans		PERCENT	COARSE SHELL	MACRO-ORGANICS
nn	phi	uncor.	. cor.	cor.	cunn.	(grans)	(grans)
				4.40			
32.0	-5.00	113.99	113.99	4.43	4.43		
22.6	-4.50	296.14	296.14	11.52	15.96		
16.0	-4.00	552.92	552.92	21.51 35.23	37.47		
11.3	-3.50	905.44	905.44	35.23	72.69		
8.00	-3.00	583.96	583.96	22.72	95.41		
5.66	-2.50	104.44	104.44	4.06	99.47		
4.00	-2.00	9.03	9.03	0.35	99.82		
2.83	-1.50	2.97	2.97	0.12	99.94		
2.00	-1.00	1.22	1.22	0.05	99.99		
1.68	-0.75	0.12	0.11	0.00	99.99		
1.41	-0.50	0.06	0.06	0.00	99.99		
1.19	-0.25	0.03	0.03	0.00	99.99		
1.00	0.00	0.01	0.01	0.00	100.00		
0.84	0.25	0.01	0.01	0.00	100.00		
0.71	0.50	0.01	0.01	0.00	100.00		
0.59	0.75	0.01	0.01	0.00	100.00		
0.50	1.00	0.00	0.00	0.00	100.00		
0.42	1.25	0.00	0.00	0.00	100.00		
0.35	1.50	0.00	0.00	0.00	100.00		
0.30	1.75	0.00	00.0	0.00	100.00		
0.25	2.00	0.00	0.00	0.00	100.00		
0.210	2.25	0.00	00.0	0.00			
0.177	2.50	0.00	0.00	0.00	100.00		
0.149	2.50 2.75	0.00	0.00	0.00	100.00		
0.125	3.00	0.00	00.0	0.00			
0.105	3.25	0.00	0.00	0.00			
0.088	3.50	00.0	0.00	0.00			
0.074	3.75	0.00	00.0	0.00			
0.0625	4.00	0.00	0.00	0.00			
<0.0625	Pan	ŏ.ŏŏ	0.10	0.00			
Wet sie		0.10	****		2		
MES OF	rtu 1100	7687					
	TOTAL		2570.44	100.00			
	10 111L		PA 14 8-14				

STATISTIC	тонент	INNAN .	FOLK-HARD
Mean Deviation Skeuness Kurtosis Median Skeuness2	-4.142 0.598 0.011 3.348	-4.136 0.614 0.292 0.796 -4.315 -0.142	-4.195 0.641 0.107 0.971
Percent Gravel Percent Sand Percent Hud	99.99 0.01 0.00		

SAMPLE ID 21

TOTAL SAMPLE NEIGHT 316.59 grans SUB-SAMPLE SPLIT NEIGHT 36.74 grans

SIZE FRA	CTION phi	NE IGHT :	in Grans cor.	NE IGHT cor .	PERCENT cunn.	COARSE SHELL (grans)	nacro-organics (grans)
32.0	-5.00	0.00 41.56	0.00 41.56	0.00 13.12	0.00 13.12		
22.6	-4.50	63.61	63.61	20.08	33.20		
16.0	-4.00 -3.50	74,70	74.70	23.58	56.78		
11.3	-3.00	48.30	48.30	15.25	72.03		
8.00 5.66	-3.00 -2.50	20.84	20.84	6.58	78.60		
4.00	-2.00	11.52	11.52	3.64	82.24		
2.83	-1.50	8.45	8.45	2.67	84.91		
2.00	-1.00	10.96	10.96	3.46	88.37		
1.68	-0.75	7.01	7.02	2.22	90.58		
1.41	-0.50	8.16	8.17	2.58	93.16		
1.19	-0.25	9.55	9.56	3.02 1.77	96.18		
1.00	0.00	5.61	5.62	1.77	97.95		
0.84	0.25	2.17	2.17	0.69	98.64		
0.71	0.50	1.03	1.03	0.33 0.21	98.97		
0.59	0.75	0.68	0.68	0.21	99.18		
0.50	1.00	0.63	0.63	0.20	99.38		
0.42	1.25	0.55	0.55	0.17	99.55		
0.35	1.50	0.71	0.71	0.22	99.78		
0.30	1.75	0.36	0.36	0.11	99.89		
0.25	2.00	0.16	0.16	0.05	99.94		
0.210	2.25	0.04	0.04	0.01	99.96		
0.177	2.50	0.02	0.02	0.01	99.96		
0.149	2.75	0.01	0.01	0.00	99.97		
0.125	3.00	0.00	0.00	0.00	99.97		
0.105	3 .25	0.00	0.00	0.00	99.97		
0 .088	3.50	0.00	0.00	0.00	99.97		
0.074	3.75	0.00	0.00	0.00	99.97		
0.0625	4.00	0.00	0.00	0.00	99.97		
<0.0625	Pan	0.00	0.11	0.03	100.00		
llet sie	ved nud	0.11					
	TOTAL		316.79	100.00			

STATISTIC	MONENT	Innan	FOLK-WARD
Hean Deviation Skeuness Kurtosis Nedian Skeuness2	-3.667 1.359 1.349 4.542	-3.403 1.302 0.488 0.846 -4.038 0.824	-3.615 1.379 0.467 1.510
Percent Gravel Percent Sand Percent Hud	98.37 11.60 0.03	4	

SAMPLE ID 22

TOTAL SAMPLE WEIGHT 277.42 grams SUB-SAMPLE SPLIT WEIGHT 22.69 grams

				ur scur i	BEBEEUT	COADCE CUEU	NACRO-ORGANICS
SIZE FRA		ue ight i		UE IGHT		COARSE SHELL	
titt	phi	uncor.	cor.	cor.	cunn.	(grans)	(grans)
	P &&	۸ ۸۸	۸ ۸۸	0.00	0.00		
32.0	-5.00	0.00	0.00	9.52	9.52		
22.6	-4.50	26.41	26 .41				
16.0	-4.00	0.00	0.00	0.00	9.52		
11.3	-3.50	26.21	26.21	9.45	18.97		
00.8	-3.00	19.22	19.22	6.93	25.90		
5 .66	-2.50	33.34	33.34	12.02	37.91		
4.00	-2.00	35.87 37.75	35 <b>.</b> 87	12.93	50.84		
2.83	-1.50	37.75	37.75	13.61	64.45		
2.00	-1.00	55.40	55.40	19.97	84.42		
1.68	-0.75	10.80	20.55	7.41	91.83		
1.41	-0.50	8.82	16.78	6.05	97.88		
1.19	-0.25	2.73	5.20	1.87	99.75		
1.00	0.00	0.16	0.30	0.11	99.86		
0.84	0.25	č.ôš	30.06	0.02	99.88		
0.71	0.50	60.0	0.06	0.02	99.90		
V 20	0.75	60.0	30.0	0.02	99.92		
0.59	4 00	0.01	0.02	0.01	99.93		
0.50	1.00	0.01	0.02	0.01	99.94		
0.42	1.25			0.01	99.94		
0.35	1.50	0.01	0.02	0.01	99.95		
0.30	1.75	0.01	0.02		99.96		
0.25	2.00	0.01	0.02	0.01	99.96		
0.210	2.25	0.00	0.00	0.00			
0.177	2.50	0.01	0.02	0.01	99.96		
0.149	2.75	0.01	0.02	0.01	99.97		
0.125	3.00	00.0	0.00	0.00	99.97		
0.105	3.25	0.00	0.00	0.00	99.97		
0.088	3.50	0.00	0.00	0.00	99.97		
0.074	3.75	0.00	0.00	0.00	99.97		
0.0625		0.00	0.00	0.00	99.97		
<0.0625		00.0	80.0	0.03	100.00		
Wet sie		0.08					
mer vie	, en 1180	7.500					
	TOTAL		277.42	100.00			

STATISTIC	MONENT	INNAN	FOLK-UARD
Nean Deviation Skeuness Kurtosis Nedian Skeuness2	-3.045 1.331 -0.053 2.025	-2.747 1.318 -0.230 0.516 -2.444 -0.595	-2 .646 1 .264 -0 .311 0 .844
Percent Gravel Percent Sand Percent Nud	84.42 15.55 0.03		

SAMPLE ID

23

TOTAL SAMPLE NEIGHT 289.53 grams SUB-SAMPLE SPLIT NEIGHT 35.18 grams

SIZE FRA	CTION phi	UE IGHT :	IN GRAMS cor.	UE IGHT cor .	PERCENT cunn.	COARSE SHELL (grans)	nacro-organics (grans)
32.0	-5.00	0.00	0.00	0.00	0.00		
22.6	-4.50	0.00	0.00	0.00	0.00		
16.0	-4.00	9.55	9.55	3.30	3.30		
11.3	-3.50	0.00	00.0	0.00	3.30		
8.00	-3.00	30.87	30.87	10.66	13.96		
5.66	-2.50	41.29	41 .29	14.26	28.23		
4.00	-5.60	48.45	48 .05	16.60	44.82		
2.83	-1.50	51.77	51.77	17.88	62.71		
2.00	-1.00	72.70	72.70	25.11	87 .82		
1.68	-0.75	21.42	21.41	7.40	95.21		
1.41	-0.50	11.17	11.16	3.86	99.07		
1.19	-0.25	2.44	2.44	0.84	99.91		
1.00	0.00	0.12	0.12	0.04	99.96		
0.84	0.25	0.02	0.02	0.01	99.96		
0.71	0.50	0.01	0.01	0.00	99.97		
0.59	0.75	0.01	0.01	0.00	99.97		
0.50	1.00	0.00	0,00	0.00	99.97		
0.42	1.25	0.00	0.00	0.00	99.97		
0.35	1.50	0.01	0.01	0.00	99.97		
0.30	1.75	0.00	0.00	0.00	99.97		
0.25	2.00	0.00	0.00	0.00	99.97		
0.210	2.25	0.00	00.0	0.00	99.97		
0.177	2.50	0.00	00.00	0.00	99.97		
0.149	2.75	0.00	0.00	0.00	99.97		
0.125	3.00	0.00	0.00	0.00	99.97		
0.105	3.25	0.00	00.0	0.00	99.97		
0.008	3.50	0.00	00.00	0.00	99.97		
0.074	3.75	0.00	00.0	0.00	99.97		
0.0625	4.00	0.00	00.00	0.00	99.97		
<0.0625	Pan	ŏ.ŏŏ	80.0	0.03			
Wet sie		80.0	• • • • •				
	TOTAL		289.49	100.00			

STATISTIC	MONENT	INNA	FOLK-UARD
Mean Deviation Skeuness Kurtosis Median Skeuness2	-2.286 0.699 0.323 2.512	-2.417 0.976 -0.096 0.240 -2.324 -0.172	-2.386 0.855 -0.117 0.706
Percent Gravel Percent Sand Percent Mud	87.82 12.15 0.03		

SAMPLE ID 24

TOTAL SAMPLE NEIGHT 303.45 grans SUB-SAMPLE SPLIT NEIGHT 30.81 grans

SIZE FRA	CTION	HE 16HT	IN GRAMS	HE 16HT	PERCENT	COARSE SHELL	nacro-organics
nn	phi	uncor.	cor.	cor.	cunn.	(grans)	(grans)
	•					•	
32.0	-5.00	0.00	0.00	0.00	0.00		
22.6	-4.50	42.27	42.27	13.93	13.93		
16.0	-4.00	0.00	0.00	0.00	13.93		
11.3	-3.50	24.71	24.71	8.14	22.07		
8.00	-3.00	28.32	28.32	9.33	31.41		
5.66	-2.50	40.32	40.32	13.29	44.69		
4.00	-2.00	27.73	27.73	9.14	53.83		
2.83	-1.50	35.96	35.96	11.85	65.68		
2.00	-1.00	44.35	44.35	14.62	80.30		
1.68	-0.75	9.62	18.64	6.14	86.44		
1.41	-0.50	9.66	18.72	6.17	92.61		
1.19	-0.25	7.23	14.01	4.62	97.23		
1.00	0.00	2.69	5.21	1.72	98.95		
0.84	0.25	0.95	1.84	0.61	99.55		
0.71	0.50	0.35	0.68	0.22	99.78		
0.59	0.75	0.14	0.27	0.09	99.87		
0.50	1.00	0.06	0.12	0.04	99.90		
0.42	1.25	0.03	0.06	0.02	99.92		
0.35	1.50	0.03	0.06	0.02	99.94		
0 "30	1.75	0.02	0.04	0.01	99.95		
0.25	2.00	0.01	0.02	0.01	99.96		
0.210	2.25	0.01	0.02	0.01	99.97		
0.177	2.50	0.01	0.02	0.01	99.97		
0.149	2.75	0.01	0.02	0.01	99.98		
0.125	3.00	0.00	0.00	0.00	99.98		
0.105	3.25	0.00	0.00	0.00	99.98		
880.0	3.50	0.00	0.00	0.00	99.98		
0.074	3.75	0.00	0.00	0.00	99.98		
0.0625	4.00	0.00	0.00	0.00	99.98		
<0.0625	Pan	0.00	0.06	0.02	100.00		
llet siel	ved nud	0.06					
	TA TA .		202 05	466 64			
	TOTAL		303.45	100.00			

STATISTIC	MONENT	Innan	FOLK-WARD
Nean Beriation Skeuness Kurtosis Nedian Skeuness2	-3.110 1.470 0.155 2.044	-2.931 1.565 -0.228 0.543 -2.574 -0.257	-2.812 1.514 -0.197 0.941
Percent Gravel Percent Sand Percent Hud	80.30 19.68 0.02		

SAMPLE ID

25

TOTAL SAMPLE WEIGHT 436.71 grams SUB-SAMPLE SPLIT WEIGHT 19.49 grams

	ATT64	ur veuv	THE CRAME	UCTCUT	PERCENT	COARSE SHELL	NACRO-ORGANICS
SIZE FRA			in grans			(grans)	(ansho bhomaico
nn	phi	uncor.	cor.	cor.	cunn.	(grans)	(gr wio)
32.0	-5.00	111.50	111.50	25.54	25,54		
22.6	-4.50	84.18	84.18	19.28	44.82		
16.0	-4.00	125.45	125.45	28.73	73.55		
	-3.50	43.84	43.84	10.04	83.59		
11.3	-3.00	33.75	33.75	7.73	91.32		
8.00	-2.50	8.62	8.62	1.97	93.29		
5.66			4.48	4 10	94.32		
4.00	-2.00	4.48	2.51	1.03 0.57	94.89		
2.83	-1.50	2.51	7 93 E • JI	0.63	95.52		
2.00	-1.00	2.73	2.73	0.39	95.91		
1.68	-0.75	1.72	1.72	4.35 6.46	73.71 06.37		
1.41	-0.50	2.01	2.01 3.32	0.46	96.37		
1.19	-0.25	3.32	J.J∠	0.76	97.14		
1.00	0.00	3.49	3.49	0.80	97.94		
0.84	0.25	3.00	3.00	0.69	98.62		
0.71	0.50	2.45	2.45	0.56	99.18		
0.59	0.75	1.64	1.64	0.38	99.56		
0.50	1.00	0.84	0.84	0.19	99.75		
0.42	1.25	9.38	0.38	0.09	99.84		
0.35	1.50	0.30	0.30	0.07	99.91		
0.30	1.75	0.16	0.16	0.04	<b>99.9</b> 5		
0.25	2.00	0.10	0.10	0.02	99.97		
0.210	2.25	0.03	0.03	0.01	99.97		
0.177	2.50	0.02	0.02	0.00	99.98		
0.149	2.50 2.75	0.01	0.01	0.00	99.98		
0.125	3 00	0.01	0.01	0.00	99.98		
0.105	3.00 3.25	00.0	0.00	0.00	99.98		
0.088	3.50	00.00	0.00	00.00	99.98		
0.074	3.75	00.00	0.00	0.00	99.98		
0.0625	4.00	00.0	00.0	0.00	99.98		
<0.0625	v.vv Pan	00.0	70.0	0.02	100.00		
		0.07	V .V 1	A 1AF	244844		
Het sie	750 BOB	4.41					
	TOTAL		436 .62	100.00			
	TOTAL		-930 .UZ	144.44			

STATISTIC	MIEKT	INNAH	FOLK-HARD
Nean Deviation Skeuness Kurtosis Nedian Skeuness2	-4.234 1.290 2.181 7.833	-4.625 0.898 0.054 1.208 -4.673 1.088	-4.641 1.050 0.273 1.489
Percent Gravel Percent Sand Percent Nud	95.52 4.46 0.02		

SAMPLE ID 26

TOTAL SAMPLE NEIGHT 244.16 grams SUB-SAMPLE SPLIT NEIGHT 29.19 grams

AVDE EBS	CTION	HETCHT :	ты сванс	HETCHT	PERCENT	COARSE SHELL	MACRO-ORGANICS
SIZE FRA			in Grans cor.	cor.	cunn.	(grans)	(grans)
1111	phi	uncor.	tu.	C41 a	(UIII) •	tgi anoz	19
32.0	-5.00	0.00	0.00	0.00	0.00		
22.6	-4.50	0.00	0.00	0.00	0.00		
16.0	-4.00	0.00	00.0	0.00	0.00		
11.3	-3.50	18.30	18.30	7.50	7.50		
9.00	-3.00	8.89	8.89	3.64	11.14		
5.66	-2.50	23.19	23.19	9.50	20.63		
4.00	-2.00	14.17	14.17	5.80	26.44		
2 .83	-1.50	25.19	25.19	10.32	36.75		
2.00	-1.00	48.89	48 .89	20.02	56.78		
1.68	-0.75	8.48	30.59	12.53	69.31		
1.41	-0.50	9.19	33.15	13.58	82.88		
1.19	-0.25	7.29	26.29	10.77	93.65		
1.00	0.00	2.33	8.40	3.44	97.09		
0.84	0.25	0.71	2.56	1.05	98.14		
0.71	0.50	0.34	1.23	0.50	98.64		
0.59	0.75	0.18	0.65	0.27	98.91		
0.50	1.00	0.13	0.47	0.19	99.10		
0.42	1.25	0.10	0.36	0.15	99.25		
0.35	1.50	0.14	0.50	0.21 0.16	99.46 99.62		
0.30	1.75	0.11	0.40	0.15	99.77		
0.25	2.00	0.10 0.05	0.36 0.18	70.0	99.84		
0.210	2.25	0.04	0.14	0.06	99.90		
0.177 0.149	2.50 2.75	0.02	0.07	0.03	99.93		
	3.00	0.02	0.04	0.01	99.94		
0.125 0.105	3.25	0.01	0.04	0.01	99.96		
0.088	3.50	0.00	0.00	0.00	99.96		
0.074	3.75	0.00	0.00	0.00	99.96		
0.0625	4.00	0.00	0.00	0.00	99.96		
<0.0625	Pan	0.00	0.10	0.04			
Wet sie		0.10	~ * * * *	****			
	TOTAL		244.16	100.00			

STATISTIC	MOMENT	innan	FOLK-WARD
Nean Beriation Skeuness Kurtosis Median Skeuness2	-2.037 1.291 -0.003 2.358	-1.975 1.263 -0.311 0.487 -1.582 -0.492	-1.844 1.201 -0.321 1.197
Percent Gravel Percent Sand Percent Mud	56.78 43.18 0.04		

SAMPLE ID 27

61

TOTAL SAMPLE WEIGHT 302.61 grams SUB-SAMPLE SPLIT WEIGHT 34.01 grams

	AWYAM	41 Y Y 11 Y 1	u	HE YEUY	DERCEME	COARSE SHELL	NACRO-ORFANICS
SIZE FRA		ne ight i			PERCENT		(grans)
m	phi	uncor.	cor.	cor.	cunn.	(grans)	(पुर ध्यावर
32.0	-5.00	0.00	0.00	0.00	0.00		
22.6	-4.50	53.63	53.63	17.72	17.72		
16.0	-4.00	65.93	65.93	21.79	39.51		
11.3	-3.50	39.73	39.73	13.13	52.64		
8.00	-3.00	27.57	27.57	9.11	61.75		
5.66	-2.50	18.57	18.57	6.14	67.89		
4.00	-2.00	13.30	13.30	4.40	72.28		
2.83	-1.50	9.71	9.71	3.21	75.49		+
2.00	-1.00	7.89	7.89	2.61	78.10		
1.68	-0.75	1.88	3.66	1.21	79.31		
1.41	-0.50	2.77	5.40	1.78	81.09		
1.19	-0.25	4.01	7.82	2.58	83.68		
1.00	0.00	4.26	8.30	2.74	86.42		
0.84	0.25	4.08	7.95	2.63	89.05		
0.71	0.50	3.86	7.52	2.49	91.53		
0.59	0.75	3.19	6.22	2.05	93.59		
0.50	1.00	2.53	4.93	1.63	95.22		
0.42	1.25	2.13	4.15	1.37	96,59		
0.35	1.50	2.38	4.64	1.53	98.12		
0.30	1.75	1.54	3.00	0.99	99.12		
0.25	2.00	0.83	1.62	0.53	99.65		
0.210	2.25	0.24	0.47	0.15	99.81		
0.177	2.50	0.11	0.21	0.07	99.88		
0.149	2.75	0.04	0.00	0.03	99.90		
0.125	3.00	0.02	0.04	0.01	99.91		
0.105	3.25	0.01	0.02	0.01	99 _92		
880.0	3.50	0.01	0.02	0.01	99.93		
0.074	3.75	0.01	0.02	0.01	99.93		
0.0625	4.00	0.01	0.02	0.01	99.94		
<0.0625	Pan	0.00	0.18	0.06	100.00		
Net siev	ed nud	0.18					
	TOTAL		302.61	100.00			

STATISTIC	MONENT	Innan	FOLK-UARD
Hean Deviation Skeuness Kurtosis Median Skeuness2	-3.205 2.017 0.962 2.681	-2.665 2.103 0.590 0.416 -3.953 0.722	-3 .094 2 .028 0 .550 0 .936
Percent Gravel Percent Sand Percent Hud	78 .10 21 .84 0 .06		

SAMPLE ID 28

TOTAL SAMPLE NEIGHT 252.76 grans SUB-SAMPLE SPLIT NEIGHT 23.12 grans

SIZE FRA	CTION	WE IGHT	IN GRAMS	NE 16HT	PERCENT	COARSE SHELL	nacro-organics
nn	phi	uncor.	cor.	cor.	cunn.	(grans)	(grans)
	P					-	•
32.0	-5.00	0.00	0.00	0.00	00.0		
22.6	-4.50	0.00	0.00	0.00	0.00		
16.0	-4.00	0.00	00.0	0.00	0.00		
11.3	-3.50	4.27	4.27	1.69	1.69		
8.00	-3.00	14.08	14.08	5.57	7.26		
5.66	-2.50	42,37	42.37	16.76	24.02		
4.00	-2.00	40.19	40.19	15.90	39.92		
2.83	-1.50	30.16	30.16	11.93	51.86		
2.00	-1.00	28.56	28.56	11.30	63.15		
1.68	-0.75	3.37	13.52	5.35	68.50		
1.41	-0.50	4.10 4.78	16.45	6.51 7.59	75.01		
1.19	-0.25	4.78	19.18	7.59	82.60		
1.00	00.0	3.73	14.97	5.92	88 .52		
0.84	0.25	2.05	B.22	3.25	91.77		
0.71	0.50	1.33	5.34	2.11	93.88		
0.59	0.75	0.91	5.34 3.65 2.73	1.44	95.33		
0.50	1.00	0.68	2.73	1.08 0.92	96.41		
0.42	1.25	0.58	2.33 3.21	0.92	97.33		
0.35	1.50	0.80	3.21	1.27 0.71	98.60		
0.30	1.75	0.45	1.81	0.71	99.31		
0.25	2.00	0.20	0.80	0.32 0.11	99.63		
0.210	2.25	0.07	0.28	0.11	99.74		
0.177	2.50	0.06	0.24	0.10	99.84		
0.149	2.75	0.03	0.12	0.05	99.69		
0.125	3.00	0.01	0.04	0.02	99.90		
0.105	3.25	0.01	0.04	0.02			
0.088	3.50	0.01	0.04	0.02	99.93		
0.074	3.75	0.01	0.04	0.02			
0.0625	4.00	0.00	00.0	0.00			
<0.0625	Pan	0.01	0.13	0.05	100.00		
llet sie	ved nud	0.09					
	TOTAL		252.76	100.00			

STATISTIC	MONENT	INNAN	FOTK-NUMB
Nean Deviation Skeuness Kurtosis Nedian Skeuness2	-1.784 1.354 0.560 2.536	-1.824 1.405 0.060 0.456 -1.908 0.230	-1.852 1.323 0.109 0.851
Percent Gravel Percent Sand Percent Hud	63.15 36.79 0.05		

SAMPLE ID 2

29

TOTAL SAMPLE WEIGHT 391.35 grams SUB-SAMPLE SPLIT WEIGHT 13.45 grams

SIZE FRA	CTION phi	UE IGHT uncor	IN GRAMS . cor.		PERCENT cunn.	COARSE SHELL (grans)	nacro-organics (grans)
32.0 22.6 16.0	-5.00 -4.50 -4.00	0.00 51.87 82.92	0.00 51.87 82.92	0.00 13.26 21.19	0.00 13.26 34.45		
11.3	-3.50	68.96	68.96 76.83	17.62 19.64	52.07		
8.00 5.66	-3.00 -2.50	76.83 50.26	50.26	12.85	84.56		
4.00 2.83	-2.00 -1.50	28.59 12.26	28.59 12.26	7.91 9.19	91.86 95.00		
2.00 1.68	-1.00 -0.75	6.07 2.38	6.07 2.38	1.55 0.61	97.16		
1.41 1.19	-0.50 -0.25	2.53 2.54	2.53 2.54	0.65 0.65	98 .45		
1.00 0.84	0.00 0.25	2.08 1.28	2.08 1.28	0.53 0.33	99.31		
0.71 0.59	0.50 0.75	0.87 0.56	0.87 0.56	0.22 0.14	99.68		
0.50 0.42	1.00 1.25	0.46 0.31	0.46 0.31	0.12 0.08	99.88		
0.35 0.30	1.50 1.75	0.29 0.09	0.29 0.09	0.07 0.02	99.97		
0.25 0.210	2.00 2.25	0.03 0.01	0.03	0.01 0.00	99.98 99.98		
0.177 0.149	2.50 2.75	00.0 00.0	00.00 00.0	0.00	99.98		
0.125 0.105	3.00 3.25	00.0 00.0	00.00 00.0	00.00 00.0	99.98		
0.088 0.074	3.50 3.75	00.0 00.0	00.00 00.0	0.00 00.0	99.98		
0.0625	4.00 Pan	00.0 00.0	00.00 30.0	00.0 20.0	99.98		
Net sie		0.00	4 *40	4141	******		
	TOTAL		391.27	100.00			

STATISTIC	MONENT	Innon	FOLK-HARD
flean Deviation Skeuness Kurtosis fledian Skeuness2	-3.758 1.122 1.000 4.682	-3.749 0.955 0.124 0.895 -3.868 0.319	-3.789 1.026 0.146 1.192
Percent Gravel Percent Sand Percent Hud	96.55 3.44 0.02		

SAMPLE ID 30

TOTAL SAMPLE WEIGHT 412.86 grams SUB-SAMPLE SPLIT WEIGHT 32.89 grams

SIZE FRA	CTION phi	WEIGHT I	in Grans cor.	NE 16HT cor.	PERCENT cunn.	COARSE SHELL (grans)	nacro-organics (grans)
1833	bur	dico: s	000 2		••••	<b>J</b>	-
32.0	-5.00	0.00	0.00	0.00	0.00		
22.6	-4.50	73.90	73.90	17.90	17.90		
16.0	-4.00	11.80	11.80	2.86	20.76		
11.3	-3.50	20.32	20.32	4.92	25.68		
8.00	-3.00	62.32	62.32	15.09	40.77		
5.66	-Ž.ŠÕ	57.57	57.57	13.94	54.72		
4.00	-2.00	45.00	45.00	10.90	65.62		
2.83	-1.50	42.61	42.61	10.32	75.94		
2.00	-1.00	97.70	37.70	9.13	85.07		
1.68	-0.75	5.41	10.13	2.45	87.52		
1.41	-0.50	4.29	8.03	1.95	89.47		
1.19	-0.25	3.41	6.38	1.55	91.02		
1.00	0.00	2.15	4.03	0.97	91.99		
0.84	0.25	1.24	2 ~32	0.56	92.55		
0.71	0.50	1.03	1.93	0.47	93.02		
0.59	0.75	0.96	1.80	0.44			
0.50	1.00	1.08	2.02	0.49	93.94		
0.42	1.25	1.34	2.51	0.61			
0.35	1.50	2.65	4.96	1.20	95.75		
0.30	1.75	2.87	5.37	1.30	97.06		
0.25	2.00	2.81	5.26	1.27	98.33		
0.210	2.25	1.65	3.09	0.75			
0.177	2.50	1.08	2.02	0.49			
0.149	2.75	0.53	0.99	0.24			
0.125	3.00	0.16	0.30	70.0			
0.105	3.25	70.0	0.13	0.03			
980.0	3.50	0.03	0.06	0.01			
0.074	3.75	0.02	0.04	0.01			
0.0625	4,00	0.01	0.02	0.00			
<0.0625	Pan	0.01	0.25	0.06	100.00		
Het sie	ned und	0.23					
	TOTAL		412.86	100.00	l		

STATISTIC	MONERT	innan	FOLK-WARD	
Mean Deviation Skeuness Kurtosis Median Skeuness2	-3.115 1.842 0.937 3.581	-3.144 1.713 -0.031 0.896 -3.091 0.507	-3.126 1.841 0.118 1.301	
Percent Gravel Percent Sand Percent Nud	85.07 14.87 0.06			

SAMPLE ID

31

TOTAL SAMPLE WEIGHT 410.35 grams SUB-SAMPLE SPLIT WEIGHT 25.29 grams

SIZE FRACTION	UEIGHT IN GRAMS	WEIGHT PERCENT	COARSE SHELL (grans)	nacro-organics (grans)
SIZE FRACTION mm phi  32.0 -5.00 22.6 -4.50 16.0 -4.00 11.3 -3.50 8.00 -3.00 5.66 -2.50 4.00 -2.00 2.83 -1.50 2.00 -1.00 1.68 -0.75 1.41 -0.50 1.19 -0.25 1.00 0.00 0.84 0.25 0.71 0.50 0.59 0.75 0.50 1.00	uncor . cor .  54.91	cor. cunn.  13.38 13.38 6.40 19.78 14.69 34.47 6.37 40.83 12.60 53.43 7.32 60.75 7.07 67.82 4.32 72.14 2.76 74.90 0.76 75.65 0.87 76.53 1.13 77.66 1.05 78.71 1.02 79.74 1.53 81.27 1.99 83.25	(grans)	
0.42 1.25 0.35 1.50 0.30 1.75 0.25 2.00 0.210 2.25 0.177 2.50 0.149 2.75 0.125 3.00 0.105 3.25 0.088 3.50 0.074 3.75 0.0625 4.00 <0.0625 Pan Wet sieved nud	2.85 11.62 4.85 19.77 3.76 15.33 1.92 7.83 0.54 2.20 0.24 0.98 0.07 0.29 0.03 0.12 0.02 0.08 0.02 0.08 0.01 0.04 0.01 0.04 0.01 0.36	2.83 88.52 4.82 93.34 3.74 97.07 1.91 98.98 0.54 99.51 0.24 99.75 0.07 99.82 0.03 99.85 0.02 99.87 0.02 99.89 0.01 99.90 0.01 99.90		
TOTAL	410.35	100.00		

STATISTIC	MONENT	INNAH	FOLK-UARD
Nean Deviation Skeuness Kurtosis Nedian Skeuness2	-2.061 2.347 0.344 1.695	-2.358 2.909 0.382 0.201 -3.469 0.469	-2.729 2.514 0.386 0.893
Percent Gravei Percent Sand Percent Nud	74.90 25.02 0.09		

SAMPLE ID 32

TOTAL SAMPLE NEIGHT 314.12 grans SUB-SAMPLE SPLIT NEIGHT 27.21 grans

SIZE FRA	CTION	HE TEUT	IN GRAMS	UF TANT	PERCENT	COARSE SHELL	nacro-organics
olet for	Dhi	uncor.		cer.	cunn.	(grans)	(grans)
,,,,	P	2	• • • •				•
32.0	-5.00	0.00	00.0	0.00	0.00		
22.6	-4.50	45.00	45.00	14.33	14.33		
16.0	-4.00	15.54	15.54	4.95	19.27		
11.3	-3.50	7.33	7.33	2.33	21.61		
8.00	-3.00	18.09	18.09	5.76	27.37		
5.66	-2.50	39.04	39.04	12.43	39.79		
4.00	-2.00	44.68	44.68	14.22	54.02		
2.83	-1.50	47.60	47.60	15.15			
2.00	-1.00	47.23	47.23	15.04	84.21		
1.68	-0.75	6.43	11.67	3.71	87.92		
1.41	-0.50	4.41	8.00	2.55	90.47		
1.19	-0.25	2.97	5.39	1.72			
1.00	0.00	1.53	2.78	0.88			
0.84	0.25	0.88	1.60	0.51			
0.71	0.50	0.72	1.31	0.42			
0.59	0.75	0.75	1.36	0.43			
0.50	1.00	0.97	1.76	0.56	94.99		
0.42	1.25	1.22	2.21	0.70	95.69		
0.35	1.50	2.26	4.10	1.31	97.00		
0.30	1.75	2.46	4.46	1.42			
0.25	2.00	1.51	2.74	78.0	99.29		
0.210	2.25	0.58	1.05	0.34			
0.177	2.50	0.36	0.65	0.21 0.08			
0.149	2.75	0.13	0.24				
0.125	3.00	0.04	70.0	0.02 0.01			
0.105	3.25	0.02	<b>20.0</b>	0.01			
9.088	3.50	0.01	0.02	0.01			
0.074	3.75	0.01	0.02	0.01			
0.0625	4.00	0.01	0.02 0.13	0.01			
<0.0625	na9	0.00	0.13	0.04	. 100.00		
Het sie	vea nua	0.13					
	TOTAL		314.12	100.00			

STATISTIC	MONENT	INNAN	FOTK-NUMBD	
Nean Deviation Skeuness Kurtosis Nedian Skeuness2	-2.880 1.750 0.562 3.162	-2.997 1.617 -0.297 0.899 -2.516 0.114	-2.837 1.730 -0.119 1.256	
Percent Gravel Percent Sand Percent Hud	84.21 15.75 0.04			

SAMPLE ID

33

TOTAL SAMPLE WEIGHT 3143.12 grams SUB-SAMPLE SPLIT WEIGHT 22.49 grams

	A=(PA))	urreur tu ci	NAMP HETCHT	PERCENT	COARSE SHELL	MACRO-ORGANICS
SIZE FRA		ueight in Gi				(grans)
tti	phi	uncor. (	or. cor.	cunn.	(grans)	(A miss
32.0	-5.00	1110.99 1110	.99 35.35	35.35		
		333.10 333		45.94		
22.6	-4.50			57.57		
16.0	-4.00	365.54 365		65.30		
11.3	-3.50	242.73 242	,}j			
8.00	-3.00	213.37 213	.37 6.79	72.09		
5.66	-2.50	163.78 163	.78 5.21	77.30		
4.00	-2.00	129.53 129		81.42		
2.83	-1.50	143.04 143		85.97		
2.00	-1.00	126.81 126		90.00		
1.68	-0.75	2.05 28	.42 0.90	90.91		
1.41	-0.50	2.07 28	.70 0.91	91.82		
1.19	-0.25	1.87 25	.93 0.82	92.64		
1.00	0.00	1.54 21	.35 0.68	93.32		
0.84	0.25		.02 0.57	93.90		
0.71	0.50		.41 0.62	94.52		
0.59	0.75	1.56 21	.63 0.69	95.20		
0.50	1.00		.21 0.67	95.88		
0.42	1.25	2.03 28	.15 0.90	96.77		
0.35	1.50		.98 1.37	98.14		
0.30 0E.0	1.75	2.43 33	.69 1.07	99.21		
0.25	2.00		.25 0.49			
0.210	2.25		.02 0.13			
0.213	2.50	0.14 1	.94 0.06			
0.149	2.75	0.05 ô	.69 0.02			
	3.00		.42 0.01	99.92		
0.125	3.44		.28 0.01			
0.105	3.25		.28 0.01			
0.088	3.50		.14 0.00			
0.074	3.75					
0.0625	4.00					
<0.0625	Pan		.50 0.05	100.00		
Net sie	red nud	1.44				
	TOTAL	3143	.12 100.00			
	101116	4270				

STATISTIC	MINENT	INNAN	FOLK-UARD
Hean Deviation Skeuness Kurtosis Hedian Skeuness2	-3.229 1.893 1.073 3.359	-3.873 1.681 0.445 0.814 -4.620 1.179	-4.122 1.764 0.547 1.114
Percent Gravel Percent Sand Percent Mud	90.00 9.95 0.05		

SAMPLE ID

34

TOTAL SANPLE NEIGHT 247.50 grans SUB-SANPLE SPLIT NEIGHT 25.92 grans

0 17E E08	CTTOM	HETCHT TH	CDAME	uc Teut	PERCENT	COARSE SHELL	NACRO-ORGANICS
SIZE FRA		HEIGHT IN					(grans)
tei	phi	uncor.	cor.	cor.	cunn.	(grans)	(grans)
32.0	-5.00	0.00	0.00	0.00	0.00		
22.6	-4.50	0.00	0.00	0.00	0.00		
16.0	-4.00	0.00	0.00	0.00	00.0		
îĭ.3	-3.50	0.00	0.00	0.00	0.00		
8.00	-3.00	3.33	3.33	1.35	1.35		
5.66	-2.50	8.21	8.21	3.32	4.66		
4.00	-2.00	11.44	11.44	4.62	9 .28		
2.83	-1.50	14.38	14.38	5.81	15.09		
2.00	-1.00	22.25	22.25	8.99	24.08		
1.68	-0.75	1.59	11.52	4.66	28.74		
1.41	-0.50	2.42	17.54	7.09	35.83		
i . 19	-0.25	3.63	26.31	10.63	46.46		
1.00	0.00	2.85	20.65	8.35	54.80		
0.84	0.25	2.17	15.73	6.35	61.16		
0.71	0.50	1.80	13.04	5.27	66.43		
0.59	0.75	1.70	12.32	4.98	71.40		
0.50	1.00	1.52	11.02	4.45	75.85		
0.42	1.25	1.68	12.18	4.92	80.77		
0.35	1.50	2.64	19.13	7.73	88.50		
0.30	1.75	2.17	15.73	6.35	94.86		
0.25	2.00		8.19	3.31	98.17		
0.210	2.25	0.31	2.25	0.91	99.08		
0.177	2.50	0.18	1.30	0.53	99.60		1
0.149	2.75	0.06	0.43	0.18	99.78		v
0.125	3.00	0.02	0.14	0.06	99.84		
0.105	3.25	0.01	0.07	0.03	99.87		
0.088	3.50	0.01	0.07	0.03	99.89		
0.074	3.75	0.00	0.00	0.00	99.89		
0.0625	4.00	0.00	0.00	0.00	99.89		
<0.0625	Pan	0.00	0.26	0.11	100.00		
Net siev		0.26					
	TOTAL	2	47.50	100.00			

STATISTIC	MONERT	Innan	FOLK-UARD
Nean Deviation Skeuness Kurtosis Nedian Skeuness2	-0 .200 1.387 -0 .426 2 .353	-0.328 1.396 0.036 0.543 -0.378 -0.140	-0.345 1.351 -0.027 0.816
Percent Gravel Percent Sand Percent Nud	24.08 75.81 0.11		

SAMPLE ID 35

TOTAL SAMPLE NEIGHT 2560.37 grams SUB-SAMPLE SPLIT NEIGHT 31.69 grams

SIZE FRA	CTION phi	NE 16HT uncor .	IN GRANS cor.	NE IGHT COR.	PERCENT cunn.	COARSE SHELL (grans)	nacro-organics (grans)
32.0	-5.00	518.16	518.16	20.24			
22.6	-4.50	315.15	315.15	12.31	32.55		
16.0	-4.00	307.13	307.13	12.00	44.54		
11.3	-3.50	317.92	317.92	12.42	56 .96		
8.00	-3.00	369.80	369.80	14.44	71.40		
5.66	-2.50	249.96	249.96	9.76	<b>81.1</b> 6		
4.00	-2.00	122.85	122.85	4.80	85.96		
2.83	-1.50	86.42	86.42	3.38	89.34		
2.00	-1.00	50.60	50.60	1.98	91.31		
1.68	-0.75	2.49	17.40	0.68	91.99		
1.41	-0.50	1.89	13.21	0.52	92.51		
1.19	-0.25	1.72	12.02	0.47	92.98		
1.00	00.0	1.40	9.78	0.38	93.36		
0.84	0.25	1.44	10.06	0.39	93.75		
0.71	0.50	1.68	11.74	0.46	94.21		
0.59	0.75	2.08	14.53	0.57	94.78		
0.50	1.00	2.94	20.54	0.80	95.58		
0.42	1.25	3.45	24.11	0.94	96.52		
0.35	1.50	5.70	39.83	1.56	80.88	•	
0.30	1.75	4.23	29.56	1.15	99.23		
0.25	2.00	1.88	13.14	0.51	99.75		
0.210	2.25	0.40	2.79	0.11	99.86		
0.177	2.50	0.17	1.19	0.05			
0.149	2.75	0.06	0.42	0.02			
0.125	3.00 3.25	0.03	0.21	0.01			
0.105	3.25	0.02	0.14	0.01			
0.088	3.50	0.02	0.14	0.01			
0.074	3.75	0.01	70.0	0.00			
0.0625	4.00	0.02	0.14	0.01			
<0.0625	Pan	0.01	1.37	0.05	100.00		
llet sier	ed nud	1.30					
	TOTAL		2560.37	100.00			

STATISTIC	MOMENT	inda	FOLK-NARD -4.084 1.664 0.372 1.270	
Nean Deviation Skeuness Kurtosis Nedian Skeuness2	-3.419 1.707 1.430 4.704	-3.991 1.456 0.193 1.120 -4.271 1.170		
Percent Gravel Percent Sand Percent Mud	91.31 8.63 0.05			

SAMPLE ID 3

36

TOTAL SAMPLE NEIGHT 272.78 grans SUB-SAMPLE SPLIT NEIGHT 20.20 grans

SIZE FRA	CTION	HETCUT	IN GRANS	uf Taut	PERCENT	COARSE SHELL	MACRO-ORGANICS
JIZE TAN	phi	uncor.	. 103	cor.	cunn.	(grans)	(grans)
••••	¥					-	
32.0	-5.00	0.00	0.00	0.00	0.00		
22.6	-4.50	0.00	0.00	0.00	0.00		
16.0	-4.00	0.00	0.00	0.00	0.00		
11.3	-3.50	0.00	0.00	0.00	0.00		
8.00	-3.00	33.75	33.75	12.37	12.37		
5.66	-2.50	52.97	52.97	19.42	31.79		
4.00	-2.00	51.69	51.69	18.95	50.74		
2.83	-1.50	58.73	58.73	21.53	72.27		
2.00	-1.00	33.35	33 .35	12.23	84.50		
1.68	-0.75	4.17	8 -69	3.18	87.68		
1.41	-0.50	2.53	5.27	1.93	89.61		
1.19	-0.25	1.96	4.08	1.50	91.11		
1.00	0.00	1.19	2.48	0.91	92.02		
0.84	0.25	0.85	1.77	0.65	92.67		
0.71	0.50	0.74	1.54	0.57	93.23		
0.59	0.75	0.84	1.75	0.64	93.87		
0.50	1.00	1.08	2.25	0.82	94.70		
0.42	1.25	1.22	2.54	0.93	95 .63		
0.35	1.50	2.05	4.27	1.57	97.20		
0.30	1.75	1.76	3.67	1.34	98.54		
0.25	2.00	0.98	2.04	0.75	99.29		
0.210	2.25	0.38	0.79	0.29	99.58		
0.177	2.50	0.27	0.56	0.21	99.79		
0.149	2.50 2.75	0.10	0.21	80.0	99.86		
0.125	3.00	0.04	80.0	0.03			
0.105	3.25	0.02	0.04	0.02	99.91		
0.088	3.50	0.01	0.02	0.01	99.92		
0.074	3.75	0.01	0.02	0.01	99.92		
0.0625	4.00	0.01	0.02	0.01	99.93		
<0.0625	Pan	0.00	0.19	0.07	100.00		
Wet sie		0.19	-				
	TOTAL		272.78	100.00	<del> </del>		
	44444						

STATISTIC	MONENT	Innah	FOLK-WARD 	
Mean Deviation Skenness Kurtosis Median Skenness2	-2.070 1.190 1.701 5.805	-2.391 0.997 0.054 1.223 -2.444 1.027		
Percent Gravel Percent Sand Percent Nud	84.50 15.43 0.07			

37 SAMPLE ID

TOTAL SAMPLE WEIGHT 325.61 grans SUB-SAMPLE SPLIT WEIGHT 30.59 grans

SIZE FRA		UE IGHT 1			PERCENT	COARSE SHELL	NACRO-ORGANICS (grans)
m	phi	uncor.	cor.	cor.	cunn.	(grans)	Ch miss
	- ^^		0 00	0.00	0.00		
32.0	-5.00	0.00	0.00	28.06	28.06		
22.6	-4.50	91.35	91.35				
16.0	-4.00	36.59	36.59	11.24	39.29		
11.3	-3.50	22.92	22.92	7.04	46.33		
8.00	-3.00	13.77	13.77	4.23	50.56		
5 .66	-2.50	28.68	28.68	8.81	59.37		
4.00	-2.00	36.68	36.68	11.27	70.64		
2.83	-1.50	39.00	39.00	11.90	82.61		
2.00	-1.00	25.90	25.90	7.95	90.57		
1.68	-0.75	5.64	5.64	1.73	92.30		
1.41	-0.50	5.16	5.16	1.59	93.89		
1.19	-0.25	3.54	3.54	1.09	94.97		
1.00	00.00	2.14	2.14	0.66	95.63		
0.84	0.25	1.58	1.58	0.49	96.12		
0.71	0.50	1.53	1.53	0.47	96.59 97.11		
0.59	0.75	1.70	1.70	0.52	97.11		
0.50	1.00	1.96	1.96	0.60	97.71		
0.42	1.25	2.00	2.00	0.61	98.33		
0.35	1.50	2.75	2.75	0.84	99.17		
0.30	1.75	1.75	1.75	0.54	99.71		
0.25	2.00	0.59	0.59	0.18	99.89		
0.210	2.25	0.11	0.11	0.03	99 .92		
0.177	2.50	0.06	0.06	0.02	99.94		
0.149	2.75	0.02	0.02	0.01	99.95		
0.125	3.00	0.01	0.01	0.00	99.95		
ŏ.105	3.25	0.01	0.01	0.00	99.95		
0.088	3.50	0.01	0.01	0.00	99.96		
0.074	3.75	0.01	0.01	0.00	99.96		
0.0625	4.00	0.01	0.01	0.00			
<0.0625	Pan	0.00	0.12	0.04			
Net sie	•	ŏ.iž	~ ~ ~ ~				
MEC OICE	<i>PEU</i> 1100	A 2 EF					
	TOTAL		325.60	100.00			
	101111		******				

STATISTIC	MONENT	INNAN	FOLK-UARD -3.468 1.651 0.134 0.821	
flean Deviation Skeuness Kurtosis Median Skeuness2	-3.627 1.610 0.970 3.423	-3.433 1.747 0.061 0.468 -3.539 0.305		
Percent Gravel Percent Sand Percent Nud	90.57 9.39 0.04			

SAMPLE ID 38

TOTAL SAMPLE NEIGHT 2425.37 grans SUB-SAMPLE SPLIT NEIGHT 39.22 grans

CTTT FRA	CTYON	HETCHT	IN GRANS	ur taut	PERCENT	COARSE SHELL	MACRO-ORGANICS
SIZE FRA						(grans)	(grans)
1111	phi	uncor.	. cor.	cor.	cunn .	(grans)	the mins
32.0	-5.00	437,33	437.33	18.03	18.03		
22.6	-4.50	437.44	437.44	18.04	36.07		
	-4.00	159.14	159.14	6.56	42.63		
16.0	-3.50	226.78	226.78	9.35	51.98		
11.3		220.10	200 10	9.78	61.76		
8 .00	-3.00	237.10	237.10	9.64	71.40		
5.66	-2.50	233.82	233.82	7.03	78.43		
4.00	-2.00	170.62	170.62	ev.1 79.4	83.40		
2.83	-1.50	120.47	120.47				
2.00	-1.00	79.07	79.07	3.26	86.66		
1.68	-0.75	1.88	15.42	0.64	87.29		
1.41	-0.50	5.35	19.03	97.0	80.08		
1.19	-0.25	2.66	21.82	0.90	88.98		
1.00	00.0	2.24	18.37	0.76			
0.84	0.25	1.94	15.91	0.66	90.39		
0.71	0.50	2.09	17.14	0.71	91.10		
0.59	0.75	2.23	18.29	0.75	91.85		
0.50	1.00	2.45	20.09	0.83	92.68		
0.42	1.25	2.86	23.46	0.97	93.65		
0.35	1.50	5.16	42.32	1.74	95.39		
0.30	1.75	4.97	40.76	1.68			
0.25	2.00	4.13	33.87	1.40			
0.210	2.25	2.04	16.73	0.69			
0.177	2.50	1.30	10.66	0.44			
0.149	2.75	0.49	4.02	0.17			
0.125	3.00	0.17	1.39	0.06			
0.105	3.25	0.11	0.90	0.04			
0.088	3.50	0.06	0.49	0.02			
0.036	3.75	0.05	0.41	0.02			
		0.03	0.25	0.01			
0.0625	4.00 Pan	0.03	2.25	0.09			
<0.0625			E = EJ	4.03	744 FAA		
uet sieu	veu nuu	2.09					
	TOTAL		2425.37	100.00			

STATISTIC	MONENT	Innah 	FGLK-WARD 	
Nean Deviation Skeuness Kurtosis Nedian Skeuness2	-3.298 1.980 1.248 3.770	-3.572 1.883 0.210 0.811 -3.967 0.913		
Percent Gravel Percent Sand Percent Mud	86.66 13.25 0.09			

SAMPLE ID 39

TOTAL SAMPLE WEIGHT 3157.66 grams SUB-SAMPLE SPLIT WEIGHT 5.70 grams

SIZE FRA	CTION phi	WEIGHT I	M GRANS cor.	UE IGHT cor .	PERCENT cunn.	COARSE SHELL (grans)	NACRO-ORGANICS (grans)
32.0	-5.00	319.35	319.35	10.11	10.11		
22.6	-4.50	625.74	625.74	19.82	29.93		
16.0	-4.00	999.76	999.76	31.66	61.60		
11.3	-3.50	575.73	575.73	18.23	79.83		
8.00	-3.00	363.64	363.64	11.52	91.35		
5.66	-2.50	174.57	174.57	5.53	96.87		
4.00	-2.00	60.09	60.09	1.90 0.77	98.78		
2.83	-1.50	24.26	24.26	0.77	99.55		
2.00	-1.00	9.41	8.41	0.27	99.81		
1.68	-0.75	1.65	1.64	0.05	99.86		
1.41	-0.50	1.67	1.66	0.05	99.92		
1.19	-0.25	1.08	1.07	0.03	99.95		
1.00	0.00	0.60	0.60	0.02	99.97		
0.84	0.25	0.29	0.29	0.01	99.98		
0.71	0.50	0.14	0.14	0.00	99.98		
0.59	0.75	0.11	0.11	0.00	99.99		
0.50	1.00	0.07	0.07	0.00	99.99		
0.42	1.25	0.05	0.05	00.0	99.99		
0.35	1.50	0.04	0.04	0.00	99.99		
0.30	1.75	0.02	0.02	0.00	99.99		
0.25	2.00	0.02	0.02	0.00	99.99		
0.210	2 <i>.</i> 25	0.00	0.00	0.00			
0.177	2.50	0.00	0.00	0.00			
0.149	2.75	0.00	0.00	0.00			
0.125	9.00	0.00	0 _00	0.00			
0.105	3.25	0.00	0.00	0.00	9 <b>9.9</b> 9		
880.0	3.50	0.00	0.00	0.00			
0.074	3.75	0.00	00.0	0.00			
0.0625	4.00	0.00	0.00	0.00			
<0.0625	Pan	0.00	0.22	0.01	100.00		
Net sie	ved nud	0.22					
	TOTAL	:	3157.47	100.00			

STATISTIC	MONENT	Innan 	FOLK-UARD
Nean Deviation Skeuness Kurtosis Nedian Skeuness2	-4,281 0,802 0,779 3,643	-4.477 0.873 0.031 0.452 -4.504 0.168	-4.486 0.821 0.073 1.056
Percent Gravel Percent Sand Percent Mud	99.81 0.18 0.01		

SAMPLE ID 40

TOTAL SAMPLE WEIGHT 2472.51 grams SUB-SAMPLE SPLIT WEIGHT 20.77 grams

SIZE FRA nn	ROITS phi	NE IGHT Uncor .	IN GRANS . cor.	NE 16HT cor.	PERCENT cunn.	COARSE SHELL (grans)	nacro-organics (grans)
32.0	-5.00	67.04	67.04	2.71	2.71		
22.6	-4.50	65.99	65.99	2.67	5.38		
16.0	-4.00	497.47	497.47	20.12	25.50		
11.3	-3.50	860.46	860.46	34.80	60.30		
8.00	-3.00	559.38	559.38	22.62	82.93		
5 .66	-2.50	220.02	220.02	8.90	91.82		
4.00	-2.00	86.90	86.90	3.51	95.34		
2 .83	-1.50	58.30	58.30	2.36	97.70		
2.00	-1.00	35.99	35.99	1.46	99.15		
1.68	-0.75	8.98	8 .95	0.36	99.51		
1.41	-0.50	5.56	5.54	0.22	99.74		
1.19	-0.25	3.51	3.50	0.14			
1.00	0.00	1.28	1.28	0.05			
0.84	0.25	0.54	0.54	0.02			
0.71	0.50	0.26	0.26	0.01 0.01			
0.59	0.75	0.18	0.18				
0.50	1.00	0.11	0.11	0.00			
0.42	1.25	0.07	70.0	0.00			
0.35	1.50 1.75	0.10	0.10	0.00 00.0			
0.30	1.13	70.0	10.0	0.00			
0.25	2.00 2.25	0.06	0.06 0.03	0.00			
0.210	2.23	0.03	0.03	0.00			
0.177	2.50 2.75	0.02	0.02	0.00			
0.149	2.13	0.01	0.01	0.00			
0.125	3.00 3.25	0.01	0.01	0.00			
0.105	3.60	0.01	0.01	0.00			
0.088	3.50	0.01 0.01	0.01	0.00			
0.074	3.75		0.01	0.00			
0.0625	4.00	0.01 0.01	0.20	0.01			
<0.0625	ns9	0.19	V . CV	7474	F44 F44		
Vet sie	eu Auu	0.17					
	TOTAL		2472.51	100.00			

STATISTIC	MONENT	Inuan	FOLK-HARD
Nean Deviation Skeuness Kurtosis Nedian Skeuness2	-3.757 0.707 1.183 6.033	-3.960 0.648 0.132 0.914 -4.046 0.607	-3.989 0.700 0.225 1.006
Percent Gravel Percent Sand Percent Nud	99.15 0.84 0.01		

SANPLE ID 41

TOTAL SAMPLE NEIGHT 594.52 grams SUB-SAMPLE SPLIT NEIGHT 24:37 grams

				1 0 00 00 01 4 0 WT	*******		MACNA ODFAMICC
SIZE FRA		HE IGHT	In Grans		PERCENT	COARSE SHELL	MACRO-ORGANICS
nn	phi	uncor.	cor.	cor .	cunn.	(grans)	(grans)
	F 86		۸ ۸۸	0.00	0.00		
32.0	-5.00	0.00	0.00	0.00			•
22.6	-4.50	87.28	87.28	14.68	14.68		
16.0	-4.00	58.07	58.07	9.77	24.45		
11.3	-3.50	130.47	130.47	21.95	46.39		
8.00	-3.00	110.89	110.89	18.65	65.05		
5.66	-2.50	51.33	51.33	8.63	73.68		
4_00	-2.00	30.89	30.89	5.20	78.88		
2.83	-1.50	20.26	20.26	3.41	82.28		
2.00	-1.00	16.21	16.21	2.73	85.01		
1.68	-0.75	1.82	6.62	1.11	86.12		
1.41	-0.50	3.22	11.71	1.97	88.09		
1.19	-0.25	<b>3.50</b>	12.73	2.14	90.23		
1.00	0.00	3.24	11.78	1.98	92.21		
0.84	0.25	2.77	10.07	1.69	93.91		
0.71	0.50	2.73	9.93	1.67	95.58		
0.59	0.75	1.99	7.24	1.22	96.80		
0.50	1.00	1.69	6.15	1.03	97.83		
0 .42	1.25	1.08	3.93	0.66	98.49		
0.35	1.50	1.18	4.29	0.72	99.21		
0.30	1.75	0.65	2.36	0.40	99.61		
0.25	2.00	0.31	1.13	0.19	99.80		
0.210	2.25	0.08	0.29	0.05	99.85		
0.177	2.50	0.04	0.15	0.02	99.87		
0.149	2.75	0.02	0.07	0.01	99.68		
	3.00	0.01	0.04	0.01	99.89		
0.125	3.25	0.01	0.04	ŏ.ŏi	99.90		
0.105			0.04	0.01	99.90		
0 .088	3.50	0.01 0.01	0.04	0.01	99.91		
0.074	3.75		0.04	0.01	99.91		
0.0625	4.00	0.01		0.01	100.00		
<0.0625	Pan	0.01	0.51	Ψ.Ψ.	400.00		
Het sie	pea nud	0.47					
	76781		EAA EA	400 00			
	TOTAL		594.52	100.00			

STATISTIC	MIEHT	INNA	FOLK-UARD	
Hean Deviation Skeuness Kurtosis Hedian Skeuness2	-3.644 1.632 1.280 3.974	-3.149 1.570 0.333 0.772 -3.672 0.665	-3.323 1.627 0.354 1.237	
Percent Gravel Percent Sand Percent Nud	85.01 14.91 0.09			

SAMPLE ID 42

TOTAL SAMPLE NEIGHT 1474.65 grams SUB-SAMPLE SPLIT NEIGHT 13.62 grams

SIZE FRA	CTTOM	UE IGHT IN	COANC	UFTGUT	PERCENT	COARSE SHELL	MACRO-ORGANICS
				cor.		(grans)	(grans)
HH	phi	uncor.	cor.	LUI .	cunn.	Cyr wis 2	tgi allo r
32.0	-5.00	0.00	0.00	0.00	0.00		
22.6	-4.50	39.03	39 .03	2.65	2.65		
16.0	-4.00		13.64	21.27	23.92		
11.3	-3.50		13.76	21.28	45.19		
			71.62	25.20	70.40		
8.00	-3.00		89.59	12.86	83.25		
5.66	-2.50			6.08	89.33		
4.00	-2.00	89.60	89.60 77.73	5.27	94.60		
2.83	-1.50	77.73	11.13				
2.00	-1.00	65.65	65.65	4.45	99.05		
1.68	-0.75	5.07	5.06	0.34	99.40		
1.41	-0.50	1.38	1.38	0.09	99.49		
1.19	-0.25	1.28	1.28	0.09	99.58		
1.00	00.00	1.11	1.11	0.08	99.65		
0.84	0.25	9.88	88.0	0.06	99.71		
0.71	0.50	0.84	0.84	0.06	99.77		
0.59	0.75	0.71	0.71	0.05	99.82		
0.50	1.00	0.61	0.61	0.04	99.86		
0.42	1.25	0.47	0.47	0.03	99.89		
0.35	1.50	0.56	0.56	0.04	99 _93		
0.30	1.75	0.33	0.33	0.02	99 .95		
0.25	2.00	0.20	0.20	0.01	99.96		
0.210	2.25	0.06	0.06	0.00	99.97		
0.177	2.50	0.04	0.04	0.00	99.97		
0.149	2.75	0.02	0.02	0.00	99.97		
0.125	3.00	0.02	0.02	0.00			
0.105	3.25	0.02	0.02	ŏ.ŏŏ			
0.088	3.50	0.02	0.02	0.00			
0.074	3.75	0.01	0.01	0.00			
	4.00	10.0	0.01	0.00			
0.0625			0.36	0.02			
<0.0625	Pan	0.01	V .30	4.42	700.00		
Het sie	rea nua	0.35					
	707A1	. هـ	49A EG	400 00			
	TOTAL	J.	174.59	100.00			

STATISTIC	MONENT	INNAH	FOLK-UARD
Mean Deviation Skeuness Kurtosis Median Skeuness2	-3.479 0.887 0.793 4.817	-3.625 0.916 0.054 0.638 -3.674 0.504	-3.641 0.913 0.181 1.098
Percent Gravel Percent Sand Percent Hud	99.05 0.92 0.02		

SAMPLE ID 43

TOTAL SAMPLE WEIGHT 2699.09 grans SUB-SAMPLE SPLIT WEIGHT 16.19 grans

				DEBOEUT.	******	MACOO ODCANTES
SIZE FRA		WEIGHT IN GR		PERCENT	COARSE SHELL	MACRO-ORGANICS
m	phi	uncor. (	or. cor.	cunn.	(grans)	(grans)
	~ ^^	440 00 440	00 4E E0	46 63		
32.0	-5.00	418.99 418.		15.52		
22.6	-4.50	624.62 624.		38.66		
16.0	-4.00	940.19 940		73.50		
11.3	-3.50	545.48 545.		93.71		
9.00	-3.QQ	139.85 139	.85 5.18	98.89		
5.66	-2.50	11.79 11.		99.32		
4.00	-2.00	0.31 0.	.31 0.01	99.33		
2.83	-1.50		.36 0.01	99.35		
2.00	-1.00	0.38 0.	.38 0.01	99.36		
1.68	-0.75	0.29 0.	.29 0.01	99.37		
1.41	-0.50	0.67 0.	.67 0.02	99.40		
1.19	-0.25	1.01 1	.01 0.04	99.43		
1.00	0.00	1.38 1.	.38 0.05	99.49		
0.84	0.25	1.55 1.	.55 0.06	99.54		
0.71	0.50	1.75 1	.75 0.06	99.61		
0.59	0.75	1.79 1	.75 0.06 .79 0.07	99.67		
0.50	1.00	1.74 1	.74 0.06	99.74		
0.42	1.25	1.51 1	.51 0.06	99.79		
0.35	1.50	1.97 1	.97 0.07	99.87		
0.30	1.75	1.17 1	.17 0.04			
0.25	2.00	0.58 0	.58 0.02	99.93		
0.210	2.25	0.20	20 0.01	99.94		
0.177	2.50	0.15	.15 0.01	99.94		
0.149	2.75	0.10 O	10 0.00	99.95		
0.125	3.00	0.07 0	.07 0.00	99.95		
	3.25	0.07	00.0	99.95		
0.105	3 42 3		00.0	99.96		
0.088	3.50		00.0	99.96		
0.074	3.75			99.96		
0.0625	4.00		00.0	100.00		
<0.0625	Pan		.06 0.04	444.44		
Wet sie	vea nuo	1.04				
	TOTAL	<i>ሳታ ቤት</i>	44 400 00			
	TOTAL	2699	.14 100.00			

STATISTIC	MONENT	Inhan	FOLK-UARD
Nean Deviation Skeuness Kurtosis Nedian Skeuness2	-4.482 0.722 2.721 21.539	-4.843 0.611 -0.359 0.655 -4.624 -0.035	-4.770 0.612 -0.190 0.880
Percent Gravel Percent Sand Percent Mud	99.36 0.60 0.04		

SAMPLE ID 50

TOTAL SAMPLE WEIGHT 81.72 grans SUB-SAMPLE SPLIT WEIGHT 22.67 grans

SIZE FRA	CTION	NE 16HT IN	GRANS	UE IGHT	PERCENT	COARSE SHELL	macro-organics
3155 , 111	phi	uncor.	cor.	cor.	cunn.	(grans)	(grans)
,,,,	F=	2				•	
32.0	-5.00	0.00	00.0	0.00	0.00		
22.6	-4.50	0.00	09.0	0.00	0.00		
16.0	-4.00	0.00	00.0	0.00	0.00		
11.3	-3.50	0.00	00.0	0.00	0.00		
00.8	-3.00	0.00	00.0	0.00	0.00		
5 .66	-2.50	00.0	00.0	0.00	0.00		
4.00	-5 "00	0.00	0.00	0.00	0.00		
2.83	-1.50	0.04	0.04	0.05	0.05		
2.00	-1.00	0.03	0.03	0.04	0.09		
1.68	-0.75	0.01	0.04	0.04			
1.41	-0.50	70.0	0.25	0.31	0.44		
1.19	-0.25	70.0	0.25	0.31	0.74		
1.00	00.0	0.10	0.36	0.44			
0.84	0.25	0.12	0.43	0.52	1.70		
0.71	0.50	0.18	0.64	0.79	2.49		
0.59	0.75	0.31	1.11	1.36			
0.50	1.00	0.47	1.68	2.06	5.90		
0.42	1.25	0.62	2.22	2.71	8.61		
0.35	1.50	1.45	5.18	6.34	14.95		
0.30	1.75	2.00	7.15	8.75			
0.25	2.00		12.08	14.78			
0.210	2.25		12.47	15.26			
0.177	2.50		13.61	16.66	70.40		
0.149	2.75		10.40	12.72			
0.125	3.00	1.73	6.18	7.56	90.69		
0.105	3.25	1.07	3.82	4.68			
980.0	3.50	0.56	2.00	2.45			
0.074	3.75	0.23	0.82	1.01			
0.0625	4.00	0.00	0.29	0.35			
<0.0625	Pan	0.01	0.68	0.83	100.00		
llet sie	ved nud	0.64					
	TOTAL		81.72	100.00			

STATISTIC	nonent	innak 	FOLK-WARD
Nean Deviation Skeuness Kurtosis Nedian Skeuness2	1.981 0.709 -0.872 5.699	1.919 0.649 -0.008 0.837 1.924 -0.184	1.920 0.686 -0.054 1.100
Percent Gravel Percent Sand Percent Hud	0.09 99.09 0.83		

SAMPLE ID 51

TOTAL SAMPLE WEIGHT 95.82 grams SUB-SAMPLE SPLIT WEIGHT 14.75 grams

SIZE FRA nn	CTION phi	WEIGHT IN uncor.	GRANS cor .	UE IGHT cor .	PERCENT cunn.	COARSE SHELL (grans)	NACRO-ORGANICS (grans)
32.0 22.6 16.0	-5.00 -4.50 -4.00	0.00 00.00 00.0	00.0 00.0 00.0	0.00 00.0 00.0	00.0 00.0 00.0		
11.3 8.00	-3.50 -3.00	00.00 00.0	00.0	00.0 00.0	00.0 00.0		
5.66 4.00 2.83	-2.50 -2.00 -1.50	0.00 0.00 0.07	00.00 00.00 70.0	00.0 00.0 70.0	0.00 0.00 70.0		
2.00 1.68	-1.00 -0.75	0.09 0.01	0.09 30.0	0.09 70.0	0.17 0.23		
1.41 1.19 1.00	-0.50 -0.25 0.00	0.03 30.0 30.0	0.19 0.39 0.39	0.20 0.40 0.40	0.44 0.84 1.24		
0.84 0.71 0.59	0.25 0.50 0.75	0.10 0.17 0.31	0.64 1.10 2.00	0.67 1.14 2.09	1.92 3.06 5.15		
0.50 0.42	1.00 1.25	0.54 0.74	3.48 4.77	3.63 4.98 12.72	8.78 13.76 26.47		
0.35 0.30 0.25	1.50 1.75 2.00	2.24 2.69	12.18 14.44 17.34	15.07 18.10	41 .55 59 .65		
0.210 0.177 0.149	2.25 2.50 2.75		12.18 11.60 6.90	12.72 12.11 7.20	72.36 84.47 91.67		
0.125 0.105	3.00 3.25	0.47 0.31	3.03 2.00 1.22	3.16 2.09 1.28	94.83 96.92 98.20		
0.088 0.074 0.0625	3.50 3.75 4.00	0.19 0.11 0.05	0.71 0.32	0.74 0.34	98.94 99.28		
<0.0625 Net siev	Pan ed nud	0.01 0.63	0.69	0.72	100.00		
	TOTAL		95.82	100.00			

STATISTIC	MONENT.	INNAN	LOTK-NUSD
Nean Deviation Skeuness Kurtosis Nedian Skeuness2	1.721 0.671 -0.421 5.426	1.589 0.639 -0.015 0.807 1.599 -0.045	1.593 0.669 -0.020 1.119
Percent Gravel Percent Sand Percent Mud	0.17 99.11 0.72		

SAMPLE ID 52

TOTAL SAMPLE NEIGHT 94.10 grams SUB-SAMPLE SPLIT NEIGHT 13.14 grams

SIZE FRA	CTION phi	NE IGHT II Uncor.	FRANS	WE IGHT cor.	PERCENT cunn.	COARSE SHELL (grans)	macro-organics (grans)
32.0	-5.00	0.00	0.00	0.00	0.00	J	<u>-</u>
22.6	-4.50	ŏ.ŏŏ	0.00	0.00	0.00		
16.0	-4.00	0.00	0.00	0.00	0.00		
11.3	-3.50	0.00	0.00	0.00	0.00		
8.00	-3.00	0.00	0.00	0.00	0.00		
5.66	-2.50	0.00	0.00	0.00	00.0		
4.00	-2.00	0.13	0.13	0.14	0.14		
2.83	-1.50	0.02	0.02	0.02	0.16		
2.00	-1.00	0.15	0.15	0.16	0.32		
1.68	-0.75	0.02	0.14	0.15	0.47		
1.41	-0.50	0.01	0.07	0.08	0.55		
1.19	-0.25	0.03	0.21	0.23	0.77		
1.00	00.0	0.04	0.28	0.30	1.07		
0.84	0.25	0.09	0.64	0.68	1.75		
0.71	0.50	0.13	0.92	0.98	2.73		
0.59	0.75	0.21	1.49	1.58	4.32		
0.50	1.00	0.40	2.84	3.02	7.33		
0.42	1.25	0.57	4.05	4.30	11.63		
0.35	1.50	1.39	9.87	10.48	22.12		
0.30	1.75	1.98	14.05	14.94			
0.25	2.00	2.51	17.82	18.93	55.99	**	V
0.210	2.25	1.88	13.34	14.18	70.17		
0.177	2.50	1.78	12.63	13.43	83.60		
0.149	2.75	1.03	7.31	7.77	91.36		
0.125	3.00	0.48	3.41	3.62	94.99		
0.105	3.25	0.29	2.06	2.19	97.17		
880.0	3.50	0.17	1.21	1.28	98.46		
0.074	3.75	0.09	0.64	0.68	99.13		
0.0625	4.00	0.04	0.28	0.30	99.44		
<0.0625	Pan	0.01	0.53	0.56	100.00		
llet siel	ved nud	0.46					
	TOTAL		94.10	100.00			

STATISTIC	MONENT	Innor	FOLK-NARD	
Nean Beriation Skeuness Kurtosis Nedian Skeuness2	1.793 0.631 -0.260 4.616	1.644 0.604 -0.022 0.848 1.657 -0.078	1.649 0.641 -0.032 1.150	
Percent Gravel Percent Sand Percent Hud	0.32 99.12 0.56			

SAMPLE ID 53

TOTAL SAMPLE WEIGHT 80.08 grams SUB-SAMPLE SPLIT WEIGHT 20.21 grams

^ T7E E0A	erros	UE IGHT IN	CDANC	HE YEUT	PERCENT	COARSE SHELL	MACRO-ORGANICS
SIZE FRA				cor.	cunn.	(grans)	(grans)
ttti	phi	uncor.	cor.	tui .	tunn.	Chi (1)	131 21101
32.0	-5.00	0.00	0.00	0.00	0.00		
22.6	-4.50	0.00	0.00	0.00	0.00		
16.0	-4.00	0.00	0.00	0.00	0.00		
11.3	-3.50	0.00	0.00	ŏŏ.ŏ	0.00		
		0.00	0.00	0.00	0.00		
8.00	-3.00	0.00	0.00	0.00	0.00		
5.66	-2.50			0.00	0.00		
4.00	-2.00	0.00	00.0	0.04			
2.83	-1.50	0.03	60.03	0.05	0.09		
2.00	-1.00	0.04	0.04	0. <b>0</b> 5	0.14		
1.68	-0.75	0.01	0.04				
1.41	-0.50	0.01	0.04	0.05	0.19		
1.19	-0.25	0.03	0.12	0.15	0.33		
1.00	0.00	60.03	0.12	0.15	0.48		
Q _84	0.25	9.08	0.31	0.39	0.87		
0.71	0.50	0.11	0.43	0.54	1.41		
0.59	0.75	0.18	0.71	98.0	2.30		
0.50	1.00	0.29	1.14	1.42	3.72		
0.42	1.25	0.38	1.49	1.87	5.59		
0.35	1.50	1.00	3 .93	4.91	10.50		
0.30	1.75	1.46	5.74	7.17	17.68		
0.25	2.00	2,53	9.95	12.43	30.10		
0.210	2.25		12.08	15.08			
0.177	2.50		15.74	19.65			
0.149	2.75		13.93	17.39	82.23		
0.125	3.00	1.94	7.63	9.53	91.76		
	3.25	0.89	3.50	4.37			
0.105		0.37	1.46	1.82			
0.088	3.50		0.71	98.0			
0.074	3.75	0.18		0.34			
0.0625	4.00	0.07	0.28				
<0.0625	Pan	0.02	0.66	0.82	144.44		
Het sie	ved nud	0.58					
	TOTAL		80.08	100.00			

STATISTIC	MONENT	inhan	FOLK-MARD
Nean Deviation Skeuness Kurtosis Nedian Skeuness2	2.094 0.615 -0.774 5.641	1.990 0.603 -0.067 0.747 2.030 -0.225	2.003 0.621 -0.098 1.063
Percent Gravel Percent Sand Percent Nud	0.09 99.09 0.82		

SAMPLE ID 54

TOTAL SAMPLE NEIGHT 100.12 grams SUB-SAMPLE SPLIT NEIGHT 12.58 grams

SIZE FRA	NOTTON	HEICHT IN	ERONS	UF IGHT	PERCENT	COARSE SHELL	NACRO-ORGANICS
JIZE I NI	phi	uncor.	cor.	cor.	cunn.	(grans)	(grans)
••••	<b>P</b>						
32.0	-5.00	0.00	0.00	0.00	0.00		
22.6	-4.50	0.00	0.00	0.00	0.00		
16.0	-4.00	0.00	00.0	0.00	0.00		
11.3	-3.50	0.00	0.00	0.00	0.00		
9.00	-3.00	0.00	0.00	0.00	0.00		
5.66	-2.50	3. <b>0</b> 9	3.09	3.09	3.09		
4.00	-2.00	4.32	4.32	4.31 5.57	7.40		
2.83	-1.50	5.58	5 .58	5.57	12.97		
2.00	-1.00	5.81	5.81	5.80	18.78 22.30		
1.68	-0.75	0.55	3.53	3.52	22.30		
1.41	-0.50	0.54	3.46	3.46	25.76		
1.19	-0.25	0.51	3.27	3.27	29.03		
1.00	0.00	0.38	2.44	2.43	31.46		
0.84	0.25	0.35	2.24	2.24	33.70		
0.71	0.50	0.37	2.37	2.37	36.07		
0.59	0.75	0.50	3.21	3.20	39.28		
0.50	1.00	0.64	4.10	4.10	43.38		
0.42	1.25	0.68	4.36	4.36	47.73		
Q.35	1.50	1.22	7.82	7.82	55.55		
0.30	1.75	1.23	7 .89	7.88	63.43		
0.25	2.00	1.33	8.53	8.52	71.95		
0.210	2.25	1.05	6.73	8.52 6.73	78.67		
0.177	2.50	1.39	8.92	8.90	87.58		
0.149	2.75	<b>4.98</b>	6.29	8.90 6.28	93.86		
0.125	3.00	0.45	2.89	2.88	96.74		
0.123	3.25	0.23	1.48	1.47	98.21		
		0.10	0.64	0.64	98.85		
0.088	3.50	0.05	0.32	0.32			
0.074	3.75	0.03	0.19	0.19			
0.0625		0.01	0.63	0.63			
<0.0625			4 .03	\$ .03	744.44		
llet sie	nea uaa	0.57					
	TOTAL	1	00.12	100.00			

STATISTIC	THANG	Innan	FOLK-UARD
Nean Deviation Skeuness Kurtosis Nedian Skeuness2	0.693 1.718 -0.801 2.507	0.250 1.868 -0.406 0.402 1.009 -0.539	0.503 1.728 -0.395 0.754
Percent Gravel Percent Sand Percent Mud	18.78 80.59 0.63		

SAMPLE ID 55

TOTAL SAMPLE NEIGHT 79.07 grams SUB-SAMPLE SPLIT NEIGHT 20.87 grams

SIZE FRA	CTION	UEIGHT IN	GRANS	UE IGHT	PERCENT	COARSE SHELL	NACRO-ORGANICS
m	phi	uncor.	cor.	cor.	cunn.	(grans)	(grans)
****	p2	311001				3	•
32.0	-5.00	0.00	0.00	0.00	0 .00		
22.6	-4.50	0.00	00.0	0.00	0.00		
16.0	-4.00	0.00	0.00	0.00	0.00		
11.3	-3.50	0.00	0.00	0.00	0.00		
8.00	-3.00	0.00	0.00	0.00	0.00		
5.66	-2.50	0.00	0.00	0.00	0.00		
4.00	-2.00	0.00	00.0	0.00	00.0		
2.83	-1.50	0.00	00.0	0.00	00.0		
2.00	-1.00	0.04	0.04	0.05	0.05		
1.68	-0.75	0.01	0.04	0.05	0.10		
1.41	-0.50	0.01	0.04	0.05	0.15		
1.19	-0.25	0.02	80.0	0.10	0.24		
1.00	0.00	0.03	0.11	0.14			
0.84	0.25	0.04	0.15	0.19	0.57		
0.71	0.50 0.75	0.10	0.38	0.48	1.05		
0.59	0.75	<b>0.16</b>	0.60	0.76	1.81		
0.50	1.00 1.25	0.27	1.01	1.28	3.09		
0.42	1.25	0.40	1.50	1.90	4.99		
0.35	1.50 1.75	1.10	4.13 7.55	5.23	10.22		
0.30	1.75	2.01	7.55	9.55	19.77		
0.25	2.00 2.25 2.50 2.75		12.81	16.20	35.97		
0.210	2.25	3.89	14.61	19.48	54.45		
0.177	2.50	4.68	17.58	22.23	76.68		
0.149	2.75		11.83	14.96	91.64		
0.125	3.00 3.25	1.04	3.91	4.94	96.59		
0.105	3.25	0.34	1.28	1.62	98.20		
989.0	3.50	0.11	0.41	0.52	98.72		
0.074	3.75	0.07	0.26	0.33	99.05		
0.0625	4.00	0.04	0.15	0.19	99.24		
<0.0625	Pan	0.01	03.0	0.76	100.00		
llet sier	ed nud	0.56					
	TOTAL	•	79.07	100.00			

STATISTIC	MONERT	INNAH	FOLK-UARD
Nean Deviation Skeuness Kurtosis Nedian Skeuness2	1.988 0.525 -0.737 5.499	1.889 0.529 -0.054 0.712 1.918 -0.248	1.899 0.539 -0.100 1.077
Percent Gravel Percent Sand Percent Hud	0.05 99.19 0.76		

SAMPLE ID

TOTAL SAMPLE NEIGHT 87.42 grans SUB-SAMPLE SPLIT NEIGHT 13.38 grans

SIZE FRA	CTION phi	UE IGHT IN	GRAMS cor.	UE IGHT cor .	PERCENT cunn.	COARSE SHELL (grans)	nacro-organics (grans)
32.0 22.6 16.0	-5.00 -4.50 -4.00	0.00 00.0 00.0	00.0 00.0 00.0	00.0 00.0 00.0	00.0 00.0 80.0		
11.3 8.00	-3.50 -3.00	0.00 0.00 0.00	00.0 00.0 00.0	00.0 00.0 00.0	00.0 00.0 00.0		
5.66 4.00 2.83	-2.50 -2.00 -1.50	0.00 0.29	0.00	0.00 0.33 0.53	0.00 66.0		
2.00 1.68 1.41	-1.00 -0.75 -0.50	0.46 0.04 0.04	0.46 0.25 0.25 0.51	0.29 0.29 0.58	1.15 1.44		
1.19 1.00 0.84	-0.25 0.00 0.25	0.08 0.10 0.15 0.19	0.64 0.96 1.21	0.73 1.09 1.39	2.75 3.85		
0.71 0.59 0.50	0.50 0.75 1.00 1.25	0.28 0.40 0.47	1.78 2.55 3.00	2.04 2.92 3.43	7.27 10.19		
0.42 0.35 0.30 0.25	1.50 1.75 2.00	0.91 0.86 0.95	5.80 5.48 6.05	6.63 6.27 6.93	20.25 26.52		
0.210 0.177 0.149	2.25 2.50 2.75	0.85 1.42	5.42 9.05 11.66	6.20 10.35 13.34	39.64 50.00		
0.125 0.105 0.088	3.00 3.25 3.50	1.82 1.45 0.87	11.60 9.24 5.54	13.27 10.57 6.34	76.61 87.18		
0.074 0.0625 <0.0625	3.75 4.00 Pan	0.52 0.17 0.02	3.31 1.08 1.27	9.79 1.24 1.45	97.31 98.55		
Wet sier		1.14	87.42	100.00			

STATISTIC	MONENT	INNON	FOLK-HARD
Nean Deviation Skeuness Kurtosis Nedian Skeuness2	2.119 0.952 -1.045 4.862	1.980 0.953 -0.261 0.612 2.228 -0.529	2.063 0.942 -0.294 0.981
Percent Gravel Percent Sand Percent Nud	0.86 97.69 1.45		

SAMPLE ID 57

TOTAL SAMPLE NEIGHT 81.70 grams SUB-SAMPLE SPLIT NEIGHT 10.96 grams

SIZE FRA	ACTION	NE 16HT IN	CDANS	uf taut	PERCENT	COARSE SHELL	nacro-organics
		uncor.	cor.	cor.	cunn.	(grans)	(grans)
m	phi	uncu .	COI .	001 8	V01111 2	igi wiio i	13/
32.0	-5.00	0.00	00.0	0.00	0.00		
22.6	-4.50	0.00	0.00	00.0	0.00		•
16.0	-4.00	0.00	0.00	0.00	0.00		
11.3	-3.50	0.00	0.00	0.00	0.00		
8.00	-3.00	0.00	00.0	0.00	0.00		
5.66	-2.50	0.00	00.0	0.00	0.00		
4.00	-2.00	0.00	00.0	0.00	0.00		
2.83	-1.50	0.00	0.00	0.00	00.0		
2.00	-1.00	0.00	00.0	0.00			
1.68	-ô.7Š	0.00	00.0	0.00	0.00	,	
1.41	-0.50	0.01	0.07	0.09	0.09		
1.19	-ù .2Š	0.01	0.07	0.09			
1.00	0.00	0.01	0.07	0.09	0.27		
0.84	0.25	0.02	0.15	0.18			
0.71	0.50	0.02	0.15	0.18	0.63		
0.59	0.75	0.03	0.22	0.27	0.91		
0.50	1.00	0.06	0.44	0.54	1.45		
0.42	1.25	0.09	0.67	0.82	2.27		
0.35	1.50	0.31	2.30	2.81	5.08		
ŏ.3ŏ	1.75	0.63	4.66	5.71	10.79		
0.25	2.00		10.29	12.60			
0.210	2.25	1.93	14.29	17.49			
0.177	2.50	2.83	20.96	25.65			
0.149	2.75	2.31	17.10	20.94	87.46		
0.125	3.00	98.0	6.52	7.98			
0.105	3.25	Ŏ.28	2.07	2.54	97.97		
0.088	3.50	0.08	0.59	0.73	98.70		
0.074	3.75	0.04	0.30	0.36			
0.0625		0.03	0.22	0.27			
<0.0625		0.01	0.54	0.67			
let sie		0.47	4604				
HEL DIE	rea muu	V.71					
	TOTAL		01.70	100.00	I		

STATISTIC	MOMENT	HANNI	FOLK-UARD
Nean Deviation Skeuness Kurtosis Nedian Skeuness2	2.138 0.488 -0.925 7.785	2.044 0.499 -0.021 0.501 2.055 -0.143	2.048 0.476 -0.058 0.987
Percent Gravel Percent Sand Percent Nud	0.00 99.33 73.0		

SAMPLE ID 58

TOTAL SAMPLE NEIGHT 82.44 grams SUB-SAMPLE SPLIT NEIGHT 12.41 grams

<u>ለጀምሮ ሮክ</u> ሪ	CTTON	NE 16HT IN	CDANC	HE TENT	PERCENT	COARSE SHELL	nacro-organics
SIZE FRA				cor.	cunn.	(grans)	(grans)
1111	phi	uncor.	cor.	COI a	Com.	tgi wio z	19 4/107
32.0	-5.00	0.00	00.0	0.00	0.00		
22.6	-4.50	0.00	0.00	0.00	0.00		
16.0	-4.00	0.00	0.00	0.00	0.00		
11.3	-3.50	ŏŏ.ŏ	0.00	0.00	0.00		
8.00	-3.00	0.00	0.00	0.00	0.00		
5.66	-2.50	0.00	00.0	0.00	0.00		
4.00	-2.00	0.00	0.00	0.00	0.00		
2.83	-1.50	0.00	0.00	0.00	0.00		
2.00	-1.00	0.00	0.00	0.00			
1.68	-0.75	0.00	0.00	0.00			
1.41	-0.50	0.00	0.00	0.00			
1.19	-0.25	0.02	0.13	0.16	0.16		
1.00	0.00	0.02	0.13	0.16			
0.84	0.25	0.01	10.0	0.08			
0.71	0.50	0.02	0.13	0.16			
0.59	0.75	0.05	0.33	0.40		,	
0.50	1.00	řõ. o	0.46	0.56	1.52		
0.42	1.25	0.12	n 79	0.96	2.48		
0.35	1.50	0.42	0.79 2.77	3.36	5.85		
0.30	1.75	ř8.0	5.74	6.97	12.81		
0.35	2.00	2.20	14.52	17.62	30.43		
0.210	2.25	3.04	20.07	24.34	54.77		
0.177	2 56	3.51	23.17	28.11	82.88		
0.149	2.50 2.75	1.62	10.69	12.97	95.85		
0.125	2 66	0.32	2.11	2.56	98.41		
0.105	3.00 3.25	0.08	0.53	0.64			
	3.50	0.03	0.20	0.24			
0.088 0.074	3.75	0.02	0.13	0.16	99.45		
		0.01	0.07	0.08			
0.0625	4.00	0.01	0.39	0.47			
<0.0625	nsq bue bou	0.32	4 *43	4841	244644		
llet sie	עצט מטט	7.3C					
	TOTAL		82.44	100.00	l		

STATISTIC	MONENT	Innan	FOLK-HARD
Nean Deviation Skeuness Kurtosis Nedian Skeuness2	2.021 0.412 -0.982 7.003	1.864 0.409 -0.171 0.804 1.934 -0.114	1.888 0.428 -0.117 1.132
Percent Gravel Percent Sand Percent Hud	0.00 99.53 0.47		

SAMPLE ID 5

59

TOTAL SAMPLE WEIGHT 95.88 grans SUB-SAMPLE SPLIT WEIGHT 14.36 grans

SIZE FRA	CTINN	UE IGHT I	M GRANS	UE IGHT	PERCENT	COARSE SHELL	NACRO-ORFANICS
nn n	phi	uncor.	cor.	cor.	cunn.	(grans)	(grans)
****	puz	411041 1	33. 1			3	•
32.0	-5.00	0.00	0.00	0.00	0.00		
22.6	-4.50	0.00	00.0	0.00	0.00		
16.0	-4.00	0.00	0.00	0.00	0.00		
11.3	-3.50	0.00	00.0	0.00	0.00		
9.00	-3.00	0.00	00.0	0.00	0.00		
5.66	-2.50	0.00	0.00	0.00	0.00		
4.00	-2.00	-0.00	0.00	0.00	00.0		
2.83	-1.50	0.00	00.0	0.00	0.00		
2.00	-1.00	0.02	0.02	0.02	0.02		
1.68	-0.75	0.00	00.0	0.00	0.02		
1.41	-0.50	0.02	0.13	0.14	0.16		
1.19	-0.25	0.01	0.07	0.07	0.23		
1.00	00.0	0.02	0.13	0.14	0.37		
0.84	0.25	0.02	0.13	0.14	0.51		
0.71	0.50	0.04	0.27	0.28	0.78		
0.59	0.75	0.06	0.40	0.42	1.20		
0.50	1.00	0.11	0.73	0.76	1.96		
0.42	1.25	0.21	1.40	1.46	3.42		
0.35	1.50	0.76	5.05	5.27	8 .69		
0.30	1.75	1.49	9.51	9.92	18.61		
0.25	2.00	2.92	19.42	20.25	38.86		
0.210	2.25	3.29	21.88	22.82	61.68	*	
0.177	2.50	3.26	21.68	22.61	84.29		
0.149	2.75	1.61	10.71	11.17	95.46		
0.125	3.00	0.40	2.66	2.77	98.23		
0.105	3.25	0.12	0.80	0.83			
9.088	3.50	0.05	0.33	0.35	99.41		
0.074	3.75	0.02	0.13	0.14			
0.0625	4.00	0.01	0.07	0.07	99.62		
<0.0625	Pan	0.01	0.37	0.38	100.00		
llet sie	red nud	0.30					
	TOTAL		95.88	100.00			

STATISTIC	MONENT	Innan	FOLK-WARD
Nean Deviation Skeuness Kurtosis Nedian Skeuness2	1.945 0.473 -1.144 8.435	1.807 0.437 -0.146 0.886 1.870 -0.167	1.828 0.468 -0.117 1.078
Percent Gravel Percent Sand Percent Hud	0.02 99.60 0.38		

SAMPLE ID 60

TOTAL SAMPLE WEIGHT 82.80 grans SUB-SAMPLE SPLIT WEIGHT 11.16 grans

SIZE FRA	CTION phi	NEIGHT IN uncor.	GRAMS cor.	HE 16HT cor .	PERCENT cunn.	COARSE SHELL (grans)	nacro-organics (grans)
32.0	-5.00	0.00	0.00	0.00	0.00		
22.6	-4.50	0.00	0.00	0.00	00.0		
16.0	-4.00	0.00	0.00	0.00	00.0		
11.3	-3.50	0.00	00.0	00.0	0.00		
8.00	-3.00	0 <b>0.</b> 0	00.0	0.00	0.00		
5.66	-2.50	0.53	0.53	0.64			
4.00	-2.00	0.21	0.21	0.25	0.89		
2 -83	-1.50	0.63	0.63	0.76	1.65		
2.00	-1.00	0.98	0.98	1.18	2.84		
1.68	-0.75	0.04	0.29	0.35	3.18		
1.41	-0.50	0.06	0.43	0.52	3.70		
1.19	-0.25	0.09	0.64	0.78	4.48		
1.00	0.00	0.10	0.72	78.0	5.35		
0.84	0.25	0.10	0.72	0.87	6.21		
0.71	0.50	0.18	1.29	1.56	7.77		
0.59	0.75	0.30	2.15	2.60	10.36		
0.50	1.00	0.43	3.08	3.72			
0.42	1.25	0.59	4.23	5.10	19.19		
0.35	1.50		10.60	12.80	31.99		
0.30	1.75		16.76	20.24			
0.25	2.00		19.05	23.01			
0.210	2.25		10.03	12.11	87.35 SE.CC		
0.177	2.50	0.96	6.88	8.30	95.66		
0.149	2.75	0.30	2.15	2.60	98.25 98.95		
0.125	3.00	0.08	0.57	0.69	99.21		
0.105	3.25	0.03	0.21	0.26			
0.088	3.50	0.02	0.14	0.17			
0.074	3.75	0.01	10.0	90.0 90.0			
0.0625	4.00	0.01	0.07	0.03 0.45			
<0.0625	Pan Pau	0.01	0.37	0.43	TAA "AA		
llet siei	eu nuo	0.30					
	TOTAL		82.80	100.00			

STATISTIC	MONENT	Innan	FOLK-WARD
Nean Deviation Skeuness Kurtosis Nedian Skeuness2	1.445 0.885 -2.599 12.452	1.378 0.577 -0.134 1.241 1.456 -0.910	1.494 0.680 -0.270 1.532
Percent Gravel Percent Sand Percent Hud	2.84 96.71 0.45		

SAMPLE ID 61

TOTAL SAMPLE WEIGHT 82.92 grams SUB-SAMPLE SPLIT WEIGHT 11.34 grams

SIZE FRA	CTION	UE IGHT IN	CBARC	HE TENT	PERCENT	COARSE SHELL	nacro-organics
nn 31ee enn	phi	uncor.	COY.		cum.	(grans)	(grans)
1187	huz	direct "	COI a	Ca) a	Com a	191 12107	190 4
32.0	-5.00	0.00	0.00	0.00	0.00		
22.6	-4.50	0.00	00.0	0.00	0.00		
16.0	-4.00	0.00	00.0	0.00	0.00		
11.3	-3.50	0.00	00.00	0.00	0.00		
8.00	-3.00	0.00	0.00	0.00	0.00		
5.66	-2.50	0.00	00.0	0.00			
4.00	-2.00	0.11	0.11	0.13	0.13		
2.83	-1.50	0.11	0.11	0.13	0.27		
2.00	-1.00	0.13	0.13	0.16	0.42		
1.68	-0.75	0.01	0.07	0.03	0.51		
1.41	-0.50	0.03	0.22	0.26	0.77		
1.19	-0.25	0.03	0.22	0.26	1.03		
1.00	0.00	0.03	0.22	0.26	1.30		
0.84	0.25	0.05	0.36	0.44	1.73		
0.71	0.50	0.07	0.51	0.61	2.34		
0.59	0.75	0.09	0.65	0.79	3.13		
0.50	1.00	0.17	1.23	1.49	4.62		
0.42	1.25	0.28	2.03	2.45	7.06		
0.35	1.50	0.99	7.17	8.65	15.71		
0.30	1.75		11.16	13.46			
0.25	2.00	2.40	17.39	20.97	50.14		
0.210	2.25		17.17	20.71			
0.177	2.50		15.50	18.70			
0.149	2.75	0.89	6.45	7.78			
0.125	3.00	0.17	1.23	1.49	98.80		
0.105	3.25	0.04	0.29	0.35			
880.0	3.50	0.02	0.14	0.17	99.33		
0.074	3.75	0.01	0.07	0.09	99.42		
0.0625	4.00	0.01	70. Û	0.09	99.50		4
<0.0625	Pan	0.01	0.41	0.50	100.00		
Het sier	ed nud	0.34					
	TOTAL	I	92.92	100.00			

STATISTIC	MONENT	innan 	FOLK-WARD	
Nean Deviation Skeuness Kurtosis Nedian Skeuness2	1.803 0.562 -1.806 11.410	1.714 0.461 -0.067 0.909 1.744 -0.221	1.724 0.496 -0.091 1.060	
Percent Gravel Percent Sand Percent Mud	0.42 99.08 0.50			

SAMPLE ID 62

TOTAL SAMPLE WEIGHT 88.23 grans SUB-SAMPLE SPLIT WEIGHT 13.32 grans

SIZE FRA	ettas	HE IGHT IN	CDANC	HE TOUT	PERCENT	COARSE SHELL	NACRO-ORGANICS
SIZE FRN	phi	AUCOL"	cor.	COF.	cunn.	(grans)	(grans)
1141	bur	unon .	U44 6	001 1	oun.	131 41101	·3· ····
32.0	-5.00	0.00	0.00	0.00	0_00		
22.6	-4.50	0.00	0.00	0.00	00.00		
16.0	-4.00	0.00	0.00	0.00	0.00		
11.3	-3.50	0.00	0.00	0.00	0.00		
8.00	-3.00	0.00	00.0	0.00	0.00		
5.66	-2.50	0.00	0.00	0.00	0.00		
4.00	-2.00	0.00	0.00	0.00	0.00		
2 .83	-1.50	0.00	00.0	0.00	0.00		
2.00	-1.00	0.19	0.19	0.22	0.22		
1.68	-0.75	0.03	0.20	0.22	0.44		
1.41	-0.50	0.07	0.46	0.52	0.96		
1.19	-0.25	0.04	0.26	0.30	1.26		
1.00	0.00	0.05	0.33	0.37	1.63		
0.84	0.25	0.03	0.20	0.22	1.86		
0.71	0.50	0.05	66.0	0.37	2.23 2.75		
0.59	0.75	0.07	0.46	0.52	2 43		
0.50	1.00	0.09	0.59	9.67	3.42		
0.42	1.25	0.16	1.05	1.19			
0.35	1.50	0.47	3.09 5.13	3.50 5.81	13.93		
0.30	1.75	0.78	10.92	12.37	26.30		
0.25	2.00 2.25	1.66 2.31	15.19	17.22	43.52		
0.210 0.177	2.50		22.75	25.79			
0.149	2.75		16.83	19.08	88.39		
0.125	3.00	1.01	6.64	7.53	95.91		
0.105	3.25	0.32	2.10	2.39	98.30		
0.088	3.50	0.09	0.59	0.67			
0.074	9.75	60.0	0.20	0.22			
0.0625	4.00	0.01	0.07	0.07			
<0.0625	Pan	0.01	0.65	0.73			
Wet sie		0.58					
	TOTAL		88.23	100.00			

STATISTIC	тинент	INNAN	FOLK-NARD
Nean Deviation Skeuness Kurtosis Nedian Skeuness2	2.066 0.596 -2.001 10.684	1.989 0.526 -0.061 0.718 2.021 -0.389	2.000 0.536 -0.144 1.161
Percent Gravel Percent Sand Percent Nud	0.22 99.05 0.73		

SAMPLE ID 63

TOTAL SAMPLE NEIGHT 130.23 grams SUB-SAMPLE SPLIT NEIGHT 17.61 grams

			65.3MA	HP YENT	nenceut	COARSE SHELL	macro-organics
SIZE FRA		HEIGHT IN			PERCENT		(grans)
nn	phi	uncor.	cor.	cer.	cunn.	(grans)	th ans
32.0	-5.00	0.00	0.00	0.00	0.00		
22.6	-4.50	0.00	0.00	0.00	0.00		
		0.00	0.00	0.00	0.00		
16.0	-4.00 -3.50	0.00	0.00	0.00	0.00		
11.3	-3.50		0.00	0.00	0.00		
8.00	-3.00	0.00	0.00	0.00	0.00		
5.66	-2.50	0.00		0.00	00.0		
4.00	-5:00	0.00	0.00	0.00	00.0		
2.83	-1.50	0.00	0.00				
2.00	-1.00	0.00	0.00	0.00	0.00		
1.68	-0.75	0.01	70.0	0.06	0.06		
1.41	-0.50	00.00	0.00	0.00	0.06		
1.19	-0.25	0.01	70.0	0.06	0.11		
1.00	00.0	0.02	0.15	0.11	0.23		
0.84	0.25	0.04	0.29	0.23	0.45		
0.71	0.50	0.05	0.37	0.28	0.74		
0.59	0.75	0.11	0.81	0.62	1.36		
0.50	1.00	0.24	1.77	1.36	2.71		
0.42	1.25	0.50	3.68	2.83	5 .54		
0.35	1.50	1.69	12.45	9.56	15.10		
0.30	1.75	3.36	24.74	19.00	34.10		
0.25	2.00		34.83	26.75	60.85		
0.210	2.25	3.51	25.85	19.85	80.70		
0.177	2.50	2.20	16.20	12.44	93.14		
0.149	2.75	0.83	6.11	4.69			
0.125	3.00	0.17	1.25	0.96	98.79		
0.105	3.25	ŏ.06	0.44	0.34			
0.088	3.50	0.03	0.22	0.17			
0.074	3.75	0.02	0.15	Ŏ.11			
	4.00	0.02	0.15	0.11	99.53		
0.0625		0.02	0.61	0.47			
<0.0625	Pan		A *0 T	A ***!	700.00		
Het sier	eu nuo	0.54					
	TOTAL	1	30.23	100.00			

STATISTIC	NONENT	INNAN	FOLK-NARD
nean Deviation Skeuness Kurtosis Nedian Skeuness2	1.767 0.434 -0.216 5.278	1.681 0.422 0.123 0.819 1.629 -0.049	1.663 0.443 0.048 1.036
Percent Gravel Percent Sand Percent Hud	0.00 99.53 0.47		

SAMPLE ID 65

TOTAL SAMPLE WEIGHT 82.32 grams SUB-SAMPLE SPLIT WEIGHT 20.57 grams

SIZE FRA	CTION	HE IGHT IN	GRAMS	ue ight	PERCENT	COARSE SHELL	nacro-organics
titt	phi	uncor.	cor.	cor.	cunn.	(grans)	(grans)
					A AA		
32.0	-5.00	0.00	00.0	0.00	0.00		
22.6	-4.50	0.00	0.00	0.00	0.00		
16.0	-4.00	0.00	0.00	0.00	0,00		
11.3	-3.50	0.00	0.00	0.00	0.00		
8.00	-3 "00	0.00	QQ. Q	0.00	0.00		
5.66	-2.50	0.00	00.0	00.0	0.00		
4.00	-2.00	0.00	00.0	0.00	0.00		
2 .83	-1.50	0.00	0.00	0.00	0.00		
2.00	-1.00	0.00	0.00	0.00	00.0		
1.68	-0.75	0.02	0.08	0.10			
1.41	-0.50	0.00	0.00	0.00	0.10		
1.19	-0.25	0.01	0.04	0.05			
1.00	0.00	0.02	80.0	0.10			
0.84	0.25	0.01	0.04	0.05			
0.71	0.50	0.04	0.16	0.19			
<b>0.59</b>	0.75	0.12	0.48	0.58	1.06		
0.50	1.00	0.35	1.39	1.69	2.76		
0.42	1.25	0.84	3.35	4.07			
0.35	1.50		12.19	14.81	21.64		
0.30	1.75		18.81	22.85			
0.25	2.00		21.68	26.33	70.82		
0.210	2.25	3.40	19.55	16.46	87.28		
0.217	2.50	1.70	6.77	8.23	95.51		
0.149	2.75	0.55	2.19	2.66			
0.125	3.00	0.13	0.52	0.63			
	3.25	0.06	0.24	0.29	99.09		
0.105		0.03	0.12	0.15	99.24		
0.088	3.50		0.12	0.15	99.38		
0.074	3.75	0.03		0.10	99.48		
0.0625	4.00	0.02	0.08	0.10 0.52			
<0.0625	Pan	0.01	0.43	A *9%	100.00		
Net sier	ed nud	0.39					
	TOTAL		82.32	100.00			
	tuint.		~~ ***	244144			

STATISTIC	MONENT	INNAN	FOLK-UARD
Hean Deviation Skeuness Kurtosis Hedian Skeuness2	1.665 0.421 0.086 5.065	1.553 0.455 0.039 0.562 1.536 -0.036	1.547 0.443 0.008 1.071
Percent Gravel Percent Sand Percent Nud	0.00 99.48 0.52		

SAMPLE ID 66

TOTAL SAMPLE NEIGHT 153.24 grams SUB-SAMPLE SPLIT NEIGHT 19.34 grams

	ATTAN	11F 7F117 711	CDAMC	HF 7/117	わぞわぐじいて	COARSE SHELL	nacro-organics
SIZE FRA		ueight in			PERCENT		
1111	phi	uncor.	cor.	cor .	cunn.	(grans)	(grans)
32.0	-5.00	0.00	0.00	0.00	0.00		
22.6	-4.50	0.00	0.00	0.00	0.00		
16.0	-4.00	0.00	0.00	0.00	0.00		
11.3	-3.50	0.00	0.00	0.00	00.0		
8.00	-3.00	0.00	0.00	0.00			
5.66	-2.50	0.00	00.0	0.00	0.00		
	-2.00	0.00	0.00	0.00	0.00		
4.00 2.83	-1.50	0.00	0.00	0.00			
2.03	-1.00	0.00	0.00	0.00			
2.00 1.68	-0.75	0.00	0.00	0.00	0.00		
1.00	-0.50	0.01	80.0	0.05			
1.41	-0.25	0.00	0.00	0.00			
1.19		0.00	0.00	0.00			
1.00	0.00	0.00	00.0	0.00			
0.84	0.25		80.0	0.05	0.10		
0.71	0.50	0.01	0.16	0.10			
0.59	0.75	0.02					
0.50	1.00	0.08	0.63	0.41	0.62		
0.42	1.25	0.18	1.41	0.92	1.54		
0.35	1.50	0.85	6.68	4.36	5.90		
0.30	1.75	1.99	15.64	10.20	16.10		
0.25	2.00		30.72	20.05	36.15		
0.210	2.25		34.02	22.20			
0.177	2.50		35.04	22.87			
0.149	2.75		19.64	12.82	94.04	•	
0.125	3.00	0.70	5.50	3.59	97.63		
0.105	3.25	0.18	1.41	0.92			
880.0	3.50	0.06	0.47	0.31	98.86		
0.074	3.75	0.04	0.31	0.21			
0.0625	4.00	0.02	0.16	0.10	99.17		
<0.0625	Pan	0.01	1.28	0.83	100.00		
llet siev		1.20					
	TOTAL	1	53.24	100.00			

STATISTIC	MONENT	innan	FOLK-NARD
Nean Deviation Skeuness Kurtosis Nedian Skeuness2	1.999 0.422 -0.408 6.225	1.864 0.449 -0.078 0.652 1.899 0.010	1.876 0.450 -0.036 0.995
Percent Gravel Percent Sand Percent Hud	0.00 99.17 0.83		

SANPLE ID 67

TOTAL SAMPLE WEIGHT 121.68 grams UB-SAMPLE SPLIT WEIGHT 15.52 grams

0 7 7 C C C C	PATTA	WEIGHT IN	CDAMC	HE YOUT	PERCENT	COARSE SHELL	NACRO-ORGANICS
SIZE FRA					cunn.	(grans)	(grans)
nn	phi	nucor.	cor.	cor .	tuiii.	(A) mis s	cg: with
32.0	-5.00	0.00	0.00	0.00	0.00		
22.6	-4.50	0.00	00.0	0.00	0.00		
16.0	-4.00	0.00	0.00	0.00	0.00		
11.3	-3.50	0.00	00.0	0.00	0.00		
8.00	-3.00	0.00	0.00	0.00	0.00		
5.66	-2.50	0.00	00.0	0.00	0.00		
4.00	-2.00	0.00	0.00	0.00	0.00		
2.83	-1.50	0.00	0.00	0.00	0.00		
2.00	-1.00	0.00	00.0	0.00	0.00		
1.68	-0.75	0.00	0.00	0.00	0.00		
1.41	-0.50	0.00	00.0	0.00	0.00		
1.19	-0.25	0.00	0.00	0.00	0.00		
1.00	0.00	0.00	0.00	0.00	0.00		
0.84	0.25	0.00	00.0	0.00	0.00		
0.71	0.50	0.01	80.0	0.06	0.06		
0.59	0.75	0.01	80.0	0.06	0.13		
0.50	1.00	0.03	0.23	0.19	0.32		
0.42	1.25	0.07	0.55	0.45	0.77		
0.35	1.50	0.36	2.80	2.30	3.07		
0.30	1.75	1.19	9.27	7.62	10.69		
0.25	2.00		25.24	20.74	31.43		
0.210	2.25	4.16	32.40	26.63			
0.177	2.50		32.09	26.37	84.43		
0.149	2.75	1.80	14.02	11.52	95.95		
0.125	3.00	0.34	2.65	2.18	98.13		
0.105	3.25	0.09	0.70	0.58	98.70		
0.088	3.50	0.04	0.31	0.26	98.96		
0.074	3.75	0.03	0.23	0.19			
0.0625		0.02	0.16	0.13	99.28		
<0.0625		0.01	88.0	0.72			
llet sie		0.80					
	TOTAL	1	21.68	100.00			

STATISTIC	MONENT	INNAN_	FOLK-UARD
Mean Deviation Skeuness Kurtosis Median Skeuness2	2.029 0.358 -0.033 5.189	1.858 0.382 -0.167 0.737 1.922 0.066	1.879 0.392 -0.064 1.041
Percent Gravel Percent Sand Percent Hud	0.00 99.28 0.72		

SAMPLE ID 71

TOTAL SAMPLE WEIGHT 68.78 grams SUB-SAMPLE SPLIT WEIGHT 27.77 grams

SIZE FRA	CTYON	NE IGHT IN	CDANC	ue ieut	PERCENT	COARSE SHELL	NACRO-ORGANICS
				cor.	cunn.	(grans)	(grans)
riri	phi	uncor.	cor.	CUI .	vunn s	(grane)	131 2010
32.0	-5.00	0.00	0.00	0.00	0.00		
22.6	-4.50	0.00	0.00	0.00	0.00		
16.0	-4.00	0.00	0.00	0.00	0.00		
11.3	-3.50	0.00	00.0	00.0			
8.00	-3.00	2.12	2.12	80.€			
5.66	-2.50	0.00	0.00	0.00			
	-2.00	00.0	0.00	0.00	3.08		
4.00	-1.50	0.53	0.00 0.53	0.00 77.0	3.85		
2.83		0.38	0.38	0.55	4.40		
2.00	-1.00		0.26	0.38	4.78		
1.68	-0.75	0.26	0 .20	0.29	5.08		
1.41	-0.50	0.20	0.20	0.66	5.74		
1.19	-0.25	0.45	0.45	4.00 A 43			
1.00	00.00	0.43	0.43	0.63	0 "3 i		
0.84	0.25	0.48	0.48	0.70	7.07		
0.71	0.50	0.59	0.59	0.86	7.93		
0.59	0.75	0.79	08.0	1.16	9.09		
0.50	1.00	0.88	0.89	1.29	10.38		
0.42	1.25	1.11	1.12	1.63	12.00		
0.35	1.50	2.24	2.26	3.28	15.28		
0.30	1.75	2.65	2.67	99° E			
0.25	2.00	3.72	3.75	5.45	24.61		
0.210	2.25	3 <i>.</i> 25	3.27	4.76			
0.177	2.50	3.30	3,33	4.83	34.20		
0.149	2.75	2.57	2.59	3.76	37.97		
0.125	9.00	1.40	1.41	2.05			
0.105	3.25	0.86	0.87	1.26	41.28		
0.088	3.50	0.69	0.70	1.01			
0.074	3.75	0.68	0.69	1.00			
0.0625	4.00	0.61	0.61	0.89			
<0.0625	Pan		38.41	5Š.82			
Wet sie		38.01	~~ p-/4	50 80E	20000		
MEP SIE	7CG 110G	30.41					
	TOTAL		68.81	100.00			

STATISTIC	MONEAT	INHAN	FOLK-UARD
Nean Deviation Skeuness Kurtosis Median Skeuness2	1.684 1.159 -1.147 5.210	1.237 1.263 -0.299 1.602 1.615 -1.363	1.363 1.627 -0.411 1.957
Percent Gravel Percent Sand Percent Nud	4.40 39.77 55.82		

SAMPLE ID 72

TOTAL SAMPLE NEIGHT 951.65 grans SUB-SAMPLE SPLIT NEIGHT 18.57 grans

SIZE FRA	CTION phi	NE 16HT uncor	IN GRAMS . cor.	ue ight cor .	PERCENT cunn.	COARSE SHELL (grans)	nacro-organics (grans)
32.0 22.6	-5.00 -4.50	104.15 0.00	104.15 0.00	10.94 0.00	10.94		
16.0 11.3	-4.00 -3.50	0.00 6.49	0.00 6.49	0.00 8 <b>3.</b> 0	10.94 11.63		
8.00	-3.00	7.93	7.93	0.83	12.46		
5.66	-2.50	4.45	4.45	0.47	12.93		
4.00	-2.00	4.66	4.66	0.49	13.42		
2.83	-1.50	7.30	7.30	77.0	14.18		
2.00	-1.00	8.80	8.80	0.92	15.11		
1.68	-0.75	0.17	4.94 5.33	0.52 0.55	15.63 16.18		
1.41	-0.50 -0.25	0.18 0.23	5.23 6.68	07.0	16.88		
1.19 1.00	0.00	0.26	7.56	0.79	17.67		
0.84	0.25	0.23	6.68	ŏî.ŏ	18.38		
0.71	0.50	0.32	9.30	0.98			
0.59	0.75	0.45	13.08	1.37	20.73		
0.50	1.00	0.57	16.57	1.74	22.47		
0.42	1.25	0.80	23.25	2.44	24.91		
0.35	1.50	1.49	43.31	4.55	29.46		
0.30	1.75	1.63	47.38	4.98	34.44		
0.25	2.00	1.91	55.51	5.83	40.27		
0.210	2.25	1.72	49.99	5.25	45.53		
0.177	2.50	2.14 1.57	62.20	6.54 4.79	52.06		
0.149	2.75	1.31	45.63	3.45	56.86 60.31	•	
0.125	3.00	1.13 1.13	32.84 32.84	3.45	63.76		
0.105 0.088	3.25 3.50	0.97	28.19	2.96			
0.074	3.75	0.88	25.58	2.69			
0.0625	4.00	0.65	18.89	1.99			
<0.0625	Pan	0.18	272.21	28.60			
Wet sie		266.98	3				
	TOTAL		951.65	100.00			

STATISTIC	MONENT	Innan	FOLK-WARD
Nean Deviation Skeuness Kurtosis Median Skeuness2	1.671 1.558 -1.669 6.456	-0.659 3.300 -0.640 0.321 1.530 -0.781	0.074 3.051 -0.620 1.446
Percent Gravel Percent Sand Percent Mud	15.11 56.29 28.60		

SAMPLE ID 7

TOTAL SAMPLE NEIGHT 144.85 grans SUB-SAMPLE SPLIT NEIGHT 21.78 grans

<i>ሶንሞዮ ምክ</i>	ACT TAM	NE 16HT IN	CBANC	HE TEUT	PERCENT	COARSE SHELL	nacro-organics
SIZE FR				cor.	cunn.	(grans)	(grans)
1111	phi	uncor.	cor.	COI .	COIIII a	(gi dia)	Ty Live
32.0	-5.00	0.00	0.00	0.00	0.00		
22.6	-4.50	0.00	0.00	0.00	0.00		
16.0	-4.00	0.00	0.00	0.00	0.00		
11.3	-3.50	0.00	0.00	0.00	0.00		
8.00	-3.00	0.00	00.0	0.00	0.00		
5 .66	-2.50	0.00	00.0	0.00	00.0		
4.00	-2.00	0.26	0.26	0.18	0.18		
2.83	-1.50	0.42	0.42	0.29	0.47		
2.00	-1.00	0.32	0.32	0.22	0 .69		
1.68	-0.75	0.07	0.45	0.31	1.00		
1.41	-0.50	0.08	0.51	0.35	1.35		
1.19	-0.25	0.10	0.64	0.44	1.79		
1.00	0.00	0.09	0.57	0.40	2.18		
0.84	0.25	0.12	0.76	0.53	2.71		
0.71	0.50	0.12	0.76	0.53	3.24		
0.59	0.75	0.16	1.02	0.70	3.94		
0.50	1.00	0.20	1.27	0.88	4.82		
0.42	1.25	0.24	1.53	1.05	5.87		
0.35	1.50	0.53	3.37	2.33	8.20		
0.30	1.75	0.68	4.33	2.99	11.19		
0.25	2.00	1.12	7.13	4.92	16.11		
0.210	2.25	1.14	7.25	5.01	21.11		
0.177	2.50	2.04	12.98	8.96	30.07		
0.149	2.75		16.29	11.24			
0.125	3.00	2.61	16.60	11.46	52.78		
0.105	3.25		16.99	11.73	64.50		
0.088	3.50		16.29	11.24			
0.074	3.75		15.78	10.89	86.64		
0.0625	4.00		11.01	7.60	94.24		
<0.0625	Pan	0.49	8.35	5.76	100.00		
llet sie	ved nud	5.23					
	TATA!		44 05	466 66			
	TOTAL	Σ,	44.85	100.00			

STATISTIC	MOMENT	innan	FOLK-HARD
Nean Deviation Skeuness Kurtosis Nedian Skeuness2	2.615 0.946 -1.522 7.010	2.514 0.829 -0.135 0.754 2.625 -0.550	2.551 0.855 -0.224 1.061
Percent Gravel Percent Sand Percent Hud	0.69 93.55 5.76		

SANPLE ID 74

TOTAL SAMPLE WEIGHT 145.10 grams SUB-SAMPLE SPLIT WEIGHT 19.11 grams

6 4 7 F F D A	CTTON	HEIGHT IN	COAMC	HE TOUT	PERCENT	COARSE SHELL	MACRO-ORGANICS
SIZE FRA		METOUL TH	onmis COT.	cor.	cunn.	(grans)	(grans)
H	phi	ancoi .	£04 ·	001 1	ount:	131 (217)	3, 2
32.0	-5.00	0,00	0.00	0.00	0.00		
22.6	-4.50	0.00	0.00	0.00	0.00		
16.0	-4.00	0.00	0.00	0.00	0.00		
11.3	-3.50	0.00	00.0	0.00	0.00		
8.00	-3.00	0.00	0.00	0.00	0.00		
5.66	-2.50	0.00	0.00	0.00	0.00		
4.00	-2.00	0.00	0.00	0.00	0.00		
2 .83	-1.50	0.13	0.13	0.09	0.09		
2.00	-1.00	0.13	0.13	0.09	0.18		
1.68	-0.75	0.02	0.15	0.10	0.28		
1.41	-0.50	0.01	0.07	0.05	0.33		
1.19	-0.25	0.06	0.44	0.30	0.63		
1.00	00.0	0.06	0.44	0.30	0.94		
0.84	0.25	0.10	0.73	0.50	1.44		
0.71	0.50	0.15	1.10	0.76	2.20		
0.59	0.75	0.20	1.46	1.01	3.21		
0.50	1.00	0.30	2.20	1.51	4.72		
0 .42	1.25	0.38	2.78	1.92	6.64		
0.35	1.50	0.84	6.15	4.29	10.88		
0.30	1.75	1.03	7.54	5.20	16.08		
0.25	2.00	1.78	13.04	8.98	25.06		
0.210	2.25	1.65	12.09	8.33	33.39		
0.177	2.50	2.36	17.29	11.91	45.31		
0.149	2.75	2.20	16.70	11.51	56.81		
0.125	3.00	1.69	12.38	8.53	65.35		
0.105	3.25	1.33	9.74	6.71			
980.0	3.50	1.26	9.23	6.36	78.42		
0.074	3.75	1.77	12.96	8.93	97.35		
0.0625	4.00	1.45	10.62	7.32			
<0.0625	Pan	0.43	7.73	5.33	100.00		•
uet sie	vea nua	4.58					
	TOTAL	1	145.10	100.00			

STATISTIC	MONENT	Innah	FOLK-UARD
Mean Deviation Skeuness Kurtosis Median Skeuness2	2.405 0.902 -0.464 3.643	2.342 0.942 0.044 0.515 2.301 -0.131	2.328 0.903 -0.021 0.924
Percent Gravel Percent Sand Percent Hud	0.18 94.49 5.33		

SAMPLE ID 7

75

TOTAL SAMPLE NEIGHT 143.34 grams SUB-SAMPLE SPLIT NEIGHT 18.66 grams

SIZE FRA	CTION	WEIGHT IN	CDANC	ur icut	PERCENT	COARSE SHELL	nacro-organics
JILE FAN	phi	uncor.	cor.	cor.	cunn.	(grans)	(grans)
3511	hur	oncor .	001 8	00, 2	V011111	·y/ ·	· <b>y</b> ·
32.0	-5.00	0.00	00.0	0.00	0.00		
22.6	-4.50	0.00	00.0	0.00	0.00		
16.0	-4.00	0.00	0.00	0.00	0.00		
11.3	-3.50	0.00	0.00	0.00	0.00		
8.00	-3.00	0.00	0.00	0.00	0.00		
5.66	-2.50	0.00	00.0	0.00	0.00		
4.00	-2.00	0.00	0.00	0.00	00.0		
2.83	-1.50	0.00	00.0	0.00	0.00		
2.00	-1.00	0.00	00.0	0.00	0.00		
1.68	-0.75	0.00	00.0	0.00	0.00		
1.41	-0.50	0.01	70.0	0.05	0.05		
1.19	-0.25	0.00	00.0	0.00			
1.00	0.00	0.02	0.14	0.10	0.15		
0.84	0.25	0.01	0.07	0.05			
0.71	0.50	ù.02	0.14	0.10	0.30		
0.59	0.75	0.03	0.21	0.15	0.45		
0.50	1.00	0.05	0.35	0.25	0.69		
0.42	1.25	0.06	0.43	0.30	0.99		
0.35	1.50	0.16	1.14	0.79 1.29	1.78		
0.30	1.75	0.26	1.85	1.29	3.07		
0.25	2.00	0.41	2.91	2.03	5.10		
0.210	2.25	0.38	2.70	1.88	6.98		
0.177	2.50	0.59	4.19	2.92 3.57	9.91		
0.149	2.75	0.72	5.11	3.57	13.47		
0.125	3.00	0.94	6.67	4.66	18.13		
0.105	3.25		11.57	8.07	26.20		
0 .088	3.50		19.38	13.52	39.72		
0.074	3.75		33.01	23.03	62.75		
0.0625	4.00		30.81	21.50	84.25		
<0.0625	Pan		22.58	15.75	100.00		
llet siev	ed nud	10.79					
	MYAI	<.	አድ ድል	100.00			
	TOTAL	E:	43.34	100.00			

STATISTIC	nonent	Indan	FOLK-WARD
Nean Deviation Skeuness Kurtosis Nedian Skeuness2	3.237 0.688 -1.857 7.293	3.033 0.566 -0.431 0.845 3.277 -1.092	3.114 0.599 -0.512 1.230
Percent Gravel Percent Sand Percent Hud	0.00 84.25 15.75		

SAMPLE ID

16

TOTAL SAMPLE WEIGHT 157.79 grams 23.00 grams

SIZE FRA	CTTOM	UE IGHT IN	CDAMC	HE YEUT	PERCENT	COARSE SHELL	NACRO-ORGANICS
1175 LW	phi	AUCOL.	COT.	COL.	cunn.	(grans)	(grans)
1141	pa z	411001 6	501.1	33. 3	• • • • • • • • • • • • • • • • • • • •	· • · · · · · · · · · · · · · · · · · ·	•
32.0	-5,00	0.00	0.00	0.00	00.0		
22.6	-4.50	0.00	0.00	0.00	0.00		
16.0	-4.00	0.00	00.0	0.00	0.00		
11.3	-3.50	0.00	00.0	0.00	0.00		
00.8	-3,00	0.00	00.0	0.00	0.00		
5.66	-2.50	0.00	0.00	0.00	0.00		
4.00	-2.00	0.00	00.0	0.00	0.00		
2 .83	-1.50	0.00	00.0	0.00	0.00		
2.00	-1.00	0.11	0.11	0.07	0.07		
1.68	-0.75	0.05	0.33	0.21	0.28		
1.41	-0.50	0.03	0.20	0.13	0.41		
1.19	-0.25	0.02	0.13	90.0	0.49		
1.00	0.00	0.06	0.40	0.25	0.75		
0.84	0.25	0.04	0.27	0.17	0.92		
0.71	0.50	0.08	0.54	0.34	1.26 1.73		
0.59	0.75	0.11	0.74	0.47	er. r		
0.50	1.00	0.12	0.80	0.51	2.23		
0.42	1.25	0.13	0.87	0.55	2.79		
0.35	1.50	0.25	1.67	1.06	3.85 5.33		
0.30	1.75	0.35	2.34	1.49	3.33		
0.25	2.00	0.57	3.82	2.42	7.75		
0.210	2.25	0.76	5.09	3.23	10.98		
0.177	2.50	2.01	13.46	8.53	19.51		
0.149	2.75		29.61	18.76	38.28		
0.125	3.00	5.32	35.64	22.59	60.86		
0.105	3.25		27.26	17.28	78.14		
9.088	3.50		15.14	9.59	97.74		
0.074	3.75	1.41	9.45	5.99	93.72		
0.0625	4.00	0.76	5.09	3.23	96.95		
<0.0625	Pan	0.19	4.81	3.05	100.00		
llet siev	ed nud	3.54					
	TOTAL	1	57.79	100.00			

STATISTIC	MONENT	INNAN	FOCK-NUSO
Nean Deviation Skeuness Kurtosis Nedian Skeuness2	2.681 0.650 -1.600 8.443	2.606 0.526 0.012 1.003 2.600 -0.319	2.604 0.583 -0.074 1.303
Percent Gravel Percent Sand Percent Nud	0.07 96.98 3.05		

SAMPLE ID 77

TOTAL SAMPLE WEIGHT 166.62 grans SUB-SAMPLE SPLIT WEIGHT 24.64 grans

A 75F FDA	CTYAN	NEIGHT IN	CBAMC	HE YEUT	PERCENT	COARSE SHELL	nacro-organics
SIZE FRA	phi	uncor.	cor.	cor.	cunn.	(grans)	(grans)
3133	hur	Oncor ,	VVI 2	00. 5		. <b></b>	•
32.0	-5.00	0.00	00.0	0.00	0.00		
22.6	-4.50	0.00	00.0	0.00	0.00		
16.0	-4.00	0.00	00.0	0.00	0.00		
11.3	-3.50	0.00	00.0	0.00	0.00		
8.00	-3.00	0.00	00.0	0.00	0.00		
5 .66	-2.50	0.00	0.00	0.00	0.00		
4.00	-2.00	0.37	0.37	0.22	0.22		
2.83	-1.50	0.12	0.12	70.0	0.29		
2.00	-1.00	0.35	0.35	0.21	0.50		
1.68	-0.75	0.10	0.66	0.40	0.90		
1.41	-0.50	0.09	0.60	0.36	1.26		
1.19	-0.25	0.09	0.60	0.36	1.62		
1.00	0.00	0.14	0.93	0.56			
0.84	0.25	0.21	1.39	0.84 1.15	4.16		
0.71	0.50	0.29	1.92	1.59	5.75		
0.59	0.75	0.40	2.65	1.83	7.58		
0.50	1.00	0.46	3.05 3.18	1.91	9.49		
0.42	1.25	0.48 0.05	5 62	3.38	12.87		
0.35	1.50 1.75	0.85 0.89	5.63 5.90	3.54	16.41		
0.30 0.25	2.00	1.33	B B1	5.29	21.70		
0.210	2.25	1.56	8.81 10.34	6.21	27.91		
0.277	2 56	3.10	20.55	12.33	40.24		
0.149	2.50 2.75	1.56 3.10 3.78	25.05	15.04			
0.125	3.00	3.59	23.79	14.28			
0.105	3.00 3.25	70.8	20.35	12.21	81.77		
880.0	3.50		13.59	8.15	<b>89.9</b> 2		
0.074	3.50 3.75	1.45	9.61	5.77	95 .69		
0.0625	4.00	0.61	4.04	2.43			
<0.0625	Pan	0.10	3.14	1.69	100.00		
Wet sie	red nud	2.48					
	TOTAL	1	66.62	100.00			

STATISTIC	HOMENT	Innon	FOLK-UARD
Nean Deviation Skeuness Kurtosis Median Skeuness2	2.350 0.881 -1.167 5.105	2.238 0.828 -0.196 0.867 2.400 -0.599	2.292 0.882 -0.259 1.239
Percent Gravel Percent Sænd Percent Nud	0.50 97.61 1.89		

SAMPLE ID 7

78

TOTAL SAMPLE WEIGHT 155.54 grams SUB-SAMPLE SPLIT WEIGHT 23.55 grams

		4100 D.004150 V	u carmo	ur veut	AFAFFUT	COARSE SHELL	MACRO-ORGANICS
SIZE FRA		ue ight i			PERCENT		(grans)
ttet	phi	uncor.	cor .	cor.	cunn.	(grans)	(At one)
22 0	00	0.00	0.00	0.00	0.00		
32.0	-5.00		0.00	0.00	0.00		
22.6	-4.50	00.0		0.00	0.00		
16.0	-4.00	0.00	0.00	0.00	0.00		
11.3	-3.50	0.00	0.00				
8.00	-3.00	0.00	00.0	0.00	0.00		
5 .66	-2.50	0.00	0.00	0.00	0.00		
4.00	-2.00	0.16	0.16	0.10	0.10		
2.83	-1.50	0.14	0.14	0.09	0.19		
2.00	-1.00	0.54	0.54	0.35	0.54		
1.68	-0.75	0.07	0.45	0.29	68. 0		
1.41	-0.50	9.08	0.51	6.9	1.16		
1.19	-0.25	0.08	0.51	0.33	1.49		
1.00	0.00	0.13	0.83	0.54	2.02		
0.84	0.25	0.13	68.0	0.54			
0.71	0.50	0.16	1.03	0.66	3.22		
<b>0.59</b>	0.75	0.20	1.28	0.82	4.04		
0.50	1.00	0.25	1.60	1.03			
0.42	1.25	ŏ.29	1.86	1.20	6.27		
0.35	1.50	0,60	3.85	2.47	8.74		
0.30	1.75	0.75	4.81	3.09			
	2.00	0.96	6.15	3.96	15.79		
0.25	2.25	Q.96	6.15	3.96			
0.210	2.23		12.11	7.79			
0.177	2.50	1.89 3.52	22.56	14.51	42.04		
0.149	2.75			19.24			
0.125	3.00	4.67	29.93	14.67			
0.105	3.25	3.56	22.82				
0.088	3.50	2.24	14.36	9.29			
0.074	3.75	1.86	11.92	7.66			
0.0625	4.00	0.97	6 .22	4.00			
<0.0625	Pan	0.20	4.91	3.16	100.00		
llet sier	ved nud	3.63					
	TOTAL		155.54	100.00			

STATISTIC	MONENT	INNAH	FOLK-WARD
Nean Deviation Skeuness Kurtosis Nedian Skeuness2	2.549 0.849 -1.546 6.817	2.450 0.720 -0.153 0.982 2.559 -0.617	2.486 0.793 -0.232 1.331
Percent Gravel Percent Sand Percent Hud	0.54 96.30 3.16		

SAMPLE ID 79

TOTAL SAMPLE NEIGHT 207.37 grams SUB-SAMPLE SPLIT NEIGHT 27.21 grams

SIZE FRA	CTION	HEIGHT IN	GRANS	NE 16HT	PERCENT	COARSE SHELL	nacro-organics
nn	phi	uncor.	cor.	cor.	cunn.	(grans)	(grans)
AA &	E 66	6.66	0.00	0.00	0.00		
32.0	-5.00	0.00			0.00		
22.6	-4.50	0.00	00.0	0.00			
16.0	-4.00	0.00	0.00	0.00	0.00		
11.3	-3.50	0.00	0.00	0.00	0.00		
8.00	-3.00	1.07	1.07	0.52	0.52		
5 .66	-2.50	2.90	2.90	1.40	1.91		
4.00	-2.00	3.51	3.51	1.69	3.61		
2 .83	-1.50	4.36	4.36	2.10	5.71		
2.00	-1.00	6.48	6.48	3.12	8.83		
1.68	-0.75	0.46	3.14	1.51	10.35		
1.41	-0.50	0.52	3 .55	1.71	12.06		
1.19	-0.25	0.58	3.96	1.91	13.97		
1.00	00.0	0.58	3.96	1.91	15 .88		
0.84	0.25	0.50	3.41	1.65	17.52		
0.71	0.50	0.55	3.75	1.81	19.34		
0.59	0.75	0.68	4.64	2.24	19.34 21.57		
0.50	1.00	0.76	5.19	2.50	24.08		
0.42	1.25	0.78	5.32	2.57	26.64		
0.35	1.50	1.17	7.99	3.85	30.49		
0.30	1.75	1.02	6.96	3.36	33 .85		
0.25	2.00	1.15	7.85	3.79	37.64		
0.210	2.25	1.00	6.83	3.29	40.93	ree.	
0.177	2.50	2.15	14.68	7.08	48.01		
0.149	2.75	4.27	29.15	14.06	62.06		
0.125	3.00		31.13	15.01			
0.105	3.25	2.74	18.70	9.02	86.09		
		1.81	12.36	5.96			
0.088	3.50	1.35	9.22	4.44			
0.074	3.75	0.57	3.89	1.88			
0.0625	4.00			1.63			
<0.0625	Pan	0.09	3.37	F *03	700-00		
llet sier	eu nua	2.76					
	TOTAL	a	07.37	100.00			

STATISTIC	MONENT	irnar	FOLK-HARD
nean Deviation Skeuness Kurtosis Nedian Skeuness2	1.771 1.612 -1.373 4.222	1.334 1.602 -0.585 0.713 2.270 -1.032	1.646 1.632 -0.594 1.182
Percent Gravel Percent Sand Percent Hud	8.83 89.54 1.63		

SAMPLE ID 8

TOTAL SAMPLE WEIGHT 176.56 grams SUB-SAMPLE SPLIT WEIGHT 24.62 grams

SIZE FRE	errom	NE IGHT IN	CDAMC	HE TEHT	PERCENT	COARSE SHELL	MACRO-ORGANICS
217E LAI	phi	ACTOUL TH	cor.	COL.	cunn.	(grans)	(grans)
****	bee 5	411001 1			V 4 v	. <b></b>	•
32.0	-5.00	0.00	0.00	0.00	00.0		
22.6	-4.50	0.00	00.0	0.00	0.00		
16.0	-4.00	0.00	0.00	0.00	0.00		
11.3	-3.50	0.00	0.00	0.00	0.00		
8.00	-3.00	0.00	0.00	0.00	0.00		
5.66	-2.50	0.00	0.00	0.00	0.00		
4.00	-2.00	0.00	0.00	0.00	0.00		
2.83	-1.50	0.18	0.18	0.10	0.10		
2.00	-1.00	0.45	0.45	0.25 0.32	95.0 83.0		
1.68	-0.75	0.08	0.56	0.52	1.19		
1.41	-0.50	0.13	0.92 1.55	9.32 9.88	2.07		
1.19	-0.25	0.22	2.39	1.36	3.43		
1.00	0.00 0.25	0.34 0.45	3.17	1.79	5.22		
0.84 0.71	0.50	0.62	4.36	2.47	7.69		
0.59	0.75	0.78	5.49	3.11	10.80		
0.50	1.00	0 .82	5.77	3.27	14.07		
0.42	1.25	ŏ.73	5.14	2.91	16.98		
0.35	1.50	0.92	6.48	3.67			
0.30	1.75	0.60	4.22	2.39	23.04		
0.25	2.00	0.78	5.49 7.11	3.11	26.15		
0.210	2.00 2.25	1.01	7.11	4.03			
0.177	2.50	2.55	17.95 31.75	10.17	40.35		
0.149	2.50 2.75	2.55 4.51	31.75	17.98	58.33		
0.125	3.00	3.65	25.69	14.55	72.88		
0.105	3.25		17.18	9.73			
989. 0	<b>3.50</b>	2.12 1.37	14.92	8.45			
0.074	3.75	1.37	9.64	5.46	96.52		
0.0625	4.00	0.43	3.03	1.71			
<0.0625	Pan	0.07	3.11	1.76	100.00		
Net sie	red nud	2.62					
	TOTAL	1	76.56	100.00			

STATISTIC	MONENT	INNA	FOLK-UARD		
Mean Deviation Skeuness Kurtosis Median Skeuness2	2.204 1.040 -1.057 3.699	1.945 1.070 -0.411 0.628 2.385 -0.672	2.092 1.063 -0.412 1.224		
Percent Gravel Percent Sand Percent Mud	0.36 97.88 1.76				

SAMPLE ID 81

TOTAL SAMPLE WEIGHT 198.07 grams SUB-SAMPLE SPLIT WEIGHT 26.44 grams

SIZE FRA	CTYON	ue ight ii	2 RANS	WE TOUT	PERCENT	COARSE SHELL	nacro-organics
DIEE FAN	phi	uncor.	cor.	cor.	cunn.	(grans)	(grans)
****	h					<u> </u>	
32.0	-5.00	0.00	00.0	0.00	0.00		*
22.6	-4.50	0.00	00.0	0.00	0.00		
16.0	-4.00	00.0	0.00	0.00	0.00		
11.3	-3.50	0.00	0.00	0.00	0.00		
00.8	-3 .00	1.44	1.44	0.73	0.73		
5.66	-2.50	0.48	0.48	0.24	0.97		
4.00	-2.00	0.70	or. o	0.35	1.32		-
2.83	-1.50	1.85	1.85	0.93	2.26		
2.00	-1.00	4.29	4.29	2.17	4.42		
1.68	-0.75	0.53	3.76	1.90	6.32		
1.41	-0.50	0.76	5.39	2.72	9.04		
1.19	-0.25	1.22	8.65	4.37	13.40		
1.00	00.0	1.31	9.29	4.69	18.69		
0.84	0.25	1.55	10.99	5.55	23.64		
0.71	0.50	1.79 1.76	12.69	6.41	30.04		
0.59	0.75	1.76	12.47	6.30	36.34		
0.50	1.00	1.58	11.20	5.65	42.00		
0.42	1.25	1.33	9.43	4.76			
0.35	1.50	1.66	11.77	5.94	52.70		
0.30	1.75	1.35	9.57	4.83	57.53		
0.25	2.00	1.48	10.49	5.30	62.82		
0.210	2.25	1.09	7.73	3.90			
0.177	2.50	1.50	10.63	5.37	72.09		
0.149	2.75	2.13	15.10	7.62	79.71		
0.125	3.00	2.27	16.09	8.12	87.84		
0.105	3.25	1.55	10.99	5.55	93.38		
880.0	3.50	0.98	6.95	3.51	96.89		
0.074	3.75	0.49	3.47	1.75			
0.0625	4.00	0.13	0.92	0.47			
<0.0625	Pan	0.03	1.76	0.89	100.00		
Wet sie	ved nud	1.55					
	TOTAL		198.07	100.00	ı		

STATISTIC	NONENT	Innan	LOTK-NUMBD
Nean Deviation Skeuness Kurtosis Median Skeuness2	1.289 1.339 -0.406 2.660	1.115 1.489 0.008 0.545 1.103 -0.204	1.111 1.441 -0.062 0.823
Percent Gravel Percent Sand Percent Mud	4.42 94.69 0.89		

SAMPLE ID 82

TOTAL SAMPLE WEIGHT 238.64 grams SUB-SAMPLE SPLIT WEIGHT 2.53 grams

SIZE FRA	CTION	UF TGHT	IN GRAMS	UE IGHT	PERCENT	COARSE SHELL	NACRO-ORGANICS
III	phi	uncor		cor.	cunn.	(grans)	(grans)
****	<b>,</b>				AB #8		
32.0	-5.00	233.08	233.08	97.67	97.67		
22.6	-4.50	0.00	0.00	0.00	97.67		
16.0	-4.00	0.00	00.0	0.00	97.67		
11.3	-3.50	2.92	2.92	1.22	98.90		
9 .00	-3.00	0.00	00.0	0.00	98.90		
5.66	-2.50	0.00	0.00	0.00	98.90		
4.00	-2.00	0.00	00.0	0.00	98.90		
2.83	-1.50	0.03	0.03	0.01	98.91		
2.00	-1.00	0.05	0.05	0.02	98.93		
1.68	-0.75	0.13	0.13	0.05			
1.41	-0.50	0.14	0.14	0.06			
1.19	-0.25	0.18	0.18	0.07			
1.00	0.00	0.30	0.29	0.12			
0.84	0.25	0.26	0.29 0.25	0.11	99.34		
0.71	0.50	0.32 0.28	0.31	0.13	99.47		
õ.59	0.75	0.28	Q.27	0.11	99.59		
0.50	1.00	0.24	0.23	0.10	99.69		
0.42	1.00 1.25	0.18	0.18	0.07	99.76		
0.35	1.50	0.20	0.19	0.08	99.84		
0.30	1.50 1.75	0.20 0.13	0.13	0.05	99.89		
0.25	2.00	0.09	0.09	0.04	99.93		
0.210	2.00 2.25	0.04	0.04	0.02	99.95		
0.177	2.50	0.04	0.04	0.02	99.96		
ò .149	2.50 2.75	0.03	0.03	0.01	99.98		
0.125	9.00	0.02		0.01	99.98		
0,105	3.25	0.01	0.01	0.00	99.99		
880.0	3.50	0.01	0.01	0.00	99.99		
0.074	3.75	ŏ.ŏŏ	00.00	0.00			
0.0625	4.00	0.00		0.00	99.99		
<0.0625	Pan	0.00		0.01			
Wet sie		0.02					
MC 0 3 C	. FA 1188	7.72					
	TOTAL		238.63	100.00	)		

STATISTIC	THANON	INNAN 	FOLK-HARD
Nean Deviation Skeuness Kurtosis Nedian Skeuness2	-2.604 2.130 0.957 2.239	-5.494 0.174 0.000 0.324 -5.494 0.000	-5.494 0.157 0.000 0.738
Percent Gravel Percent Sand Percent Nud	98.93 1.06 0.01		

SAMPLE ID 84

TOTAL SAMPLE NEIGHT 637.56 grams SUB-SAMPLE SPLIT NEIGHT 16.45 grams

SIZE FRA	CTION	UE 16HT	IN GRAMS	WE 16HT	PERCENT	COARSE SHELL	MACRO-ORGANICS
nn	phi	uncor.		cor.	cunn.	(grans)	(grans)
22.4		440.00	4.40 00	22.25	22 25		
32.0	-5.00	148.86	148 .86	23.35	23.35 23.35		
22.6	~4.50	0.00	0.00	0.00			
16.0	-4.00	10.08	10.08	1.58	24.93 24.93		
11.3	-3.50	0.00	00.00	0.00			
8.00	-3.00	2.03	2.03	0.32	25.25		
5.66	-2.50	2.46	2.46	0.39	25.63		
4.00	-2.00	3.28	3.28	0.51	26.15		
2.83	-1.50	4.69	4.69	0.74	26.88		
2.00	-1.00	6.23	6.23	0.98	27.86		
1.68	-0.75	0.19	5.24	0.82	28.68		
1.41	-0.50	0.14	3.86	0.61	29.29		
1.19	-0.25	0.27	7.45	1.17	30.46		
1.00	0.00	0.16	4.41	0.69	31.15		
0.84	0.25	0.15	4.14	0.65	31.80		
0.71	0.50	0.19	5.24	0.82	32.62		
0.59	0.75	0.21	5.79	0.91	33.53		
0.50	1.00	0.20	5.51	78.0	34.39		
0.42	1.25	0.19	5.24	0.82	35.21		
0.35	1.50	0.28	7.72	1.21	36.42		
0.30	1.75	0.30	8.27	1.30	37.72		
0.25	2.00	0.52	14.34	2.25	39.97		
0.210	2.25	88.0	24.27	3.81	43.78		
0.177	2.50	2.44	67.28	10.55	54.33		
0.149	2.75	3.86	106.44	16.69	71.02		
0.125	3.00	3.17	87.41	13.71	84.74		
0.105	3.25	1.78	49.08	7.70	92.43		
0.088	3.50	0.91	25.09	3.94	96.37		
0.074	3.75	0.43	11.86	1.86	<b>98 .</b> 23		
0.0625	4.00	0.13	3.58	0.56	98.79		
<0.0625	Pan	80.0	7.71	1.21	100.00		
Wet siev		5.50					
	TOTAL		637 .56	100.00			

STATISTIC	MONENT	INNON	FOLK-HARD
Nean Deriation Skeuness Kurtosis Nedian Skeuness2	2.181 1.176 -2.343 9.022	-1.345 4.066 -0.842 0.080 2.078 -0.819	-0.204 3.364 -0.800 0.522
Percent Gravel Percent Sand Percent Hud	27.86 70.93 1.21		

SAMPLE ID 85

TOTAL SAMPLE WEIGHT 191.14 grans SUB-SAMPLE SPLIT WEIGHT 23.68 grans

SIZE FRA	CTION	NE IENT IN	CDAMC	HE TOUT	PERCENT	COARSE SHELL	NACRO-ORGANICS
							(orans)
nn	phi	uncor.	cor.	cor.	cunn.	(grans)	(grans)
32.0	-5.00	0.00	0.00	0.00	0.00		
22.6	-4.50	0.00	0.00	0.00	0.00		
16.0	-4.00	0.00	0.00	0.00	0.00		
11.3	-3.50	ŏ.ŏŏ	0.00	0.00	0.00		
8.00	-3.00	0.00	0.00	0.00	0.00		
5.66	-2.50	00.0	00.0	0.00	0.00		
4.00	-2.00	0.63	0.63	0.33	0.33		
2.83	-1.50	0.45	0.45	0.24	0.57		
2.00	-1.00	0.40	0.40	0.21	0.77		
1.68	-0.75	0.07	0.55	<b>0.29</b>	1.06		
1.41	-0.50	0.01	80.0	0.04	1.10		
1.19	-0.2Š	<b>0.0</b> 5	0.39	0.21	1.31		
1.00	0.00	0.07	0.55	0.29	1.60		
0.84	0.25	0.05	0.39	0.21	1.81		
0.71	0.50	0.09	0.71	0.37	2.18		
0.59	0.75	ŏ.1ŏ	0.79	0.41	2.59		
0.50	1.00	0.12	0.95	0.50	3.09		
0.42	1.25	ŏ.14	1.11	0.58	3.67		
0.35	1.50	0.31	2.45	1.28	4.95		
0.30	1.75	ŏ.60	4.74	2.48	7.43		
0.25	2.00		13.11	6.86	14.29		
0.210	2.25	3.21	25 <i>.3</i> 6	13.27	27.56		
0.177	2.50		45.34	23.72			
0.149	2.75		43.37	22.69	79.97		
0.125	3.00		22.43	11.74			
0.105	3.25		12.01	6.28	91.99		
0.088	3.50	0.94	7.43	3.88			
0.074	3.75	0.47	3.71	1.94	97.81		
0.0625	4.00	0.17	1.34	0.70	98.52		
<0.0625	Pan	ŏ.06	2.83	1.48	100.00		
Wet sier		2.36	F *00	2 3 7 0	744544		
MCC 9161	rea Haa	E 0.50					
	TOTAL	1	91.14	100.00			

STATISTIC	MONERT	Innan	FOLK-HARD	
Nean Deviation Skeuness Kurtosis Nedian Skeuness2	2.305 0.641 -2.046 14.167	2.239 0.469 0.034 1.021 2.223 -0.068	2.233 0.521 0.000 1.127	
Percent Gravel Percent Sand Percent Hud	0.77 97.74 1.48			

SAMPLE ID 86

TOTAL SAMPLE NEIGHT 199.46 grans SUB-SAMPLE SPLIT NEIGHT 15.70 grans

SIZE FRI	CTION	WEIGHT IN	GRANS	NE 16HT	PERCENT	COARSE SHELL	nacro-organics
nn	phi	uncor.	cor.	cor.	cunn.	(grans)	(grans)
22.4			0.00	0.00	0.00		
32.0	-5.00	0.00	0.00	0.00	0.00		
22.6	-4.50	0.00	0.00				
16.0	-4.00	0.00	00.0	0.00	0.00		
11.3	-3.50	0.00	0.00	0.00	0.00		
90.8	-3.00	0.00	00.0	0.00	0.00		
5 .66	-2.50	0.00	00.0	0.00	0.00		
4.00	-2.00	0.00	00.0	0.00	0.00		
2 -83	-1.50	0.00	00. O	0.00	0.00		
2.00	-1.00	0.00	00.0	00.0	00.0		
1.68	-0.75	0.01	0.12	0.06	0.06		
1.41	-0.50	0.00	00.0	0.00	0.06		
1.19	-0.25	00.0	0.00	0.00	0.06		
1.00	0.00	0.01	0.12	0.06	0.13		
0.84	0.25	0.01	0.12	0.06	0.19		
0.71	0.50	0.01	0.12	0.06	0 .25		
0.59	0.75	0.02	0.25	0.13	0.38		
0.50	1.00	0.01	0.12	0.06	0.44		
0.42	1.25	0.01	0.12	0.06	0.50		
0.35	1.50	0.05	0.62	0.31	0.81		
0.30	1.75	ŏ.17	2.12	1.06	1.88		
0.25	2.00		10.60	5.31	7.19		
0.210	2.25		25.19	12.63	19.82		
0.177	2.50		53.37	26.76	46.57		
0.149	2.75	4.23	52.75	26.44	73.02		
0.125	3.00		27.56	13.82			
	3.44 2.2E		12.47	6.25			
0.105	3.25		6.11	3.06			
0.088	3.50	0.49	0.11				
0.074	3.75	0.23	2.87	1.44	98.15		
0.0625	4.00	0.09	1.12	0.56			
<0.0625	Pan	0.04	3.69	1.85	100.00		
llet sie	rea nua	3.19					
	TOTAL	1	99.46	100.00			

STATISTIC	MONENT	Innan 	FOLK-MARD
Nean Deviation Skeuness Kurtosis Nedian Skeuness2	2.399 0.426 -0.056 6.093	2.277 0.419 -0.010 0.819 2.281 0.123	2.278 0.440 0.029 1.014
Percent Gravel Percent Sand Percent Hud	0.00 98.15 1.85		

SAMPLE ID

87

TOTAL SAMPLE WEIGHT 221.73 grams SUB-SAMPLE SPLIT WEIGHT 15.94 grams

SIZE FRA	CTION phi	UE IGHT IN Uncor.	GRAMS cor .	UE IGHT cor .	PERCENT cunn.	COARSE SHELL (grans)	MACRO-ORGANICS (grans)
32.0	-5.00	0.00	0.00	0.00	0.00	•	•
22.6	-4.50	0.00	0.00	0.00	00.0		
16.0	-4.00	0.00	0.00	0.00	0.00		
11.3	-3.50	0.00	0.00	0.00	0.00		
8.00	-3.00	1.03	1.03	0.46	0.46		
5.66	-2.50	0.00	0.00	0.00	0.46		
4.00	-2.00	0.43	0.43	0.19	0.66		
2.83	-1.50	0.55	0.55	0.25	0.91		
2.00	-1.00	0.46	0.46	0.21	1.11		
1.68	-0.75	0.01	0.13	0.06	1.17		
1.41	-0.50	0.02	0.27	0.12	1.30		
1.19	-0.25	0.03	0.40	0.18	1.48		
1.00	0.00	0.04	0.54	0.24	1.72		
0 .84	0.25	0.03	0.40	0.18	1.91		
0.71	0.50	0.04	0.54	0.24	2.15		
0.59	0.75	0.05	0.67	0.30	2.45		
0.50	1.00	0.07	0.94	0.43	2.88		
0.42	1.25	0.07	0.94	0.43	3.31		
0.35	1.50	0.17	2.29	1.03	4.34		
0.30	1.75	0.32	4.32	1.95	6.29		
0.25	2.00	0.78	10.53	4.75	11.04		
0.210	2.25		15.52	7.00	18.04		
0.177	2.50	2.55	34.42	15.52	<u> </u>		
0.149	2.75		48 .19	21.73	55.30		
0.125	3.00		45.63	20.58	75.87		
0.105	3.25		29 .43	13.27	89.15		
9.088	3.50		14.04	6.33	95.48		
0.074	3.75	0.35	4.72	2.13	97.61		
0.0625	4.00	0.09	1.21	9.55	98.16		
<0.0625	Pan	0.04	4.09	1.84	100.00		
Net siev	ea nua	<b>3.55</b>					
	TOTAL	2	21.73	100.00			

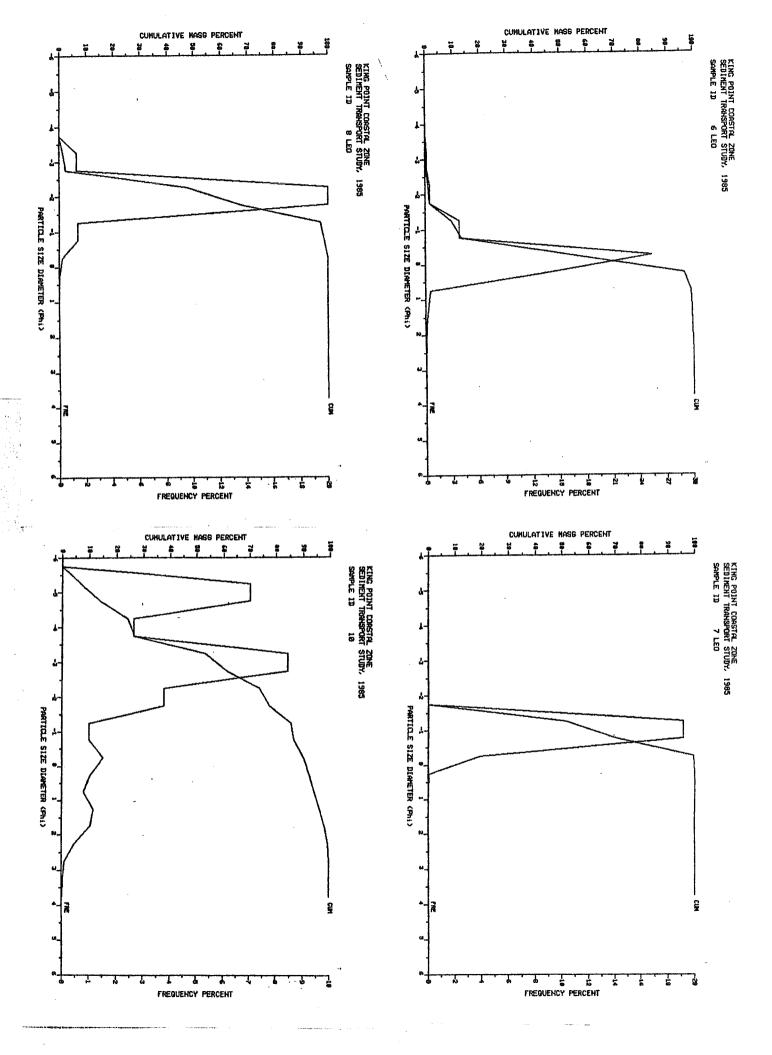
STATISTIC	THENT	IHNAH	FOLK-NARD
Nean Deviation Skeuness Kurtosis Nedian Skeuness2	2.467 0.660 -2.516 15.671	2.386 0.532 -0.090 0.786 2.433 -0.358	2.402 0.554 -0.145 1.156
Percent Gravel Percent Sand Percent Mud	1.11 97.04 1.84		

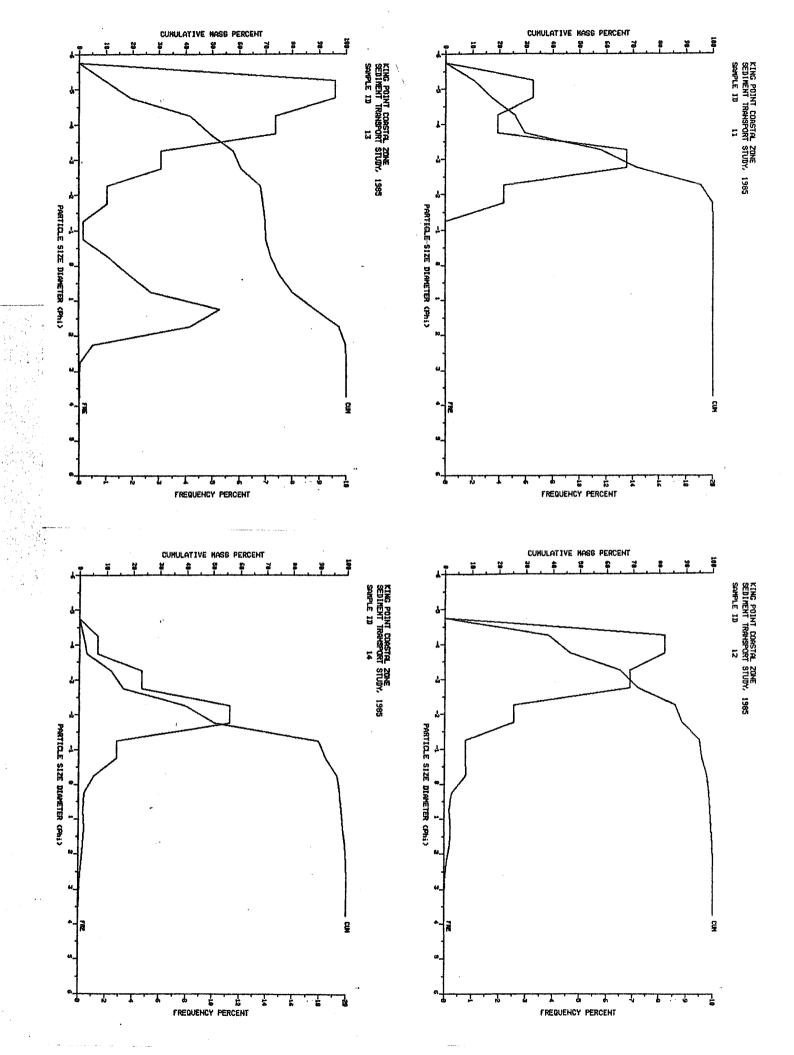
SAMPLE ID 88

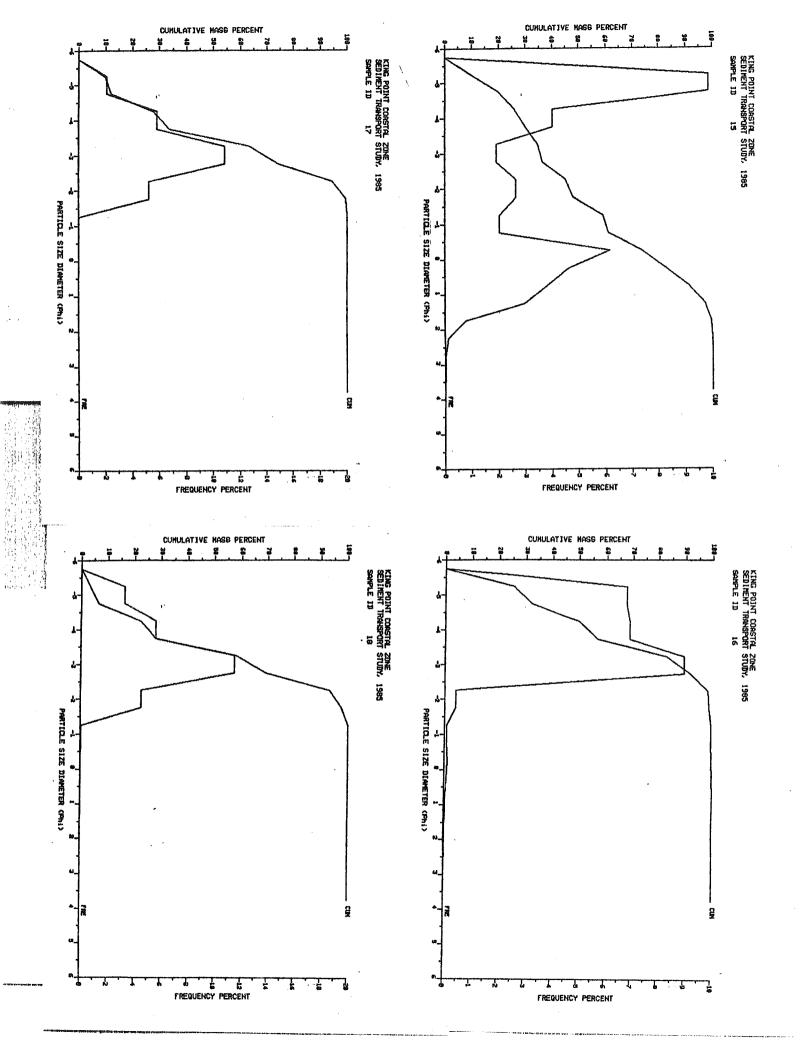
TOTAL SAMPLE WEIGHT 196.85 grams SUB-SAMPLE SPLIT WEIGHT 19.28 grams

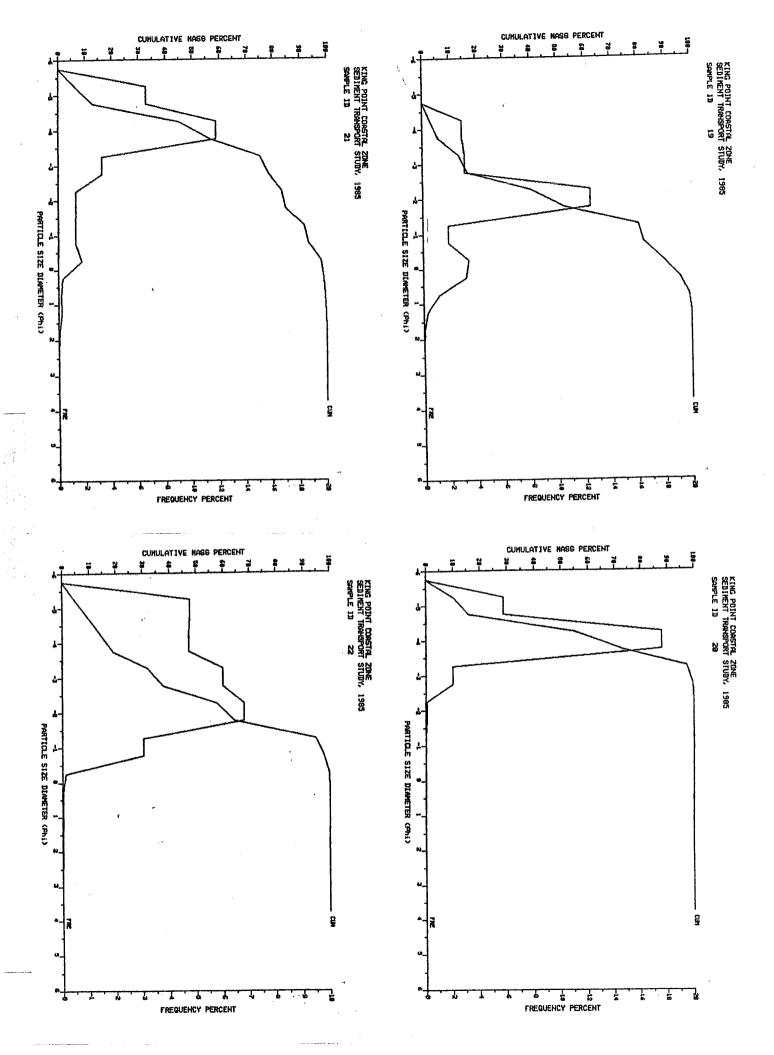
SIZE FRA		NE IGHT I			PERCENT	COARSE SHELL (grans)	nacro-organics (orans)
nn	ph i	uncor.	cor.	cor.	cunn.	tyrans?	19 m22
32.0	-5.00	0.00	0.00	0.00	0.00		
	-4.50	00.0	0.00	0.00	0.00		
22.6 16.0	-4.00	0.00	0.00	0.00	0.00		
11.3	-3.50	0.00	0.00	0.00	00.00		
8.00	-3.00	0.00	00.0	0.00	0.00		
5.66	-2.50	0.00	00.0	0.00	0.00		
4.00	-2.00	0.00	00.0	0.00	0.00		
2.83	-1.50	0.00	00.0	0.00	0.00		
2.00	-1.00	0.06	0.06	0.03	0.03		
1.68	-0.75	0.00	0.00	0.00	0.03		
1.41	-0.50	0.00	00.0	0.00	0.03		
1.19	-0.25	0.00	00.0	0.00	0.03		
1.00	0.00	0.01	0.14	70.0	0.10		
0.84	0.25	0.01	0.14	70.0	0.18		
0.71	0.50	0.01	0.14	70.0	0.25		
0.59	0.75	0.01	0.14	0.07	0.32		
0.50	1.00	0.02	0.29	0.15	0.47		
0.42	1.25	0.02	0.29	0.15	0.62		
0.35	1.50	70.0	1.01	0.52	1.13		
0.30	1.75	0.10	1.45	0.74	1.87		
0.25	2.00	0.25	3.62	1.84 3.53	3.71		
0.210	2.25	0.48	6.95	3.53	7.24		
0.177	2.50	1.39	20.13	10.23 21.71	17.47		
0.149	2.75	1.39 2.95 3.53 2.71	42.73	21.71	39.18		
0.125	3.00 3.25	3.53	51.13	25.98	65.15		
0.105	3.25	2.71	39.25	19.94			
880.0	3.50	1.27	18.40	9.35			
0.074	3.75	0.38	5.50	2.80			
0.0625	4.00	0.09	1.30	0.66			
<0.0625	Pan	0.04	4.14	2.10	100.00		
llet sie	red nud	3.56					
	TOTAL		196 .85	100.00			

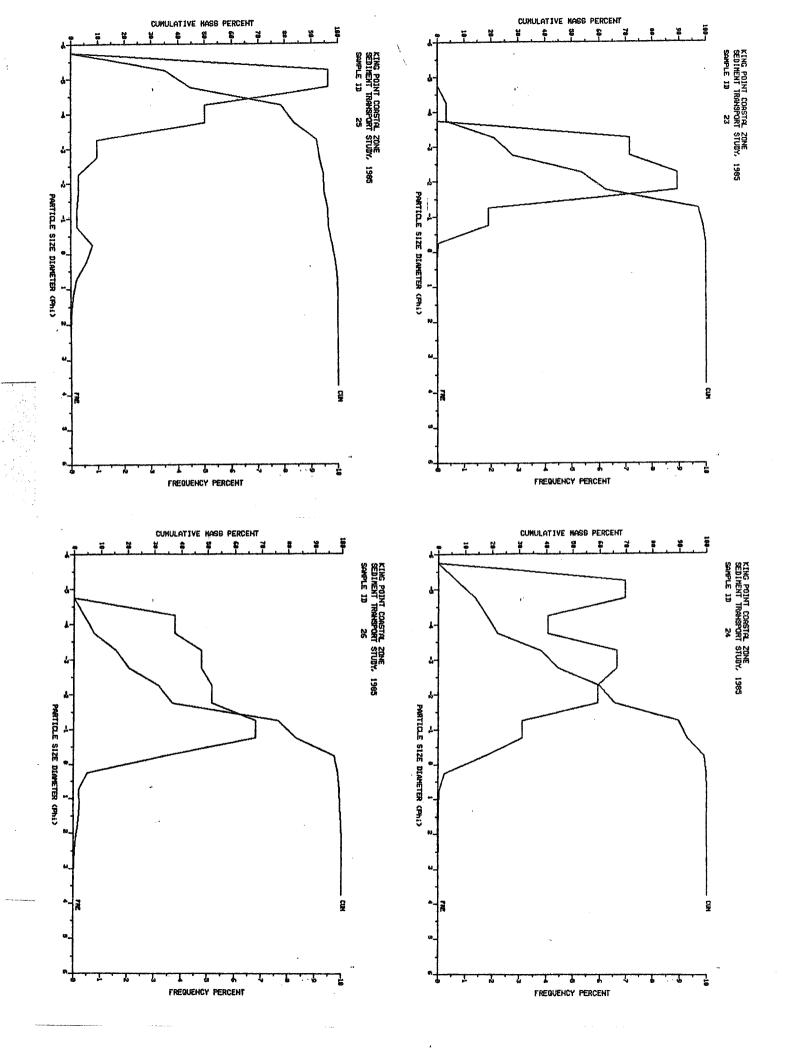
STATISTIC	MONENT	INNAN	FOLK-NAND
Nean Deviation Skeuness Kurtosis Nedian Skeuness2	2.687 0.454 -1.185 7.666	2.613 0.429 0.077 0.671 2.580 -0.165	2.602 0.431 -0.011 1.034
Percent Gravel Percent Sand Percent Mud	0.03 97.87 2.10		

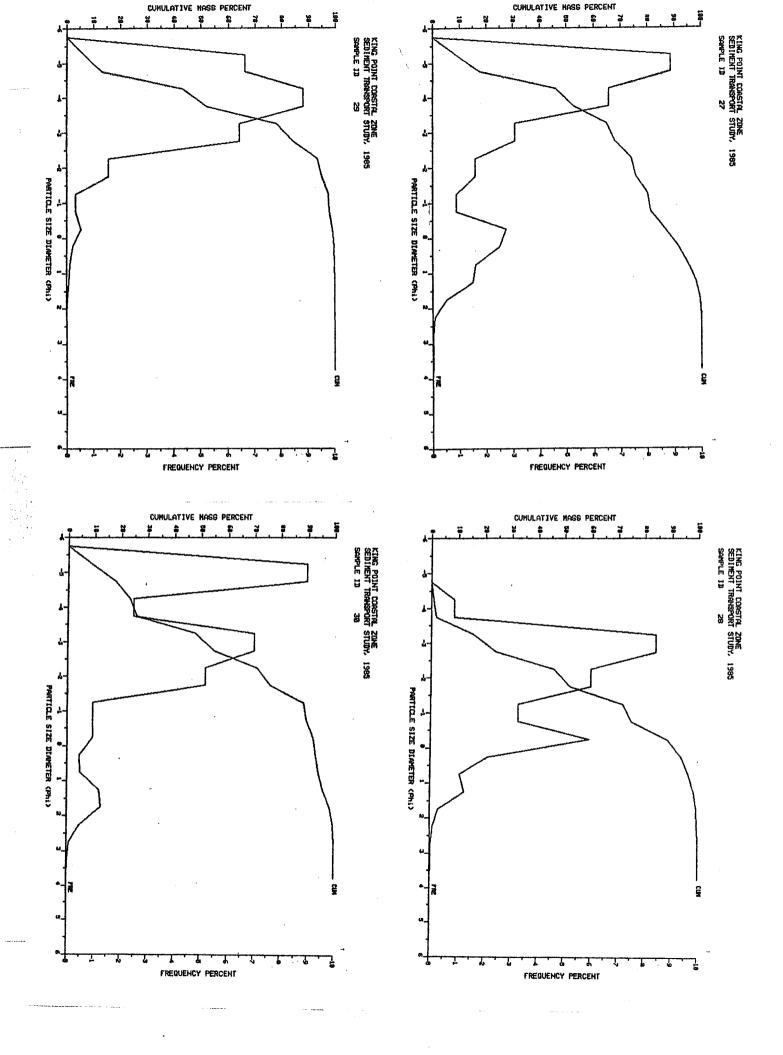


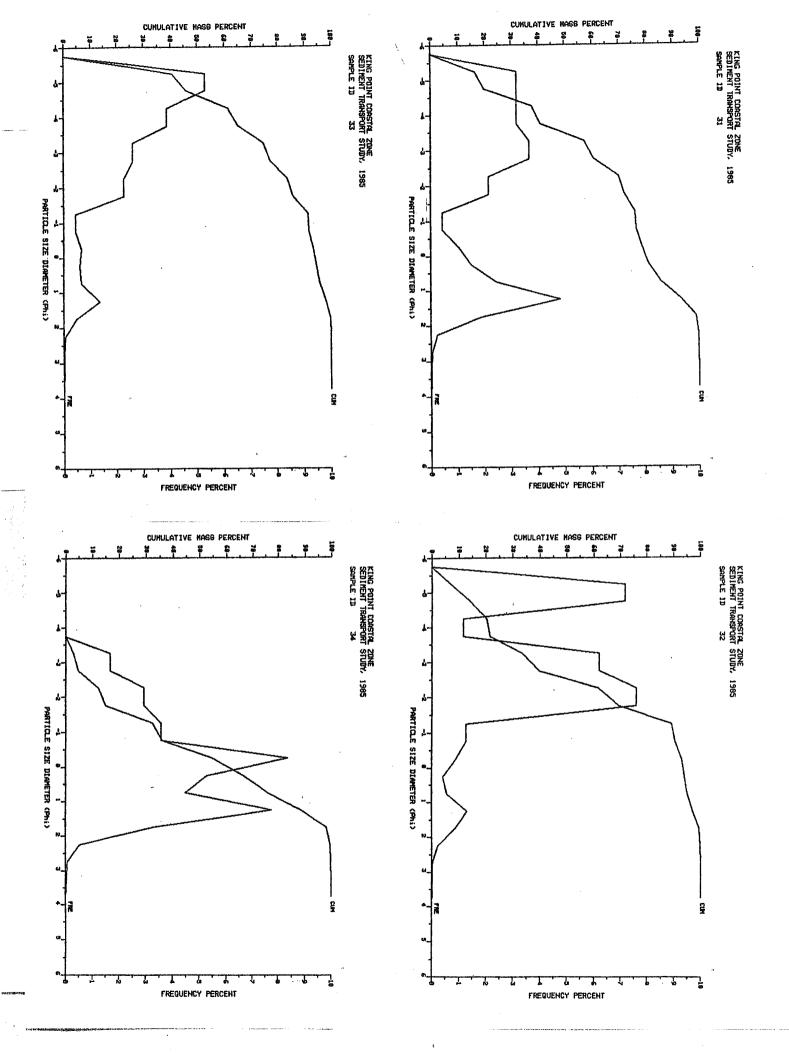


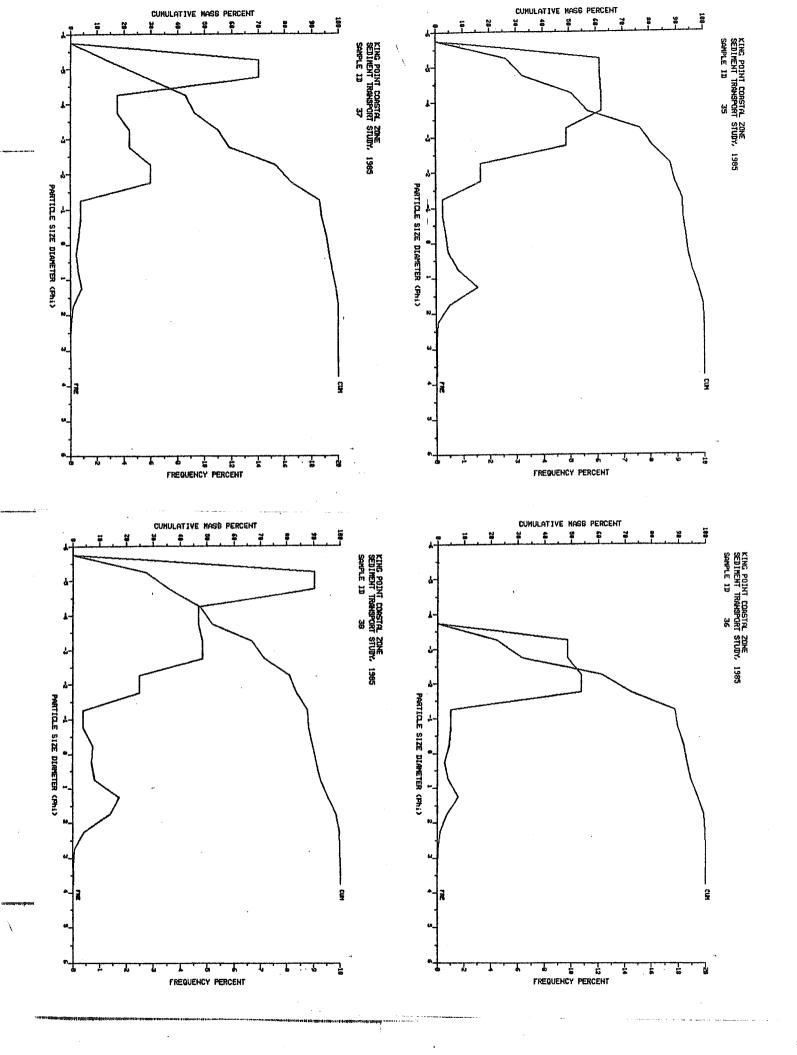


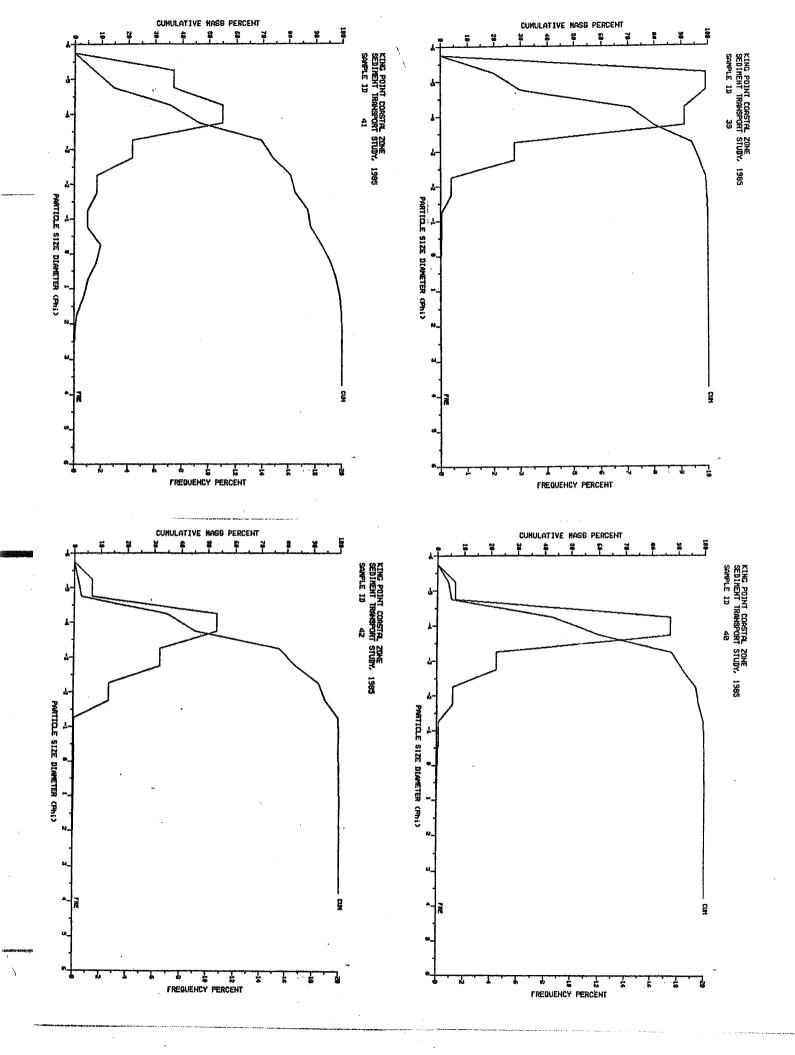


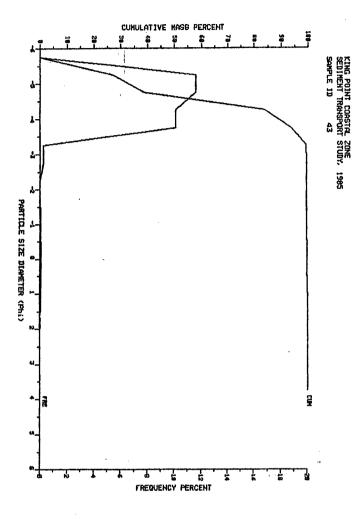




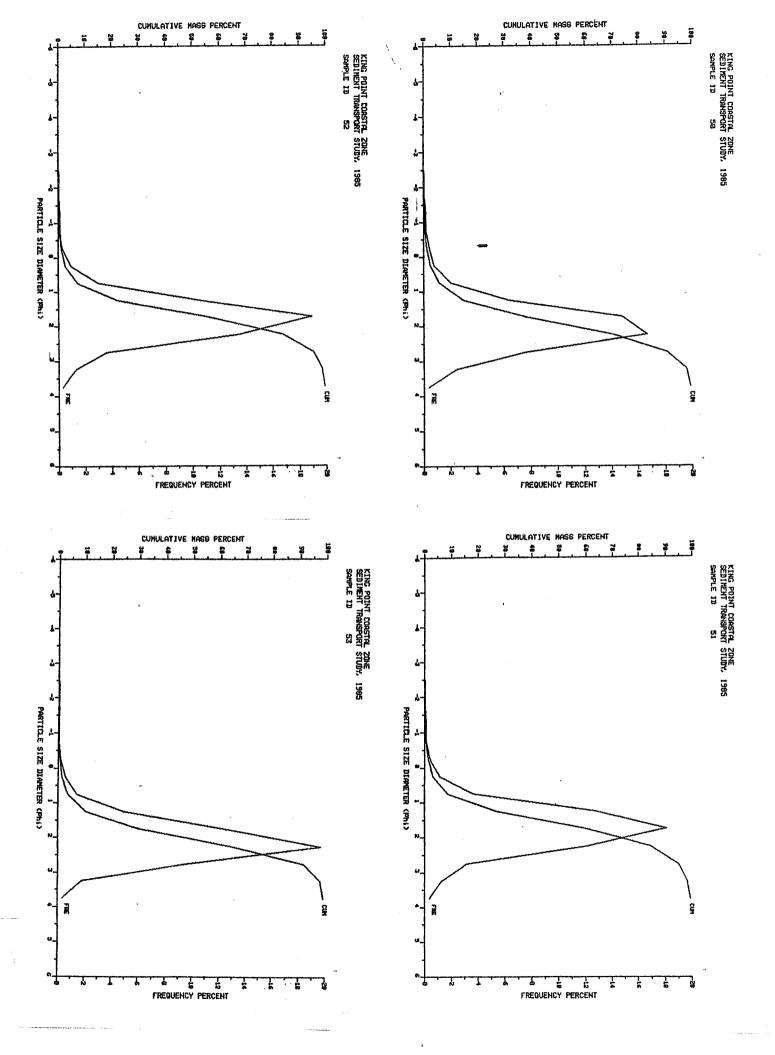


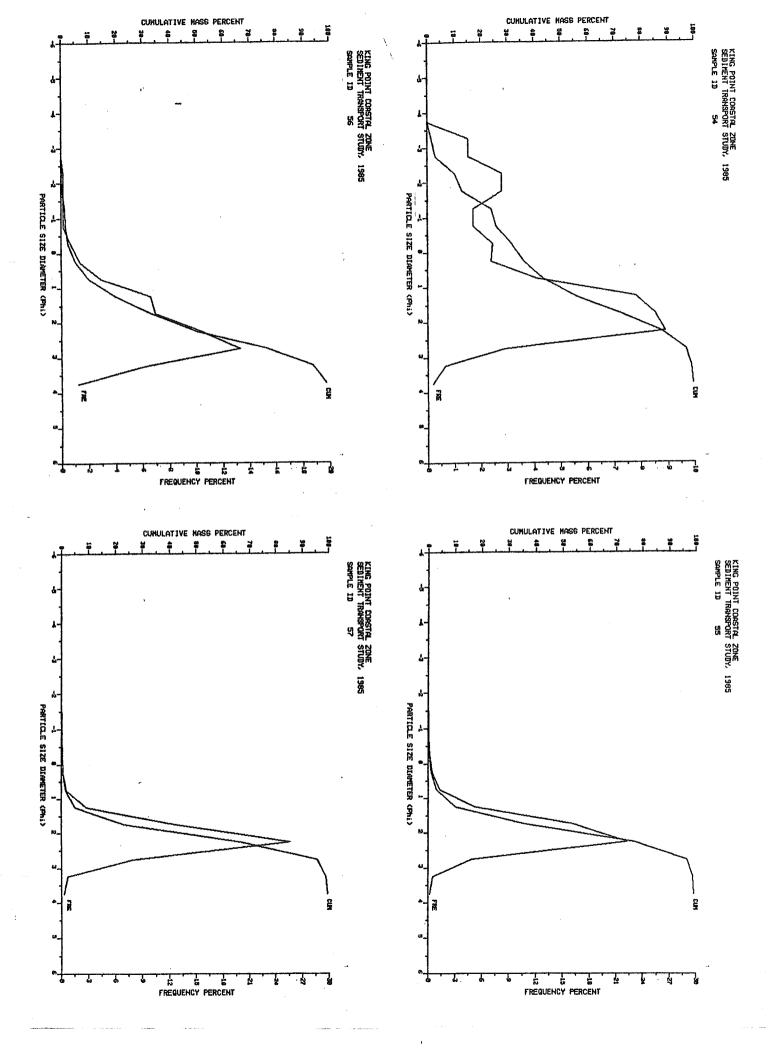


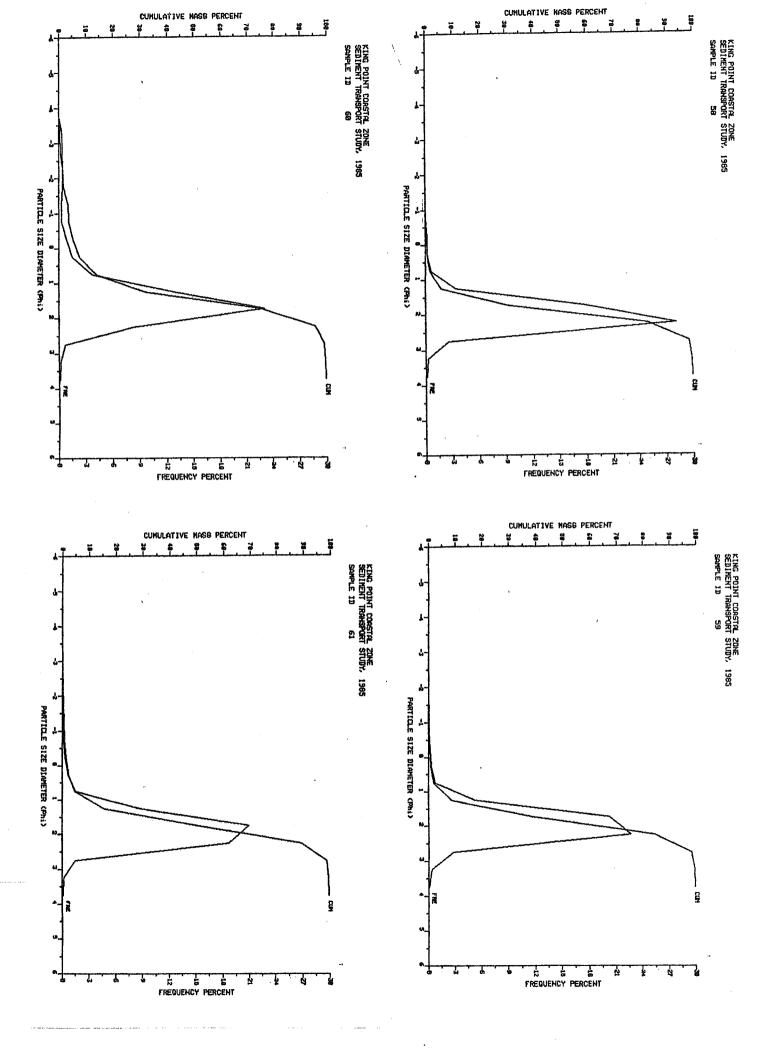


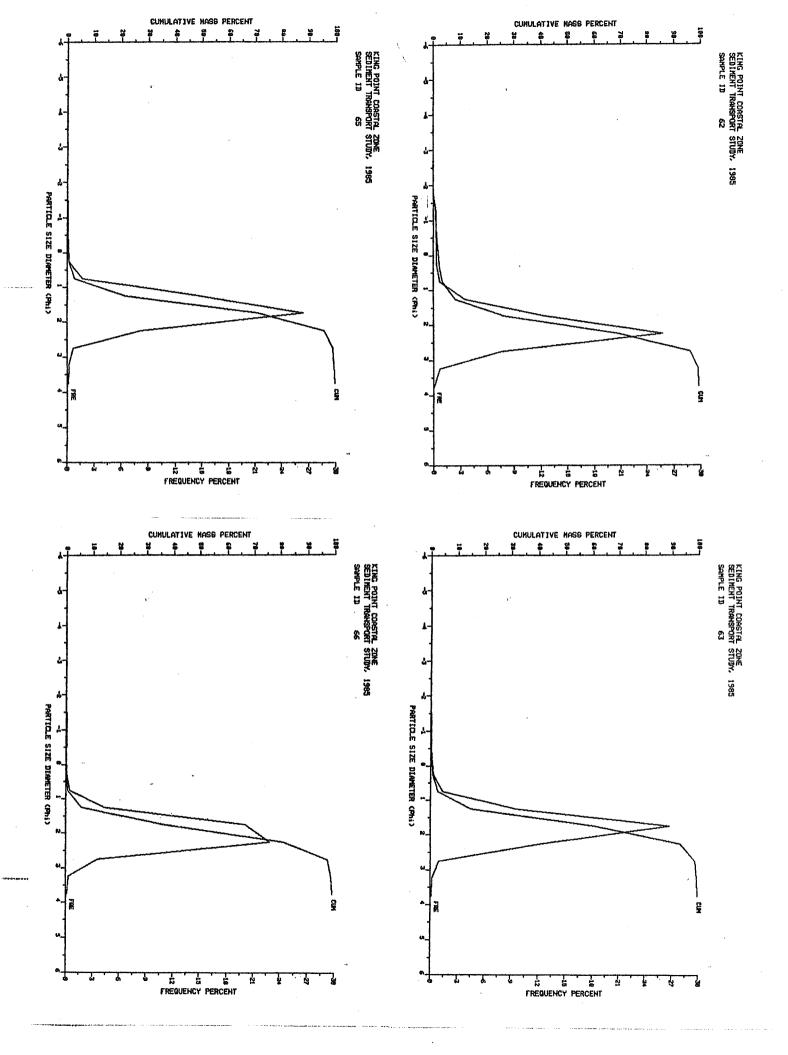


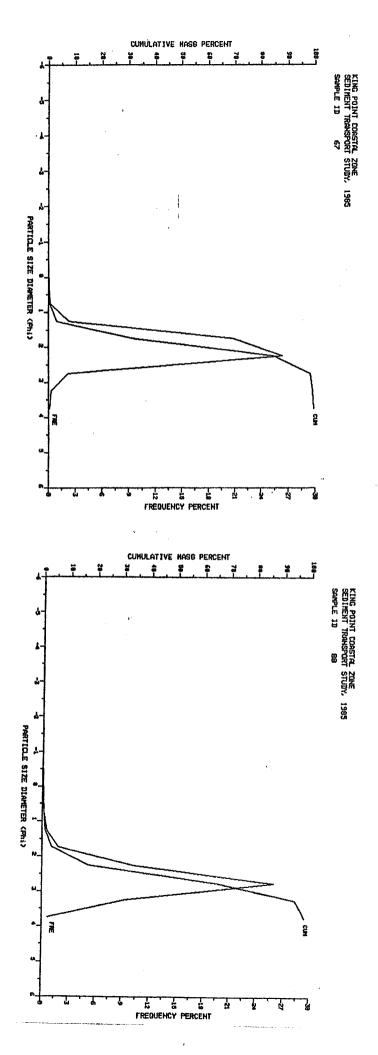
; .





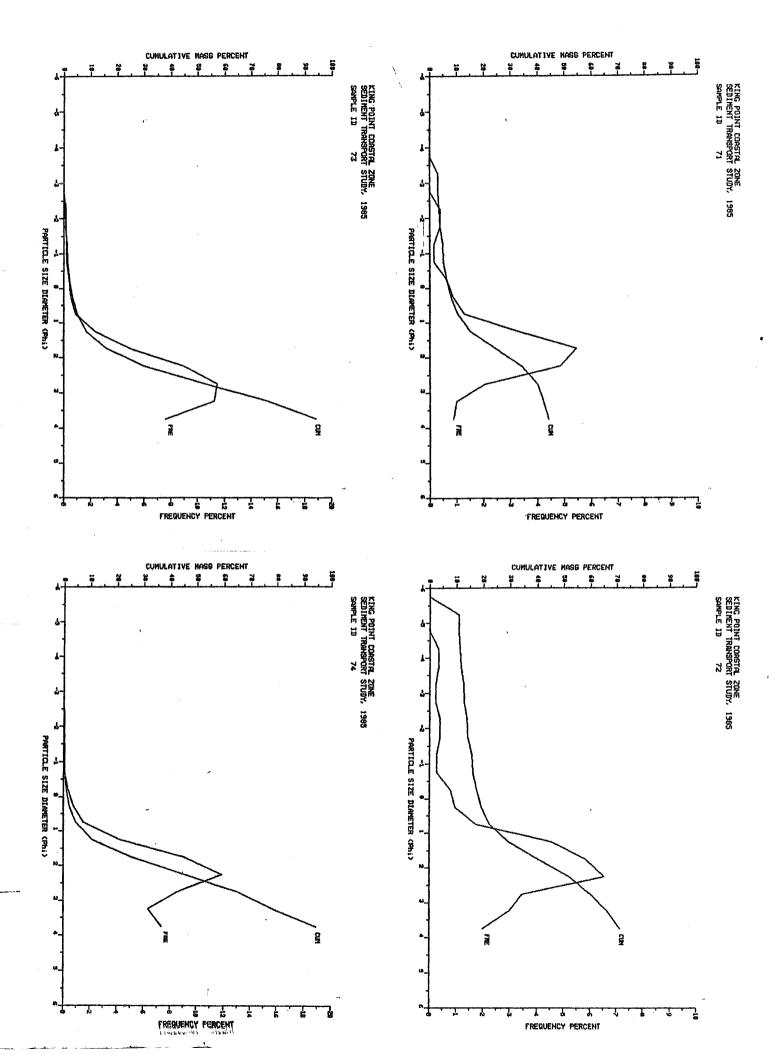


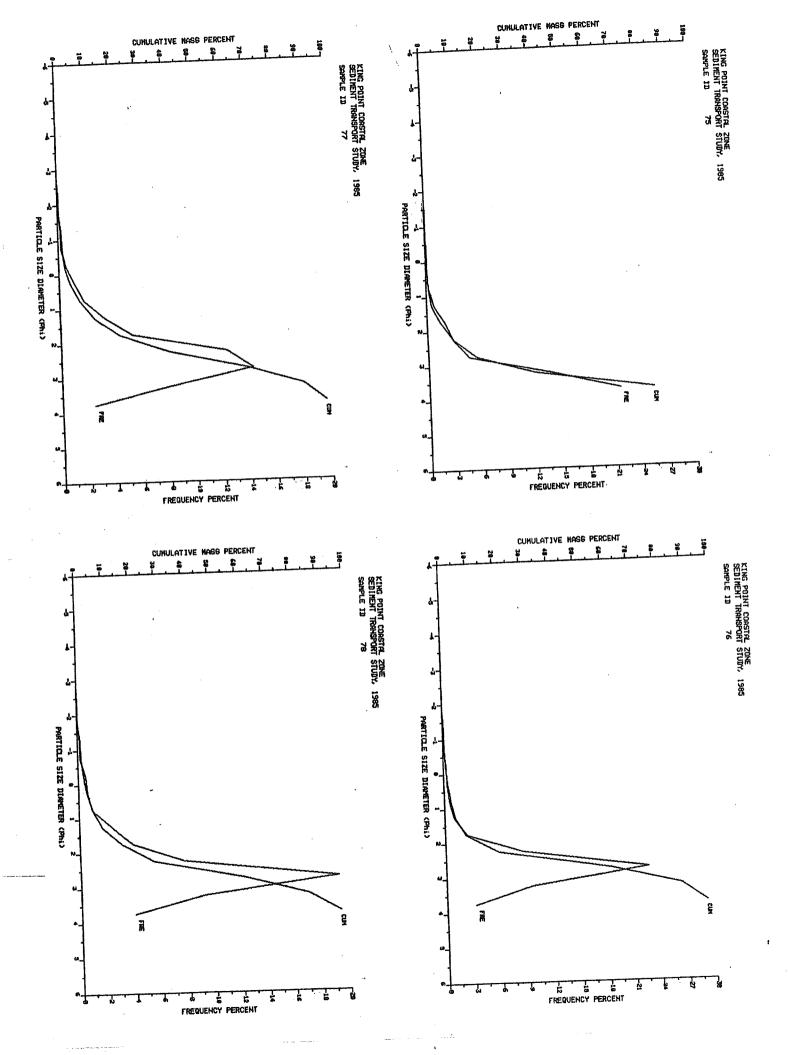


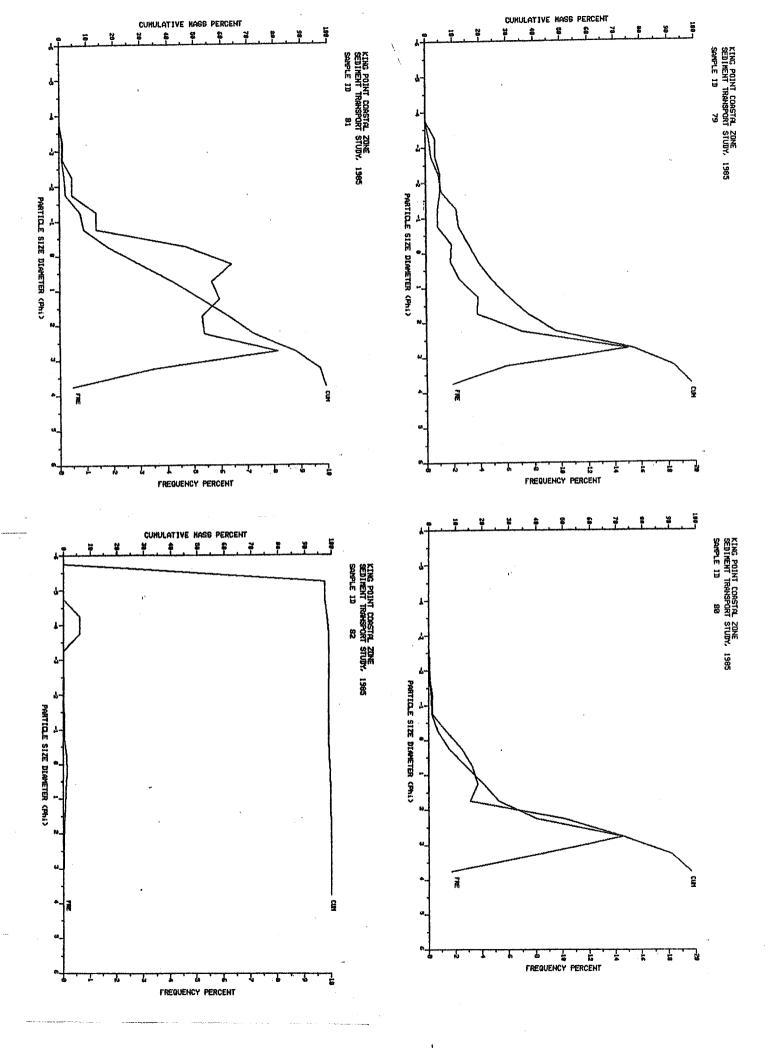


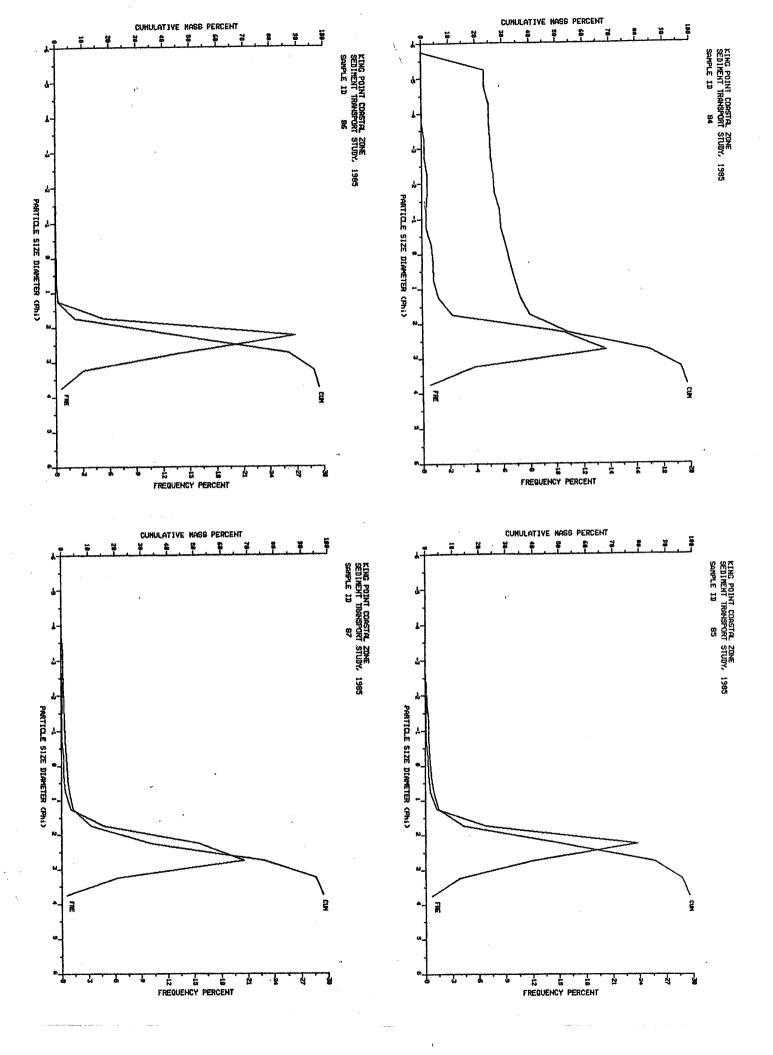
WEARSHORE SAMPLES FROM LINE +1700 #67 20 M DISTANCE FROM SHORE

#88 50 M DISTANCE FROM SHORE









# 2.2 SEDIMENT TEXTURAL ANALYSES (INCLUDING MUD CONTENT)

SAMPLE ID 71

TOTAL GRAVEL+SAND+MUD WEIGHT 68.78 grans SAND SUB-SANPLE SPLIT WEIGHT 27.77 grans

SIZE FRA					PERCENT		nacro-organics
m	phi	uncor.	cor.	cor.	cunn.	(grans)	(grans)
32.0	-5.00	0.00	0.00	0.00	0.00		
22.6	-4.50	0.00	0.00	0.00	00.00		
16.0	-4.00	0.00	00.0	0.00	0.00		
11.3	-3.50	0.00	00.0	0.00	0.00		
B.00	-3.00	2.12	2.12	3.08	3.08		
5.66	-2.50	0.00	00.0	0.00	80. E 80. E		
4.00	-2.00	0.00 0.53	0 .00 0 .53	00.00 77.0	3.85		
2.83 2.00	-1.50	0.38		0.55			
~~~~~	-1.00	V69V					644 643 674 688 679 671 667 653 653 653 653 653 653 653 653
TOTAL GR	AVEL		3.03	4.40	4.40		
1.41	-0.50	0.46	0.46	0.67	5.08		
	0.00	0.88	0.89	1.29	6.37		
0.71	0.50	1.07	1.08	1.57			
0.50	1.00	1.67	1.68	2.45			
0.35	1.50	3.35	3.38	4.91			
0.25	2.00	6.37	6.42	9.33			
0.177	2.50	6.55 3.97	6.60 4.00	9.59 5.81	34.20 40.02		
0.125 0.088	3.00 3.50	1.55	1.56	2.27			
0.0625	4.00	1.29	1.30	1.89			
A 54664	.1644						
TOTAL SA	IKO		27.37	39.77	44.18		
0.0480	4.40	0.38	0.38	0.56	44.73		
0.0320	5.00	1.54	1.54	2.23			
0.0240	5.40	4.99	4.99	7.26			
0.0160	6.00	9.60	9.60	13.96			
0.0120	6.40	4.23	4.23	6.14			
0.0000	7.00	2.30	2.30 1.15	3.35 1.67			
0.0060 0.0040	7.40 8.00	1.15 1.54	1.54	2.23			
0.0030	8.40	1.15	1.15	1.67			
0.0020	9.00		1.54	2.23			
0.0015	9.40	1.15	1.15	1.67	87.16		
0.0010	10.00	1 54	1 54	2.23	89.39		
<0.0010		r.30	7.30	10.61	100.00		
TOTAL NU	10	60 83 주 주 설 최 40 주 43 (2 47 중 10 10	38 .41	55.82	100.00	3 điể đạo địch quy địch điện địch được (đã 1913 cuộ điện điện điện điện đị	y gas que was gay can bigh dep sigh dep 50.0 feet gas was read 600 can

STATISTIC	MONENT	INNAH	FOLK-WARD
Nean Deviation Skeuness Kurtosis Nedian Skeuness2	3.985 2.944 -0.235 0.000	3.757 2.607 -0.176 0.884 4.217 -0.194	3.911 2.792 -0.140 0.987
Percent Gravel Percent Sand Percent Mud	4.40 39.77 55.82		

SAMPLE ID 72

TOTAL GRAVEL+SAND+NUO NEIGHT 951.65 grans SAND SUB-SANPLE SPLIT NEIGHT 18.57 grans

		Maria Balist Grand America	AARDAR AURIL MAADA AACRUTAA
SIZE FRACTION			
nn phi	uncor. cor.	cor. cunn.	(grans) (grans)
32.0 -5.00	104.15 104.15	24.26 24.26	
22.6 -4.50	0.00 0.00	0.00 24.26	
16.0 -4.00	0.00 0.00	0.00 24.26	
11.3 -3.50	6.49 6.49	1.51 25.77	
8.00 -3.00	7.93 7.93	1.85 27.62	
5.66 -2.50	4.45 4.45	1.04 28.65	
4.00 -2.00	4.66 4.66	1.09 29.74	
2.83 -1.50	7.30 7.30	1.70 31.44	
2.00 -1.00	8.80 8.80	2.05 33.49	
F 5.6.4			نود جي شد هند هند جي مين هند هند هن جي سن مين هن جي هند هند هند من هند هند هند هند هند هند هند هند هند هن
TOTAL GRAVEL	143.78	<b>33.49 33.49</b>	
1.41 -0.50		0.08 33.57	
1.00 0.00	0.49 0.49	0.11 33.68	
0.71 0.50	0.55 0.55	0.13 33.81	
0.50 1.00	1.02 1.02	0.24 34.05	
0.35 1.50	2.29 2.29	0.53 34.58	
0.25 2.00	3.54 3.53	0.82 35.40	
0.177 2.50	3.86 3.85	0.90 36.30	
0.125 3.00 0.088 3.50	2.70 2.69 2.10 2.10	0.63 36.93	
	2.10 2.10	0.49 37.42	
0.0625 4.00	1.53 1.53	0.36 37.77	
TOTAL SAND	18,39	4.28 37.77	
741711 071110	20131		
0.0480 4.40	2.67 2.67	0.62 38.40	
0.0320 5.00	8.01 8.01	1.87 40.26	
0.0240 5.40	8.01 8.01	1.87 42.13	
0.0160 6.00	16.03 16.03	3.73 45.86	
0.0120 6.40	13.36 13.36	3.11 49.97	
0.0080 7.00	8.01 8.01	1.87 50.84	
0.0060 7.40	8.01 8.01	1.87 52.71	
0.0040 8.00	8.01 8.01	1.87 54.57	
0.0030 8.40	5.34 5.34	1.24 55.82	
0.0020 9.00	13.36 13.36	3.11 58.93 1.87 60.80	
0.0015 9.40	8.01 8.01 13.36 13.36	1.87 60.80 3.11 63.91	
0.0010 10.00	13.36 13.36 154.95 154.95	36.09 100.00	
<0.0010	134.23 134.23		(c)
TOTAL NUD	267.16	62.23 100.00	

STATISTIC	MONENT	Inhan	FOLK-URRD
Mean Deviation Skeuness Kurtosis Median Skeuness2	0.735 5.791 0.234 0.000	0.986 6.525 0.400 0.143 -1.625 0.520	0.116 5.522 0.428 0.531
Percent Gravel Percent Sand Percent Nud	33 .49 4 .28 62 .23		

SAMPLE ID 73

TOTAL GRAVEL+SAND+MUD HEIGHT 144.85 grans SAND SUB-SANPLE SPLIT HEIGHT 21.78 grans

SIZE FRACTION   NEIGHT IN GRAMS   NEIGHT PERCENT   COARSE SHELL (grams)   MCR0-ORGANICS (grams)				
Name	SIZE FRACTION	WEIGHT IN GRAMS	MEIGHT PERCENT	COARSE SHELL MACRO-ORGANICS
32.0 -5.00 0.00 0.00 0.00 0.00 0.00 22.6 -4.50 0.00 0.00 0.00 0.00 0.00 16.0 -4.00 0.00 0.00 0.00 0.00 0.00 0.00 16.0 -4.00 0.00 0.00 0.00 0.00 0.00 0.00 0				
22.6 -4.50 0.00 0.00 0.00 0.00 0.00 11.13 -3.50 0.00 0.00 0.00 0.00 0.00 0.00 0.00	•			•
16.0 -4.00 0.00 0.00 0.00 0.00 0.00 0.00 11.3 -3.50 0.00 0.00 0.00 0.00 0.00 0.00 0.00				
11.3 -3.50 0.00 0.00 0.00 0.00 0.00 0.00 3.00 8.00 -3.00 0.00 0.00 0.00 0.00 0.00 0.00				
8.00 -3.00 0.00 0.00 0.00 0.00 0.00 5.66 -2.50 0.00 0.00 0.00 0.00 0.00 0.00 0.00				
\$\begin{array}{cccccccccccccccccccccccccccccccccccc				
4.00 -2.00				•
2.83 -1.50				
TOTAL GRAVEL  1.00  0.69  1.41  -0.50  0.15  0.95  0.66  1.35  1.00  0.00  0.19  1.21  0.83  2.18  0.71  0.50  0.24  1.53  1.05  3.24  0.50  1.00  0.36  2.29  1.58  4.82  0.35  1.50  0.77  4.90  3.38  8.20  0.25  2.00  1.80  1.45  7.91  1.6.11  0.177  2.50  3.18  20.23  13.97  30.07  0.125  3.00  5.17  32.89  22.71  52.78  0.088  3.50  5.23  33.27  22.97  75.75  0.0625  4.00  4.21  26.78  18.49  94.24  TOTAL SAND  135.50  93.55  94.58  0.0320  5.00  1.92  1.92  1.33  95.91  0.0240  5.40  0.75  0.75  0.52  96.43  0.0160  6.00  0.50  0.50  0.35  96.77  0.0120  6.40  0.33  0.33  0.33  0.33  0.33  0.33  0.33  0.33  0.33  0.33  0.33  0.33  0.33  0.33  0.33  0.33  0.34  0.0000  7.00  0.042  0.42  0.29  97.46  0.0040  0.0040  0.000  7.00  0.42  0.42  0.29  98.39  0.0010  0.0020  9.00  0.42  0.42  0.29  98.39  0.0015  0.0020  9.00  0.0020  9.00  0.42  0.42  0.29  98.39  0.0015  0.0015  0.0020  9.00  0.0020  9.00  0.0020  9.00  0.0030  0.0010  1.50  1.50  1.50  1.04  100.00				
TOTAL GRAPEL  1.00  0.69  0.69  1.41  -0.50  0.15  0.95  0.66  1.35  1.00  0.71  0.50  0.24  1.53  1.05  3.24  0.50  0.35  1.50  0.77  4.90  3.38  8.20  0.25  2.00  1.80  11.45  7.91  16.11  0.177  2.50  3.18  20.23  13.97  30.07  0.125  3.00  5.17  3.28  2.271  52.78  0.088  3.50  5.23  33.27  22.97  75.75  0.0625  4.00  4.21  26.78  18.49  94.24  TOTAL SAMD  135.50  93.55  94.58  0.0320  5.00  1.92  1.92  1.33  95.91  0.0240  5.40  0.75  0.75  0.50  0.35  94.58  0.0120  6.40  0.33  0.33  0.33  0.33  0.35  97.00  0.0080  7.00  0.042  0.420  0.420  0.0400  0.400  0.50  0.50  0.35  94.58  0.0120  0.0400  0.400  0.50  0.50  0.35  94.76  0.0020  0.0080  7.00  0.0080  7.00  0.0080  7.00  0.0080  7.00  0.0080  7.00  0.0080  7.00  0.0080  7.00  0.0080  7.00  0.0080  7.00  0.0080  7.00  0.0080  7.00  0.0080  7.00  0.0080  7.00  0.0080  7.00  0.0080  7.00  0.0080  7.00  0.0080  7.00  0.0080  7.00  0.0080  0.0010  0.0010  0.0010  0.0010  0.0010  0.0010  0.0010  0.0010  0.0010  0.0010  0.0010  0.0010  0.0010  0.0010  0.0010  0.0010  0.0010  0.0010  0.0010  0.0010  0.0010  0.0010  0.0010  0.0010  0.0010  0.0010  0.0010  0.0010  0.0010  0.0010  0.0010  0.0010  0.0010  0.0010  0.0010  0.0010  0.0010  0.0010  0.0010				
TOTAL GRAVEL  1.00  0.69  0.69  1.41  -0.50  0.15  0.95  0.66  1.35  1.00  0.00  0.19  1.21  0.83  2.18  0.71  0.50  0.24  1.53  1.05  3.24  0.50  1.00  0.36  2.29  1.58  4.82  0.35  1.50  0.77  4.90  3.38  8.20  0.25  2.00  1.80  11.45  7.91  16.11  0.177  2.50  3.18  20.23  13.97  30.07  0.125  3.00  5.17  32.89  22.71  52.78  0.088  3.50  5.23  33.27  22.97  75.75  0.0625  4.00  4.21  26.78  18.49  94.24   TOTAL SAND  135.50  93.55  94.58  0.0320  5.00  1.92  1.92  1.33  95.91  0.0240  5.40  0.15  0.75  0.52  96.43  0.0160  6.00  0.50  0.50  0.35  96.77  0.0120  6.40  0.33  0.33  0.23  97.00  0.0080  7.00  0.42  0.42  0.29  97.29  0.0060  7.40  0.25  0.25  0.17  97.46  0.0040  0.000  0.50  0.50  0.50  0.35  97.81  0.0020  9.00  0.42  0.42  0.29  98.10  0.0010  1.50  1.50  1.50  1.50  1.04  100.00	Z.00 -1.00		V.62 V.82	من الله الله الله الله الله الله الله الل
1.41 -0.50	TOTAL GROUF!		0.69 0.69	
1.00 0.00 0.19 1.21 0.83 2.18 0.71 0.50 0.24 1.53 1.05 3.24 0.50 1.00 0.36 2.29 1.58 4.82 0.35 1.50 0.71 4.90 3.38 8.20 0.25 2.00 1.80 11.45 7.91 16.11 0.177 2.50 3.18 20.23 13.97 30.07 0.125 3.00 5.17 32.89 22.71 52.78 0.088 3.50 5.23 33.27 22.97 75.75 0.0625 4.00 4.21 26.78 18.49 94.24  TOTAL SAMO 135.50 93.55 94.24  0.0480 4.40 0.50 0.50 0.35 94.58 0.0320 5.00 1.92 1.92 1.33 95.91 0.0240 5.40 0.75 0.75 0.52 96.43 0.0160 6.00 0.50 0.50 0.35 94.58 0.0120 6.40 0.33 0.33 0.23 97.00 0.0080 7.00 0.42 0.42 0.29 97.29 0.0040 8.00 0.50 0.50 0.50 0.35 97.81 0.0030 8.40 0.42 0.42 0.29 97.29 0.0040 8.00 0.50 0.50 0.50 0.35 97.81 0.0030 8.40 0.42 0.42 0.29 97.29 0.0040 8.00 0.50 0.50 0.50 0.35 98.96 0.0010 10.00 0.50 0.33 0.33 0.23 98.62 0.0010 10.00 0.50 0.50 0.35 98.96 0.0010 10.00 0.50 0.50 0.35 98.96 0.0010 10.00 0.50 0.50 0.35 98.96	MINE OWNER	2.44	****	
1.00 0.00 0.19 1.21 0.83 2.18 0.71 0.50 0.24 1.53 1.05 3.24 0.50 1.00 0.36 2.29 1.58 4.82 0.35 1.50 0.77 4.90 3.38 8.20 0.25 2.00 1.80 11.45 7.91 16.11 0.177 2.50 3.18 20.23 13.97 30.07 0.125 3.00 5.17 32.89 22.71 52.78 0.088 3.50 5.23 33.27 22.97 75.75 0.0625 4.00 4.21 26.78 18.49 94.24  TOTAL SAND 135.50 93.55 94.24  0.0480 4.40 0.50 0.50 0.35 94.58 0.0320 5.00 1.92 1.92 1.33 95.91 0.0240 5.40 0.75 0.75 0.52 96.43 0.0160 6.00 0.50 0.50 0.35 96.77 0.0120 6.40 0.33 0.33 0.23 97.00 0.0080 7.00 0.42 0.42 0.29 97.29 0.0060 7.40 0.25 0.25 0.17 97.46 0.0040 8.00 0.50 0.50 0.50 0.35 98.96 0.0030 8.40 0.42 0.42 0.29 97.29 0.0060 7.40 0.25 0.25 0.17 97.46 0.0040 8.00 0.50 0.50 0.30 98.30 0.0020 9.00 0.42 0.42 0.29 98.39 0.0015 9.40 0.33 0.33 0.23 98.62 0.0010 10.00 0.50 0.50 0.35 98.96 0.0010 10.00 0.50 0.50 0.35 98.96 0.0010 10.00 0.50 0.50 0.35 98.96	1.41 -0.50	0.15 0.95	0.66 1.35	
0.50 1.00 0.36 2.29 1.58 4.82 0.35 1.50 0.77 4.90 3.38 8.20 0.25 2.00 1.80 11.45 7.91 16.11 0.177 2.50 3.18 20.23 13.97 30.07 0.125 3.00 5.17 32.89 22.71 52.78 0.088 3.50 5.23 33.27 22.97 75.75 0.0625 4.00 4.21 26.78 18.49 94.24  TOTAL SAKO 135.50 93.55 94.24  0.0480 4.40 0.50 0.50 0.35 94.58 0.0320 5.00 1.92 1.92 1.33 95.91 0.0240 5.40 0.75 0.75 0.35 96.43 0.0160 6.00 0.50 0.50 0.35 96.77 0.0120 6.40 0.33 0.33 0.23 97.00 0.0080 7.00 0.42 0.42 0.29 97.29 0.0060 7.40 0.25 0.25 0.17 97.46 0.0040 8.00 0.50 0.50 0.35 97.81 0.0030 8.40 0.42 0.42 0.29 98.39 0.0010 10.00 0.42 0.42 0.29 98.39 0.0015 9.40 0.33 0.33 0.23 98.62 0.0010 10.00 0.50 0.50 0.35 98.96 0.0020 9.00 0.42 0.42 0.29 98.39 0.0015 9.46 0.33 0.33 0.23 98.96 0.0010 10.00 0.50 0.50 0.35 98.96			0.83 2.18	
0.50		0.24 1.53		
0.35 1.50 0.77 4.90 3.38 6.20 0.25 2.00 1.80 11.45 7.91 16.11 0.177 2.50 3.18 20.23 13.97 30.07 0.125 3.00 5.17 32.89 22.71 52.78 0.088 3.50 5.23 33.27 22.97 75.75 0.0625 4.00 4.21 26.78 18.49 94.24  TOTAL SAKO 135.50 93.55 94.24  0.0480 4.40 0.50 0.50 0.35 94.58 0.0320 5.00 1.92 1.92 1.33 95.91 0.0240 5.40 0.75 0.75 0.52 96.43 0.0160 6.00 0.50 0.50 0.35 96.77 0.0120 6.40 0.33 0.33 0.23 97.00 0.0080 7.00 0.42 0.42 0.29 97.29 0.0060 7.40 0.25 0.25 0.17 97.46 0.0040 8.00 0.50 0.50 0.35 97.01 0.0030 8.40 0.42 0.42 0.29 98.39 0.0015 9.40 0.33 0.33 0.23 98.62 0.0010 10.00 0.42 0.42 0.29 98.39 0.0015 9.40 0.33 0.33 0.23 98.62 0.0010 10.00 0.50 0.50 0.35 98.96	0.50 1.00	0.36 2.29	1.58 4.82	•
0.177 2.50 3.18 20.23 13.97 30.07 0.125 3.00 5.17 32.89 22.71 52.78 0.088 3.50 5.23 33.27 22.97 75.75 0.0625 4.00 4.21 26.78 18.49 94.24  TOTAL SAMD 135.50 93.55 94.24  0.0480 4.40 0.50 0.50 0.35 94.58 0.0320 5.00 1.92 1.92 1.33 95.91 0.0240 5.40 0.75 0.75 0.52 96.43 0.0160 6.00 0.50 0.50 0.35 94.77 0.0120 6.40 0.33 0.33 0.23 97.00 0.0080 7.00 0.42 0.42 0.29 97.29 0.0060 7.40 0.25 0.25 0.17 97.46 0.0040 8.00 0.50 0.50 0.35 97.81 0.0030 8.40 0.42 0.42 0.29 98.10 0.0020 9.00 0.42 0.42 0.29 98.39 0.0015 9.40 0.33 0.33 0.33 0.23 98.62 0.0010 10.00 0.50 0.50 0.50 98.96 <<0.0010 10.00 0.50 0.50 0.35 98.96 <<0.0010 10.00 0.50 0.50 0.35 98.96 <<0.0010 10.00 0.50 0.50 0.35 98.96 <<0.0010 10.00 0.50 0.50 0.35 98.96	0.35 1.50	0.77 4.90	3.38 8.20	
0.125 3.00 5.17 32.89 22.71 52.78 0.088 3.50 5.23 33.27 22.97 75.75 0.0625 4.00 4.21 26.78 18.49 94.24  TOTAL SAND 135.50 93.55 94.24  0.0480 4.40 0.50 0.50 0.35 94.58 0.0320 5.00 1.92 1.92 1.33 95.91 0.0240 5.40 0.75 0.75 0.52 96.43 0.0160 6.00 0.50 0.50 0.35 96.77 0.0120 6.40 0.33 0.33 0.23 97.00 0.0080 7.00 0.42 0.42 0.29 97.29 0.0060 7.40 0.25 0.25 0.17 97.46 0.0040 8.00 0.50 0.50 0.35 97.81 0.0030 8.40 0.42 0.42 0.29 98.10 0.0020 9.00 0.42 0.42 0.29 98.39 0.0015 9.40 0.33 0.33 0.23 98.62 0.0010 10.00 0.50 0.50 0.35 98.96 0.0010 10.00 0.50 0.50 0.35 98.96 0.0010 10.00 0.50 0.50 0.35 98.96 0.0010 10.00 0.50 0.50 0.35 98.96	0.25 2.00	1.80 11.45		
0.088       3.50       5.23       33.27       22.97       75.75         0.0625       4.00       4.21       26.78       18.49       94.24         TOTAL SAMD       135.50       93.55       94.24         TOTAL SAMD       135.50       93.55       94.24         TOTAL SAMD       135.50       93.55       94.24         TOTAL SAMD         135.50       93.55       94.24         0.0480       4.40       0.50       0.35       94.58         0.0320       5.00       1.92       1.92       1.33       95.91         0.0240       5.40       0.75       0.75       0.52       96.43         0.0160       6.40       0.33       0.33       0.23       97.00         0.0120       6.40       0.33       0.33       0.23       97.29         0.0060       7.40       0.25       0.25       0.17       97.46         0.0040       8.00       0.50       0.50       0.35       97.81         0.0030       8.40       0.42       0.42       0.29       98.10         0.0015       9.40       0.33       0.33	0.177 2.50	3.18 20.23	13.97 30.07	
0.0625       4.00       4.21       26.78       18.49       94.24         TOTAL SAMD       135.50       93.55       94.24         0.0480       4.40       0.50       0.50       0.35       94.58         0.0320       5.00       1.92       1.92       1.33       95.91         0.0240       5.40       0.75       0.75       0.52       96.43         0.0160       6.00       0.50       0.50       0.35       96.77         0.0120       6.40       0.33       0.33       0.23       97.00         0.0800       7.00       0.42       0.42       0.29       97.29         0.0060       7.40       0.25       0.25       0.17       97.46         0.0040       8.00       0.50       0.50       0.35       97.81         0.0030       8.40       0.42       0.42       0.29       98.10         0.0020       9.00       0.42       0.42       0.29       98.39         0.0015       9.40       0.33       0.33       0.33       98.62         0.0010       10.00       0.50       0.50       0.35       98.96         0.0010       10.00       0.50	0.125 3.00		22.71 52.78	
TOTAL SAND  135.50  93.55  94.24  0.0480		5.23 33.27	22.97 75.75	
0.0480 4.40 0.50 0.50 0.35 94.58 0.0320 5.00 1.92 1.92 1.33 95.91 0.0240 5.40 0.75 0.75 0.52 96.43 0.0160 6.00 0.50 0.50 0.35 96.77 0.0120 6.40 0.33 0.33 0.23 97.00 0.0080 7.00 0.42 0.42 0.29 97.29 0.0060 7.40 0.25 0.25 0.17 97.46 0.0040 8.00 0.50 0.50 0.35 97.81 0.0030 8.40 0.42 0.42 0.29 98.10 0.0020 9.00 0.42 0.42 0.29 98.39 0.0015 9.40 0.33 0.33 0.33 0.23 98.62 0.0010 10.00 0.50 0.50 0.35 98.96 <<0.0010 10.00 0.50 0.50 0.35 98.96 <<0.0010 1.50 1.50 1.04 100.00	0.0625 4.00	4.21 26.78	18.43 34.24	
0.0480 4.40 0.50 0.50 0.35 94.58 0.0320 5.00 1.92 1.92 1.33 95.91 0.0240 5.40 0.75 0.75 0.52 96.43 0.0160 6.00 0.50 0.50 0.35 96.77 0.0120 6.40 0.33 0.33 0.23 97.00 0.0080 7.00 0.42 0.42 0.29 97.29 0.0060 7.40 0.25 0.25 0.17 97.46 0.0040 8.00 0.50 0.50 0.35 97.81 0.0030 8.40 0.42 0.42 0.29 98.10 0.0020 9.00 0.42 0.42 0.29 98.39 0.0015 9.40 0.33 0.33 0.33 0.23 98.62 0.0010 10.00 0.50 0.50 0.35 98.96 <<0.0010 10.00 0.50 0.50 0.35 98.96 <<0.0010 10.00 0.50 0.50 0.35 98.96 <<0.0010 1.50 1.50 1.04 100.00	TOTAL SAKO	135.50	93.55 94.24	
0.0320       5.00       1.92       1.92       1.33       95.91         0.0240       5.40       0.75       0.75       0.52       96.43         0.0160       6.00       0.50       0.50       0.35       96.77         0.0120       6.40       0.33       0.33       0.23       97.00         0.0080       7.00       0.42       0.42       0.29       97.29         0.0060       7.40       0.25       0.25       0.17       97.46         0.0040       8.00       0.50       0.50       0.35       97.81         0.0030       8.40       0.42       0.42       0.29       98.10         0.0020       9.00       0.42       0.42       0.29       98.39         0.0015       9.40       0.33       0.33       0.23       98.62         0.0010       10.00       0.50       0.50       0.35       98.96         0.0010       1.50       1.50       1.04       100.00	TO THE WITTE	20000		
0.0240       5.40       0.75       0.75       0.52       96.43         0.0160       6.00       0.50       0.50       0.35       96.77         0.0120       6.40       0.33       0.33       0.23       97.00         0.0080       7.00       0.42       0.42       0.29       97.29         0.0060       7.40       0.25       0.25       0.17       97.46         0.0040       8.00       0.50       0.50       0.35       97.81         0.0030       8.40       0.42       0.42       0.29       98.10         0.0020       9.00       0.42       0.42       0.29       98.39         0.0015       9.40       0.33       0.33       0.23       98.62         0.0010       10.00       0.50       0.50       0.35       98.96         0.0010       1.50       1.50       1.04       100.00	0.0480 4.40		0.35 94.58	
0.0160       6.00       0.50       0.50       0.35       96.77         0.0120       6.40       0.33       0.33       0.23       97.00         0.0080       7.00       0.42       0.42       0.29       97.29         0.0060       7.40       0.25       0.25       0.17       97.46         0.0040       8.00       0.50       0.50       0.35       97.81         0.0030       8.40       0.42       0.42       0.29       98.10         0.0020       9.00       0.42       0.42       0.29       98.39         0.0015       9.40       0.33       0.33       0.23       98.62         0.0010       10.00       0.50       0.50       0.35       98.96          0.0010       1.50       1.50       1.04       100.00				
0.0120       6.40       0.33       0.33       0.23       97.00         0.0080       7.00       0.42       0.42       0.29       97.29         0.0060       7.40       0.25       0.25       0.17       97.46         0.0040       8.00       0.50       0.50       0.35       97.81         0.0030       8.40       0.42       0.42       0.29       98.10         0.0020       9.00       0.42       0.42       0.29       98.39         0.0015       9.40       0.33       0.33       0.23       98.62         0.0010       10.00       0.50       0.50       0.35       98.96         0.0010       1.50       1.50       1.04       100.00				
0.0080       7.00       0.42       0.42       0.29       97.29         0.0060       7.40       0.25       0.25       0.17       97.46         0.0040       8.00       0.50       0.50       0.35       97.81         0.0030       8.40       0.42       0.42       0.29       98.10         0.0020       9.00       0.42       0.42       0.29       98.39         0.0015       9.40       0.33       0.33       0.23       98.62         0.0010       10.00       0.50       0.50       0.35       98.96         <0.0010				
0.0060       7.40       0.25       0.25       0.17       97.46         0.0040       8.00       0.50       0.50       0.35       97.81         0.0030       8.40       0.42       0.42       0.29       98.10         0.0020       9.00       0.42       0.42       0.29       98.39         0.0015       9.40       0.33       0.33       0.23       98.62         0.0010       10.00       0.50       0.50       0.35       98.96         <0.0010				
0.0040 8.00 0.50 0.50 0.35 97.81 0.0030 8.40 0.42 0.42 0.29 98.10 0.0020 9.00 0.42 0.42 0.29 98.39 0.0015 9.40 0.33 0.33 0.23 98.62 0.0010 10.00 0.50 0.50 0.35 98.96 <0.0010 1.50 1.50 1.04 100.00		0.42 0.42		
0.0030     8.40     0.42     0.42     0.29     98.10       0.0020     9.00     0.42     0.42     0.29     98.39       0.0015     9.40     0.33     0.33     0.23     98.62       0.0010     10.00     0.50     0.50     0.35     98.96       <0.0010				
0.0020       9.00       0.42       0.42       0.29       98.39         0.0015       9.40       0.33       0.33       0.23       98.62         0.0010       10.00       0.50       0.50       0.35       98.96         <0.0010				
0.0015     9.40     0.33     0.33     0.23     98.62       0.0010     10.00     0.50     0.50     0.35     98.96       <0.0010				
0.0010 10.00 0.50 0.50 0.35 98.96 <0.0010 1.50 1.50 1.04 100.00				
<0.0010 1.50 1.50 1.04 100.00				
부 마 수 모 차 마 의 교 계속 하 하 하 마 의 약 의 약 요 한 가 있 것 같아 가 되 가 되 작 하 의 수 하 의 의 약 하 한 한 한 한 한 한 한 한 한 한 한 한 한 한 한 한 한 한		4 50 4 50	0.33 70.70	
				हुए पटन वर्ष हुए, बार करने बार बार बार बार बार बार बार कर कर केरो क्या बार बार बार बार बार बार बार बार बार बा
	TOTAL NUO	8.35	5.76 100.00	

STATISTIC	nonent	INNAN	FOLK-NARD
Hean Deviation Skeuness Kurtosis Hedian Skeuness2	2.887 1.278 0.966 0.000	2.591 0.858 -0.100 0.799 2.677 -0.490	2.620 0.880 -0.192 1.053
Percent Gravel Percent Sand Percent Hud	0.69 93.55 5.76		

SAMPLE ID

74

TOTAL GRAVEL+SAND+NUD NEIGHT 145.10 grams SAND SUB-SANPLE SPLIT NEIGHT 19.11 grams

SIZE FRA				UE IGHT			MACRO-ORGANICS
HH	phi	uncor.	cor.	cor.	cunn.	(grans)	(grans)
32.0	-5.00	000	0 .00	0.00	0.00		
	-4.50	0.00	00.0	0.00	0.00		
	-4.00	0.00	0.00	0.00	0.00		
	-3.50	0.00	00.0	0.00	0.00		
	-3.00	0.00	00.0	0.00	0.00		
5 .66	-2.50	0.00	0.00	0.00	0.00		
	-2.00	0.00 0.13	0.00 0.13	0.00 0.09	0.00 0.09		
	-1.50 -1.00	0.13					
C * 64	_1.64						
TOTAL 6R	AVEL		0.26	0.18	0.18		
1.41	-0.50	0.03	0.22	0.15	0.33		
1.00	0.00	0.12	88.0	0.61	0.94		
0.71	0.50	0.25	1.83 3.66	1.26	2.20		
0.50		0.50		2.52	4.72		
0.35	1.50		8.94	6.16	10.00		
0.25	2.00	2.81	20.58 29.37	14.18 20.24	25.06 45.31		
	2.50 3.00	4.01 3.97	29.31	20.24			
4.123 4.123	3.44	2.59	18.97	13.07			
0.088 0.0625	4.00	3.22					
					*****	the eng the that him are any gree and you pen the the age and	
TOTAL SA	ND		137.11	94.49	94.67		
0.0480	4.40	0.77	0.77	0.53	95.21		
0.0320	5.00	2.40	2.40	1.65	96.86		
0.0240	5.40			0.48	97.34		
0.0160	6.00	0.46	0.46	0.32	97.66		
0.0120	6.40	0.31		0.21	97.87		
0.0080	7.00	0.23 0.23	0.23	0.16 0.16	98.03 98.19		
0.0060 0.0040	7.40 8.00	0.23 0.23	0.23 0.23	0.16 0.16	98.35		
0.0030	8.40	0.23	0.23	0.16	98.51		
0.0020	9.00	0.39	0.39	0.27	98.77	,	
	9.40		0.31	0.21	98.99		
	10.00	0.46	0.46	0.32			
<0.0010		1.00	1.00	0.69	100.00		
TOTAL NU	D	ear boy any gan ago ago ago ann nor gad had fair fair f	7.73	5.33	100.00	त्रद्भा त्याप्त व्यक्त प्रत्येत व्यक्त व्यक्त व्यक्त व्यक्त त्याप्त व्यक्त व्यक्त व्यक्त व्यक्त व्यक्त व्यक्त	die des ern der der gen fen an gan gan der die die alle an gen da.

STATISTIC	MOHENT		FOLK-HARO
Nean Deviation Skeuness Kurtosis Nedian Skeuness2	2.682 1.212 1.533 0.000	2.415 0.989 0.057 0.502 2.358 -0.105	2.396 0.944 -0.006 0.897
Percent Gravel Percent Sand Percent Mud	0.18 94.49 5.33		

SAMPLE ID

75

TOTAL GRAVEL+SAND+NUD NEIGHT 143.34 grans SAND SUB-SANPLE SPLIT NEIGHT 18.66 grans

\$17F FDA	CTINE	UE IGHT IN	GRANS	UFTGHT	PERCENT	COARSE SHELL	NACRO-ORGANICS
iii	phi	uncor.	cor.		cunn.	(grans)	(grans)
	<b>,</b>					•	-
92.0	-5.00	0.00	0.00	0.00			
22.6	-4.50	0.00 0.00	00.00 00.0	00.0 00.0	00.00 00.0		
16.0 11.3	-4.00 -3.50	0.00	0.00	00.0	0.00		
	-3.00	0.00	0.00	0.00	0.00		
5.66	-2.50	00.0	0.00	0.00	0.00		
4.00	-2.00	0.00	0.00	0.00	00.0		
	-1.50		00.0	0.00	0.00		
2.00	-1.00	0.00		0.00	0.00		No the sea his sto has he was not see his his his his size of
TOTAL GR	WEL			0.00	0.00		
1.41	-0.50	0.01	0.07	0.05	0.05		
1.00	0.00	<b>0.02</b>	0.14	0.10			
	0.50	0.03	0.21	0.15	0.30		
0 SN	4 00	9.08	0.57	0.40			
0.35	1.50	0.22	1.56	1.09			
0.25	2.00	0.67	4.76 6.89	3.32 4.80			
0.177 0.125	2.50 3.00	0.97 1.66	0.67 11.79	8.22	18.13		
0.088	3.50	4.36		21.60			
0.0625	00.0	8.99	63.83		84.25		
TOTAL SA		1	20.76	84.25	84.25		\$10 mm (\$10 mm) (\$10
	4 46	9 24	0 24	1.89	86.14		
0.0490 0.0320	4.40 5.00	2.71 9.26	2.71 9.26	1.03 6.46			
0.0240	5.40	2.03	2.03	1.42			
0.0160	6.00	1.35	1.35	0.94	94.96		
0.0120	6.40	0.23	0.23	0.16			
0.0080	7.00	0.45	0.45	0.31			
0.0060	7.40	0.45		0.31			
0.0040 0E00.0	8.00 8.40	0.45 0.45	0.45 0.45	0.31 0.31	96.06 96.30		
0.0020	9.00		0.45	0.31			
0.0015	9.40	0.45	0.45	ŏ.31	97.01		
0.0010	10.00	0.68	0.68	0.47	97 .48		
<0.0010		0.68 3.61	3.61	2.52	100.00		
TOTAL NU	D	हुए ब्रह्म क्ष्मा रहत हुन हुन हुन बुक्त क्ष्मा क्षमा क्षमा क्षमा क्षमा क्षमा	22.58	15.75	100.00	. 1555 1557 1557 1557 1559 1559 1559 1559	<u>ਹਨ। ਹੁਨ ਸਭਾ ਬਣ ਚੁੜ੍ਹੇ ਹੈ ਜੋ ਜੋ ਹੈ ਜੋੜ੍ਹੇ ਵਿੱਚ ਹਨ।</u> ਹਵਾਲੇ

STATISTIC	MONENT	Inhan	FOLK-WARD
Nean Deviation Skeuness Kurtosis Nedian Skeuness2	3.594 1.098 1.884 0.000	3.160 0.564 -0.340 1.694 3.351 -0.207	3.224 0.742 -0.208 1.704
Percent Gravel Percent Sand Percent Nud	0.00 84.25 15.75		

SAMPLE ID

76

TOTAL GRAVEL+SAND+NUD WEIGHT 157.79 grans SAND SUB-SANPLE SPLIT WEIGHT 23.00 grans

SIZE FRACT	rion	HEIGHT IN	6RAMS	UE IGHT	PERCENT	COARSE SHELL	nacro-organics
m	phi	uncor.	cor.	cor.	cunn.	(grans)	(grans)
32.0	-5.00	0.00	0.00	0.00	0.00		
22.6 -	-4.50	0.00	0.00	0.00	0.00		
	-4.00	0.00	00.0	0.00	0.00		
	-3.50	0.00	00.0	0.00	0.00		
	-3.00	0.00	0.00	0.00	0.00		
	-2.50	0.00	00.0	00.0	00.0		
	-2.00	0.00	00.0 00.0	00.0 00.0	00.0 00.0		
	-1.50 -1.00	0.00 0.11	0.11	70.0			
2.00	_ 1 - 40			V.V1			\$10 MP NO ME NO ME NO COL CO NO ME NO PER NO PER NO PER NO
TOTAL GRA	PEL		0.11	0.07	70.0		
1.41	-0.50	0.08	0.54	0.34	0.41		
	0.00	0.08	0.54	0.34			
0.71	0.50	0.12	0.80	0.51	1.26		
0.50	1.00	0.23	0.80 1.54	0.98	2.23		
0.35	1.50	V .38	ود. ع	1.61	3.85		
	5.00	0.92	6.16	3.91	7.75 19.51		
0.177 0.125	2.50 3.00		18.56 65.25	11.76 41.35			
	3.50		42.40	26.87			
		2.17	14.54	9.21			
		age age top top top any any and any and any		47 to an un to tak tak to 00 tip 60	, ~		22 es 44 ap 42 un az 22 to 40 m eu 60 an 40 40
TOTAL SAM	D	1	52.87	96.88	96.95		
0.0480	4,40	0.48	0.48	0.31	97.25		
0.0320	5.00	1.40	1.40	0.88	98.14		
0.0240	5.40	0.53	0.53	0.34			
0.0160	6.00	0.29	0.29	0.18	98.66		
0.0120	6.40	0.14	0.14	0.09	98.75		
0.0080	7.00	0.14	0.14 0.14	0.09 0.09	98.84 98.93		
0.0060 0.0040	7.40 8.00	0.14 0.19	0.19	0.03	99.05		
0.0030	8.40	0.19	0.19	0.12			
	9.00	0.19	0.19	0.12			
	9.40	0.19	0.19	ŏ.12			
	10.00	0.19	0.19	0.12	99.54		
<0.0010	• •	0.72	0.72	0.46	100.00		
TOTAL NUD		THE CO. AND	4.81	3.05	100.00	. तेता व्याप्त	905 Tags 400 600 July 608 444 Tuy 102 All 609 609 609 609 607 FF

STATISTIC	NONENT	Innan	FOLK-WARD
Nean Deviation Skeuness Kurtosis Nedian Skeuness2	2.882 0.867 1.569 0.000	2.635 0.538 0.036 1.069 2.616 -0.201	2.629 0.606 -0.030 1.319
Percent Gravel Percent Sænd Percent Hud	0.07 96.88 3.05		

SAMPLE ID 77

TOTAL GRAVEL+SAND+NUO NEIGHT 166.62 grams SAND SUB-SANPLE SPLIT NEIGHT 24.64 grams

SIZE FRA	CTION	NE I GHT I	n Grans	UE IGHT	PERCENT		MACRO-ORGANICS
titi	phi		cor.	cor.	cunn.	(grans)	(grans)
32.0	-5.00	0.00	0.00	0.00	0.00		
	-4.50	0.00	0.00	0.00	00.00		
16.0	-4.00	0.00	0.00	0.00	0.00		
11.3	-3.50	0.00	0.00	0.00	0.00		
00.8	-3.00	0.00	0.00	0.00	0.00		
5.66	-2.50	0.00	0.00	0.00	0.00		
	-2.00	0.37	0.37	0.22	0.22 0.29		
	-1.50		0.12	0.07 0.21			
2.00	-1.00	0.35	0.35		Q.5Q 	Did not the one has less the Eastern May had the mot that the	
TOTAL GR	AVEL		0.84	0.50	0.50		
1.41	-0.50	0.19	1.26	0.76	1.26		
	0.00	0.23	1.52	0.91	2.17		
0.71	0.50	0.50	3.31	1.99	4.16		
0.50	1 .00	0.86	5.70	1.99 3.42 5.29	7.50		
0.35	1.50	1.33	8.81	A 820			
	2.00	2.22	14.71	8.83 18.54	21.70 40.24		
0.177	2.50 3.00	4.66 7.37	30.88 48.84	10.34 29.31	69.55		
0.125 0.088	3.50	5.12	33.93	20.37			
	4.00	2.06	13.65	8.19	98.11		
	E00 600 NO 100 NOT 600 E00	52 mg mi garaw an mi ga an an an mi an an				and here did size has the man had one year this test has the test	
TOTAL SA	WD		162.64	97.61	98.11		
0.0480	4.40	0.25	0.25	0.15	98.26		
0.0320	5.00	0.66	9.66	0.40			
0.0240	5.40	0.31	0.31	0.19			
0.0160	6.00	0.22	0.22	0.13			
0.0120	6.40	0.13	0.13	9.08			
0.0080	7.00	0.13	0.13 0.13	80.0 80.0			
0.0060 0.0040	7.40 8.00	0.13 0.16	0.13	0.09			
0.0030	8.40	0.13	0.13	80.0			
0.0020	9.00	0.16	0.16	0.09			
0.0015	9.40	Ŏ.16	0.16	0.09			
0.0010	10.00	0.16	0.16	0.09			
<0.0010		0.57	0.57	0.34	100.00		
TOTAL NU	ID	800 EGG SEC	3.14	1.69	100.00	5 too see and 150 fee fee fan dit tot fee fee fee 400 fe	

STATISTIC	MONERT	HANNI.	FOLK-HARD
Mean Deviation Skeuness Kurtosis Median Skeuness2	2.533 1.063 0.174 0.000	2.261 0.837 -0.183 0.894 2.414 -0.548	2.312 0.899 -0.236 1.248
Percent Gravel Percent Sand Percent Hud	0.50 97.61 1.89		

SAMPLE ID

78

TOTAL GRAVEL+SAND+MUD NEIGHT 155.54 grans SAND SUB-SANPLE SPLIT NEIGHT 23.55 grans

SIZE FRACTI	LON	NEIGHT IN	6RAMS	HE IGHT	PERCENT	COARSE SHELL	MACRO-ORGANICS
	ohi	uncor.	cor.	cor.	cunn.	(grans)	(grans)
32.0 -5	5.00	0.00	0.00	0.00	0.00		
	<b>1.50</b>	ŏ.ŏŏ	0.00	0.00	0.00		
	1.00	0.00	0.00	0.00	0.00		
	3.50	0.00	0.00	0.00	00.0		
	3.00	0.00	0.00	0.00	0.00		
5.66 -7	2.50	00.0	00.0	0.00	0.00		
	2 .00	0.16	0.16	0.10	0.10		
	1.50		0.14	0.09	0.19		
2.00 -1	1.00	0.54	0.54	0.35	0.54		NO NO ESS QUE BUT HE WAS NO HER AND AND AND THE BUT THE STO
TOTAL GRAVI	EL		0.84	0.54	0.54		
1.41 -	0.50	0.15	0.96	0.62	1.16		
	0.00		1.35	0.87	2.02		
	0.50	0.29	1.86	1.20	3.22		
	1.00	0.45	2.88	1.85	5.07		
0.35	1.50	0.89	5.70	3.67	8.74		
0.25	2.00	1.71	10.96	7.05			
	2.50		18.27	11.74	27.53		
	3 .00	8.19	52.49	33.75	61.28		
	3.50		37.17	23.90			
0.0625	4.00 	2.83	18.14	11.66	96.84	go go en goi en 40 40 50 41 41 41 40 41 41	44 55 65 50 FG 61 64 64 64 64 64 64 65 55 55 55 55 55
TOTAL SAND			49.79	96.30	96.84		
0.0480	4,40	0.39	0.39	0.25	97.09		
	5.00	1.33	1.33	0.85	97.95		
	5.40	0.44	0.44	0.28	98.23		
	6.00	0.39	0.39	0.25	98.48		
	6.40	0.15	0.15	0.09	98.58		
	7.00	0.20	0.20	0.13			
	7.40	0.10	0.10	0.06			
*****	00.8	0.20	0.20	0.13	98.89		
	8.40	0.20	0.20	0.13			
	9.00	0.25	0.25	0.16			
	9.40	0.25	0.25	0.16			
	0.00	0.34	0.34	0.22	99.56 100.00		
<0.0010		0.69	0.69	0 .444 		짜 속 하 로 보 이 때 전에 차 차 차 해 해 해 주	
TOTAL NUO	a	p expr spr 200 CO1 GO2 400, 601 601 601 601 601	4.91	3.16	100.00		

STATISTIC	Manon	innan	FOLK-HARD
Hean Deviation Skeuness Kurtosis Hedian Skeuness2	2.760 1.092 0.699 0.000	2.487 0.731 -0.127 1.004 2.580 -0.535	2.518 0.809 -0.197 1.345
Percent Gravel Percent Sand Percent Hud	0.54 96.30 3.16		

SAMPLE ID

79

TOTAL GRAVEL+SAND+NUD NEIGHT 207.37 grans SAND SUB-SANPLE SPLIT NEIGHT 27.21 grans

SIZE FRACTION	NEIGHT IN GRAMS Uncor. cor.	WEIGHT PERCENT	COARSE SHELL MACRO-ORGANICS (grans) (grans)
•			
32.0 -5.00 22.6 -4.50	00.0 00.0 00.0 00.0	00.0 00.0 00.0 00.0	
22.6 -4.50 16.0 -4.00	0.00 0.00		
11.3 -3.50	00.00	00.0 00.0 00.0 00.0	
8.00 -3.00	1.07 1.07	0.52 0.52	
5.66 -2.50	2.90 2.90 3.51 3.51 4.36 4.36	1.40 1.91 1.69 3.61	
4.00 -2.00 2.83 -1.50	3.51 3.51	1.69 3.61 2.10 5.71	
2.83 -1.50 2.00 -1.00	6.48 6.48	3.12 8.83	
was the left size rate and the way her take this day are the size for the	ara ara gan dan ban ara din din san ban dan ban din dan dan ara dan dan dan dan dan dan dan dan dan da		a had per any spec star that had not see her had not see see see had not see had not see that the see had not see had not see that the see had not see had not see that the see had not s
TOTAL GRAVEL	18.32	8.83 8.83	
1.41 -0.50	0.98 6.69	3.23 12.06	
1.00 0.00	1.16 7.92	3.82 15.88	
0.71 0.50	1.05 7.17 1.44 9.83	3.46 19.34 4.74 24.08	
0.50 1.00	1.44 9.83	4.74 24.08	
0.35 1.50	1.95 13.31 2.17 14.81	6.42 30.49 7.14 37.64	
0.25 2.00 0.177 2.50	3.15 21.50	10.37 49.01	
0.177 2.50 0.125 3.00	8.83 60.28	29.07 77.07	
0.088 3.50 0.0625 4.00	4.55 31.06	14.98 92.05	
0.0625 4.00	1.92 13.11	6.32 98.37	
TOTAL SAMD	185.68	89.54 98.37	
0.0480 4.40	0.17 0.17	0.08 98.45	
0.0320 5.00	0.74 0.74	0.36 98.81	
0.0240 5.40	0.37 0.37	0.18 98.99	
0.0160 6.00	0.27 0.27	0.13 99.12 0.07 99.19	
0.0120 6.40 0.0080 7.00	0.13 0.13 0.13 0.13	0.07 99.25	
0.0060 7.40	0.10 0.10	0.05 99.30	
0.0040 8.00	0.20 0.20	0.10 99.40	
0.0030 8.40	0.17 0.17	0.08 99.48	
0.0020 9.00	0.17 -0.17	0.08 99.56	
0.0015 9.40 0.0010 10.00	0.17 0.17	0.08 99.64 0.10 99.74	
<0.0010 10.00 <0.0010	0.20 0.20 0.54 0.54	0.26 100.00	
TOTAL NUD	22 140 25 EM 40 10 10 10 EM 40 20 EM 40 EM	1.63 100.00	

STATISTIC	MONENT	INNAN	FOLK-UARD
Mean Deviation Skeuness Kurtosis Median	1.896 1.718 -0.723 0.000	1.368 1.606 -0.569 0.676 2.282	1.672 1.619 -0.565 1.165
Skeuness2		-0.941	
Percent Gravel Percent Sand Percent Nud	8.63 89.54 1.63		

SAMPLE ID 80

TOTAL GRAVEL+SAND+NUD NEIGHT 176.56 grans SAND SUB-SANPLE SPLIT NEIGHT 24.62 grans

SIZE FRA		NEIGHT IN		NE IGHT cor.	PERCENT CUNN.	COARSE SHELL (grans)	nacro-organics (grans)
1111	phi	uncor.	cor.	cui .	com.	(grans)	(gi wile)
32.0	-5.00	0.00	0.00	00.0	0.00		
22.6	-4.50	0.00	00.00	0.00	00.00		
16.0	-4.00	0.00	00.0	0.00	0.00		
11.3	-3.50	0.00	00.0	0.00	0.00		
9.00	-3.00	0.00	00.00	0.00	0.00		
5 .66	-2.50	0.00	00.00	0.00	0.00		
4.00	-2.00	0.00	0.00	0.00	0.00		
2.83	-1.50	0.18	0.18	0.10	0.10		
2.00	-1.00	0.45	0.45	0.25	0.36		-
TOTAL GR	WEL		0.63	0.36	0.36		
1.41	-0.50	0.21	1.48	0.84	1.19		
1.00	0.00	0.56	3.94	2.23	3.43		
0.71	0.50	1.07	7.53	4.27	7.69	•	
0.50	1.00	1.60	11.26	6.38	14.07		
0.35	1.50	1.65	11.62	6.58	20.65		
0.25	2.00	1.38	9.71	5.50	26.15		
0.177	2.50	3.56	25.06	14.19	40.35		
0.125	3.00		57.44	32.53	72.88		
0.088	3.50	4.56	32.10	18.18	91.06		
0.0625	4.00		12.67	7.18	98.24	. No take the part and take the Part and take the take the Take	No dia managa ana ana ana ana ana ana ana ana an
TOTAL SA	MO		172.82		98.24		
0.0480	4.40	0.19	0.19	0.11	98.34		
0.0320	5.00	0.53	0.53	0.30	98.64		
0.0240	5.40	0.34	0.34	0.19	98.84		
0.0160	6.00	0.25	0.25	0.14	98.98		
0.0120	6.40	0.12	0.12	0.07	99.05		
0.0000	7.00	0.16	0.16	0.09	99.14		
0.0060	7.40	0.12	0.12	0.07	99.21		
0.0040	9.00	0.22	0.22	0.12	99.33		
0.0030	8.40	0.16	0.16	0.09	99.42		
0.0020	9.00	0.22 0.16	0.22	0.12 0.09	99.54 99.63		
0.0015	9.40 10.00	0.16 0.25	0.16 0.25	0.03	99.77		
0.0010 <0.0010	£0 -00	0.40	0.40	0.23	100.00		
// .VV EV		49° e V *** ** ** ** ** ** ** ** ** ** **	V <b>F</b> F.	A *FA	~~~~~~~ 	. ALLS MEN TITL MED MED MED MED THE NOT THE MED THE TITL MED THE	N 45 = 45 44 14 14 15 15 15 10 10 10 10 10 10 10 10 10
TOTAL MU	D		3.11	1.76	100.00		

STATISTIC	MONENT	INNAN	FOLK-HARD
Nean Deviation Skeuness Kurtosis Nedian Skeuness2	2.402 1.187 0.273 0.000	1.972 1.078 -0.394 0.658 2.397 -0.626	2.114 1.081 -0.386 1.260
Percent Gravel Percent Sand Percent Hud	0.36 97.88 1.76		

SAMPLE IO 81

TOTAL GRAVEL+SAND+MUD WEIGHT 198.07 grans SAND SUB-SANPLE SPLIT WEIGHT 26.44 grans

SIZE FRACTION		UEIGHT PERCENT	COARSE SHELL MACRO-ORGANICS (grans) (grans)
nn phi	uncor. cor.	cui. cum.	Cyr may Cyr may
32.0 -5.00	00.00 00.0	0.00 0.00	
22.6 -4.50	0.00 0.00	00.00 0.00	
16.0 -4.00	00.00 00.00	0.00 0.00 00.0 00.0	
11.3 -3.50 8.00 -3.00	0.00 0.00 1.44 1.44	0.73 0.73	•
5.66 -2.50	0.48 0.48	0.24 0.97	
4.00 -2.00	0.70 0.70	0.35 1.32	
2.83 -1.50	1.85 1.85	0.93 2.26	
2.00 -1.00	4.29 4.29	2.17 4.42	
TOTAL GRAVEL	8.76		
1.41 -0.50	1.29 9.14	4.62 9.04	
	2.53 17.93	9.05 18.09	
0.71 0.50	3.34 23.67	11.95 30.04	
0.50 1.00	3.34 23.67	11.95 42.00	
0.35 1.50	2.99 21.19	10.70 52.70	
0.25 2.00	2.83 20.06	10.13 62.82 9.27 72.09	
0.177 2.50 0.125 3.00	2.59 18.36 4.40 31.19	15.75 87.84	
0.088 3.50	2.53 17.93	9.05 96.89	
0.0625 4.00	0.62 4.39	2.22 99.11	
TOTAL SAND	187.55	94.69 99.11	HON AND HON HAVE THAN THAN THAN HAVE THAN THAN HON THAN THAN THAN THAN THAN THAN THAN HAVE THAN THAN THAN THAN THAN THAN THAN THAN
A AAAA . 4 AA	000	0.04 99.15	
0.0480 4.40 0.0320 5.00	0.09 0.09 0.25 0.25	0.04 99.15 0.12 99.28	
0.0240 5.40	0.16 0.16	0.08 99.36	
0.0160 6.00	0.16 0.16	0.08 99.44	
0.0120 6.40	0.09 0.09	0.04 99.48	9
0.0080 7.00	0.09 0.09	0.04 99.53	
0.0060 7.40	0.07 0.07	0.04 99.56	
0.0040 8.00 0.0030 8.40	0.12 0.12 0.09 0.09	0.06 99.63 0.04 99.67	
0.0030 8.40 0.0020 9.00	0.12 0.12	0.06 99.73	
0.0015 9.40	0.11 0.11	0.05 99.79	
0.0010 10.00	0.12 0.12	0.06 99.85	•
<0.0010	0.30 0.30	0.15 100.00	
TOTAL NUB	1.76	0.89 100.00	

STATISTIC	MINERT	IHNAH	FOLK-UARD	
Mean Deviation Skeuness Kurtosis Median Skeuness2	1.363 1.483 0.072 0.000	1.129 1.495 0.005 0.446 1.120 -0.097	1.126 1.403 -0.031 0.770	
Percent Gravel Percent Sand Percent Hud	4.42 94.69 0.89			

SAMPLE ID 84

TOTAL GRAVEL+SAND+MUD NEIGHT 637.56 grans SAND SUB-SANPLE SPLIT NEIGHT 16.45 grans

SIZE FRA		NE 16HT	IN GRANS	NE 16HT	PERCENT		
m	phi	uncor.	cor.	cor.	cunn.	(grans)	(grans)
32.0	-5.00	140 06	148.86	23.35	23.35		
22.6	-4.50	0.00	0.00	0.00	23.35		
16.0	-4.00	10.08	10.08	1.58	24.93		
11.3	-3.50	00.0	0.00	0.00	24.93		
	-3.00	2.03	2.03	0.32	25.25		
5.66	-2.50	2.46	2.46	0.39	25.63		
4.00	-2.00	3.28	3.28	0.51	26.15		
	-1.50			0.74			
2.00	-1.00		6 .23	0.98	27.86	am am 40 km am air de Sal kii ki ka sa ka ka 10 W	a man can stop our sup out one was tall the side tall but had 400 told
TOTAL GR	AVEL		177.63		27.86		
1.41	-0.50	0.33	9.10	1.43	29.29		
	0.00	0.43	11.86	1.86	31.15		
0.71	0.50	0.34	9.38	1.47	32.62		
0.50	1.00	0.41	11.31	1.77	34.39		
0.35	1.50	0.47	12.96	2.03	36.42		
0.25	2.00	0.82	22.61	3.55	39.97		
0.177	2.50	3.32	91.55	14.36	54.33 84.73		
0.125	3.00	7.03	193.85 74.18	30.40 11.63	96.37		
0.088 0.0625	3.50 4.00	2.69 0.56		2.42			
		U.,V					
TOTAL SA	<b>KO</b>		452.22	70.93	98.79		
0.0480	4.40	0.15	0.15	0.02	98.82		
0.0320	5.00	0.62	0.62	0.10	98.91		
0.0240	5.40	0.54	0.54	0.08	99.00		
0.0160	6.00	0.62	0.62	0.10	99.09		
0.0120	6.40	0.31	0.31	0.05	99.14		
0.0080	7.00	0.46	0.46	0.07	99.21		
0.0060	7.40	0.31	0.31	0.05 0.07	99.26 99.34		
0.0040	00.8	0.46 0.39	0.46 0.39	0.06	99.40		
0.0030 0.0020	8.40 9.00	0.54	0.54	80.0	99.48		
0.0020	9.40	0.39	0.39	0.06	99.54		
0.0010	10.00	0.46	0.46	0.07			
<0.0010	** 7AA	2.47	2.47	0.39			
421 COP AM \$20 COP 450 450					444 44	, and was ten unit and any dire and was well any one will all any	n an air go an en en en 60 an ab en go we an en go en en en
TOTAL MU	D		7.71	1.21	100.00		

STATISTIC	MINENT	INNAN	FOLK-WARD
Nean Deviation Skeuness Kurtosis Hedian Skeuness2	0.426 3.449 -0.825 0.000	-1.338 4.071 -0.843 0.083 2.092 -0.817	-0.195 3.371 -0.799 0.528
Percent Gravel Percent Sand Percent Mud	27.86 70.93 1.21		

## KING POINT COASTAL ZONE SEDIMENT TRANSPORT STUDY, 1985

SAMPLE ID 85

TOTAL GRAVEL+SAND+NVO WEIGHT 191.14 grans SAND SUB-SANPLE SPLIT WEIGHT 23.68 grans

SIZE FRAI	CTION phi	WEIGHT I	N GRANS cor.		PERCENT cunn.	COARSE SHELL (grans)	nacro-organics (grans)
1111	pur	ullout a	001 1	001.5		131 610	13
	-5.00	0.00	0.00	0.00	0.00		
	-4.50	00.0	0.00 00.0	0.00	0.00 00.0		
16.0 11.3	-4.00 -3.50	00.0 00.0	0.00	0.00 00.0	0.00		
	-3.00	0.00	0.00	00.0	0.00		
	-2.50	õõ.õ	0.00	0.00			
4.00	-2.00	0.63	0.63	0.00 88.0	0.33		
	-1.50		0.45	0.24			
2.00	-1.00	0.40	0.40	0.21	0.77		40 ON EP 40 EA TO BUT TO BUT TO BUT TO SO TO SO
TOTAL 6R	UNEL		1.48				
1.61	-0.50	0.08	0.63	0.33	1.10		
	0.00	0.12	0.95	0.50	1.60		
0.71	0.50	0.14	1.11	0.58	2.18		
0.50	1 .00			u.91	3.09		
0.35	1.50	0.45	3.55	1.86	4.95 14.29		
0.25 0.177	2.00 2.50	2.26 8.95	17.85 70.70	9.34 36.99	51.28		
0.125	3.00	8.33	65 .80	34.43	85.71		
080. O		2.46	19.43	10.17	95.87		
0.0625	4.00	0.64	5.06	10.17 2.65	98.52		
TOTAL SA		<del></del>	186.83	97.74		9 (Apr Staf Staf Staf) (Apr date date date date star Star Apr Apr Apr Apr Apr Apr	성성을 찾아 성급 (An. Rich Store Life Main dee) Suit Side Side Side Side Side Side Side
0.0480	4.40	0.09	0.09	0.04	98.56		
0.0320	5.00		0.43 0.26	0.22			
0.0240	5.40	0.26	0.26	0.13			
0.0160	6.00	0.26	0.26	0.13	99.05		
0.0120	6.40		0.11	0.06			
0.0080	7.00 7.40	0.14 0.14	0.14 0.14	0.07 0.07			
0.0060 0.0040	8.00	0.17	0.17	0.09			
0.0030	8.40	0.14	0.14	70.0			
0.0020	9.00	0.20	0.20	0.10	99.53		
0.0015	9.40	0.11	0.11	0.06			
	10.00	0.20	0.20	0.10			
<0.0010		0.60	0.60	0.31	100.00	# 400 CUP ON US 445 SQ5 GQ5 SQ7 GQ7 SQ2 SQ7 GQ7 SQ2 SQ5	80 E3 80 80 27 87 87 87 87 10 10 10 10 10 E0 10 10
TOTAL NU	0		2.83	1.48	100.00		

STATISTIC	NONENT	INUON	FOLK-WARD
Nean Deviation Skeuness Kurtosis Nedian Skeuness2	2 .472 0 .865 0 .735 0 .000	2.247 0.474 0.034 1.045 2.231 -0.018	2.242 0.531 0.013 1.140
Percent Gravel Percent Sand Percent Mud	0.77 97.74 1.48		

## KING POINT COASTAL ZONE SEDINENT TRANSPORT STUDY, 1985

SAMPLE ID 86

TOTAL GRAVEL+SAMD+MUD NEIGHT 199.46 grans SAMD SUB-SAMPLE SPLIT NEIGHT 15.70 grans

SIZE FRA	CTION	NEIGHT IN	erans	NE 16HT	PERCENT	COARSE SHELL	nacro-organics
1111	phi	uncor.	cor.	cor.	cunn.	(grans)	(grans)
32.0	-5.00	0.00	0.00	0.00	0.00		
22.6	-4.50	0.00	0.00	0.00	0.00		
16.0	-4.00	0.00	0.00	0.00	0.00		
11.3	-3.50	0.00	00.0	0.00	0.00		
8.00	-3.00	0.00	0.00	0.00	00.00		
5.66	-2.50	0.00	00.0	0.00	0.00		
4.00	-2.00	0.00	0.00	0.00	0.00		
2.83	-1.50		0.00	0.00	0.00		
2.00	-1.00	0.00	0.00	00.0	0.00	, , , , , , , , , , , , , , , , , , ,	an des cas des cas des cas cas cas cas des cas des cas des cas cas cas cas cas cas cas cas cas ca
TOTAL GR	WEL		0.00	0.00	0.00		
1.41	-0.50	0.01	0.12	0.06	0.06		
	00.0	0.01	0.12	0.06	0.13		
17.0	0.50	0.02	0.25	0.13	0.25		
0.50	1.00	0.03	0.37	0.19	0.44		
0.35	1.50	0.06	0.75	0.38	0.81		
0.25	2.00	1.02	12.72	6.38	7.19		
0.177	2.50	6.30	78.56	39.39	46.57		
0.125	3.00	6.44	80.30	49.26	86.84		
0.088	3.50	1.49	18.58	9.31			
0.0625	4.00	0.32	3.33	2.00	98.15	1 40 40 40 to 10 10 10 10 10 10 10 10 10 10 10 10 10	
TOTAL SA	KD		195.77	98.15			
0.0480	4.40	0.15	0.15	70.0	98.22		
0.0320	5.00	0.52	0.52	0.26	98.48		
0.0240	5.40	0.26	0.26	0.13	98.61		
0.0160	6.00	0.30	0.30	0.15	98.76		
0.0120	6.40	0.18	0.18	0.09	98.85		
0.0080	90.7	0.15	0.15	0.07	98.93		
0.0060	7.40	0.15	0.15	0.07	99.00		
0.0040	8.00	0.30	0.30	0.15	99.15		
0.0030	8.40	0.15	0.15	0.07	99.22		
0.0020	9.00	0.30	0.30	0.15	99.37		
0.0015	9.40	0.18	0.18 0.30	0.09 0.15			
	10.00	0.30 77.0	0.30	0.13			
<0.0010		Velt	V + I l	**************************************			40 CD 40 40 40 MI FF 40 MF 40 40 40 80 60 70 MF FF
TOTAL NU	D		3.69	1.85	100.00		

STATISTIC	MONENT	innor	FOLK-WARD
Nean Deviation Skeuness Kurtosis Nedian Skeuness2	2.599 0.719 4.560 0.000	2.286 0.425 -0.010 0.873 2.290 0.194	2.287 0.454 0.047 1.045
Percent Gravel Percent Sand Percent Hud	0.00 98.15 1.85		

## KING POINT COASTAL ZONE SEDIMENT TRANSPORT STUDY, 1985

SAMPLE ID 87

TOTAL GRAVEL+SAND+WUD WEIGHT 221.73 grans SAND SUB-SANPLE SPLIT WEIGHT 15.94 grans

SIZE FRA	CTION	ueight i	n grans	UE IGHT	PERCENT		
m	phi	uncor.	cor.	cor.	cunn.	(grans)	(grans)
32.0	-5.00	0.00	0.00	0.00	0.00		
22.6	-4.50	0.00	00.0	0.00	0.00		
	-4.00	0.00	0.00	00.0 00.0	00.0		
11.3	-3.50	0.00	0.00		0.00		
	-3.00	1.03	1.03	0.46	0.46		
	-2.50	0,00	0.00 0.43	0.00 0.19	0.46 0.66		
4.00	-2.00 -1.50	1.03 0.00 0.43 0.55	U.43	0.25			
	-1.00	* * * * * * * * * * * * * * * * * * *	0.46	0.21	1.11		
£ .44	_1.44					400 MJ MJ 149 400 MJ NA NA NA CAE AG 600 809 809 800 800	M & & & & & & & & & & & & & & & & & & &
TOTAL GR	AVEL		2.47	1.11	1.11		
1.41	-0.50	0.03	0.40	0.18	1.30		
1.00	0.00	0.07	0.94	0.43			
0.71	0.50	0.07	0.94	0.43 0.73	2.15 2.88		
0.50	1.00	0.12	0.94 1.62	0.73	2.88		
0.35	1.50	0.24	3 .24	1.46	4.34		
0.25	2.00	1.10	14.85	6.70 22.53	11.04		
0.177 0.125	2.50	3.70 6.95	49.95 93.82	42.31	33.56 75.87		
0.088	3.50	3.22	43.47	19.60			
0.0625	a nn	8 .44	5.94	2.68	98.16		
ma and state and state 4.00		4 C C C C C C C C C C C C C C C C C C C				. 100 Met (100 circ 300 del 100 per 400 der 400 des 400 des 100 l	Con (10- F2F EX) and \$10 Str- 400 W20 420 525 Str Ed 400 TE 400 TE 400
TOTAL SA	MD		215.17	97.04	98.16		
0.0480	4.40	0.08	80.0	0.04	98.19		
0.0320	5.00	0.49	0.49	0.22	98.41		
0.0240	5.40	0.25	0.25	0.11			
0.0160	6.00	0.29	0.29	0.13			
0.0120	6.40		0.16	0.07			
0800.0	7.00	0.20 0.16	0.20 0.16	0.09 70.0			
0.0060	7.40 8.00	Q.25	0.25	0.11			
0.0030	8.40	0.25	0.25	ŏ.11			
0.0020	9.00	0.29	0.29	0.13			
0.0015	9.40	0.25	0.25	0.11	99.35		
0.0010	10.00	0.33	0.33	0.15			
<0.0010		1.10	1.10	0.50	100.00		- 100 FO THE PER PER PER PER PER PER PER PER PER PE
TOTAL NU	10	क्षान न्हरून कृत्य सहार प्रथम नहम क्षेत्रा निव्हें क्षेत्री स्थान क्षेत्री नहीं स्थान स्थान	4.09	1.84	100.00	an attach attach base from any state when the than the way was part by	T THE SET OF THE THE SET SET SET OF THE THE THE SET OF THE THE SET OF THE

STATISTIC	ment	INNON	FOLK-UARD
Nean Deviation Skeuness Kurtosis Nedian Skeuness2	2.629 0.965 -0.043 0.000	2.402 0.544 -0.071 0.772 2.441 -0.330	2.415 0.564 -0.129 1.166
Percent Gravel Percent Sand Percent Nud	1.11 97.04 1.84		

## KING POINT COASTAL ZONE SEDIMENT TRANSPORT STUDY, 1985

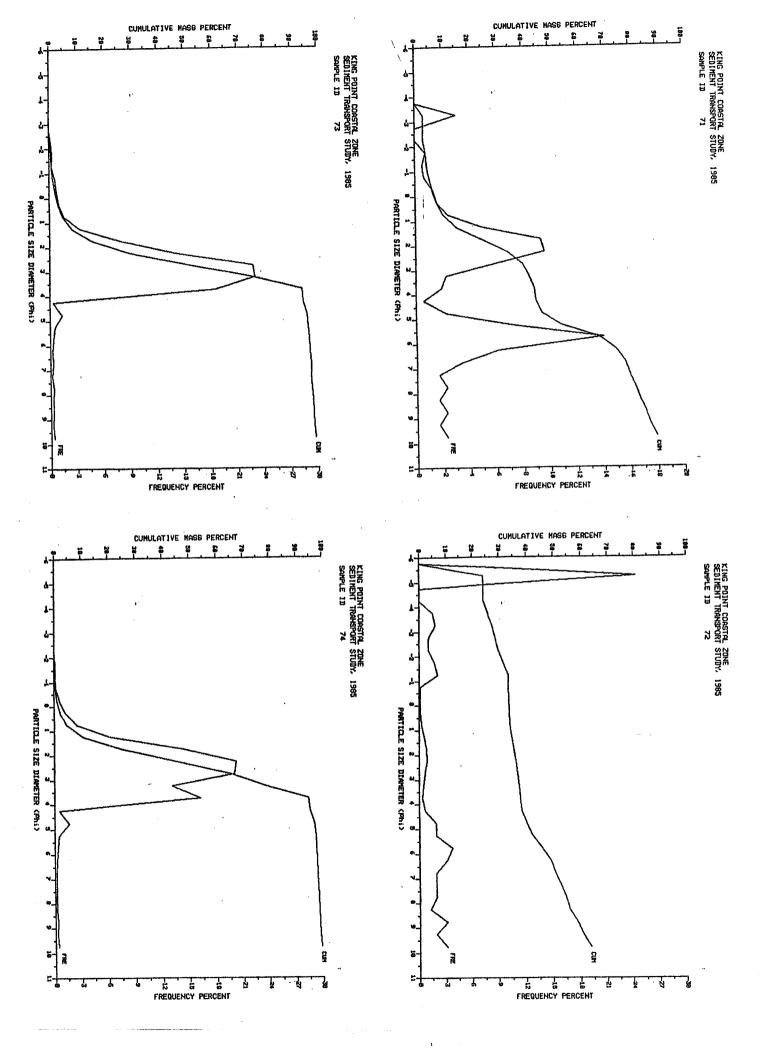
SAMPLE ID

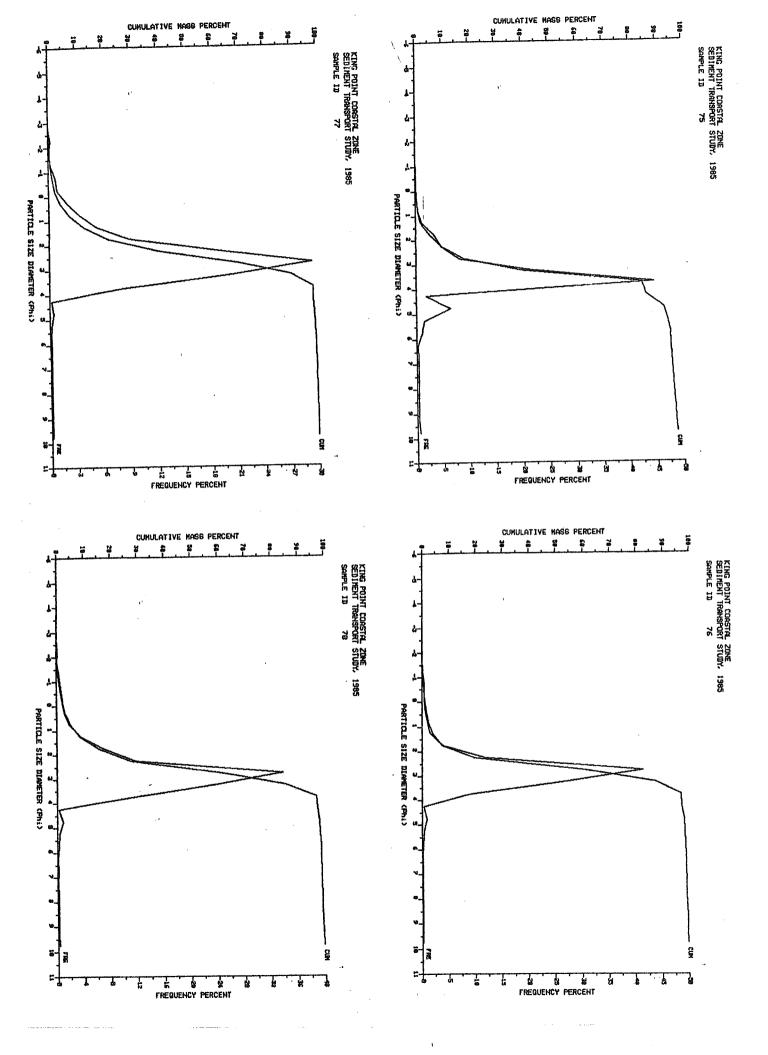
88

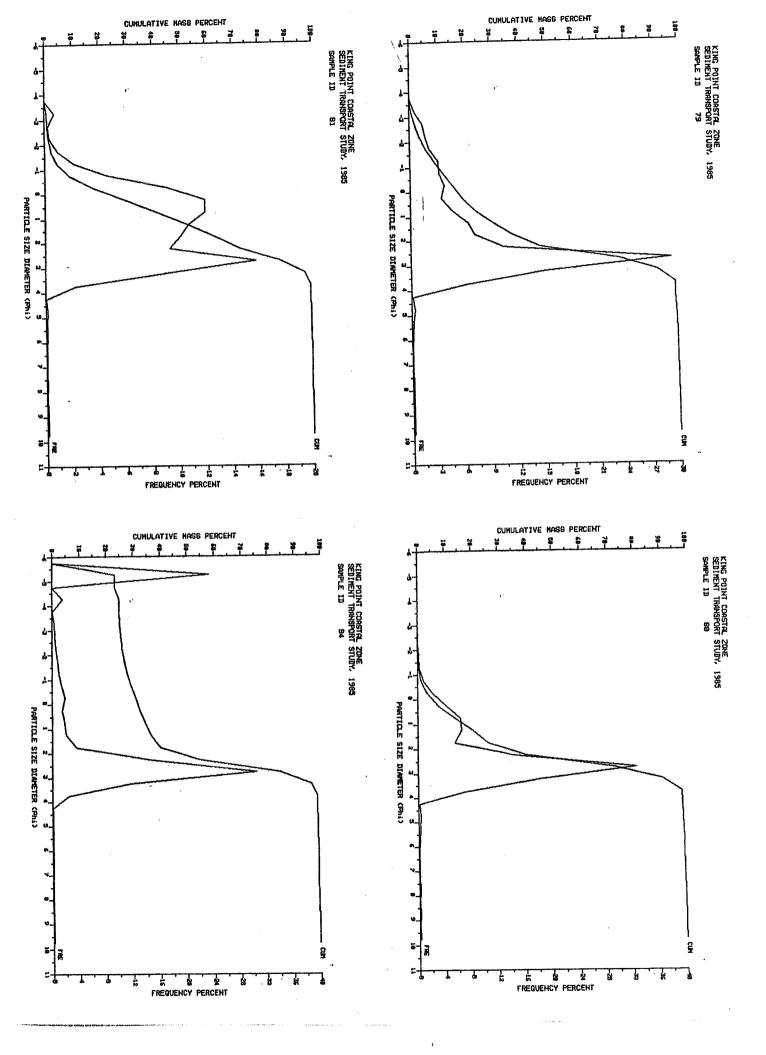
TOTAL GRAVEL+SAND+NUD NEIGHT 196.85 grans SAND SUB-SANPLE SPLIT NEIGHT 19.28 grans

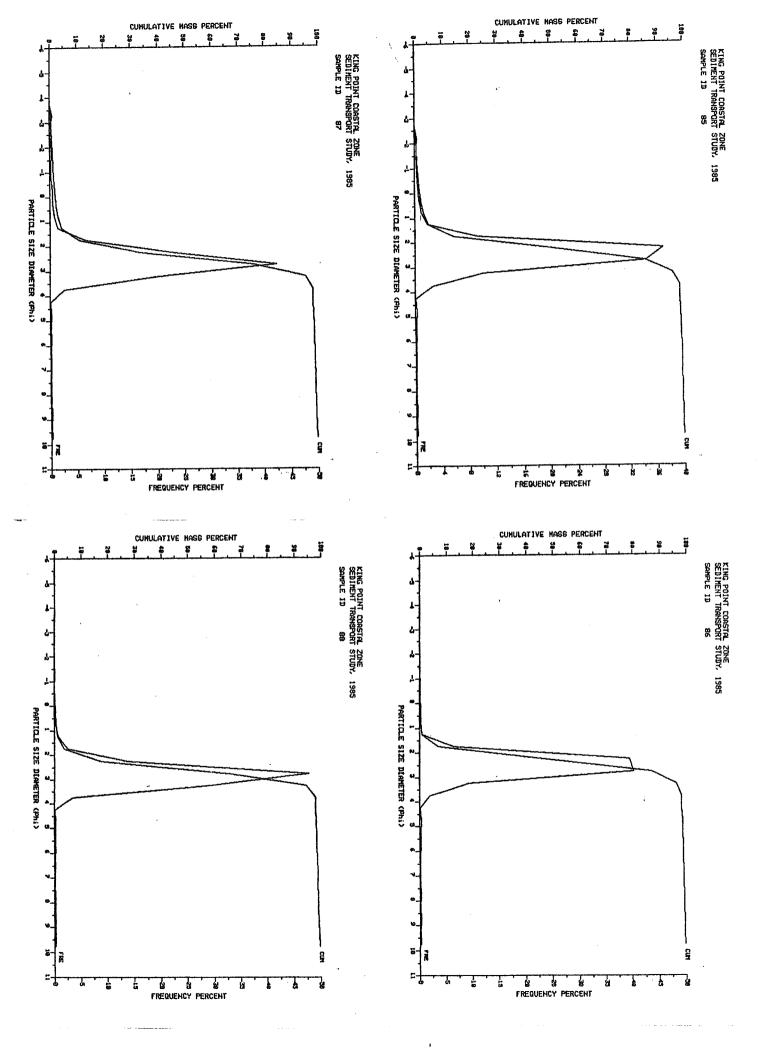
SIZE FRA	CTION	HE 16HT	IN GRANS	NE 16HT	PERCENT		nacro-organics
1111	phi	uncor	. cor .	cor.	cunn.	(grans)	(grans)
32.0	-5.00	0.00	0.00	0.00	0.00		
22.6	-4.50	0.00	0.00	0.00	0.00		
16.0	-4.00	00.0	0.00	0.00	0.00		
11.3	-3.50	0.00	0.00	0.00	0.00		
8 .00	-3.00	0.00	0.00	0.00	0.00		
5.66	-2.50	00.0	00.0	00.0 00.0	00.0 00.0		
4.00 2.83	-2.00 -1.50	00.0 00.0	00.0 00.0	0.00	0.00		
2.00	-1.00	0.00	0.06	0.03	0.03		
C "GA				~~~~~		too die toe die dee me me der sin met doe fiel dels had hell field	
TOTAL GR	AVEL		0.06	0.03	0.03		
1.41	-0.50	0.00	0.00	0.00	0.03		
	0.00	0.01	0.14	0.07	0.10		
0.71	0.50	0.02	0.29	0.15	0.25		
0.50	1.00	0.03	0.43	0.22	0.47		
0.35	1.50	0.09	1.30	0.66	1.13		
0.25	2.00	0.35	5.07	2.58 13.76	3.71 17.47		
0.177 0.125	2.50 3.00	1.87 6.48	27.09 93.86	47.68	65.15		
0.123	3.50	3.98	57.65	29.29			i.
0.0625	4.00	0.47	6.81	3.46			
							चार बार्ड श्रंप क्या क्या क्या क्या क्या क्या क्या क्या
TOTAL SA	IND		192.65	78.76	97.90		
0.0480	4.40	0.12	0.12	0.06	97.96		
0.0320	5.00	0.41	0.41	0.21	98.17		
0.0240	5.40	0.29	0.29	0.15	98.32		
0.0160	6.00	0.29	0.29	0.15	98.46		
0.0120	6.40	0.21	0.21 0.21	0.11	98.57 98.60		
0800.0 0300.0	7.00 7.40	0.21 0.17	0.21 0.17	0.11 0.08	98.76		
0.0040	8.00	0.33	0.33	0.17	98.93		
0.0030	8.40	0.25	0.25	0.13	99.05		
0.0020	9.00	0.33	0.33	0.17	99.22		
0.0015	9.40	0.25	0.25	0.13	99.35		
0.0010	10.00	0.33	0.33	0.17	99.52		
<0.0010		0.95	0.95	0.48	100.00		
TOTAL NU	10	<b>要待 快水 电水 化氯基甲 经收 机拉 化水 毛色 配達 形态 化混</b>	4.14	2.10	100.00	· co · co · ru · co · do · 40 · 87 · 80 · b) · 45 · 49 · 43 · 41 · 49 · 43	, and man very sour RES COD SEP, MAY THE SEP VALUE THE VALUE OF THE THE

STATISTIC	MONENT	INNAN	FOLK-HARD
Nean Beviation Skeuness Kurtosis Nedian Skeuness2	2.886 0.743 4.107 0.000	2.629 0.436 0.094 0.686 2.589 -0.134	2.616 0.440 0.007 1.030
Percent Gravel Percent Sand Percent Mud	0.03 97.87 2.10		









## **COASTAL SEDIMENT TRANSPORT TRENDS** BY **GEOSEA CONSULTING**

# SEDIMENT TRANSPORT TRENDS AT KING POINT, BEAUFORT SEA

## PREPARED BY

PATRICK McLAREN

GEOSEA CONSULTING 1936 FORRESTER STREET VICTORIA B.C. V8R 3H1

FOR

DOBROCKY SEATECH LTD. SIDNEY B.C.

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#### INTRODUCTION

The purpose of this report is to determine if the directions of sediment transport can be derived from a suite of sediment samples taken at King Point using the method of McLaren and Bowles (1985). Complete grain-size distributions were analysed from 68 samples; they were collected on 17 shore normal transects, each transect containing four samples representative of the berm, beach face, 20 m offshore and 50 m offshore. The spacing between transects varied from 75 to 200 m (Fig. 1).

Some general remarks concerning the sample distributions are as follows:

- (1) The derivation of transport trends requires sediment distributions that are reasonably well "closed" so that the first and last class intervals contain less than 5% of the total distribution. For this reason, samples containing >90% gravel and > 5% mud were excluded from the trend analyses (Fig. 1).
- (2) Closed distributions for the remaining samples were well represented between -4.0 phi and 4.5 phi. Although many of the beach samples contained sediments greater than -4.0 phi, the large weights of these clasts relative to the total sample weight preclude a statistically valid representation of their presence in the sediments.
- (3) For the purposes of the sediment trend analyses, the number of class intervals were reduced from 1/4 phi intervals in the sand fraction to 1/2 phi intervals.

#### METHODS

The following is a brief method of determining sediment trends as described in McLaren and Bowles (1985). Given the grain-size distributions of two samples, Dl and D2 that have been collected sequentially in the net sediment transport diection, D2=(D1)(X) where X is a function relating the two grain-size X is, in reality, a function describing the distributions. relative probability of any particular size of material being eroded, transported and deposited from D1 to D2. Depending on the shape of X, which empirical observations from flume experiments have demonstrated, D2 (the "down-current" sample) may become coarser, better sorted, and more positively skewed or finer, better sorted and more negatively skewed than D2 (the "up-current" sample). In the former case (ie. D2 becomes coarser, better sorted and more positively skewed than D2), processes responsible for transport are described as "high-energy" with respect to the grain sizes present. Conversely, sediments becoming finer, better sorted and more negatively skewed indicate "low-energy" relative to the

grain-size distributions present. (For this reason, the coarser a sediment is, the less likely that a "high-energy" process can occur to make it even coarser in the direction of transport; similarly, fine sediments may easily become coarser in the direction of transport).

Given 2 samples, Dl and D2, we can infer the direction of sediment transport (either from Dl to D2 or from D2 to Dl) if the mean grain size, sorting and skewness show a relative change in either of the two trends described above (ie. coarser, better sorted and more positively skewed or finer, better sorted and more negatively skewed). When one of these two trends is observed, the function X can be calculated from the grain-size distributions of Dl and D2. X=D2/D1 if transport is in the direction defined by D1 to D2, or x=D1/D2 if transport is in the direction defined by D2 to D1.

In reality, changes following the above two trends are almost never observed in a sequence of samples, even when the transport direction is clearly known. This is due to complicating factors such as variation in the grain-size distributions of the source sediments, local and temporal variability in the X function and a variety of sediment sampling difficulties (ie. sample doesn't adequately describe the deposit, taken too deeply, not deep enough etc.). As a result a statistical approach must be used whereby either of the two trends are examined for all possible pairs contained in a sample sequence.

Given a sequence of "n" samples, there are  $n^2 - n/2$  directionally-oriented pairs that may exhibit a transport trend in one direction, and an equal number of pairs in the opposite direction. When any two samples are compared with respect to their mean grain-size, sorting and skewness, 8 possible trends exist: compared to Dl, D2 may be (i) finer (F), better sorted (B), and more negatively skewed (-), (ii) coarser (C), more poorly sorted (P), and more positively skewed (+), (iii) C,B,-, (iv) F,P,-, (v) C,P,-, (vi) F,B,+, (vii) C,B,+, or (viii) F,P,+. Of these trends, only two are of interest, namely, F,B,-, and C,B, +, for which there is a 1/8 probability of either occurring at random (p=0.125). To determine if the number of occurrences among all possible pairs of samples contain one of these two trends in a quantity that exceeds the random probability of 0.125 the following two hypotheses are tested:

- H(0): p < 0.125 and there is no preferred transport direction; and
- H(1): p > 0.125 and a trend is occurring that exceeds randomness.

Using the Z-score statistic in a one-tailed test, H(1) is accepted if:

 $Z = x-Np / \sqrt{Npq} > 2.33$  (0.01 level of significance)

#### where:

x= observed number of pairs representing one of the two trends in one of the two opposing directions. N= total number of possible unidirectional pairs (N =  $n^2-n/2$ ) p= 0.125 q= 1.0 - p = 0.875

The Z-statistic is considered valid for N >30. Thus, a suite of 9 samples is adequate to determine a transport direction.

For this project, we wish to determine if a transport direction can be inferred from four suites of samples: namely, berm, beach face, samples from 20m offshore and samples from 50m offshore. The complete grain-size distributions are known and a computer program allows the rapid determination of the number of possible pairs in a sequence, the number of observed trends indicative of a transport direction and the Z-score. The direction of sediment transport is inferred when the Z-score is significant at the 0.01 level.

Given that the direction has been correctly inferred, we can determine the average X-distribution for the sample suite by averaging the grain-size distributions of all samples that constitute an "up-current" half of the pair (ie. Dl). Similarily, an average of all samples that constitute the "down-current" half of the pair represents a D2 distribution. D2/Dl equals X which is then normal ized.

For any sequence of samples, therefore, the sediment transport direction is determined statistically by examining all pairs of samples. Once discovered, X can be calculated, thus defining the relative probability of any particular size of grain being eroded, transported and deposited in the down-current direction. It is emphasized that both the direction of sediment transport and the probability of each size being moved is an integration of all processes over the period of time represented by the samples themselves.

For each of the four sequences of samples (locations shown in Fig.l), the direction of sediment transport was determined on the basis of a significant Z- score (ie. Z > 2.33; Tables 1, 3 and 5). No sediment trends were present for the berm deposits, whereas the samples from the beach face, 20 m offshore and 50 m offshore showed significant directions (summarized in Fig. 5).

The following samples were used to derive the Dl and D2 distributions:

(i) Beach face: D1: 28,30,32,36,38 D2: 14,22,26,28,32

(ii) 20 m offshore: Dl: 50,51,52,53,55,56,57,59,61,62,63

D2: 52,55,58,59,63,65,66,67

(iii) 50 m offshore:Dl: 77,79,80,81,84,86 D2: 78,84,85,86,87,88

#### SEDIMENT TRENDS

#### (1) Berm Samples:

Berm deposits are formed in one of the few environments that enable sediment in transport to be completely deposited. As a result, a sequence of berm samples is not expected to show a transport direction. Examination of berm deposits on Coburg Spit, Strait of Juan de Fuca, Myrtle Beach, North Carolina and numerous other sequences all consistently showed no preferred direction of transport. The samples from King Point were no exception and no transport trends could be derived.

### (2) Beach Face Samples:

The trends run on the beach face samples show a significant southeast fining transport direction (Table 1). The distributions of the average "upcurrent" and average "downcurrent" samples (Table 2; Fig. 2) show that the mean grain-size changes only slightly in the granule size range. The mode, however alters considerably in the transport direction, changing from -2.50  $\phi$  to -1.0  $\phi$  (Fig. 2).

The resultant X distribution defines the probability of each grain size being eroded, transported and deposited. The mode of the X distribution indicates the size most easily transported on the beach face which, in this case is  $-0.5~\phi$  (Fig. 2). The mean of X, or the average size undergoing transport, is somewhat finer at  $0.22~\phi$ .

#### (3) 20 m Offshore Samples:

At a distance of 20 m offshore, changes in grain-size distributions show good evidence for sediment transport in the NW direction parallel to the shore (Table 3). There is a very slight coarsening trend and the preferred size of material being transported, as given by the mode of the X distribution, is 2.0  $\phi$  (Table 4, Fig. 3).

#### (4) 50 m Offshore Samples:

Like the samples at 20 m offshore, this sequence also shows a strong transport direction to the northwest (Table 5). There is a slight fining trend and the sizes between 2.5  $\phi$  and 3.5  $\phi$  are being moved with more or less equal probability (Table 6 and Fig. 4).

#### DISCUSSION

The sequence of sediments shown in Fig. 1 for the beach face, 20 m offshore and 50 m offshore indicate that sediment transport is occurring parallel to the shoreline (Fig. 5). The beach face samples show transport in the southeast direction. This is consistent with the expected direction determined by the morphology and known pattern of growth of this beach system.

The reverse direction so close to shore is strongly in evidence by the trends. The shallower samples at 20 m offshore suggest relatively strong currents as evidenced by the slight coarsening trend. At 50 m offshore, sediments are finer and the currents are weaker, producing a slight fining trend. This suggests that these currents may be in effect under the shore-fast ice during winter. Such currents are known to strengthen as the depth between the ice and bottom decreases.

It is noted that mud appears to be accumulating 50 m offshore on transects 000 to -375, coinciding with a change in coastal orientation from SE to E (Fig. 5). Longshore transport on the beach is not greatly in effect on the east striking beach (most of the trends end at sample 22, with few making it to sample 14; sample 10 was absent from all sample pairs making up a trend). This is the result of waves becoming dominantly reflective at this point and deposition of fines in the nearshore may be the result. Until the fines are analysed and incorporated into the complete grain-size distributions. It is unknown if they are taking part in the northwest transport regime.

There are several points of interest concerning the derived X distributions (Figs. 2, 3, and 4). First, the mode which represents the size of material which has the maximum probability of being moved is -0.5 phi for the beach face, 2.0 phi 20 m offshore and 3.0 phi 50 m offshore. This steady decrease in size demonstrates a decreasing level energy at each of the three depositional environments. Also, the skewness of the X distribution becomes increasingly negative with a decreasing energy regime suggesting that the shape of X provides at least a qualitative assessment of the energy regime.

Although at this stage it is not possible to determine rates of sediment transport by this approach, there are several avenues open for further research.

- (1) Use the mode of D1 to determine the minimum shear stress required to initiate transport.
- (2) Use the mode of D2 to determine the maximum shear stress that would allow this size to be deposited. (Thus we will have "bracketing values" for shear stress).
- (3) Use the mode of X as the size required in whichever sediment transport equation is being used for each of the three environments.
- (4) Correlate the shapes of X with the transport regime as derived from process measurements.

#### REFERENCES

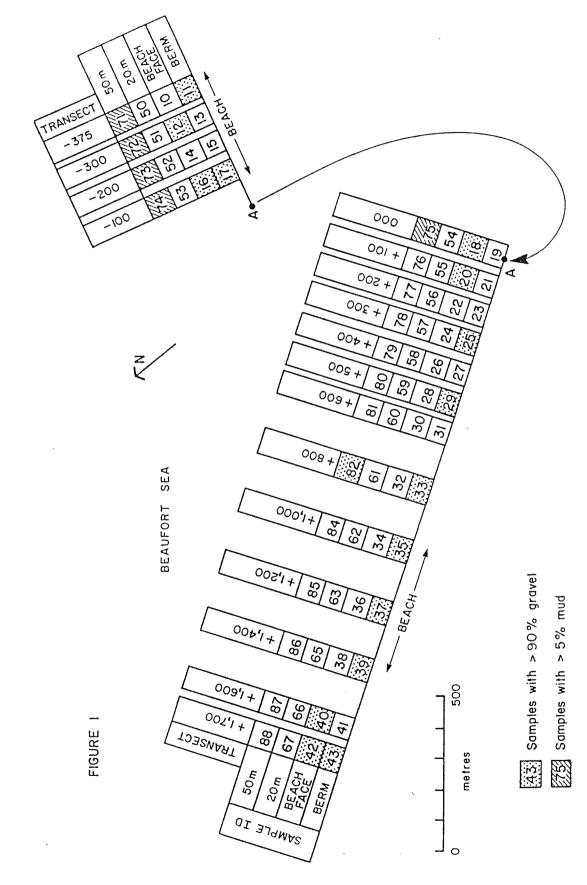
McLaren, P., and Bowles, D., 1985. The effects of sediment transport on grain-size distributions; Journal of Sedimentary Petrology, V.55, 457-470.

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- Figure 2: Beach face distributions of the average upcurrent samples  $(D_1)$  and the average downcurrent samples  $(D_2)$ . The resultant X distribution defines the relative probability of each size being eroded and deposited.
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- Table 4. Average distributions for sediments 20 m offshore.
- Table 5. Summary statistics for transport trends 50 m offshore.
- Table 6. Average distributions for sediments 50 m offshore.

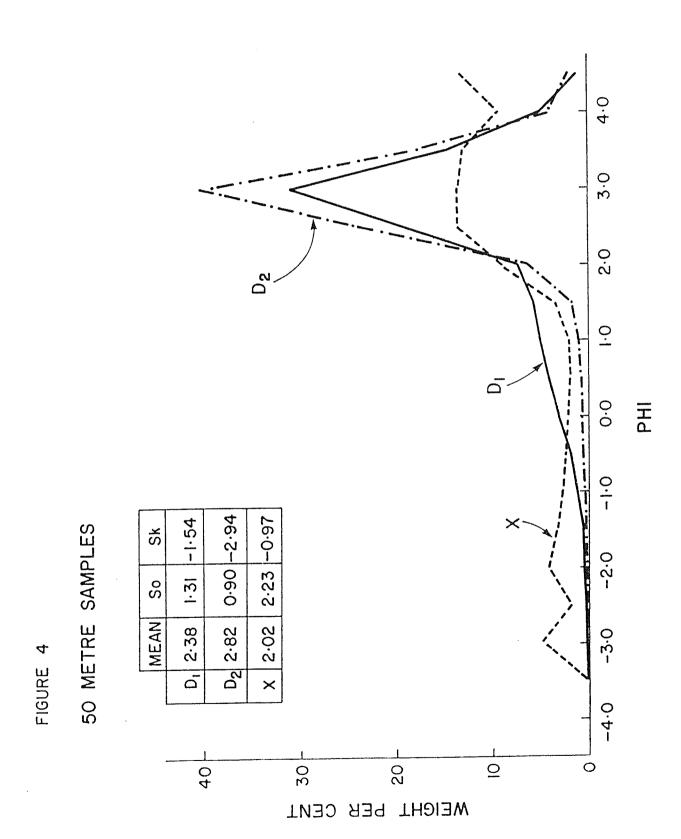


98.0 0.38 Sk <u>0</u> 8.0 1.43 <u>|-3</u> 3.0 MEAN -1.57 0.22 D<sub>2</sub> -1.12 ۵ × 2.0 0 H <u></u> BEACH FACE SAMPLES -2.0 -3.0 FIGURE 2 -4.0 20 9 S 0 3 WEIGHT PER CENT

HH

-0.44 0.70 -0.50 0.54 |-0.18 ķ So MEAN 2.36 2.29 99.1 D2  $\overline{\Box}$ ā 3.0 2.0 0 20 METRE SAMPLES -3.0 0 0 30 20 40 WEIGHT PER CENT

FIGURE 3



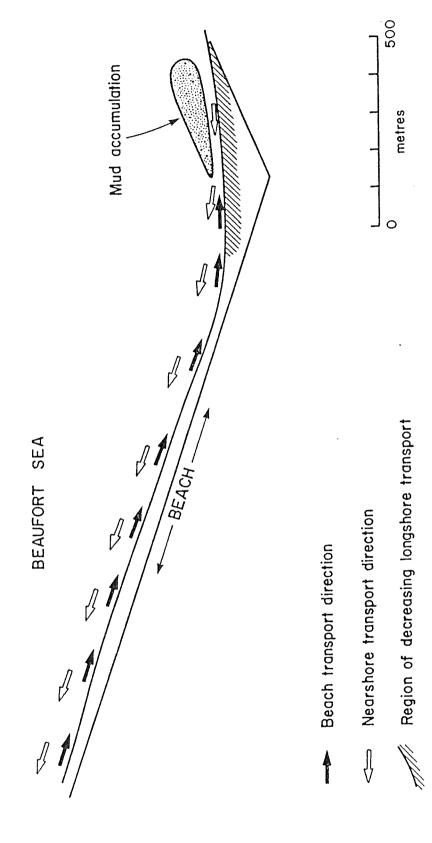


TABLE 1
Summary Statistics for Beach Face Transport Trends

Trend	Direction	No. of possible sample pairs	No. of trends	Z-score
Coarser Better Sorted More + vely Skewed	NW SE	45 45	6	-1.18 0.17
Finer Better Sorted More – vely Skewed	NW SE	45 45	9 16	1.52 4.68*

\* 99% significant

TABLE 2

. Average grain-size distributions for all upcurrent  $(\mathsf{D}_1)$  and downcurrent  $(\mathsf{D}_2)$  samples and the resultant X distribution for the beach face sediments.

Phi	D <sub>1</sub>	D <sub>2</sub>	Х	
-4.0	3.42	0.86	1.43	
-3.5	4.37	4.09	5.36	
-3.0	11.42	4.81	2.40	
-2.5	16.91	10.96	3.71	
-2.0	15.68	11.30	4.11	
-1.5	13.71	13.74	5.70	
-1.0	11.89	17.69	8.50	
-0.5	6.78	14.76	12.44	
0.0	5.30	9.61	10.33	
0.5	2.32	3.54	8.67	
1.0	1.76	2.43	7.87	
1.5	2.64	3.10	6.67	
2.0	2.61	2.42	5.31	
2.5	0.85	0.47	3.19	
3.0	0.19	0.11	3.31	
3.5	0.04	0.03	4.51	
4.0	0.02	0.01	2.40	
4.5	0.07	0.05	4.11	

TABLE 3
Summary Statistics for Transport Trends 20 m Offshore

Trend	Direction	No. of possible sample pairs	No. of trends	Z-score
Coarser Better Sorted More + vely Skewed	NW SE	136 136	37 9	5.19* - 2.07
Finer Better Sorted More - vely Skewed	NW SE	136 136	18 6	0.26 - 2.85

<sup>\* 99%</sup> significant

Average grain-size distributions for all upcurrent  $(D_1)$  and downcurrent  $(D_2)$  samples and the resultant X distribution for the sediments 20 m offshore.

			1	
Phi	D <sub>1</sub>	D <sub>2</sub>	Х	
-4.0				
-3.5				
-3.0				
-2.5				
-2.0	0.02	0.02		
-1.5	0.06	0.00	0.61	
-1.0	0.12	0.03	2.93	
-0.5	0.27	0.08	3.79	
0.0	0.51	0.18	4.40	
0.5	1.06	0.48	5.62	
1.0	2.72	1.72	7.70	
1.5	9.32	9.03	11.86	
2.0	26.64	33.49	15.40	
2.5	34.31	40.16	14.30	
3.0	18.09	12.48	8.44	
3.5	4.31	1.33	3.79	
4.0	1.86	0.38	2.44	
4.5	0.71	0.59		

TABLE 5
Summary statistics for transport trends 50 m offshore

Trend	Direction	No. of possible sample pairs	No. of trends	Z-score
Coarser Better Sorted More + vely Skewed	NW SE	45 45	2 3	-1.63 -1.18
Finer Better Sorted More – vely Skewed	NW SE	45 45	12	2.87*

<sup>\* 99%</sup> significant

TABLE 6  $\label{eq:Average grain-size} Average \ grain-size \ distributions \ for \ all \ upcurrent \ (D_1) \ and \ downcurrent \\ (D_2) \ samples \ and \ the \ resultant \ X \ distribution \ for \ the \ sediments \ 50 \ m \ offshore.$ 

Phi	D <sub>1</sub>	D <sub>2</sub>	Х	
		:		
-4.0	0.27	0.27		
-3.5	0.00	0.00		
-3.0	0.27	0.14	5.17	
-2.5	0.35	0.07	1.96	
-2.0	0.48	0.20	4.24	
-1.5	0.68	0.23	3.41	
-1.0	1.17	0.31	2.69	
-0.5	1.89	0.45	2.48	
0.0	3.11	0.66	2.17	
0.5	4.03	0.68	1.76	
1.0	4.93	0.98	2.07	
1.5	5.44	1.75	3.31	
2.0	7.20	6.18	8.88	
2.5	18.40	23.67	13.33	
3.0	30.75	39.90	13.43	
3.5	14.49	18.15	12.91	
4.0	4.91	4.33	9.09	
4.5	1.60	2.03		

# AANDERAA WEATHER STATION DATA

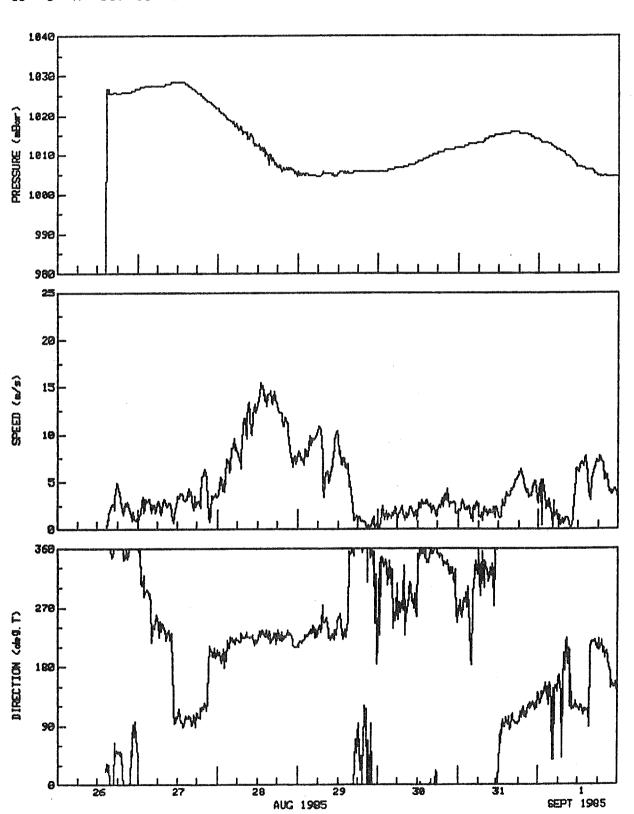
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TIME SERIES OF AIR PRESSURE, WIND SPEED AND DIRECTION

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TAPE 399/1

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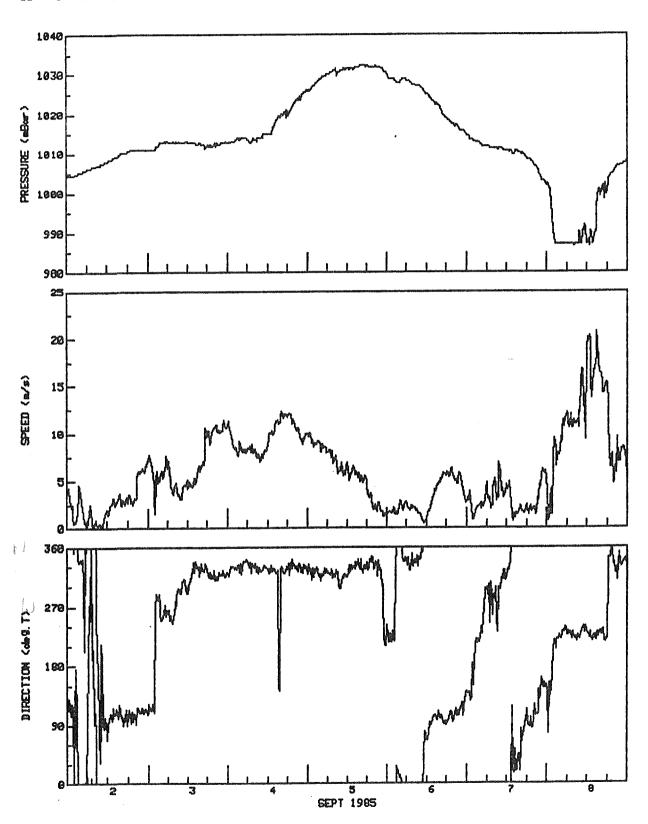


TIME SERIES OF AIR PRESSURE, WIND SPEED AND DIRECTION

KING POINT 69 6' N 137 58' W

TAPE 399/1

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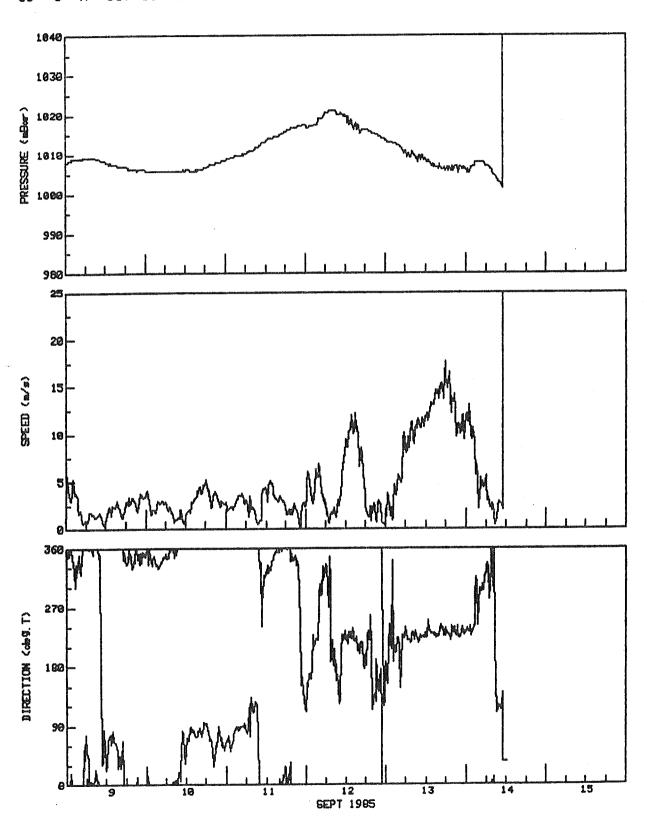


TIME SERIES OF AIR PRESSURE, WIND SPEED AND DIRECTION

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TAPE 399/1

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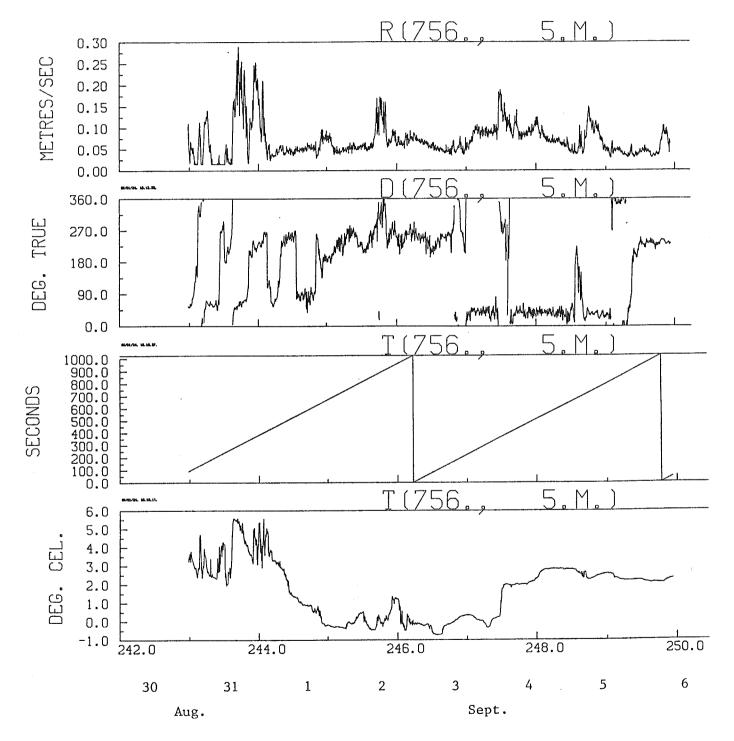


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## **AANDERAA CURRENT METER DATA**

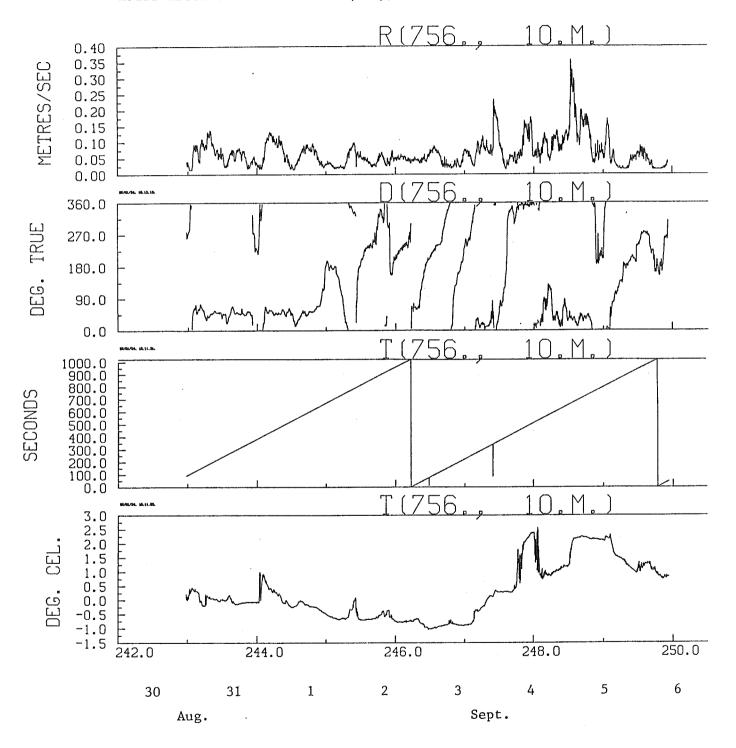
Aanderaa current meter at 5 m depth.

(Note that time scale is GMT which is 6 hours later than local time (MDT)).



Aanderaa current meter at 10 m depth.

(Note that time scale is GMT which is 6 hours later than local time (MDT)).

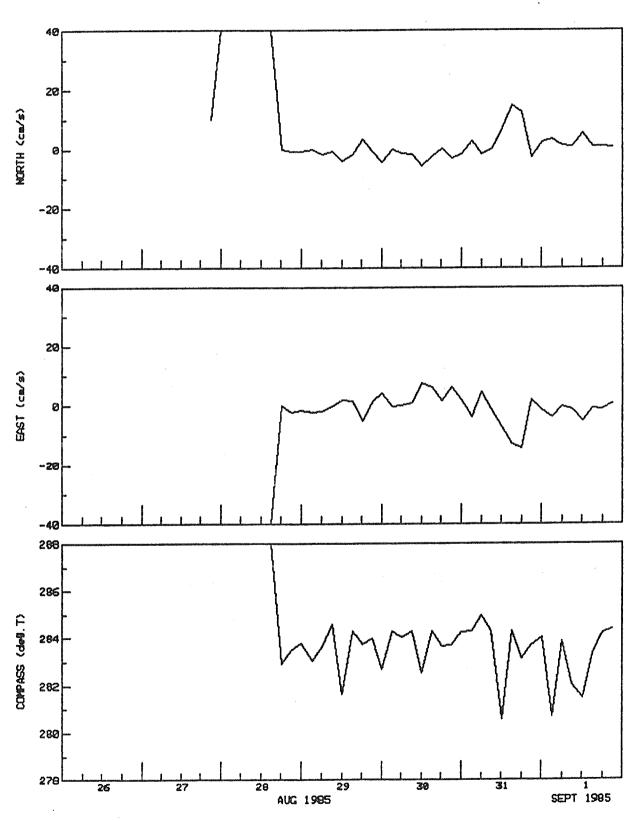


## SEA DATA DIRECTIONAL WAVE/CURRENT METER DATA

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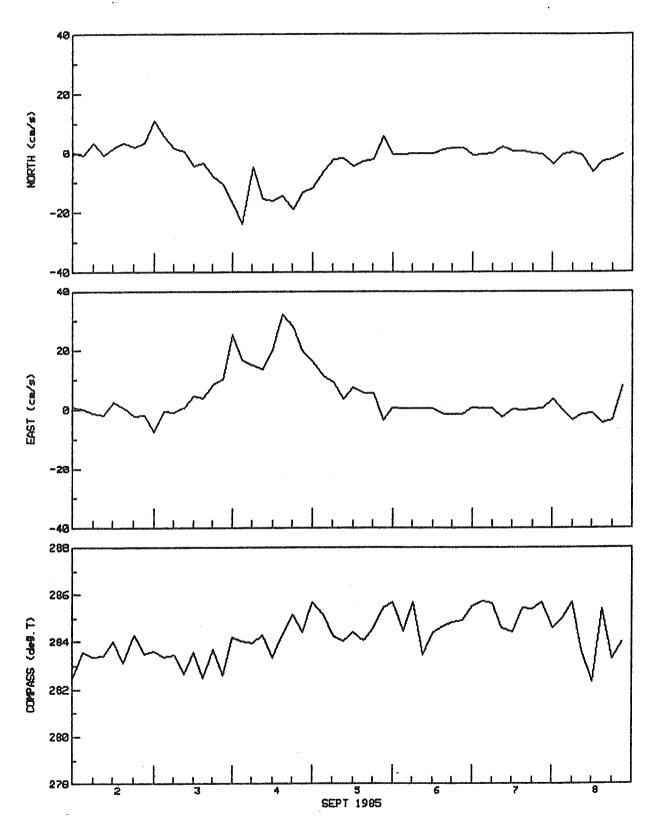
TIME SERIES OF NORTH, EAST COMPONENTS AND COMPASS

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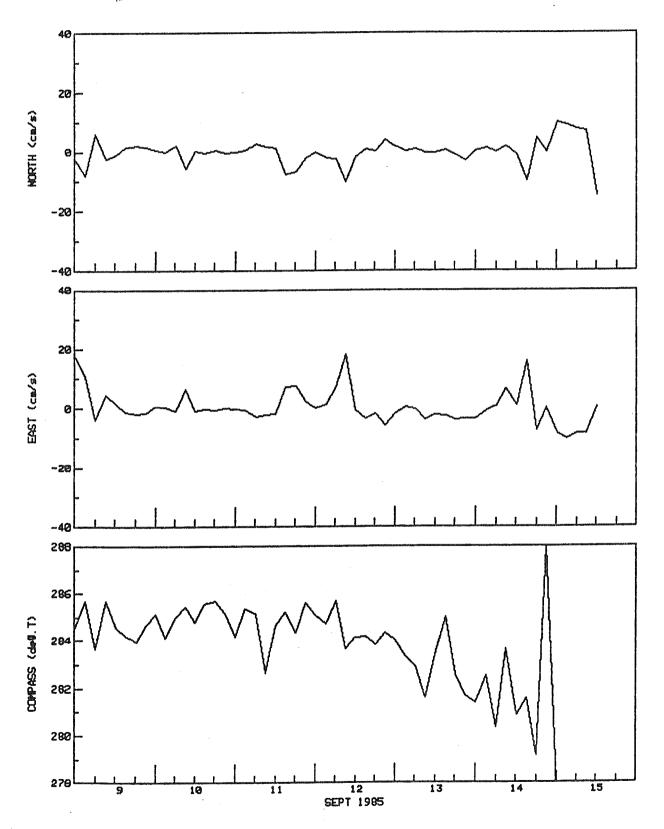


KING POINT 69 6' N 137 57' W

DEPTH(m) 1.8 SEA DATA 621 TYPE DESPIKED DT(min) 180



KING POINT 69 6' N 137 57' W DEPTH(m) 1.8 SEA DATA 621 TYPE DESPIKED DT(min) 180



EAST MEAN EAST S.D. SPEED DIRECTION COMPASS Record NORTH S.D. NORTH MEAN NUMHOOMINYYYY CH/SEC DEGREES DEGREES Nunber CH/SEC CN/SEC CM/SEC CM/SEC MOT 29.86 36.43 105.47 275.32 316.53 9.78 30.09 -105.01 1985 82721 8 228.91 327.33 322.10 1985 828 0 8 192.69 24.49 -123.57 316.07 327.44 24.61 106.95 19.77 -57.551985 828 3 8 90.14 121.55 133.54 -71.16 324.17 318.51 4 24.30 18.91 1985 828 6 8 98.55 325.94 318.16 22.03 26.00 28.79 1985 828 9 8 110.63 -74.79 33.07 178.56 316.97 320.38 -121.85 1985 82812 8 130.52 340.16 344.57 191.89 184.97 83.52 1985 82815 8 92.29 -51.06 282.92 Я 0.38 0.06 0.37 0.06 90.87 0.00 1985 82818 8 283.49 1.42 250.67 2.61 1985 82821 8 -0.86 3.21 -2.46 283.78 242.97 10 1985 829 0 8 -0.81 2.66 -1.59 1.40 1.78 268.02 283.04 11 2.27 1985 829 3 8 -2.26 1.31 -0.08 2.02 227.05 283.64 12 1985 829 6 8 -1.81 1.93 -1.95 1.05 2.66 2.23 -0.33 1.22 0.75 206.14 284.60 13 1985 829 9 8 -0.67 154.29 281.64 14 1.99 1.86 4.42 1985 82912 8 -3.98 1.92 284.30 15 1.57 1.47 2.47 140.60 -1.91 2.32 1985 82915 8 1.97 6.24 302.63 283.74 16 1985 82918 8 -5.26 3.37 2.60 283.99 17 -0.86 2.78 1.27 2.45 1.53 124.14 1985 82921 8 4.31 1.73 6.05 134.54 282.67 18 1.91 1985 830 0 8 -4.24 246.63 19 284.29 0.27 -0.241.09 -0.11 1.43 1985 830 3 8 284.03 1.22 0.10 1.16 1.56 176.21 20 -1.551985 830 6 8 2.09 9.53 284.29 21 153.44 -1.87 1.11 0.93 0.84 1985 830 9 8 282.50 7.56 1.64 127.51 -5.80 1.70 1985 83012 8 1.45 6.57 111.03 284.30 23 1985 83015 8 -2.36 1.34 6.13 283.65 24 1.50 88.24 0.05 1.48 1.26 1.48 1985 83018 8 2.96 6.87 2.71 116.73 131.57 283.71 25 6.14 1.23 1985 83021 8 -3.09 284.28 2.05 1985 831 0 8 -1.80 1.36 0.87 284.30 0.62 5.00 305.20 27 -4.09 2.88 1985 831 3 8 1.96 112.43 4.83 284.96 28 1985 831 6 8 -1.84 2.81 4.46 284.30 260.93 29 1.12 1.45 1985 831 9 8 -0.23 1.17 -1.43 2.69 10.37 312.54 280.59 30 -7.64 7.01 2.11 1985 83112 8 284.30 19.57 318.61 31 -12.94 2.62 1985 83115 8 14.68 1.62 283.14 32 -14.24 4.24 18.96 311.30 12.51 3.47 1985 83118 8 283.69 -2.72 2.56 3.41 3.26 146.49 1.80 4.45 1985 83121 8 324.86 284.02 34 1985 9 1 0 8 7.53 -1.805.60 3.13 5.56 5.93 5.25 1.27 312.60 280.71 35 1985 9 1 3 8 1985 9 1 6 8 -3.87 9.55 3.56 336.73 283.87 36 1.16 10.13 -0.505.07 0.74 37 1.39 302.31 282.03 1985 9 1 9 8 7.95 -1.18 315.34 -5.20 281.47 38 9.07 6.80 7.40 1985 9 112 8 5.26 283.35 1.39 311.63 39 -1.04 4.40 0.92 7.40 1985 9 115 8 302.94 284.21 40 13.25 -1.36 6.12 1.62 1985 9 118 8 88.0 284.38 41 11.41 47.31 0.45 5.16 0.62 1985 9 121 8 0.42 77.68 282.54 42 1.02 4.48 1.05 1985 9 2 0 8 13.22 0.22 181.86 283.56 43 1985 9 2 3 8 1985 9 2 6 8 12.27 0.63 -0.63 -0.02 5.02 aa 5.63 3.68 337.01 283.35 18.41 -1.44 3.39 2.27 3.21 246 .17 55 .35 283.40 45 -2.08 7.00 1985 9 2 9 8 -0.92 22.31 284.04 46 20.64 2.64 7.78 1985 9 212 8 1.82 3.50 283.11 47 0.53 8.69 21.17 8.48 1985 9 215 8 3.46 8.50 311.05 284.30 48 1985 9 218 8 1.98 21.79 -2.28 3.02 331.76 325.36 283.48 49 4.08 1985 9 221 8 3.60 20.18 -1.93 8.27 13.07 283.60 50 9.90 1985 9 3 0 8 10.75 22.34 -7.43 5.86 353.32 283.35 51 -0.68 8.39 1985 9 3 3 8 5.82 16.34 321.94 283.47 1.81 52 5.27 1985 9 3 6 8 1.42 13.33 -1.11 47.35 282.64 53 4.75 0.78 0.57 12.87 1985 9 3 9 8 0.53 4.38 6.24 135.43 283.59 3.66 1985 9 312 8 -4.45 10.39 129.70 5.10 282.50 55 1985 9 315 8 3.93 2.92 -3.26 8.18 5.58 11.54 132.63 283.68 56 8.49 1985 9 318 8 -7.81 10.23 136.69 282.60 14.55 57 -10.59 -16.68 16.42 9.98 8.96 1985 9 321 8 284.22 58 1985 9 4 0 8 25.30 9.13 30.31 123.39 20.85 145.34 107.32 284.03 59 28.80 37.54 16.38 12.20 1985 9 4 3 -23.69 283.95 22.08 14.75 11.56 15.45 1985 9 4 6 8 -4.60 20.36 138.74 284.30 61 10.45 13.43 1985 9 4 9 8 -15.30 20.56 26.02 128.15 283.33 62 1985 9 412 8 -16.08 19.79 20.46 10.69 31.97 284.29 63 35.08 114.30 1985 9 415 8 -14.44 27.77 13.60 15.45 124.31 285.18 33.66 27.80 1985 9 418 8 -18.9720.44

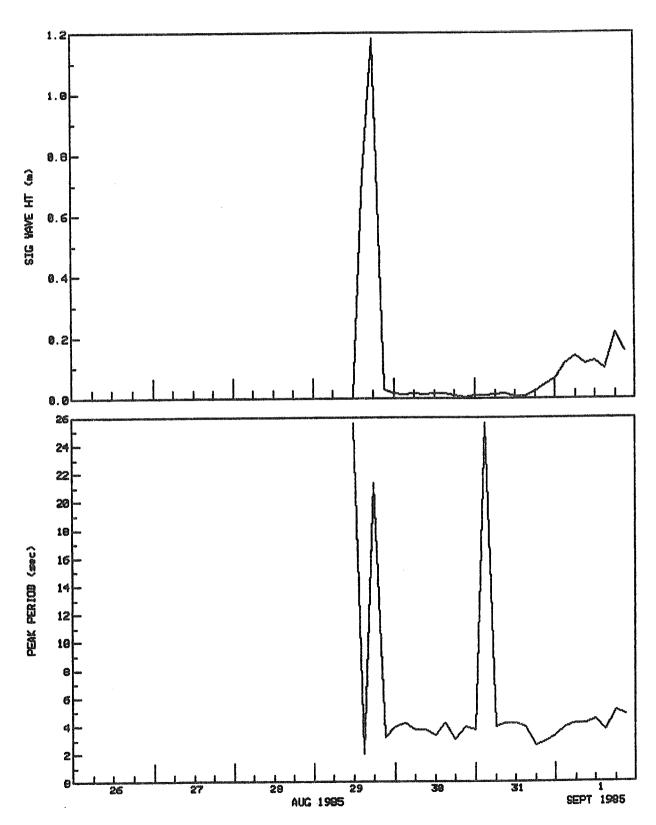
COMPASS NMHOOMIYYYY NORTH MEAN NORTH S.D. EAST MEAN EAST S.D. SPEED DIRECTION Record CH/SEC CM/SEC CH/SEC CH/SEC CH/SEC DEGREES DEGREES Munber T ON 284.44 23.53 18,25 123.74 1985 9 421 8 -13.07 19.57 10.34 1985 9 5 0 8 -11.72 22.56 16.03 10.51 19.86 126.19 285.70 66 117.43 17.96 12.30 12.86 285.18 67 1985 38 -5.92 11.41 284.27 1985 9 5 6 8 -2.13 11.07 8.94 5.13 9.19 103.43 68 1985 9 5 9 8 -1.71 3.68 3.79 4.05 114.90 284.01 69 9.05 120.43 284,43 70 7.36 1985 9 512 8 -4.33 9.47 5.07 8.54 5.33 3.26 6.06 5.78 1985 9 515 8 -2.73 10.12 5.41 116.80 284.05 71 284.60 72 111.51 1985 9 518 8 -2.12 8.99 5.38 3.12 3.34 327.79 117.87 1985 9 521 8 1985 9 6 0 8 5.80 -0.29 7.11 -3.65 6.85 285.46 73 6.98 0.55 285.68 74 1985 0.62 5.24 5.57 5.78 284.45 75 1985 -0.29 0.14 2.10 0.33 153.55 6 3 8 125 .64 152 .52 1.83 1985 9 6 6 8 -0.10 0.14 0.18 285.67 76 283.46 77 2,36 0.27 1985 9698 -0.24 0.13 284.37 1985 9 612 8 -0.24 4.71 0.37 2.18 0.44 123.04 78 1.57 2.70 -1.80 305.99 284.66 79 1985 9 615 8 2.23 1.31 3.54 284.83 1985 9 618 8 1.81 3.32 -1.82 2.57 314.88 RN 2.97 3.79 284.90 1.70 3.96 -1.51 2.27 318.49 81 1985 621 8 285.54 82 0.70 141.83 1985 9 7 0 8 -0.894.62 1,13 0.43 3.52 3.55 0.69 0.23 738768 141.35 285.73 83 1985 9 -0.54 7.31 110.16 285.63 Ra 1985 9 -0.08 9.06 308 .86 353 .35 4.06 2.06 -2.55 3.28 284.60 85 1985 9 7 9 8 11.26 -0.05 4.72 0.40 284.43 86 1985 9 712 8 0.40 13.14 0.59 -0.11 1985 9 715 8 10.25 -0.26 4.03 0.64 336.44 285.44 87 285.39 1985 9 718 8 6.87 215.95 88 -0.08 2.68 0.14 2.01 1.53 149.03 285.69 89 1985 9 721 8 -0.57 5.21 0.34 0.66 5.17 0.70 1985 9 8 0 8 -3.65 3.52 3.66 134.90 284.58 90 285.00 228.36 91 -0.52 3.46 1985 9838 -0.46 5.94 275.08 1985 9 8 6 8 0.33 2.37 -3.68 1.38 3.70 285.70 92 1.97 6.27 283.59 282.34 -1.75 1985 9 8 9 8 -0.89 2.21 1.23 242.92 93 2.17 191,62 94 1985 9 812 8 -6.14 2.43 -1.26 285.39 283.30 -4.46 -3.67 2.38 2.57 95 1985 9 815 8 -2.60 2.59 5.16 239.75 241.58 4.17 96 1985 9 818 8 -1.992.41 7.74 17.16 7.75 17.37 93.49 98.92 -0.47 -2.69 9.95 283.99 97 1985 9 821 8 18.22 1985 9 9 0 8 10.77 284.57 98 20.03 285.69 99 1985 9 9 3 8 -7.79 22.24 10.71 11.42 13.24 126.01 8.93 -4.09 3.56 7.32 326.05 283.65 100 1985 9 9 6 8 6.07 -2.43 -1.23 5.22 117.72 285.69 101 1985 9 9 9 8 7.16 4.62 3.04 1985 9 912 8 6.31 1.55 2.48 1.98 128,43 284.59 102 284.22 283.94 2.03 1985 9 915 8 6.49 5.14 -1.27 321.50 103 1.59 2.27 1985 9 918 8 2.10 -1.83 2.31 318.86 104 284.67 285.13 2.32 1985 9 921 8 6.31 1.92 314.26 105 1.62 -1.66 58.46 0.72 106 1985 910 0 8 0.38 8.73 0.61 2.61 114.39 331.43 284.16 284.99 3.38 3.51 0.36 1985 910 3 8 10.25 0.33 107 -0.15 108 -1.09 1985 910 6 8 2.01 10.18 285.45 284.78 285.57 9.78 6.56 3,22 8.67 130.91 109 1985 910 9 8 -5.68 -1.06 278.77 110 1985 91012 8 6.90 2.01 1.07 0.16 224.80 -0.37 0.49 2.24 0.52 111 1985 91015 8 6.63 -0.36 302.11 1985 91018 8 -0.79 0.93 285.69 112 2.46 5.62 -0.45 -0.15 177.36 249.96 1985 91021 8 4.19 0.02 1.70 0.45 285.16 113 1985 911 0 8 1.35 0.44 284.18 114 2.51 -0.41 305.84 285.38 1985 911 3 8 1985 911 6 8 115 0.60 1.78 -0.83 1.18 1.02 285.11 2.64 2.01 -2.90 1.74 3.92 312.29 116 308.18 282.65 117 -2.20 2.17 2.80 1985 911 9 8 1.73 3.09 1985 91112 8 1.21 2.46 -2.08 1.45 2.41 300.28 284.62 118 137.44 131.58 -7.65 285.19 1985 91115 3.88 7.03 2.52 10.39 119 284.33 120 1985 91118 8 -6.51 2.77 7.33 1.96 9.80 285 .61 285 .07 133.79 223.72 121 -2.00 2.08 1.32 2.89 1985 91121 8 2.24 122 1.28 0.04 -0.03 1985 912 0 8 -0.03 2.50 1.17 2.30 149.64 284.73 123 1985 912 3 8 -1.98 1.16 1.01 7.58 285.69 124 7.23 107.43 1.73 1985 912 6 8 -2.27 1.33 125 1985 912 9 8 -10.033.12 1.58 18.05 8.57 20.65 119.07 283,64 1985 91212 8 1.07 1.78 200.64 284.15 126 -0.63 -1.66 282.29 284.19 127 1985 91215 8 -3.70 1.30 3.79 0.81 1.74 272.51 1985 91218 8 -2.06 0.90 2.07 283.84 128 0.09 1.11

KING POINT COASTAL ZONE NNI 621 File: DR4:P621CR.WAV 621/ 0 Depth: Station: KING PT COMPASS Record EAST S.D. DIRECTION YYYYMDDHHMM HORTH MEAN NORTH S.D. EAST MEAN SPEED DEGREES DEGREES Munber CM/SEC CN/SEC CN/SEC CH/SEC CM/SEC NDT 284.34 129 1.53 2.73 7.18 305.88 4.21 -5.82 1985 91221 8 1985 913 0 8 1.24 284.01 130 2.66 311.72 -1.98 1.29 283.33 282.92 69.95 131 0.44 1.11 0.46 1985 913 3 8 1985 913 6 8 1.64 0.16 132 1.39 0.93 333.81 -0.41 0.83 4.07 281.58 133 -3.99 -2.33 261.56 3.60 1.70 4.03 1985 913 9 8 1985 91312 8 1985 91315 8 1985 91318 8 1.01 -0.59 283.39 134 1.34 2.39 257.89 -0.50 280.87 284.99 135 2.68 3.51 0.50 1.72 -2.63 282.55 136 254.18 2.93 -3.90 1.69 4.06 -1.11 137 1.45 228.98 281.65 4.60 -3.02 0.33 7.52 2.72 1985 91321 8 1985 914 0 8 -3.47 3.72 281.39 138 275.13 1.45 -3.71 139 5.38 9.99 1.72 0.62 282.52 2.45 20.47 18.25 317.63 -1.16 1985 914 3 8 1.27 105.54 280.34 140 -0.17 03.0 1985 914 6 8 75.37 143.90 283.66 141 9.65 3.90 6.56 6.78 1985 914 9 8 1.71 142 1.39 280.87 7.01 0.82 1985 91412 8 -1.12 121.68 281.54 143 16.00 -7.58 10.27 18.80 4.30 3.51 1985 91415 8 -9.87 279.15 144 2.13 8.96 302.17 4.77 1985 91418 8 270.46 319.50 145 0.08 294.10 1985 91421 8 1985 915 0 8 0.37 0.00 1.14 -0.08 260.13 146 22.09 25.91 18.13 -8.37 24.46 9.81 260.47 147 29.64 13.96 310.71 9.11 7.60 -10.581985 915 3 8 257.34 148 11.27 312.42 20.31 -8.32 1985 915 6 8 149 309.58 257.66 -8.57 18.53 11.12 1985 915 9 8 7.09 15.36 178.28 233.22 150 29.46 14.81 1985 91512 8 26.96 0.45 -14.81

## 6.2 SEA DATA 635-12 WAVE HEIGHT DATA AND TIDAL VARIATIONS

TIME SERIES OF SIGNIFICANT WAVE HEIGHT AND PEAK PERIOD

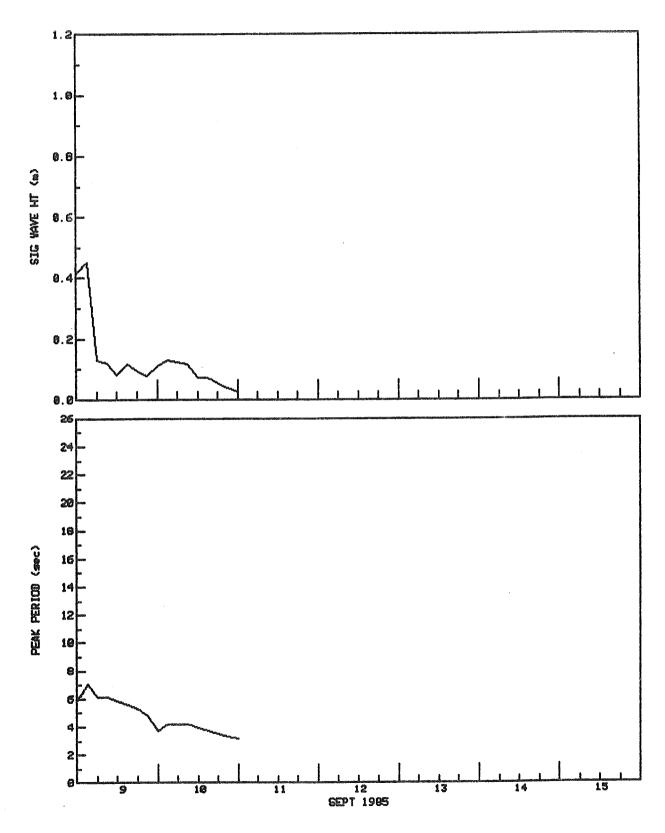
KING PDINT 69 6' N 137 57' W DEPTH(m) 4.0 SEA DATA 635-12 DT(min) 180



TIME SERIES OF SIGNIFICANT WAVE HEIGHT AND PEAK PERIOD

KING POINT 69 6' N -137 57' W DEPTH(m) 4.0 SEA DATA 635-12

DT(min) 180



Spectral Stats. KING POINT SEDIMENT TRANSPORT STUDY 1
635/ 12 Station: KING PT Depth: 4 File: DR4:TMS635.PXY

			-
<b>AAAAMWDDHHWW</b>	SIG WAVE HGT	PEAK_PERIOD	Record
MDT	M	SEC	Number
1985 82912 0	0.104E-01	0.256E+02	1
1985 82915 0	0.733E+00	0.205E+01	123456789
1985 82918 0	0.118E+01	0.213E+02	10
1985 82921 0	0.277E-01	0.316E+01	4
1985 830 0 0	0.172E-01	0.394E+01	5
1985 830 3 0	0.120E-01	0.420E+01	6
1985 830 6 0	0.159E-01	0.371E+01	7
1985 830 9 0	0.142E-01	0.371E+01	8
1985 83012 0	0.154E-01	0.332E+01	9
1985 83015 0	0.152E-01	0.420E+01	10
1985 83018 0	0.108E-01	0.301E+01	11
1985 83021 0	0.485E-02	0.394E+01	12
1985 831 0 0	0.900E-02	0.371E+01	13 14
1985 831 3 0	0.869E-02	0.256E+02	15
1985 831 6 0	0.130E-01	0.394E+01	16
1985 831 9 0	0.157E-01	0.420E+01	16
	0.745E-02	0.420E+01	17
1985 83115 0	0.733E-02	0.394E+01	18
1985 83118 0	0.228E-01	0.264E+01	19
1985 83121 0	0.432E-01	0.288E+01	20
1985 9 1 0 0	0.645E-01	0.332E+01	21
1985 9 1 3 0	0.115E+00	0.394E+01	22
1985 9 1 6 0	0.138E+00	0.420E+01	23
1985 9 1 9 0	0.114E+00	0.420E+01	24
1985 9 112 0	0.124E+00	0.449E+01	25
1985 9 115 0	0.975E-01	0.371E+01	26
1985 9 118 0	0.214E+00	0.512E+01	27
1985 9 121 0	0.156E+00	0.483E+01	28
1985 9 2 0 0	0.207E+00	0.512E+01	29
1985 9 2 3 0	0.191E+00	0.403E+01	30
	0.298E+00	0.557E+01	31
1985 9 2 9 0	0.326E+00	0.557E+01	32
1985 9 212 0	0.345E+00	0.512E+01	33
1985 9 215 0	0.374E+00	0.533E+01	34
1985 9 218 0	0.393E+00	0.512E+01	35
1985 9 221 0	0.352E+00	0.512E+01	36
1985 9 3 0 0	0.420E+00	0.557E+01	37
1985 9 3 3 0	0.289E+00	0.533E+01	38
1985 9 3 6 0	0.216E+00	0.512E+01	39
1985 9 3 9 0	0.191E+00	0.483E+01	40
1985 9 312 0	0.132E+00	0.512E+01	41
	0.120E+00	0.483E+01	42
1985 9 318 0	0.120E+00 0.133E+00	0.557E+01	43
1985 9 321 0	0.231E+00	0.351E+01	44
1985 9 4 0 0	0.371E+00	0.483E+01	45
1985 9 4 3 0	0.481E+00	0.512E+01	46
1985 9 4 6 0	0.404E+00	0.533E+01	47
1985 9 4 9 0	0.324E+00	0.449E+01	48
1985 9 412 0	0.367E+00	0.449E+01	49
1985 9 415 0	0.523E+00	0.483E+01	50
1985 9 418 0	0.453E+00	0.512E+01	51
1985 9 421 0	0.380E+00	0.483E+01	52
1985 9 5 0 0	0.320E+00	0.512E+01	53
1985 9 5 3 0	0.285E+00	0.420E+01	54
1985 9 5 6 0	0.144E+00	0.512E+01	55
	0.139E+00	0.483E+01	56
1985 9 512 0	0.118E+00	0.351E+01	57
1985 9 515 0	0.114E+00	0.512E+01	58
1985 9 518 0	0.833E-01	0.449E+01	59
1985 9 521 0	0.747E-01	0.394E+01	60
1985 9 6 0 0	0.913E-01	0.351E+01	61
1985 9 6 3 0	0.684E-01	0.420E+01	62
1985 9 6 6 0	0.644E-01	0.449E+01	69
1985 9 6 9 0	0.627E-01	0.449E+01	64

Spectral Stats. KING POINT SEDIMENT TRANSPORT STUDY 2
635/ 12 Station: KING PT Depth: 4 File: DR4:TMS635.PXY

YYYYMMDDH	НММ	SIG WAVE HGT	PEAK PERIOD	Record
MDT	) ···	M 0.576E-01	SEC 0.449E+01	Number 65
1985 9 61 1985 9 61	2 0	0.576E-01 0.402E-01	0.420E+01	66
1985 9 61	8 0	0.299E-01	0.420E+01	67
1985 9 62 1985 9 7		0.396E-01 0.561E-01	0.483E+01 0.332E+01	68 69
1985 9 7	3 0	0.863E-01	0.449E+01	70
1985 9 7	6 0	0.112E+00	0.483E+01 0.483E+01	71 72
1985 9 7 1985 9 71	9 0	0.176E+00 0.182E+00	0.449E+01	73
1985 9 71	5 0	0.116E+00	0.420E+01	74
1985 9 71 1985 9 72		0.718E-01 0.442E-01	0.420E+01 0.394E+01	75 76
1985 9 8		0.207E-01	0.351E+01	77
1985 9 8	9 0	0.636E-01	0.394E+01	78
1985 9 8 1985 9 8	6 0	0.311E-01 0.276E-01	0.449E+01 0.483E+01	79 80
1985 9 81	2 0	0.306E-01	0.449E+01	81
1985 9 81		0.261E-01 0.280E-01	0.160E+02 0.533E+01	82 83
1985 9 81 1985 9 82	8 0	0.380E+00	0.533E+01	84
1985 9 9	0 0	0.415E+00	0.582E+01	85
1985 9 9 1985 9 9	3 O 6 O	0.452E+00 0.131E+00	0.711E+01 0.610E+01	86 87
1985 9 9 1985 9 9	9 0	0.120E+00	0.610E+01	88
1985 9 91	2 0	0.834E-01	0.582E+01	89 90
1985 9 91 1985 9 91	5 0	0.116E+00 0.963E-01	0.557E+01 0.533E+01	91
1985 9 92	1 0	0.791E-01	0.483E+01	92
1985 910 1985 910	0 0	0.111E+00 0.129E+00	0.371E+01 0.420E+01	93 94
1985 910	6 0	0.124E+00	0.420E+01	95
1985 910	9 0	0.117E+00	0.420E+01	96
1985 9101 1985 9101		0.725E-01 0.726E-01	0.394E+01 0.371E+01	97 98
1985 9101	8 0	0.536E-01	0.351E+01	99
1985 9102		0.381E-01	0.332E+01 0.316E+01	100 101
1985 911	0 0	0.264E-01	O. SIDETUI	LUL

TABULATED WATER LEVELS FROM SEA DATA 635-12 INSTRUMENT LOCATED IN 5.6 M OF WATER OFF KING POINT BARRIER BEACH IN SEPTEMBER 1985. WATER LEVEL REFERS TO WATER SURFACE WITH RESPECT TO MEAN SEA LEVEL.

DATE	TIME	WATER LEVEL	
(Sept)		(m)	
1	18:00	+0.10	
1	21:00	-0.06	
2	00:00	-0.07	
2	03:00	+0.11	
2	06:00	+0.16	
2	09:00	-0.06	
2	12:00	-0.13	
2	15:00	+0.00	
2	18:00	-0.04	
2	21:00	-0.12	
3	00:00	-0.18	
3	03:00	+0.02	
3	06:00	+0.12	
3	09:00	-0.03	
3	12:00	-0.14	
3	15:00	+0.00	
3	18:00	+0.07	
3	21:00	-0.05	
4	00:00	+0.00	
4	03:00	+0.06	
4	06:00	+0.15	
4	09:00	+0.05	
4	12:00	-0.05	
4	15:00	+0.06	
4	18:00	+0.13	
4	21:00	+0.01	
5	00:00	-0.08	
5	03:00	+0.01	
5	06:00	+0.15	
8	21:00	+0.18	
9	00:00	+0.12	
9	03:00	+0.04	

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