

**HYDRAULICS DIVISION  
TECHNICAL NOTE**

**DATE:** June 1982 **REPORT NO:** 82-13

**TITLE:** Particle Size Data Report - Churchill  
Harbour

**AUTHOR:** G. A. Duncan

**REASON FOR REPORT:** This report responds to a request for  
particle size data from Mr. F. J.  
MacNaughton, Assistant Vice-President,  
Engineering, National Harbours Board,  
Ottawa.

**CORRESPONDENCE FILE NO:**  
5690 (Study No. 302)

## 1.0 INTRODUCTION

This report provides the results of size analysis on 74 samples submitted by Mr. Pat Hamilton, Program Manager, National Harbours Board.

The samples were analysed using two procedures (1) sieve analysis and (2) sieve, settling tube and short pipette analysis (Duncan and LaHaie, 1979). One sample had insufficient sediment to run an analysis and is recorded here as a comment.

A conversion table is included to convert from the PHI ( $\phi$ ) scale to the Wentworth (millimeter) scale.

## 2.0 PROCEDURE

(1) Sieve analysis which provides gravel, sand and silt/clay percentages was used to analyse 67 samples. Briefly, the procedure consists of:

1. splitting the sample to 100-200 g.
2. sieving the split at 1/2 or 1/4 PHI intervals.
3. processing the results with SIZDIST: a FORTRAN IV computer program (Sandilands and Duncan, 1980).

(2) The Sieve, Short Pipette and Settling Tube Analysis, which provides gravel, sand, silt and clay percentages with 1/2 PHI resolution of the sand by the settling tube procedure was performed on 6 samples:

Briefly, the procedure consists of:

1. splitting the sample to 20 g.
2. sieving the split at -0.5 PHI (1.41 mm).
3. dispersing the sample in 50 ml of Calgon solution (50 g/l) and mixing it for 15 minutes.
4. recovering two pipette aliquots of 25 ml for sand, silt and clay percentages.

5. Wet sieving the remaining suspension at 4.5 PHI (0.044 mm).
6. Resolving the sand residue with settling tube analysis.
7. Processing the results with SIZDIST: a FORTRAN IV computer program (Sandilands and Duncan, 1980).

### 3.0 RESULTS

(1) For the Sieve Method, the output consists of:

1. A histogram of the frequency distribution.
2. The percentage and cumulative percentage of the material occurring within 1/2 PHI unit.
3. Moment measures (Krumbein and Pettijohn, 1938) and graphic (Folk and Ward, 1957) statistics.
4. Percentiles.
5. Percent gravel, sand and silt/clay.
6. Ratios used to plot Folk's Ternary Classification.
7. Shepard (1954) and Folk (1974) Ternary Classification.

(2) For the Sieve, Short Pipette and Settling Tube Method, the output consists of:

1. A histogram of the frequency distribution.
2. The percentage and cumulative percentages of the material occurring within each 1/2 PHI unit.
3. Moment measure statistics (Krumbein & Pettijohn, 1938).
4. Percentiles.
5. Percent gravel, sand, silt and clay.
6. Ratios used to plot Folk's Ternary Classification.
7. Shepard (1954) and Folk (1968) Ternary Classification.

REFERENCES

- Duncan, G. A. and LaHaie, G. G., 1979. "Size Analysis Procedures Used in the Sedimentology Laboratory, NWRI". NWRI, CCIW, Hydraulics Division Manual, September 1979.
- Folk, R. L., 1968. "Petrology of Sedimentary Rocks". Hemphill Publishing Co., Austin, Texas 182 p.
- Folk, R. L. and Ward, W. C., 1957. "Brazos River Bar: A Study in the Significance of Grain Size Parameters". Jour. Sed. Petrology, V. 27, pp. 3-26.
- Krumbein, W. C., 1934. "Size Frequency Distribution of Sediments". Jour. Sed. Petrology, V. 24, pp. 65-77.
- Krumbein, W. C. and Pettijohn, F. J., 1938. "Manual of Sedimentary Petrography". Appleton-Century-Crofts, New York, 549 p.
- Sandilands, R. G. and Duncan, G. A., 1980. "SIZDIST - A Computer Program for Size Analysis". NWRI, CCIW, Hydraulics Division Technical Note, Report No. 80-08.
- Shepard, F. P., 1954. "Nomenclature Based on Sand-Silt Ratios". Jour. Sed. Petrology, V. 24, pp. 151-158.

### PHI CONVERSION

The results of samples analysed in the Sedimentology Lab are presented using the PHI scale (Krumbein, 1934). The conversion from this PHI equation,  $\phi = -\log_2 \xi$  (where  $\xi$  is the diameter in millimeters) to the Wentworth scale is listed below.

PHI ( $\phi$ )	Millimeters	Microns	Wentworth Size Class
-5.0	32		
-4.5	24		
-4.0	16		Pebble (-2 to -6 $\phi$ )
-3.5	12		
-3.0	8		
-2.5	6		
-2.0	4		
-1.5	2.83		Granule
-1.0	2.00		
-0.5	1.41		Very coarse sand
0.0	1.00		
0.5	0.71		Coarse sand
1.0	0.51	500	
1.5	0.35	350	Medium sand
2.0	0.25	250	
2.5	0.177	177	Fine sand
3.0	0.125	125	
3.5	0.088	88	Very fine sand
4.0	0.0625	62.5	
8.0	0.0039	3.9	Silt †                  Clay†

**APPENDIX 1**  
**SIZDIST OUTPUT**

NHB-CH-1

050582

SIEVE ONLY

SAMPLE WT.=209.9900

06/14/82

PHI	PCT. CUMFCT.	
-4.50		*****
-4.00	6.72	*****
-3.50	7.61	*****
-3.00	14.33	****
-2.50	4.28	****
-2.00	18.61	****
-1.50	4.55	****
-1.00	23.16	****
-0.50	3.67	****
0.00	3.86	****
0.50	30.69	***
1.00	3.24	***
1.50	33.93	***
2.00	3.05	**
2.50	36.98	**
3.00	2.25	***
3.50	39.23	*****
4.00	3.01	*****
4.50	42.24	*****
5.00	5.69	*****
5.50	14.61	*****
6.00	47.92	*****
6.50	62.53	*****
7.00	21.35	*****
7.50	83.88	*****
8.00	11.41	*****
8.50	95.30	***
9.00	3.42	***
9.50	98.71	*
10.00	.70	*
10.50	99.42	
11.00	.20	
11.50	99.62	
12.00	.38	
12.50	100.00	

MEAN ST.DEV. SKEWNESS KURTOSIS

-.07	2.31	-.30	-1.16	KRUMBEIN + PETTICORN (1938) MOMENT MEASURE FOR SIZE RANGE -4.0 TO 4.0 PHI
-.08	2.33	-.61	.67	FOLK GRAPHIC STATISTICAL PARAMETERS FOLK AND WARD, 1957

PERCENTILES	MEDIAN	1.07	5TH	-4.13	16TH	-3.30	25TH	-2.25
			75TH	1.79	84TH	2.01	95TH	2.49

PCT. GRAVEL	33.93	SAND	65.69	SILT+CLAY	.38
GRAVEL+SAND	99.62	GRAV+SAND/SILT+CLAY	261.49		
LABELS SHEPARD	-SAND	FOLK (GMS)	-SANDY GRAVEL	(SCS)	-

COMMENTS -  
CH-1 ONE PEBBEL WT 135 G RETAINED ON -5PHI SIEVE NOT INCLUDED IN ANALYSIS





NHB-CH-6A

050582

SIEVE ONLY

SAMPLE WT.=392.8350

PHI FCT. CUMPCT.

06/14/82

-4.00	4.82	4.82	*****
-3.50	4.34	9.16	****
-3.00	6.27	15.43	*****
-2.50	7.33	22.76	*****
-2.00	6.34	29.10	*****
-1.50	5.76	34.86	*****
-1.00	4.81	39.67	*****
-.50	4.58	44.25	*****
0.00	6.69	50.95	*****
.50	14.97	65.91	*****
1.00	22.52	88.43	*****
1.50	9.19	97.62	*****
2.00	1.64	99.26	**
2.50	.56	99.82	*
3.00	.11	99.92	
3.50	.06	99.99	
4.00	.01	100.00	

\*\*\*\*\* 100.00

MEAN ST.DEV. SKEWNESS KURTOSIS

-.26 1.76 -.26 -1.04

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURE FOR SIZE RANGE -3.5 TO 4.0 PHI

-.21 1.77 -.48 .72

FOLK GRAPHIC STATISTICAL PARAMETERS FOLK AND WARD, 1957

PERCENTILES	MEDIAN	.43	5TH -3.48	16TH -2.45	25TH -1.82
			75TH 1.20	84TH 1.40	95TH 1.86

PCT. GRAVEL 34.86 SAND 65.13 SILT+CLAY .01

GRAVEL+SAND 99.99 GRAV+SAND/SILT+CLAY 7855.70

LABELS SHEPARD -SAND FOLK(GMS)-SANDY GRAVEL (SCS)-

NHB-CH-6B

053582

SIEVE ONLY

SAMPLE WT.=119.0100

PHI PCT. CUMPCT.

06/14/82

-4.50	13.36		*****
-4.00	0.00	13.36	
-3.50	0.00	13.36	
-3.00	.40	13.36	
-2.50	1.26	13.76	*
-2.00	4.92	15.02	*****
-1.50	7.74	19.94	*****
-1.00	8.45	27.68	*****
-.50	9.66	36.13	*****
0.00	9.52	45.80	*****
.50	14.56	55.32	*****
1.00	18.89	69.88	*****
1.50	6.63	88.77	*****
2.00	.85	95.40	*
2.50	.59	96.25	*
3.00	.84	96.83	*
3.50	.77	97.67	*
4.00	1.55	98.45	**
*****		100.00	

MEAN ST.DEV. SKEWNESS KURTOSIS

-.31 1.92 -.43 -.00

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURE FOR SIZE RANGE -4.0 TO 4.0 PHI

-.10 1.77 -.37 1.12

FOLK GRAPHIC STATISTICAL PARAMETERS FOLK AND WARD, 1957

PERCENTILES	MEDIAN	.22	5TH -4.31	16TH -1.90	25TH -1.17
			75TH 1.14	84TH 1.37	95TH 1.97

PCT. GRAVEL 27.68 SAND 70.77 SILT+CLAY 1.55

GRAVEL+SAND 98.45 GRAV+SAND/SILT+CLAY 63.38

LABELS SHEPARD -SAND FOLK(GMS)-GRAVELLY SAND (SCS)-

NHB-CH-7A

050582

SIEVE ONLY

SAMPLE WT.=193.9500

06/14/82

PHI	PCT.	CUMFCT.	
-2.50	.56		*
-2.00	1.12	.56	*
-1.50	2.33	1.68	**
-1.00	4.99	4.01	*****
-.50	6.32	9.00	*****
0.00	17.40	15.32	*****
.50	31.96	32.71	*****
1.00	27.55	64.68	*****
1.50	6.22	92.22	*****
2.00	1.35	98.44	*
2.50	.18	99.79	
3.00	.02	99.97	
3.50	.01	99.99	
4.00	.01	99.99	
*****		100.00	

MEAN ST.DEV. SKEWNESS KURTOSIS

.66 .77 -.48 1.49

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURE  
FOR SIZE RANGE -2.0 TO 4.0 PHI

.71 .73 -.20 1.18

FOLK GRAPHIC STATISTICAL PARAMETERS  
FOLK AND WARD, 1957

PERCENTILES	MEDIAN	.77	5TH	-.90	16TH	.02	25TH	.29
			75TH	1.19	84TH	1.35	95TH	1.72

PCT. GRAVEL 4.01 SAND 95.99 SILT+CLAY .01

GRAVEL+SAND 99.99

GRAV+SAND/SILT+CLAY 19394.00

LABELS SHEPARD -SAND

FOLK(GMS)-SAND

(SGS)-

NHB-CH-7B

050582

SIEVE ONLY

SAMPLE WT.=185.3500

06/14/82

PHI PCT. CUMPCT.

-3.00	.35		
-2.50	.46	.35	
-2.00	.46	.81	***
-1.50	2.65	3.47	*****
-1.00	4.81	8.28	*****
-.50	6.33	14.61	*****
0.00	11.06	25.67	*****
.50	16.37	42.04	*****
1.00	23.38	65.42	*****
1.50	19.87	85.29	*****
2.00	11.55	96.84	***
2.50	2.72	99.56	
3.00	.32	99.88	
3.50	.07	99.95	
4.00	.03	99.98	
****	.02	100.00	

MEAN ST.DEV. SKEWNESS KURTOSIS

.54 .97 -.30 .19  
 .57 .97 -.20 1.05

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURE FOR SIZE RANGE -2.5 TO 4.0 PHI

FOLK GRAPHIC STATISTICAL PARAMETERS FOLK AND WARD, 1957

PERCENTILES	MEDIAN	.67	5TH	-1.34	16TH	-.44	25TH	-.03
			75TH	1.24	84TH	1.47	95TH	1.92

PCT. GRAVEL 8.28 SAND 91.70 SILT+CLAY .02

GRAVEL+SAND 99.98 GRAV+SAND/SILT+CLAY 6177.33

LABELS SHEPARD -SAND FOLK(GMS)-GRAVELLY SAND (SCS)-

NHB-CH-8

060582

SIEVE ONLY

SAMPLE WT.=660.0050

06/14/82

PHI PCT. CUMFCT.

-6.00	35.27	35.27	*****
-5.50	0.00	35.27	
-5.00	17.71	52.98	*****
-4.50	2.67	55.65	***
-4.00	2.30	57.95	**
-3.50	4.62	62.57	*****
-3.00	3.13	65.70	***
-2.50	2.41	68.11	**
-2.00	3.35	71.46	***
-1.50	3.36	74.81	***
-1.00	3.25	78.07	****
-.50	3.81	81.88	****
0.00	4.28	86.16	*****
.50	5.43	91.59	*****
1.00	4.75	96.33	***
1.50	2.68	99.02	*
2.00	.66	99.67	
2.50	.16	99.83	
3.00	.05	99.88	
3.50	.03	99.91	
4.00	.03	100.00	*****

MEAN ST.DEV. SKEWNESS KURTOSIS

-3.32 2.60 .34 -1.04

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURE FOR SIZE RANGE -5.5 TO 4.0 PHI

-3.37 2.61 .62 .64

FOLK GRAPHIC STATISTICAL PARAMETERS FOLK AND WARD, 1957

PERCENTILES	MEDIAN -4.58	5TH -5.93	16TH -5.77	25TH -5.65
		75TH -.97	84TH .25	95TH 1.36

PCT. GRAVEL 74.81 SAND 25.09 SILT+CLAY .09

GRAVEL+SAND 99.91 GRAV+SAND/SILT+CLAY 1089.90

LABELS SHEPARD -SAND FOLK(GMS)-SANDY GRAVEL (SCS)-

PHI PGT. CUMPCT.

06/14/82

-4.50	20.02	20.02	*****
-4.00	20.48	40.50	*****
-3.50	10.12	50.62	*****
-3.00	12.22	62.84	*****
-2.50	7.73	70.56	*****
-2.00	7.64	73.21	*****
-1.50	5.93	84.14	*****
-1.00	4.59	88.73	*****
-.50	2.81	91.54	***
0.00	2.80	94.34	***
.50	2.77	97.11	***
1.00	1.57	98.68	**
1.50	.57	99.24	*
2.00	.16	99.41	
2.50	.10	99.50	
3.00	.09	99.60	
3.50	.08	99.68	
4.00	.32	100.00	
*****			

MEAN ST.DEV. SKEWNESS KUFTOSIS

-2.65	1.54	.51	.43
-2.71	1.53	.38	.94

KAUMBEIN + PETTIJOHN (1938) MOMENT MEASURE  
FOR SIZE RANGE -4.0 TO 4.0 PHI

FOLK GRAPHIC STATISTICAL PARAMETERS  
FOLK AND WARD, 1957

PERCENTILES	MEDIAN -3.03	5TH -4.38	16TH -4.10	25TH -3.83
		75TH -1.71	84TH -1.01	95TH .62

PCT. GRAVEL	84.14	SAND	15.54	SILT+CLAY	.32
GRAVEL+SAND	99.68			GRAV+SAND/SILT+CLAY	310.90
LABELS SHEPARD	-SAND		FOLK(GMS)-GRAVEL		(SCS)-



NHB-CH-10A

060582 SIEVE, SETT. TUBE, PIPETTE ( 2)

SAMPLE WT. = 26.5540

06/14/92

PHI	PCT.	CUM PCT.	
-3.00			*****
-2.50	5.61	5.61	*****
-2.00	9.30	14.91	*****
-1.50	2.60	17.51	***
-1.00	2.71	20.22	***
	2.26		**
-.50		22.48	
0.00	.03	22.51	**
.50	1.55	24.07	**
1.00	2.22	26.29	**
	6.35		*****
1.50		32.64	
2.00	3.49	36.13	***
2.50	3.17	39.30	***
3.00	1.27	40.57	*
	.63		*
3.50		41.20	*
4.00	.95	42.16	*
8.00	32.67	74.83	*****
*****	25.17	100.00	*****

MEAN ST.DEV. SKEWNESS KURTOSIS

-.32 1.99 .13 -1.38

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURE FOR SIZE RANGE -2.5 TO 4.0 PHI

> 5 PERCENT OF THE FINES ARE NOT RESOLVED, OBTAIN FOLK STATS. GRAPHICALLY

PERCENTILES	MEDIAN	4.96	5TH	-2.55	16TH	-1.79	25TH	.71
			75TH	*****	84TH	*****	95TH	*****
PCT. GRAVEL	20.22	SAND	21.93	SILT (PIPETTE)	32.67	CLAY (PIPETTE)	25.1	
				(SEDIGRAPH)	0.00	(SEDIGRAPH)	0.0	
GRAVEL+SAND	42.16	SILT/(SILT+CLAY)	56.48	PCT. GRAV+SAND/SILT+CLAY			.73	
LABELS SHEPARD	-SAN	SIL	CLY	FOLK (GMS)	-GRAVELLY MUD		(SCS)	-



06/14/82

PHI	PCT.	CUMFCT.	
-4.50	23.67	23.67	*****
-4.00	0.00	23.67	
-3.50	0.00	23.67	
-3.00	0.00	23.67	
-2.50	2.78	26.45	***
-2.00	.05	26.50	
-1.50	0.00	26.50	
-1.00	0.00	26.50	
-.50	0.00	26.50	
0.00	.34	26.84	
.50	.75	27.59	*
1.00	.69	28.28	*
1.50	1.58	29.86	**
2.00	2.26	32.12	**
2.50	1.17	33.28	*
3.00	.48	33.77	
3.50	.34	34.11	
4.00	.62	34.73	*
8.00	37.15	71.88	*****
*****	26.12	100.00	*****

MEAN ST.DEV. SKEWNESS KURTOSIS

-2.72 2.54 .64 -.05 KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURES FOR SIZE RANGE -4.0 TO 4.0 PHI

> 5 PERCENT OF THE FINES ARE NOT RESOLVED, OBTAIN FOLK STATS. GRAPHICALLY

PERCENTILES	MEDIAN	5.64	5TH	-4.39	16TH	-4.16	25TH	-2.76
			75TH	*****	84TH	*****	95TH	*****
PCT. GRAVEL	26.50	SAND	8.23	SILT (PIPETTE)	37.15	CLAY (PIPETTE)	26.12	
				(SEDIGRAPH)	0.00	(SEDIGRAPH)	0.00	
GRAVEL+SAND	34.73	SILT/(SILT+CLAY)	56.91	PCT. GRAV+SAND/SILT+CLAY			.53	
LABELS SHEPARD	-SAN	SIL	CLY	FOLK (GMS)	-GRAVELLY MUD		(SCS)	-

NHB-CH-11A

060582

SIEVE ONLY

SAMPLE WT.=187.0000

06/14/82

PHI	PCT.	CUMFCT.	
-4.50	3.02		***
-4.00	2.98	3.02	***
-3.50	.91	6.00	*
-3.00	1.40	6.91	*
-2.50	.71	8.32	*
-2.00	1.18	9.03	*
-1.50	2.76	10.21	***
-1.00	4.06	12.97	****
-.50	5.51	17.03	*****
0.00	8.56	22.54	*****
.50	18.63	31.11	*****
1.00	26.84	49.73	*****
1.50	18.90	76.57	*****
2.00	3.34	95.48	***
2.50	.48	98.82	
3.00	.18	99.30	
3.50	.13	99.48	
4.00	.39	99.61	
****		100.00	

MEAN ST.DEV. SKEWNESS KURTOSIS

.50	1.55	-.84	2.32	KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURE FOR SIZE RANGE -4.0 TO 4.0 PHI
.69	1.44	-.53	1.75	FOLK GRAPHIC STATISTICAL PARAMETERS FOLK AND WARD, 1957

PERCENTILES	MEDIAN	1.00	5TH	-3.67	16TH	-.63	25TH	.14
			75TH	1.47	84TH	1.70	95TH	1.99

PCT. GRAVEL	12.97	SAND	86.64	SILT+CLAY	.39
GRAVEL+SAND	99.61			GRAV+SAND/SILT+CLAY	253.42
LABELS SHEPARD	-SAND		FOLK(GMS)-GRAVELLY SAND		(SCS)-

NHB-CH-11B

06J582

SIEVE ONLY

SAMPLE WT.=110.8550

06/14/82

PHI	PCT.	CUM PCT.	
-3.50			*
-3.00	.63	.63	
-2.50	0.00	.63	
-2.00	0.00	.63	
-1.50	.24	.87	
-1.00	.19	1.07	
-.50	1.04	2.11	*
0.00	2.44	4.55	**
.50	4.71	9.25	*****
1.00	9.11	18.36	*****
1.50	19.96	38.32	*****
2.00	27.42	65.74	*****
2.50	12.40	78.14	*****
3.00	4.82	82.97	*****
3.50	3.16	86.12	***
4.00	2.63	88.75	***
*****	11.25	100.00	*****

MEAN ST.DEV. SKEWNESS KURTOSIS

1.56 .97 -.43 3.98

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURE FOR SIZE RANGE -3.0 TO 4.0 PHI

> 5 PERCENT OF THE FINES ARE NOT RESOLVED, OBTAIN FOLK STATS. GRAPHICALLY

PERCENTILES	MEDIAN	1.71	5TH	.05	16TH	.87	25TH	1.17
			75TH	2.37	84TH	3.16	95TH	*****

PCT. GRAVEL 1.07 SAND 87.69 SILT+CLAY 11.25

GRAVEL+SAND 88.75 GRAV+SAND/SILT+CLAY 7.89

LABELS SHEPARD -SAND FOLK (GMS)-MUDDY SAND (SCS)-

NHB-CH-12A

070582

SIEVE ONLY

SAMPLE WT.=162.3130

06/14/82

PHI PCT. CUMFCT.

-4.00			*
-3.50	1.29	1.29	**
-3.00	2.05	3.35	**
-2.50	2.18	5.53	**
-2.00	1.87	7.40	**
-1.50	3.19	10.59	***
-1.00	2.05	12.64	**
-.50	2.22	14.86	**
0.00	5.47	20.33	*****
.50	8.76	29.09	*****
1.00	19.42	48.51	*****
1.50	29.37	77.88	*****
2.00	18.30	96.18	*****
2.50	3.38	99.56	***
3.00	.31	99.87	
3.50	.08	99.95	
4.00	.03	99.97	
****	.03	100.00	

MEAN ST.DEV. SKEWNESS KURTOSIS

.61 1.33 -.77 1.93

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURES FOR SIZE RANGE -3.5 TO 4.0 PHI

.77 1.21 -.48 1.59

FOLK GRAPHIC STATISTICAL PARAMETERS FOLK AND WARD, 1957

PERCENTILES	MEDIAN	1.03	5TH	-2.62	16TH	-.40	25TH	.27
			75TH	1.45	84TH	1.67	95TH	1.97

PCT. GRAVEL 12.64 SAND 57.33 SILT+CLAY .03

GRAVEL+SAND 99.97 GRAV+SAND/SILT+CLAY 3700.70

LABELS SHEPARD -SAND FOLK(GMS)-GRAVELLY SAND (SCS)-

NHB-CH-12B

070582

SIEVE ONLY

SAMPLE WT.=212.7750

06/14/82

PHI	PCT.	CUMFCT.	
-5.00	7.26		*****
-4.50	0.00	7.26	
-4.00	1.39	7.26	*
-3.50	1.23	8.64	*
-3.00	.97	9.88	*
-2.50	.73	10.64	*
-2.00	.78	11.58	*
-1.50	1.16	12.36	*
-1.00	2.37	13.52	**
-.50	3.49	15.89	***
0.00	9.32	19.38	*****
.50	22.51	28.70	*****
1.00	30.57	51.21	*****
1.50	12.17	81.78	*****
2.00	4.13	93.94	****
2.50	1.51	98.08	**
3.00	.33	99.59	
3.50	.05	99.92	
4.00	.03	99.97	
*****		100.00	

MEAN ST.DEV. SKEWNESS KURTOSIS

.40 1.82 -.92 2.51  
.69 1.55 -.53 2.56

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURE  
FOR SIZE RANGE -4.5 TO 4.0 PHI  
FOLK GRAPHIC STATISTICAL PARAMETERS  
FOLK AND WARD, 1957

PERCENTILES MEDIAN .97 5TH -4.66 16TH -.48 25TH .30  
75TH 1.39 84TH 1.59 95TH 2.13

PCT. GRAVEL 13.52 SAND 86.45 SILT+CLAY .03  
GRAVEL+SAND 99.97 GRAV+SAND/SILT+CLAY 3039.93

LABELS SHEPARD -SAND FOLK(GMS)-GRAVELLY SAND (SCS)-

NHB-CH-13A

070582

SIEVE ONLY

SAMPLE WT.=195.8250

06/14/82

PHI PCT. CUMPCT.

-3.50			***
-3.00	2.66	2.66	**
-2.50	1.65	4.32	**
-2.00	1.51	5.83	****
-1.50	3.64	9.46	****
-1.00	3.75	13.21	****
-.50	4.45	17.67	*****
0.00	6.54	24.20	*****
.50	9.07	33.27	*****
1.00	14.09	47.36	*****
1.50	19.50	66.86	*****
2.00	23.32	90.19	*****
2.50	8.08	98.27	*****
3.00	1.43	99.70	*
3.50	.20	99.91	
4.00	.06	99.96	
****	.04	100.00	

MEAN ST.DEV. SKEWNESS KURTOSIS

.68	1.37	-.56	.75
.75	1.33	-.42	1.15

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURE  
FOR SIZE RANGE -3.0 TO 4.0 PHI

FOLK GRAPHIC STATISTICAL PARAMETERS  
FOLK AND WARD, 1957

PERCENTILES	MEDIAN	1.07	5TH	-2.27	16TH	-.69	25TH	.04
			75TH	1.67	84TH	1.67	95TH	2.30

PCT. GRAVEL 13.21 SAND 66.75 SILT+CLAY .04

GRAVEL+SAND 99.96 GRAV+SAND/SILT+CLAY 2796.50

LABELS SHEPARD -SAND FOLK(GMS)-GRAVELLY SAND (SCS)-

NHB-CH-138

070582

SIEVE ONLY

SAMPLE WT.=201.4800

06/14/82

PHI PCT. CUMFCT.

-3.00	.32		
-2.50	1.39	.32	*
-2.00	2.54	1.71	***
-1.50	6.09	4.25	*****
-1.00	8.27	10.34	*****
-.50	9.29	18.61	*****
0.00	11.62	27.90	*****
.50	15.00	39.52	*****
1.00	20.21	54.52	*****
1.50	18.46	74.73	*****
2.00	5.60	93.19	*****
2.50	1.04	98.79	*
3.00	.11	99.83	
3.50	.03	99.94	
4.00	.03	99.97	
*****	.03	100.00	

MEAN ST.DEV. SKEWNESS KURTOSIS

.63 1.13 -.29 -.34

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURE FOR SIZE RANGE -2.5 TO 4.0 PHI

.65 1.15 -.26 .89

FOLK GRAPHIC STATISTICAL PARAMETERS FOLK AND WARD, 1957

PERCENTILES	MEDIAN	.85	5TH -1.44	16TH -.66	25TH -.16
			75TH 1.51	84TH 1.75	95TH 2.16

PCT. GRAVEL 10.34 SAND 89.63 SILT+CLAY .03

GRAVEL+SAND 99.97 GRAV+SAND/SILT+CLAY 3662.27

LABELS SHEPARD -SAND FOLK(GMS)-GRAVELLY SAND (SCS)-

NHB-CH-16

070582

SIEVE ONLY

SAMPLE WT.=221.4820

06/14/82

PHI	PCT.	CUMFCT.	
-4.00	3.53		****
-3.50	3.08	3.53	***
-3.00	3.40	6.61	***
-2.50	2.30	10.02	**
-2.00	3.94	12.31	****
-1.50	3.92	16.25	****
-1.00	5.79	20.17	*****
-.50	7.77	25.96	*****
0.00	6.37	33.73	*****
.50	12.19	40.09	*****
1.00	11.74	52.29	*****
1.50	13.59	64.02	*****
2.00	10.50	77.61	*****
2.50	5.38	88.11	*****
3.00	2.97	93.49	***
3.50	1.60	96.46	**
4.00	1.94	98.06	**
*****		100.00	

MEAN ST.DEV. SKEWNESS KURTOSIS

.48 1.84 -.32 -.34

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURE FOR SIZE RANGE -3.5 TO 4.0 PHI

.56 1.95 -.28 1.07

FOLK GRAPHIC STATISTICAL PARAMETERS FOLK AND WARD, 1957

PERCENTILES	MEDIAN	.91	5TH -3.26	16TH -1.53	25TH -.58
			75TH 1.90	84TH 2.30	95TH 3.25

PCT. GRAVEL 20.17 SAND 77.89 SILT+CLAY 1.94

GRAVEL+SAND 98.06 GRAV+SAND/SILT+CLAY 50.51

LABELS SHEPARD -SAND FOLK(GMS)-GRAVELLY SAND (SCS)-



NH8-CH-17A

07J582

SIEVE ONLY

SAMPLE WT.=191.8280

06/14/82

PHI	PCT.	CUMFCT.	
-5.00	8.52		*****
-4.50	0.00	8.52	
-4.00	3.10	8.52	***
-3.50	1.12	11.62	*
-3.00	.56	12.74	*
-2.50	1.15	13.30	*
-2.00	2.78	14.45	***
-1.50	3.46	17.22	***
-1.00	4.81	20.68	*****
-.50	5.16	25.49	*****
0.00	8.69	30.65	*****
.50	16.71	39.35	*****
1.00	22.32	56.05	*****
1.50	15.08	78.38	*****
2.00	4.43	93.46	****
2.50	1.73	97.89	**
3.00	.27	99.62	
3.50	.05	99.88	
4.00	.07	99.93	
*****		100.00	

MEAN ST.DEV. SKEWNESS KURTOSIS

.11 2.01 -.66 .72

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURE FOR SIZE RANGE -4.5 TO 4.0 PHI

.26 1.89 -.55 1.43

FOLK GRAPHIC STATISTICAL PARAMETERS FOLK AND WARD, 1957

PERCENTILES	MEDIAN	.82	5TH	-4.71	16TH	-1.72	25TH	-.55
			75TH	1.42	84TH	1.63	95TH	2.17

PCT. GRAVEL 20.68 SAND 79.25 SILT+CLAY .07

GRAVEL+SAND 99.93 GRAV+SAND/SILT+CLAY 1533.62

LABELS SHEPARD -SAND FOLK(GMS)-GRAVELLY SAND (SCS)-

NHB-CH-17B

070582

SIEVE ONLY

SAMPLE WT.=188.5000

06/14/82

PHI PCT. CUMPCT.

-3.00			*
-2.50	.58		*
-2.00	1.17	.58	**
-1.50	1.68	1.75	**
-1.00	2.37	3.43	**
	3.86	5.80	****
-.50	8.10	9.66	*****
0.00	14.71	17.75	*****
.50	22.46	32.46	*****
1.00	27.50	54.92	*****
1.50	14.57	82.43	*****
2.00	2.61	97.00	***
2.50	.30	99.61	
3.00	.06	99.91	
3.50	.01	99.97	
4.00	.02	99.98	
*****		100.00	

MEAN ST.DEV. SKEWNESS KURTOSIS

.72 .93 -.54 1.52

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURE FOR SIZE RANGE -2.5 TO 4.0 PHI

.78 .89 -.27 1.14

FOLK GRAPHIC STATISTICAL PARAMETERS FOLK AND WARD, 1957

PERCENTILES	MEDIAN	.99	5TH	-1.17	16TH	-.11	25TH	.25
			75TH	1.36	84TH	1.55	95TH	1.93

PCT. GRAVEL 5.80 SAND 94.18 SILT+CLAY .02

GRAVEL+SAND 99.98 GRAV+SAND/SILT+CLAY 6282.33

LABELS SHEPARD -SAND FOLK(GMS)-GRAVELLY SAND (SCS)-

06/14/82

PHI PCT. CUMPCT.

-5.00	12.48	12.48	*****
-4.50	0.00	12.48	
-4.00	2.80	15.29	***
-3.50	1.30	16.59	*
-3.00	1.31	17.90	*
-2.50	1.37	19.27	**
-2.00	2.01	21.28	**
-1.50	2.22	23.50	****
-1.00	3.72	27.22	****
-.50	3.69	30.91	*****
0.00	5.59	36.50	*****
.50	10.25	46.75	*****
1.00	19.40	66.15	*****
1.50	22.09	88.24	*****
2.00	8.83	97.07	**
2.50	1.88	98.95	**
3.00	.33	99.28	*
3.50	.18	99.45	*
4.00	.55	100.00	*

MEAN ST.DEV. SKEWNESS KURTOSIS

.08	2.31	-.57	-.09
-.08	2.37	-.66	1.18

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURE:  
 FOR SIZE RANGE -4.5 TO 4.0 PHI  
 FOLK GRAPHIC STATISTICAL PARAMETERS  
 FOLK AND WARD, 1957

PERCENTILES	MEDIAN	1.08	5TH -4.80	16TH -3.23	25TH -.80
			75TH 1.70	84TH 1.90	95TH 2.38

PCT. GRAVEL	23.50	SAND	75.95	SILT+CLAY	.55
GRAVEL+SAND	99.45			GRAV+SAND/SILT+CLAY	181.47

LABELS SHEPARD -SAND FOLK(GMS)-GRAVELLY SAND (SCS)-

NHB-CH-198

100582

SIEVE ONLY

SAMPLE WT.=165.1950

06/14/62

PHI PCT. CUMFCT.

-3.00			
-2.50	.36	.36	
-2.00	.19	.56	
-1.50	.54	1.10	*
-1.00	.73	1.83	*
-.50	.97	2.80	*
0.00	1.79	4.59	**
.50	2.94	7.52	***
1.00	6.30	13.82	*****
1.50	13.79	27.61	*****
2.00	46.13	73.74	*****
2.50	24.12	97.85	*****
3.00	1.77	99.62	**
3.50	.30	99.92	
4.00	.06	99.98	
****	.02	100.00	

MEAN ST.DEV. SKEWNESS KURTOSIS

1.59	.77	-1.10	7.20	KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURE FOR SIZE RANGE -2.5 TO 4.0 PHI
1.68	.64	-.29	1.57	FOLK GRAPHIC STATISTICAL PARAMETERS FOLK AND WARD, 1957

PERCENTILES	MEDIAN	1.74	5TH	.07	15TH	1.08	25TH	1.41
			75TH	2.03	84TH	2.21	95TH	2.44

PCT. GRAVEL	1.83	SAND	96.16	SILT+CLAY	.02
GRAVEL+SAND	99.98			GRAV+SAND/SILT+CLAY	6605.80

LABELS SHEPARD -SAND FOLK(GMS)-SAND (SCS)-



NHB-CH-19B

100582

SIEVE ONLY

SAMPLE WT.=328.9000

06/14/82

PHI PCT. CUMFCT.

-4.50			**
-4.00	2.44	2.44	***
-3.50	3.09	5.53	
-3.00	.22	5.75	**
-2.50	2.34	8.09	*
-2.00	.92	9.01	**
-1.50	1.83	10.83	***
-1.00	2.71	13.54	***
-.50	3.42	16.96	****
0.00	4.05	21.01	****
.50	4.20	25.21	*****
1.00	7.46	32.66	*****
1.50	17.49	50.16	*****
2.00	23.33	73.49	*****
2.50	9.80	83.29	*****
3.00	4.17	87.46	****
3.50	3.62	91.08	****
4.00	2.47	93.55	**
****	6.45	100.00	*****

MEAN ST.DEV. SKEWNESS KURTOSIS

.88 1.82 -.62 1.15

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURE FOR SIZE RANGE -4.0 TO 4.0 PHI

> 5 PERCENT OF THE FINES ARE NOT RESOLVED, OBTAIN FOLK STATS. GRAPHICALLY

PERCENTILES	MEDIAN	1.50	5TH	-3.59	16TH	-.64	25TH	.48
			75TH	2.08	84TH	2.53	95TH	****

PCT. GRAVEL 13.54 SAND 80.00 SILT+CLAY 6.45  
 GRAVEL+SAND 93.55 GRAV+SAND/SILT+CLAY 14.50  
 LABELS SHEPARD -SAND FOLK(GMS)-GRAVELLY SAND (SOS)-

COMMENTS -  
CH 19B ONE COBBLE 951.84 G 14X7X6 GM NOT INCLUDED IN ANALYSIS

NHB-CH-20A

120582

SIEVE ONLY

SAMPLE WT.=219.0400

06/14/82

PHI	PCT.	CUMPCT.	
-5.00	16.72		*****
-4.50	6.03	16.72	*****
-4.00	4.27	22.75	****
-3.50	8.67	27.02	*****
-3.00	6.84	35.69	*****
-2.50	3.48	42.53	***
-2.00	3.51	46.01	****
-1.50	2.96	49.52	***
-1.00	2.72	52.47	***
-.50	2.47	55.20	**
0.00	3.65	57.67	****
.50	6.38	61.32	*****
1.00	9.07	67.70	*****
1.50	9.45	76.77	*****
2.00	6.29	86.22	*****
2.50	3.74	92.50	****
3.00	1.51	96.25	**
3.50	.65	97.76	*
4.00	1.59	98.41	**
*****		100.00	

MEAN ST.DEV. SKEWNESS KURTOSIS

-1.25 2.67 .04 -1.50 KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURE FOR SIZE RANGE -4.5 TO 4.0 PHI

-1.35 2.77 .07 .61 FOLK GRAPHIC STATISTICAL PARAMETERS FOLK AND WARD, 1957

PERCENTILES	MEDIAN -1.42	5TH -4.85	16TH -4.52	25TH -3.74
		75TH 1.40	84TH 1.88	95TH 2.83

PCT. GRAVEL	52.47	SAND	45.94	SILT+CLAY	1.59
GRAVEL+SAND	98.41			GRAV+SAND/SILT+CLAY	61.94

LABELS SHEPARD -SAND FOLK(GMS)-SANDY GRAVEL (SCS)-

NHB-CH-20B

120562

SIEVE ONLY

SAMPLE WT.=175.0200

06/14/82

PHI PCT. CUMFCT.

-5.50	35.93	35.93	*****
-5.00	0.00	35.93	
-4.50	9.69	45.62	*****
-4.00	5.93	51.55	*****
-3.50	4.43	55.99	****
-3.00	2.24	58.22	**
-2.50	2.08	60.31	**
-2.00	3.15	63.45	***
-1.50	2.92	66.37	***
-1.00	3.03	69.40	***
-.50	2.88	72.28	***
0.00	4.36	76.63	****
.50	5.80	82.44	*****
1.00	5.55	87.98	*****
1.50	5.22	93.20	*****
2.00	3.46	96.66	***
2.50	1.48	98.13	*
3.00	.73	98.86	*
3.50	.37	99.23	*
4.00	.77	100.00	*
*****			

MEAN ST.DEV. SKEWNESS KURTOSIS

-2.54	2.78	.27	-1.25	KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURE FOR SIZE RANGE -5.0 TO 4.0 PHI
-2.59	2.77	.51	.58	FOLK GRAPHIC STATISTICAL PARAMETERS FOLK AND WARD, 1957

PERCENTILES	MEDIAN -3.63	5TH -5.43	16TH -5.28	25TH -5.15
		75TH .31	84TH 1.14	95TH 2.26

PCT. GRAVEL 66.37 SAND 32.86 SILT+CLAY .77

GRAVEL+SAND 99.23 GRAV+SAND/SILT+CLAY 128.70

LABELS SHEPARD -SAND FOLK(GMS)-SANDY GRAVEL (SCS)-



NHB-CH-21A

120582

SIEVE ONLY

SAMPLE WT.=162.8700

06/14/82

PHI	PCT.	CUMFCT.	
-4.50	7.97		*****
-4.00	0.00	7.97	
-3.50	0.00	7.97	
-3.00	1.39	7.97	*
-2.50	1.41	9.36	*
-2.00	1.77	10.76	**
-1.50	2.21	12.53	**
-1.00	2.64	14.74	***
-.50	2.13	17.38	**
0.00	3.27	19.52	***
.50	6.56	22.79	*****
1.00	13.35	29.35	*****
1.50	29.79	42.70	*****
2.00	21.14	72.49	*****
2.50	5.47	93.63	*****
3.00	.66	99.10	*
3.50	.09	99.77	
4.00	.14	99.86	
****	.14	100.00	

MEAN ST.DEV. SKEWNESS KURTOSIS

.91 1.91 -.84 1.82

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURE FOR SIZE RANGE -4.0 TO 4.0 PHI

1.04 1.79 -.64 2.01

FOLK GRAPHIC STATISTICAL PARAMETERS FOLK AND WARD, 1957

PERCENTILES	MEDIAN	1.62	5TH	-4.19	16TH	-.75	25TH	.67
			75TH	2.06	84TH	2.27	95TH	2.63

PCT. GRAVEL	14.74	SAND	85.12	SILT+CLAY	.14		
GRAVEL+SAND	99.86					GRAV+SAND/SILT+CLAY	716.14
LABELS SHEPARD	-SAND		FOLK(GMS)-GRAVELLY SAND			(SCS)-	

NHB-CH-218

120582

SIEVE ONLY

SAMPLE WT.=186.7540

06/14/82

PHI	PCT.	CUMFCT.	
-4.50			*****
-4.00	4.93	4.93	**
-3.50	1.79	6.72	
-3.00	0.00	6.72	
-2.50	.48	7.20	
-2.00	.48	7.68	
-1.50	1.34	9.02	*
-1.00	2.82	11.84	***
-.50	3.57	15.41	****
0.00	5.89	21.30	*****
.50	10.33	31.63	*****
1.00	17.53	49.16	*****
1.50	21.44	70.59	*****
2.00	21.03	91.62	*****
2.50	7.18	98.80	*
3.00	.90	99.70	
3.50	.17	99.88	
4.00	.07	99.95	
****	.05	100.00	

MEAN ST.DEV. SKEWNESS KURTOSIS

.59	1.58	-.87	2.78
.80	1.51	-.45	1.79

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURE FOR SIZE RANGE -4.0 TO 4.0 PHI

FOLK GRAPHIC STATISTICAL PARAMETERS FOLK AND WAFO, 1957

PERCENTILES	MEDIAN	1.02	5TH	-3.98	16TH	-.45	25TH	.18
			75TH	1.60	84TH	1.82	95TH	2.2+

PCT. GRAVEL	11.84	SAND	88.11	SILT+CLAY	.05
GRAVEL+SAND	99.95			GRAV+SAND/SILT+CLAY	1866.85
LABELS SHEPARD	-SAND		FOLK (GMS)-GRAVELLY SAND		(SCS)-

NHB-CH-22A

120582

SIEVE ONLY

SAMPLE WT.=196.0550

06/14/82

PHI	FCT.	CUMFCT.	
-3.50			*
-3.00	.54	.54	
-2.50	.45	.99	**
-2.00	1.86	2.85	**
-1.50	2.30	5.15	****
-1.00	3.87	9.01	*****
-.50	6.23	15.24	*****
0.00	8.11	23.35	*****
.50	13.66	37.01	*****
1.00	22.40	59.42	*****
1.50	24.97	84.38	*****
2.00	10.94	95.32	*****
2.50	3.25	98.57	***
3.00	1.27	99.84	*
3.50	.12	99.95	
4.00	.03	99.98	
****	.02	100.00	

MEAN ST.DEV. SKEWNESS KURTOSIS

.59	1.07	-.45	.96	KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURE FOR SIZE RANGE -3.0 TO 4.0 PHI
.61	1.02	-.30	1.15	FOLK GRAPHIC STATISTICAL PARAMETERS FOLK AND WAED, 1957

PERCENTILES	MEDIAN	.79	5TH	-1.53	16TH	-.45	25TH	.06
			75TH	1.31	84TH	1.49	95TH	1.99

PCT. GRAVEL 9.01 SAND 90.97 SILT+CLAY .02

GRAVEL+SAND 99.98 GRAV+SAND/SILT+CLAY 4898.12

LABELS SHEPARD -SAND FOLK(GMS)-GRAVELLY SAND (SCS)-

NHB-CH-228

130582

SIEVE ONLY

SAMPLE WT.=200.9700

06/14/82

PHI PCT. CUM.PCT.

-3.00	.65		*
-2.50	1.19	.65	*
-2.00	2.43	1.84	**
-1.50	2.92	4.27	***
-1.00	3.11	7.19	***
-0.50	5.94	10.30	*****
0.00	10.46	16.24	*****
.50	18.24	26.70	*****
1.00	19.26	44.94	*****
1.50	19.34	64.21	*****
2.00	10.82	83.55	*****
2.50	3.84	94.37	****
3.00	1.22	98.21	*
3.50	.35	99.43	
4.00	.23	99.77	
*****	.23	100.00	

MEAN ST.DEV. SKEWNESS KURTOSIS

.98 1.14 -.38 .73

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURE FOR SIZE RANGE -2.5 TO 4.0 PHI

1.04 1.11 -.20 1.19

FOLK GRAPHIC STATISTICAL PARAMETERS FOLK AND WARD, 1957

PERCENTILES	MEDIAN	1.13	5TH	-1.38	16TH	-.02	25TH	.42
			75TH	1.78	84TH	2.02	95TH	2.58

PCT. GRAVEL 7.19 SAND 92.58 SILT+CLAY .23

GRAVEL+SAND 99.77 GRAV+SAND/SILT+CLAY 440.69

LABELS SHEPARD -SAND FOLK(GMS)-GRAVELLY SAND (SCS)-

NHB CH 23A

130582

SIEVE, SETT. TUBE, PIPETTE ( 2)

SAMPLE WT. = 24.1494

PHI PCT. CUMFCT.

06/14/82

-2.00	.22		
-1.50	.52	.22	*
-1.00	.34	.73	
-.50	.02	1.07	
0.00	1.41	1.09	*
.50	1.87	2.50	**
1.00	2.20	4.38	**
1.50	2.31	6.58	**
2.00	1.43	8.89	*
2.50	.99	10.32	*
3.00	1.54	11.32	**
3.50	2.31	12.86	**
4.00	54.78	15.17	*****
8.00	30.05	69.95	*****
*****	100.00		

MEAN ST.DEV. SKEWNESS KURTOSIS

1.77 1.30 -.16 -.43 KUMBEIN + PETTIJOHN (1938) MOMENT MEASURE FOR SIZE RANGE -1.5 TO 4.0 PHI

> 5 PERCENT OF THE FINES ARE NOT RESOLVED, OBTAIN FOLK STATS. GRAPHICALLY

PERCENTILES	MEDIAN	6.54	5TH	1.14	16TH	4.06	25TH	4.72
			75TH*****		84TH*****		95TH*****	

PCT. GRAVEL .73 SAND 14.44 SILT (PIPETTE) 54.78 CLAY (PIPETTE) 30.0  
 (SEDIGRAPH) 0.00 (SEDIGRAPH) 0.0  
 GRAVEL+SAND 15.17 SILT/(SILT+CLAY) 64.58 PCT.GRAV+SAND/SILT+CLAY .18  
 LABELS SHEPARD -CLAYEY SILT FOLK(GMS)-SANDY MUD (SCS)-SANDY MUD

NHB CH 23B

130582

SIEVE, SETT. TUBE, PIPETTE ( 2)

SAMPLE WT. = 20.2246

06/14/82

PHI PCT. CUMFCT.

-2.00			*
-1.50	1.20	1.20	*
-1.00	.59	1.79	**
-0.50	2.18	3.97	*
0.00	.63	4.60	*****
.50	6.63	11.23	*****
1.00	9.79	21.01	*****
1.50	12.63	33.64	*****
2.00	11.37	45.01	***
2.50	2.84	47.85	*
3.00	1.26	49.11	***
3.50	2.53	51.64	*
4.00	1.26	52.90	*****
8.00	29.59	82.49	*****
****	17.51	100.00	*****

MEAN ST.DEV. SKEWNESS KURTOSIS

1.19 1.06 -.07 .84

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURES FOR SIZE RANGE -1.5 TO 4.0 PHI

> 5 PERCENT OF THE FINES ARE NOT RESOLVED, OBTAIN FOLK STATS. GRAPHICALLY

PERCENTILES	MEDIAN	3.18	5TH	.03	16TH	.74	25TH	1.16
			75TH	6.99	84TH	*****	95TH	*****

PCT. GRAVEL 1.79 SAND 51.11 SILT (PIPETTE) 29.59 CLAY (PIPETTE) 17.5  
 (SEDIGRAPH) 0.00 (SEDIGRAPH) 0.00

GRAVEL+SAND 52.90 SILT/(SILT+CLAY) 62.82 PCT.GRAV+SAND/SILT+CLAY 1.12

LABELS SHEPARD -SILTY SAND FOLK(GMS)-MUDDY SAND (SCS)-MUDDY SAND

NHB-CH-24A

130582

SIEVE ONLY

SAMPLE WT.= 85.1100

06/14/82

PHI FCT. CUMFCT.

-3.00

.26

-2.50

.26

-2.00

.12

.38

-1.50

.29

.68

-1.00

.65

1.32

\*

1.22

\*

-.50

2.54

\*\*

0.00

1.50

4.05

\*\*\*

.50

3.21

7.26

\*\*\*\*\*

1.00

7.27

14.53

\*\*\*\*\*

1.50

14.80

29.33

\*\*\*\*\*

2.00

36.28

65.62

\*\*\*\*\*

2.50

24.64

90.25

\*\*\*\*\*

3.00

5.07

95.32

\*\*

3.50

1.92

97.24

\*

4.00

.75

97.99

\*\*

\*\*\*\*\*

2.01

100.00

MEAN ST.DEV. SKEWNESS KURTOSIS

1.66

.32

-.69

4.37

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURE FOR SIZE RANGE -2.5 TO 4.0 PHI

1.74

.76

-.14

1.38

FOLK GRAPHIC STATISTICAL PARAMETERS FOLK AND WARD, 1957

PERCENTILES

MEDIAN

1.78

5TH

.15

16TH

1.05

25TH

1.35

75TH

2.19

84TH

2.37

95TH

2.97

PCT. GRAVEL

1.32

SAND

96.67

SILT+CLAY

2.01

GRAVEL+SAND

97.99

GRAV+SAND/SILT+CLAY

48.77

LABELS SHEPARD -SAND

FOLK(GMS)-SAND

(SCS)-

NHB-CH-25A

131582

SIEVE ONLY

SAMPLE WT.=109.8050

06/14/82

PHI PCT. CUMFCT.

-3.00			
-2.50	.20	.20	
-2.00	.86	1.06	*
-1.50	.97	2.02	*
-1.00	1.27	3.30	*
	2.14		**
-.50		5.44	
	4.70		*****
0.00		10.14	
	8.85		*****
.50		18.98	
	17.67		*****
1.00		36.66	
	23.79		*****
1.50		60.44	
	26.87		*****
2.00		87.32	
	11.50		*****
2.50		98.82	
	.98		*
3.00		99.80	
	.11		
3.50		99.92	
	.04		
4.00		99.95	
	.05		
*****		100.00	

MEAN ST.DEV. SKEWNESS KURTOSIS

1.13 .91 -.60 2.10

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURE FOR SIZE RANGE -2.5 TO 4.0 PHI

1.18 .85 -.23 1.09

FOLK GRAPHIC STATISTICAL PARAMETERS FOLK AND WARD, 1957

PERCENTILES	MEDIAN	1.28	5TH	-.60	16TH	.33	25TH	.67
			75TH	1.77	84TH	1.94	95TH	2.33

PCT. GRAVEL 3.30 SAND 96.66 SILT+CLAY .05

GRAVEL+SAND 99.95 GRAV+SAND/SILT+CLAY 2195.10

LABELS SHEPARD -SAND FOLK(GMS)-SAND (SCS)-



NHB-CH-25B

130582

SIEVE ONLY

SAMPLE WT.=126.3780

06/14/82

PHI PCT. CUMFCT.

-3.50			*
-3.00	.93	.93	
-2.50	0.00	.93	
-2.00	.37	1.29	
-1.50	1.04	2.33	*
-1.00	2.38	4.71	**
-.50	4.10	8.81	****
0.00	5.71	14.52	*****
.50	10.86	25.38	*****
1.00	24.79	50.17	*****
1.50	24.92	75.09	*****
2.00	12.26	87.35	*****
2.50	5.20	92.55	*****
3.00	7.40	99.95	*****
3.50	.04	99.99	
4.00	.01	100.00	
*****	.00	100.00	

MEAN ST.DEV. SKEWNESS KURTOSIS

.93 1.04 -.40 1.90

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURE:  
FOR SIZE RANGE -3.0 TO 4.0 PHI

.98 1.00 -.06 1.46

FOLK GRAPHIC STATISTICAL PARAMETERS  
FOLK AND WARD, 1957

PERCENTILES	MEDIAN	1.00	5TH	-.96	16TH	.07	25TH	.48
			75TH	1.50	84TH	1.86	95TH	2.67

PCT. GRAVEL 4.71 SAND 95.29 SILT+CLAY 0.00

GRAVEL+SAND 100.00

GRAV+SAND/SILT+CLAY 99999.99

LABELS SHEPARD -SAND

FOLK(GMS)-SAND

(SCS)-

NHB-CH-27

130582

SIEVE ONLY

SAMPLE WT.=\*\*\*\*\*

06/14/82

PHI PCT. CUMFCT.

-5.50	21.03	21.03	*****
-5.00	5.79	26.82	*****
-4.50	9.49	36.31	*****
-4.00	4.10	40.41	****
-3.50	5.33	45.74	*****
-3.00	4.81	50.55	*****
-2.50	3.41	53.97	***
-2.00	3.07	57.04	***
-1.50	2.45	59.49	**
-1.00	2.25	61.74	**
-.50	2.84	64.58	***
0.00	3.78	68.36	****
.50	5.25	73.61	*****
1.00	5.63	79.24	*****
1.50	7.93	87.17	*****
2.00	7.84	95.01	*****
2.50	3.06	98.07	***
3.00	.91	99.98	*
3.50	.37	99.35	*
4.00	.65	100.00	*
*****			

MEAN ST.DEV. SKEWNESS KURTOSIS

-1.88	2.89	.13	-1.49
-1.96	2.92	.27	.56

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURE  
FOR SIZE RANGE -5.0 TO 4.0 PHI

FOLK GRAPHIC STATISTICAL PARAMETERS  
FOLK AND WARD, 1957

PERCENTILES	MEDIAN -2.56	5TH -5.38	16TH -5.12	25TH -4.66
		75TH 1.12	84TH 1.80	95TH 2.50

PCT. GRAVEL 59.49 SAND 39.86 SILT+CLAY .65

GRAVEL+SAND 99.35 GRAV+SAND/SILT+CLAY 152.83

LABELS SHEPARD -SAND FOLK(GMS)-SANDY GRAVEL (SCS)-

NHB-GH-28A

130582

SIEVE ONLY

SAMPLE WT.=968.3200

06/14/82

PHI PCT. CUMFCT.

-6.50	38.31	38.31	*****
-6.00	0.00	38.31	
-5.50	16.75	38.31	*****
-5.00	11.76	55.07	*****
-4.50	10.36	66.83	*****
-4.00	5.46	77.19	*****
-3.50	1.77	82.65	**
-3.00	3.56	84.42	****
-2.50	2.10	87.98	**
-2.00	2.25	90.08	**
-1.50	2.00	92.33	**
-1.00	1.94	94.33	**
-.50	1.46	96.27	*
0.00	1.04	97.73	*
.50	.56	98.78	*
1.00	.45	99.34	
1.50	.10	99.79	
2.00	.03	99.88	
2.50	.02	99.91	
3.00	.03	99.94	
3.50	.02	99.97	
4.00	.01	99.99	
*****		100.00	

MEAN ST.DEV. SKEWNESS KURTOSIS

-4.75 1.75 .69 1.53 KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURE FOR SIZE RANGE -6.0 TO 4.0 PHI

-4.85 1.64 .41 1.11 FOLK GRAPHIC STATISTICAL PARAMETERS FOLK AND WARD, 1957

PERCENTILES MEDIAN -5.15 5TH -6.43 16TH -6.29 25TH -6.17 75TH -4.11 84TH -3.12 95TH -.83

PCT. GRAVEL 94.33 SAND 5.65 SILT+CLAY .01

GRAVEL+SAND 99.99 GRAV+SAND/SILT+CLAY 6677.07

LABELS SHEPARD -SAND FOLK(GMS)-GRAVEL (SCS)-

NHB-CH-29B

130582

SIEVE ONLY

SAMPLE WT.=899.7040

06/14/32

PHI PCT. CUMPCT.

-6.00	21.32	21.32	*****
-5.50	8.02	29.35	*****
-5.00	9.88	39.23	*****
-4.50	12.72	51.95	*****
-4.00	8.83	60.77	*****
-3.50	5.93	66.70	*****
-3.00	5.34	72.05	*****
-2.50	3.53	75.58	****
-2.00	3.20	78.78	***
-1.50	1.95	80.73	**
-1.00	1.71	82.44	**
-.50	2.18	84.62	**
0.00	3.54	85.17	****
.50	5.17	93.33	*****
1.00	3.23	96.56	***
1.50	1.41	97.97	*
2.00	.76	98.72	*
2.50	.47	99.19	
3.00	.34	99.54	
3.50	.20	99.74	
4.00	.26	100.00	*****

MEAN ST.DEV. SKEWNESS KURTOSIS

-3.35 2.33 .47 -.21

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURE FOR SIZE RANGE -5.5 TO 4.0 PHI

-3.28 2.45 .46 .92

FOLK GRAPHIC STATISTICAL PARAMETERS FOLK AND WARD, 1957

PERCENTILES	MEDIAN -4.08	5TH -5.88	16TH -5.62	25TH -5.27
		75TH -2.08	84TH -.14	95TH 1.26

PCT. GRAVEL 80.73 SAND 19.01 SILT+CLAY .26

GRAVEL+SAND 99.74 GRAV+SAND/SILT+CLAY 383.45

LABELS SHEPARD -SAND FOLK(GMS)-GRAVEL (SCS)-

NHB-CH-29A

130582

SIEVE ONLY

SAMPLE WT.=125.7650

06714732

PHI	PCT.	CUMFCT.	
-4.00			***
-3.50	2.56	2.56	*
-3.00	1.46	4.02	
-2.50	.33	4.34	
-2.00	.27	4.61	*
-1.50	1.30	5.92	
-1.00	4.31	10.23	****
-.50	7.00	17.22	*****
0.00	14.19	31.42	*****
.50	19.02	50.44	*****
1.00	21.20	71.63	*****
1.50	14.43	86.06	*****
2.00	7.87	93.93	*****
2.50	3.72	97.65	****
3.00	1.32	98.97	*
3.50	.49	99.46	
4.00	.22	99.67	
	.33	100.00	*****

MEAN ST.DEV. SKEWNESS KURTOSIS

.35 1.25 -.52 2.23

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURE FOR SIZE RANGE -3.5 TO 4.0 PHI

.44 1.11 -.12 1.22

FOLK GRAPHIC STATISTICAL PARAMETERS FOLK AND WARD, 1957

PERCENTILES	MEDIAN	.49	5TH	-1.85	16TH	-.59	25TH	-.23
			75TH	1.12	84TH	1.43	95TH	2.14

PCT. GRAVEL 10.23 SAND 89.45 SILT+CLAY .33  
 GRAVEL+SAND 99.67 GRAV+SAND/SILT+CLAY 305.74  
 LABELS SHEPARD -SAND FOLK(GMS)-GRAVELLY SAND (SCS)-

NHB-CH-298

130582

SIEVE ONLY

SAMPLE WT.=534.2100

06/14/82

PHI	PCT. CUMFCT.	
-5.50	15.08	*****
-5.00	15.08	
	0.00	
-4.50	15.08	**
	1.78	
-4.00	16.87	*
	1.18	
-3.50	18.05	***
	3.25	
-3.00	21.31	****
	3.80	
-2.50	25.10	***
	3.28	
-2.00	28.38	***
	3.18	
-1.50	31.56	****
	3.89	
-1.00	35.45	****
	4.10	
-.50	39.55	****
	4.17	
0.00	43.72	*****
	8.10	
.50	51.82	*****
	15.77	
1.00	67.59	*****
	17.23	
1.50	84.82	*****
	8.73	
2.00	93.55	****
	3.86	
2.50	97.41	*
	1.49	
3.00	98.90	
	.38	
3.50	99.27	
	.18	
4.00	99.45	*
	.55	
*****	100.00	

MEAN ST.DEV. SKEWNESS KURTOSIS

-.69 2.49 -.37 -.79  
 -.79 2.57 -.57 .83

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURE FOR SIZE RANGE -5.0 TO 4.0 PHI

FOLK GRAPHIC STATISTICAL PARAMETERS FOLK AND WARD, 1957

PERCENTILES MEDIAN .39 5TH -5.33 16TH -4.24 25TH -2.51  
 75TH 1.22 84TH 1.48 95TH 2.19

PCT. GRAVEL 35.45 SAND 64.00 SILT+CLAY .55

GRAVEL+SAND 99.45 GRAV+SAND/SILT+CLAY 180.70

LABELS SHEPARD -SAND FOLK (GMS)- SANDY GRAVEL (SCS)-

NHB-CH-30A

130582

SIEVE ONLY

SAMPLE WT.=116.7220

06/14/82

PHI FCT. CUMFCT.

-3.00	2.20		**
-2.50	.61	2.20	*
-2.00	2.53	2.81	***
-1.50	3.91	5.34	****
-1.00	6.74	9.24	*****
-.50	8.83	15.98	*****
0.00	12.42	24.62	*****
.50	17.62	37.24	*****
1.00	20.87	55.06	*****
1.50	18.91	75.93	*****
2.00	4.54	94.84	*****
2.50	.57	99.38	*
3.00	.04	99.96	
3.50	.00	100.00	
4.00	.00	100.00	
*****	.00	100.00	

MEAN ST.DEV. SKEWNESS KURTOSIS

.64 1.13 -.45 .56  
 .69 1.10 -.29 1.00

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURE FOR SIZE RANGE -2.5 TO 4.0 PHI

FOLK GRAPHIC STATISTICAL PARAMETERS FOLK AND WARD, 1957

PERCENTILES	MEDIAN	.86	5TH	-1.57	16TH	-.50	25TH	.01
			75TH	1.48	84TH	1.71	95TH	2.02

PCT. GRAVEL 9.24 SAND 90.75 SILT+CLAY 0.00

GRAVEL+SAND 100.00 GRAV+SAND/SILT+CLAY 99999.99

LABELS SHEPARD -SAND FOLK(GMS)-GRAVELLY SAND (SCS)-

NHB-CH-308

130582

SIEVE ONLY

SAMPLE WT.=106.6090

06/14/82

PHI PCT. CUMFCT.

-3.00

.38

-2.50

.38

-2.00

.09

.47

-1.50

.38

.85

-1.00

.56

1.41

\*

1.39

\*

-.50

2.80

\*\*\*

0.00

2.73

5.53

\*\*\*\*\*

.50

5.82

11.35

\*\*\*\*\*

1.00

13.24

24.59

\*\*\*\*\*

26.82

1.50

51.41

\*\*\*\*\*

35.58

2.00

86.99

\*\*\*\*\*

11.83

2.50

1.03

98.82

\*

3.00

.13

99.85

3.50

.01

99.98

4.00

.00

100.00

\*\*\*\*\*

100.00

MEAN ST.DEV. SKEWNESS KURTOSIS

1.33

.76

-.76

4.33

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURE FOR SIZE RANGE -2.5 TO 4.0 PHI

1.37

.69

-.27

1.21

FOLK GRAPHIC STATISTICAL PARAMETERS FOLK AND WARD, 1957

PERCENTILES

MEDIAN

1.47

5TH

-.10

16TH

.68

25TH

1.01

75TH

1.93

84TH

1.96

95TH

2.34

PCT. GRAVEL

1.41

SAND

98.58

SILT+CLAY

0.00

GRAVEL+SAND 100.00

GRAV+SAND/SILT+CLAY 99999.99

LABELS SHEPARD -SAND

FOLK(GMS)-SAND

(SGS)-



NHB-CH-31A

130582

SIEVE ONLY

SAMPLE WT.=104.6520

06/14/52

PHI PCT. CUMFCT.

-3.50	2.63	2.63	***
-3.00	.43	2.63	
-2.50	2.11	3.06	**
-2.00	3.84	5.17	****
-1.50	5.79	9.01	*****
-1.00	7.31	14.50	*****
-.50	6.91	22.11	*****
0.00	9.28	29.02	*****
.50	13.95	38.29	*****
1.00	23.77	52.24	*****
1.50	19.73	76.01	*****
2.00	3.73	95.74	****
2.50	.48	99.47	
3.00	.05	99.95	
3.50	.00	100.00	
4.00	.00	100.00	
*****	.00	100.00	

MEAN ST.DEV. SKEWNESS KURTOSIS

.51	1.30	-.50	.39
.57	1.26	-.44	.93

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURE FOR SIZE RANGE -3.0 TO 4.0 PHI

FOLK GRAPHIC STATISTICAL PARAMETERS FOLK AND WARD, 1957

PERCENTILES	MEDIAN	.92	5TH	-2.04	15TH	-.92	25TH	-.29
			75TH	1.48	84TH	1.70	95TH	1.96

PCT. GRAVEL 14.80 SAND 85.20 SILT+CLAY 0.00

GRAVEL+SAND 100.00

GRAV+SAND/SILT+CLAY 99999.99

LABELS SHEPARD -SAND FOLK(GMS)-GRAVELLY SAND (SCS)-

NHB-CH-31B

130582

SIEVE ONLY

SAMPLE WT.=108.4865

06/14/82

PHI PCT. CUMPCT.

-2.50	.40		
-2.00	.65	.40	*
-1.50	1.13	1.05	*
-1.00	1.72	2.18	**
-.50	3.92	3.90	****
0.00	9.64	7.82	*****
.50	20.75	17.46	*****
1.00	30.81	38.22	*****
1.50	27.29	69.02	*****
2.00	3.49	96.32	***
2.50	.18	99.81	
3.00	.01	99.98	
3.50	.00	100.00	
4.00	.00	100.00	
****	.00	100.00	

MEAN ST.DEV. SKEWNESS KURTOSIS

1.07	.75	-.64	2.51	KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURE FOR SIZE RANGE -2.0 TO 4.0 PHI
1.13	.69	-.23	1.03	FOLK GRAPHIC STATISTICAL PARAMETERS FOLK AND WARD, 1957

PERCENTILES	MEDIAN	1.19	5TH	-.36	16TH	.42	25TH	.66
			75TH	1.61	84TH	1.77	95TH	1.98

PCT. GRAVEL	2.18	SAND	97.82	SILT+CLAY	0.00
GRAVEL+SAND	100.00				GRAV+SAND/SILT+CLAY 99999.99
LABELS SHEPARD	-SAND	FOLK(GMS)-SAND		(SCS)-	

NHB-CH-32A

130582

SIEVE ONLY

SAMPLE WT.=116.8020

06/14/82

PHI	PCT.	CUMPGT.	
-3.50	.51		*
-3.00	1.52	.51	**
-2.50	1.72	2.04	**
-2.00	2.81	3.76	***
-1.50	4.84	6.57	*****
-1.00	7.48	11.41	*****
-.50	10.82	18.89	*****
0.00	17.12	29.71	*****
.50	23.84	46.84	*****
1.00	23.65	70.68	*****
1.50	5.26	94.33	*****
2.00	.37	99.58	
2.50	.04	99.95	
3.00	.01	99.99	
3.50	.00	100.00	
4.00	.00	100.00	
*****	.00	100.00	

MEAN ST.DEV. SKEWNESS KURTOSIS

.33 1.03 -.53 .92

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURE FOR SIZE RANGE -3.0 TO 4.0 PHI

.38 1.00 -.34 1.05

FOLK GRAPHIC STATISTICAL PARAMETERS FOLK AND WAARD, 1957

PERCENTILES	MEDIAN	.57	5TH	-1.78	16TH	-.69	25TH	-.22
			75TH	1.09	84TH	1.23	95TH	1.56

PCT. GRAVEL 11.41 SAND 83.59 SILT+CLAY 0.00

GRAVEL+SAND 100.00

GRAV+SAND/SILT+CLAY 99999.99

LABELS SHEPARD -SAND FOLK(GMS)-GRAVELLY SAND (SCS)-

NHB-CH-32B

140582

SIEVE ONLY

SAMPLE WT.=115.9500

06/14/82

PHI PCT. CUMFCT.

-3.00

.27

-2.50

.75 .27

-2.00

1.01 \*

-1.50

1.94 \*

-1.00

2.95 \*\*\*

-.50

4.47 4.89 \*\*\*\*

0.00

10.05 9.36 \*\*\*\*\*

.50

18.35 19.40 \*\*\*\*\*

1.00

30.71 37.76 \*\*\*\*\*

1.50

25.62 68.47 \*\*\*\*\*

2.00

5.59 94.09 \*\*\*\*\*

2.50

.27 99.68

3.00

.03 99.95

3.50

.01 99.98

4.00

.01 99.99

\*\*\*\*

.00 100.00

100.00

MEAN ST.DEV. SKEWNESS KUFTOSIS

.57

.79

-.54

1.64

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURE FOR SIZE RANGE -2.5 TO 4.0 PHI

.61

.76

-.25

1.08

FOLK GRAPHIC STATISTICAL PARAMETERS FOLK AND WARD, 1957

PERCENTILES

MEDIAN

.70

5TH

-.99

16TH

-.17

25TH

.15

75TH

1.13

34TH

1.30

95TH

1.58

PCT. GRAVEL

4.89

SAND

95.11

SILT+CLAY

0.00

GRAVEL+SAND 100.00

GRAV+SAND/SILT+CLAY 99999.99

LABELS SHEPARD -SAND

FOLK(GMS)-SAND

(SCS)-

NHB CH 34A

140582

SIEVE, SETT. TUBE, PIPETTE ( 2 )

SAMPLE WT.= 21.3029

PHI PCT. CUM PCT.

06/14/82

-2.00			
-1.50	.14	.14	
-1.00	.20	.34	
-.50	1.27	1.61	*
0.00	.67	2.28	*
	5.39		*****
.50		7.67	*****
1.00	4.72	12.39	*****
1.50	6.06	18.45	*****
2.00	5.05	23.51	*****
	2.70		***
2.50		26.20	***
3.00	2.86	29.06	***
3.50	4.21	33.28	****
4.00	2.70	35.97	***
	42.96		*****
8.00		78.93	*****
	21.07		*****
*****		100.00	

MEAN ST.DEV. SKEWNESS KURTOSIS

1.60 1.24 .03 -.75

KRUMBEIN + PETTIT JOHN (1936) MOMENT MEASURE FOR SIZE RANGE -1.5 TO 4.0 PHI

> 5 PERCENT OF THE FINES ARE NOT RESOLVED, OBTAIN FOLK STATS. GRAPHICALLY

PERCENTILES	MEDIAN	5.31	5TH	.25	16TH	1.30	25TH	2.28
			75TH	7.63	84TH	*****	95TH	*****

PCT. GRAVEL .34 SAND 35.63 SILT (PIPETTE) 42.96 CLAY (PIPETTE) 21.0  
 (SEDIGRAPH) 0.00 (SEDIGRAPH) 0.0

GRAVEL+SAND 35.97 SILT/(SILT+CLAY) 67.10 PCT.GRAV+SAND/SILT+CLAY .56

LABELS SHEPARD -SAN SIL CLY FOLK(GMS)-SANDY MUD (SCS)-SANDY SILT

NHB-CH-34B

180582

SIEVE ONLY

SAMPLE WT.=120.0750

06/14/82

PHI	PCT.	CUMPCT.	
-4.00	15.76		*****
-3.50	3.91	15.76	****
-3.00	5.14	19.68	*****
-2.50	3.71	24.61	****
-2.00	4.63	28.53	*****
-1.50	5.48	33.16	*****
-1.00	6.00	38.64	*****
-.50	5.52	44.65	*****
0.00	7.20	50.17	*****
.50	8.91	57.36	*****
1.00	11.83	66.28	*****
1.50	8.54	78.10	*****
2.00	3.08	86.64	***
2.50	1.79	89.72	**
3.00	1.52	91.51	**
3.50	1.51	93.03	**
4.00	5.46	94.54	*****
*****		100.00	

MEAN ST.DEV. SKEWNESS KURTOSIS

-0.58    2.14    -0.06    -1.16    KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURE  
 FOR SIZE RANGE -3.5 TO 4.0 PHI

> 5 PERCENT OF THE FINES ARE NOT RESOLVED, OBTAIN FOLK STATS. GRAPHICALLY

PERCENTILES	MEDIAN	-0.02	5TH	-3.84	16TH	-3.47	25TH	-2.47
			75TH	1.37	84TH	1.65	95TH	*****

PCT. GRAVEL 38.64 SAND 55.89 SILT+CLAY 5.46  
 GRAVEL+SAND 94.54 GRAV+SAND/SILT+CLAY 17.30  
 LABELS SHEPARD -SAND FOLK(GMS)-SANDY GRAVEL (SCS)-

NHB CH 35A

140582

SIEVE, SETT. TUBE, PIPETTE ( 2)

SAMPLE WT.= 26.5827

06/14/82

PHI	PCT.	CUMFCT.	
-3.50			*****
-3.00	8.43	8.43	*****
-2.50	6.87	15.31	**
-2.00	2.27	17.58	****
-1.50	3.53	21.11	***
-1.00	3.11	24.23	***
-.50	2.68	26.90	*
0.00	.80	27.70	*****
.50	8.78	36.48	*****
1.00	9.57	46.05	*****
1.50	7.75	53.80	**
2.00	2.28	56.08	*
2.50	1.37	57.45	*
3.00	.57	58.02	*
3.50	1.37	59.39	**
4.00	2.05	61.44	*****
8.00	23.72	85.16	*****
*****	14.84	100.00	*****

MEAN ST.DEV. SKEWNESS KURTOSIS

-.39 1.98 .01 -.97

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURE FOR SIZE RANGE -3.0 TO 4.0 PHI

> 5 PERCENT OF THE FINES ARE NOT RESOLVED, OBTAIN FOLK STATS. GRAPHICALLY

PERCENTILES	MEDIAN	1.25	5TH	-3.20	16TH	-2.35	25TH	-.86
			75TH	6.29	84TH	7.80	95TH	*****

PCT.	GRAVEL	24.23	SAND	37.21	SILT (PIPETTE)	23.72	CLAY (PIPETTE)	14.84
					(SEDIGRAPH)	0.00	(SEDIGRAPH)	0.00

GRAVEL+SAND 61.44 SILT/(SILT+CLAY) 61.51 PCT.GRAV+SAND/SILT+CLAY 1.59

LABELS SHEPARD -SILTY SAND FOLK(GMS)-GRAVELLY MUD (SCS)-

COMMENTS -

CH 35A ONE PEBBLE 51.68 GM. 6X6X1 CM NOT INCLUDED IN ANALYSIS

NHB-CH-36A

180582

SIEVE ONLY

SAMPLE WT.=105.8490

06/14/82

PHI PCT. CUM.FCT.

-3.50			***
-3.00	2.67	2.67	
-2.50	.29	2.96	
-2.00	.24	3.20	
-1.50	.18	3.38	
-1.00	.46	3.84	
-.50	.62	4.46	*
0.00	1.23	5.69	*
.50	3.44	9.13	***
1.00	22.80	31.92	*****
1.50	49.94	81.86	*****
2.00	15.70	97.56	*****
2.50	2.08	99.64	**
3.00	.31	99.95	
3.50	.05	100.00	
4.00	.00	100.00	
****	.00	100.00	

MEAN ST.DEV. SKEWNESS KURTOSIS

1.02	.91	-1.59	12.14	KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURE FOR SIZE RANGE -3.0 TO 4.0 PHI
1.13	.56	-.24	1.54	FOLK GRAPHIC STATISTICAL PARAMETERS FOLK AND WAEC, 1957

PERCENTILES	MEDIAN	1.18	5TH	-.28	15TH	.65	25TH	.85
			75TH	1.43	84TH	1.57	95TH	1.92

PCT. GRAVEL 3.84 SAND 96.16 SILT+CLAY 0.00

GRAVEL+SAND 100.00 GRAV+SAND/SILT+CLAY 99999.99

LABELS SHEPARD -SAND FOLK(GMS)-SAND (SCS)-

COMMENTS -  
CH 36A ONE PEBBLE 57.9 G 6X3X2 CM NOT INCLUDED IN ANALYSIS



NHB-CH-368

180582

SIEVE ONLY

SAMPLE WT.= 96.1210

06/14/82

PHI PCT. CUMPCT.

-3.00			*
-2.50	.62	.62	
-2.00	0.00	.62	
-1.50	.10	.73	
-1.00	.19	.92	
	.38		
-.50	.89	1.30	*
0.00		2.19	
.50	4.50	6.69	****
1.00	42.03	48.72	*****
1.50	45.59	94.31	*****
2.00	4.92	99.23	*****
2.50	.63	99.86	*
3.00	.11	99.98	
3.50	.02	99.99	
4.00	.01	100.00	
****	.00	100.00	

MEAN ST.DEV. SKEWNESS KURTOSIS

.97 .50 -1.45 19.38

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURE FOR SIZE RANGE -2.5 TO 4.0 PHI

1.00 .38 -.08 .90

FOLK GRAPHIC STATISTICAL PARAMETERS FOLK AND WARD, 1957

PERCENTILES	MEDIAN	1.01	5TH	.31	16TH	.61	25TH	.72
			75TH	1.29	84TH	1.39	95TH	1.57

PCT. GRAVEL .92 SAND 99.08 SILT+CLAY 0.00

GRAVEL+SAND 100.00 GRAV+SAND/SILT+CLAY 99999.99

LABELS SHEPARD -SAND FOLK(GMS)-SAND (SCS)-

NHB-CH-37A

180582

SIEVE ONLY

SAMPLE WT.=102.8210

06/14/82

PHI FCT. CUMPCT.

-1.50	.03	
-1.00	.13	.03
-.50	.16	.16
0.00	.28	.32
.50	.60	.60
1.00	1.68	2.28
1.50	29.80	32.08
2.00	58.17	90.25
2.50	8.95	99.20
3.00	.72	99.92
3.50	.08	99.99
4.00	.00	100.00
*****	.00	100.00

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MEAN ST.DEV. SKEWNESS KURTOSIS

1.63 .36 -.35 5.19

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURE FOR SIZE RANGE -1.0 TO 4.0 PHI

1.61 .36 -.09 1.03

FOLK GRAPHIC STATISTICAL PARAMETERS FOLK AND WARC, 1957

PERCENTILES	MEDIAN	1.65	5TH	1.05	16TH	1.23	25TH	1.38
			75TH	1.37	84TH	1.95	95TH	2.27

PCT. GRAVEL .03 SAND 99.96 SILT+CLAY 0.00

GRAVEL+SAND 100.00

GRAV+SAND/SILT+CLAY 99999.99

LABELS SHEPARD -SAND

FOLK(GMS)-SAND

(SCS)-

NHB-CH-37B

180582

SIEVE ONLY

SAMPLE WT.=109.3950

06/14/82

PHI PCT. CUMPCT.

-1.00	.03		
-.50	.35	.03	
0.00	.53	.38	*
.50	1.01	.91	*
1.00	13.97	1.92	*****
1.50	66.92	15.89	*****
2.00	15.74	82.81	*****
2.50	1.32	98.55	*
3.00	.10	99.87	
3.50	.01	99.97	
4.00	.02	99.98	
*****		100.00	

MEAN ST.DEV. SKEWNESS KURTOSIS

1.75 .36 -.44 5.73

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURE FOR SIZE RANGE -.5 TO 4.0 PHI

1.76 .33 .02 1.40

FOLK GRAPHIC STATISTICAL PARAMETERS FOLK AND WARD, 1957

PERCENTILES	MEDIAN	1.75	5TH	1.11	16TH	1.50	25TH	1.57
			75TH	1.94	84TH	2.04	95TH	2.39

PCT. GRAVEL 0.00 SAND 99.98 SILT+CLAY .02

GRAVEL+SAND 99.98 GRAV+SAND/SILT+CLAY 4374.80

LABELS SHEPARD -SAND FOLK(GMS)-SAND (SCS)-

NHB-CH-38A

160562

SIEVE ONLY

SAMPLE WT.= 94.2950

06/14/82

PHI FCT. CUMFCT.

-1.50			
-1.00	.04	.04	
-.50	.03	.07	
0.00	.14	.21	
.50	.20	.41	
1.00	.53	.94	*
1.50	1.02	1.96	*
2.00	2.30	4.26	**
2.50	25.32	29.58	*****
3.00	48.94	78.52	*****
3.50	17.82	96.34	*****
4.00	2.87	99.22	***
****	.78	100.00	*

MEAN ST.DEV. SKEWNESS KURTOSIS

2.68 .49 -.60 6.14

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURE FOR SIZE RANGE -1.0 TO 4.0 PHI

2.70 .45 .00 1.07

FOLK GRAPHIC STATISTICAL PARAMETERS FOLK AND WARD, 1957

PERCENTILES	MEDIAN	2.71	5TH	2.01	16TH	2.23	25TH	2.41
			75TH	2.95	84TH	3.15	95TH	3.46

PCT. GRAVEL .04 SAND 99.16 SILT+CLAY .78

GRAVEL+SAND 99.22 GRAV+SAND/SILT+CLAY 125.43

LABELS SHEPARD -SAND FOLK(GMS)-SAND (SCS)-

NHB-CH-38B

180582

SIEVE ONLY

SAMPLE WT.=103.3250

06/14/82

PHI PCT. CUMFCT.

-2.00	.02	.02
-1.50	.11	.13
-1.00	.03	.16
-.50	.53	.69
0.00	.95	1.64
.50	1.59	3.24
1.00	2.46	5.70
1.50	28.63	34.33
2.00	35.46	69.78
2.50	24.12	93.91
3.00	4.85	98.76
3.50	.78	99.53
4.00	.47	100.00

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MEAN ST.DEV. SKEWNESS KURTOSIS

2.20 .59 -.45 3.51

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURE FOR SIZE RANGE -1.5 TO 4.0 PHI

2.23 .54 .02 .93

FOLK GRAPHIC STATISTICAL PARAMETERS FOLK AND WARG, 1957

PERCENTILES	MEDIAN	2.22	5TH	1.36	16TH	1.68	25TH	1.84
			75TH	2.61	84TH	2.79	95TH	3.11

PCT. GRAVEL .13 SAND 99.40 SILT+CLAY .47

GRAVEL+SAND 99.53 GRAV+SAND/SILT+CLAY 213.70

LABELS SHEPARD -SAND FOLK(GMS)-SAND (SCS)-

NHB-CH-39A

180562

SIEVE ONLY

SAMPLE WT.= 68.1080

06/14/82

PHI PCT. CUMPCT.

-1.00			
	.15		
-.50		.15	
	.23		
0.00		.38	
	.79		*
.50		1.17	
	1.81		**
1.00		2.97	
	6.14		*****
1.50		9.11	
	73.13		*****
2.00		82.24	
	16.00		*****
2.50		98.25	
	1.64		**
3.00		99.89	
	.10		
3.50		100.00	
	.00		
4.00		100.00	
	.00		
*****		100.00	

MEAN ST.DEV. SKEWNESS KURTOSIS

1.78 .36 -.71 9.00

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURE FOR SIZE RANGE -.5 TO 4.0 PHI

1.79 .31 .04 1.48

FOLK GRAPHIC STATISTICAL PARAMETERS FOLK AND WARD, 1957

PERCENTILES	MEDIAN	1.78	5TH	1.17	16TH	1.55	25TH	1.61
			75TH	1.95	84TH	2.05	95TH	2.40

PCT. GRAVEL 0.00 SAND 100.00 SILT+CLAY 0.00

GRAVEL+SAND 100.00 GRAV+SAND/SILT+CLAY 99999.99

LABELS SHEPARD -SAND FOLK(5MS)-SAND (SCS)-

NHB-CH-39B

180582

SIEVE ONLY

SAMPLE WT.= 93.6950

PHI PCT. CUMPCT.

06/14/82

-3.50			**
-3.00	1.55	1.55	
-2.50	0.00	1.55	
-2.00	0.00	1.55	
-1.50	.11	1.65	
-1.00	.13	1.78	
-.50	.10	1.88	
0.00	.25	2.12	
.50	.36	2.49	*
1.00	.72	3.21	*
1.50	1.37	4.57	*****
2.00	57.64	62.22	*****
2.50	22.15	84.36	*****
3.00	10.74	95.10	***
3.50	3.05	98.15	*
4.00	.76	98.93	*
*****	1.07	100.00	

MEAN ST.DEV. SKEWNESS KURTOSIS

1.92	.83	-1.88	22.14	KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURE FOR SIZE RANGE -3.0 TO 4.0 PHI
1.99	.45	.41	1.00	FOLK GRAPHIC STATISTICAL PARAMETERS FOLK AND WARD, 1957

PERCENTILES	MEDIAN	1.89	5TH	1.50	16TH	1.60	25TH	1.68
			75TH	2.29	84TH	2.49	95TH	3.00

PCT. GRAVEL 1.78 SAND 97.15 SILT+CLAY 1.07

GRAVEL+SAND 98.93 GRAV+SAND/SILT+CLAY 92.69

LABELS SHEPARD -SAND FOLK(GMS)-SAND (SCS)-

NHB-CH-40A

180582

SIEVE ONLY

SAMPLE WT.= 96.4170

06/14/82

PHI PCT. CUMFCT.

-3.50			*
-3.00	1.32	1.32	
-2.50	0.00	1.32	
-2.00	0.00	1.32	
-1.50	0.00	1.32	
-1.00	.07	1.39	
-.50	.08	1.47	
0.00	.25	1.72	
.50	.41	2.14	
1.00	.76	2.89	*
1.50	6.71	9.60	*****
2.00	64.07	73.67	*****
2.50	24.55	98.22	*****
3.00	1.61	99.83	**
3.50	.15	99.98	
4.00	.02	100.00	
****	.00	100.00	

MEAN ST.DEV. SKEWNESS KURTOSIS

1.77 .68 -2.68 36.46

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURE FOR SIZE RANGE -3.0 TO 4.0 PHI

1.86 .36 .08 1.29

FOLK GRAPHIC STATISTICAL PARAMETERS FOLK AND WAED, 1957

PERCENTILES	MEDIAN	1.82	5TH	1.16	16TH	1.55	25TH	1.62
			75TH	2.03	84TH	2.21	95TH	2.43

PCT. GRAVEL 1.39 SAND 98.61 SILT+CLAY 0.00

GRAVEL+SAND 100.00 GRAV+SAND/SILT+CLAY 99999.99

LABELS SHEPARD -SAND FOLK(GMS)-SAND (SCS)-



NHB-CH-40B

SIEVE ONLY

SAMPLE WT.=100.1890

06/14/82

PHI PCT. CUMPCT.

-1.00		
	.05	
-.50		.05
	.08	
0.00		.14
	.23	
.50		.37
	.90	
1.00		1.27
	17.74	
1.50		19.01
	67.51	
2.00		86.52
	12.68	
2.50		99.19
	.74	
3.00		99.93
	.06	
3.50		99.99
	.00	
4.00		100.00
	.00	
*****		100.00

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MEAN ST.DEV. SKEWNESS KURTOSIS

1.72 .32 -.27 4.50

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURE FOR SIZE RANGE -.5 TO 4.0 PHI

1.71 .33 -.06 1.36

FOLK GRAPHIC STATISTICAL PARAMETERS FOLK AND WARD, 1957

PERCENTILES	MEDIAN	1.73	5TH	1.11	16TH	1.42	25TH	1.54
			75TH	1.91	84TH	1.98	95TH	2.33

PCT. GRAVEL 0.00 SAND 100.00 SILT+CLAY 0.00

GRAVEL+SAND 100.00 GRAV+SAND/SILT+CLAY 99999.99

LABELS SHEPARD -SAND FOLK(GMS)-SAND (SCS)-

NHB-CH-41A

210582

SIEVE ONLY

SAMPLE WT.= 16.7550

06/14/82

PHI PCT. CUMPCT.

- .50	.12	
0.00	.12	
.50	7.76	7.88
1.00	12.69	20.77
1.50	11.94	32.71
2.00	12.29	45.00
2.50	10.47	55.48
3.00	17.61	73.08
3.50	15.46	88.54
4.00	7.22	95.76
****	4.24	100.00

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MEAN ST.DEV. SKEWNESS KURTOSIS

2.06 1.06 -.07 -1.18

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURE FOR SIZE RANGE 0.0 TO 4.0 PHI

2.14 1.18 -.09 .79

FOLK GRAPHIC STATISTICAL PARAMETERS FOLK AND WARD, 1957

PERCENTILES	MEDIAN	2.24	5TH	.31	16TH	.82	25TH	1.18
			75TH	3.06	84TH	3.35	95TH	3.95

PCT. GRAVEL 0.00 SAND 95.76 SILT+CLAY 4.24

GRAVEL+SAND 95.76 GRAV+SAND/SILT+CLAY 22.60

LABELS SHEPARD -SAND FOLK (GMS) -SAND (SCS) -

COMMENTS - CH 41A 162 G CLAM SHELLS NOT INCLUDED IN ANALYSIS

COMMENTS -  
CH 41B ONE COBBLE 131.1 G RETAINED ON -5 PHI SIEVE 6X4X3 CM

NHB-GH-43A

210582

SIEVE ONLY

SAMPLE WT.= 56.6620

06/14/82

PHI PCT. CUMPCT.

-2.50			
-2.00	.23	.23	
-1.50	.08	.31	
-1.00	.42	.72	
-.50	1.64	2.37	**
0.00	3.39		***
	5.76		
.50	4.93	10.70	*****
1.00	5.65	16.34	*****
1.50	3.89	20.23	****
	5.92		*****
2.00	12.79	26.15	*****
2.50	34.52	38.94	*****
3.00	22.30	73.46	*****
3.50	3.75	95.76	****
4.00	.49	99.51	
*****		100.00	

MEAN ST.DEV. SKEWNESS KURTOSIS

2.29 1.12 -.65 1.03

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURE FOR SIZE RANGE -2.0 TO 4.0 PHI

2.29 1.11 -.52 1.30

FOLK GRAPHIC STATISTICAL PARAMETERS FOLK AND WARD, 1957

PERCENTILES	MEDIAN	2.66	5TH	-.11	16TH	.97	25TH	1.90
			75TH	3.03	84TH	3.24	95TH	3.48

PCT. GRAVEL .72 SAND 98.78 SILT+CLAY .49

GRAVEL+SAND 99.51 GRAV+SAND/SILT+CLAY 202.03

LABELS SHEPARD -SAND FOLK(GMS)-SAND (SCS)-

NHB-CH-43B

210582

SIEVE ONLY

SAMPLE WT.= 14.6410

06/14/82

PHI PCT. CUMPCT.

-1.00	.03	
-.50	.03	.03
0.00	.01	.04
.50	.24	.28
1.00	1.37	1.65
1.50	2.60	4.24
2.00	5.57	9.81
2.50	19.12	28.93
3.00	44.46	73.40
3.50	23.80	97.20
4.00	2.60	99.80
****	.20	100.00

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MEAN ST.DEV. SKEWNESS KURTOSIS

2.67 .56 -.56 2.35

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURE FOR SIZE RANGE -.5 TO 4.0 PHI

2.71 .55 -.16 1.21

FOLK GRAPHIC STATISTICAL PARAMETERS FOLK AND WARD, 1957

PERCENTILES	MEDIAN	2.74	5TH	1.57	16TH	2.15	25TH	2.40
			75TH	3.03	84TH	3.22	95TH	3.45

PCT. GRAVEL 0.00 SAND 99.80 SILT+CLAY .20

GRAVEL+SAND 99.80 GRAV+SAND/SILT+CLAY 487.03

LABELS SHEPARD -SAND FOLK(GMS)-SAND (SCS)-

NHB-CH-44A

210582

SIEVE ONLY

SAMPLE WT.= 14.8600

PHI PCT. CUMPCT.

06/14/82

-2.00	.20	
-1.50	.17	.20
-1.00	.34	.37
-.50	.24	.71
0.00	.50	.94
.50	1.51	1.45
1.00	2.78	2.96
1.50	2.62	5.32
2.00	2.29	7.94
2.50	7.47	10.23
3.00	23.76	17.70
3.50	26.24	41.45
4.00	32.30	67.70
*****	100.00	

MEAN ST.DEV. SKEWNESS KURTOSIS

3.09 .90 -1.11 5.78

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURE FOR SIZE RANGE -1.5 TO 4.0 PHI

> 5 PERCENT OF THE FINES ARE NOT RESOLVED, OBTAIN FOLK STATS. GRAPHICALLY

PERCENTILES	MEDIAN	3.66	5TH	1.43	16TH	2.89	25TH	3.15
			75TH	*****	84TH	*****	95TH	*****

PCT. GRAVEL .37 SAND 67.33 SILT+CLAY 32.30

GRAVEL+SAND 67.70 GRAV+SAND/SILT+CLAY 2.10

LABELS SHEPARD -CLAYEY SAND FOLK(GMS)-MUDDY SAND (SCS)-

NHB-CH-45A

210582

SIEVE ONLY

SAMPLE WT.=110.5470

06/14/82

PHI	PCT.	CUMPCT.	
-3.50	1.37		*
-3.00	4.49	1.37	****
-2.50	1.41	5.86	*
-2.00	4.50	7.27	*****
-1.50	8.14	11.77	*****
-1.00	12.38	19.92	*****
-.50	17.24	32.30	*****
0.00	17.10	49.54	*****
.50	13.61	66.64	*****
1.00	8.90	80.25	*****
1.50	4.62	89.15	*****
2.00	1.68	93.78	**
2.50	1.47	95.45	*
3.00	1.75	98.93	**
3.50	.61	98.68	*
4.00	.50	99.50	*
*****		100.00	

MEAN ST.DEV. SKEWNESS KURTOSIS

-.01 1.33 .01 .40

KRUMBEIN + FETTER (1938) MOMENT MEASURE FOR SIZE RANGE -3.0 TO 4.0 PHI

-.01 1.36 -.04 1.27

FOLK GRAPHIC STATISTICAL PARAMETERS FOLK AND WARD, 1957

PERCENTILES	MEDIAN	.01	5TH	-2.60	16TH	-1.24	25TH	-.79
			75TH	.81	84TH	1.21	95TH	2.36

PCT. GRAVEL 19.92 SAND 79.58 SILT+CLAY .50

GRAVEL+SAND 99.50 GRAV+SAND/SILT+CLAY 198.18

LABELS SHEPARD -SAND FOLK(GMS)-GRAVELLY SAND (SCS)-

NHB-CH-45B

210582

SIEVE ONLY

SAMPLE WT.= 95.8170

06/14/82

PHI PCT. CUMPCT.

-1.50	.01		
-1.00	.09	.01	
-.50	.39	.10	
0.00	1.59	.49	**
.50	5.84	2.07	*****
1.00	18.09	7.92	*****
1.50	30.13	26.00	*****
2.00	19.21	56.14	*****
2.50	11.91	75.35	*****
3.00	8.87	87.26	*****
3.50	2.50	96.13	***
4.00	1.37	98.63	*
*****		100.00	

MEAN ST.DEV. SKEWNESS KURTOSIS

1.97 .77 .08 -.06

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURE FOR SIZE RANGE -1.0 TO 4.0 PHI

1.99 .82 .16 1.08

FOLK GRAPHIC STATISTICAL PARAMETERS FOLK AND WAEG, 1957

PERCENTILES	MEDIAN	1.90	5TH	.75	16TH	1.22	25TH	1.47
			75TH	2.49	84TH	2.86	95TH	3.44

PCT. GRAVEL .01 SAND 98.62 SILT+CLAY 1.37

GRAVEL+SAND 98.63 GRAV+SAND/SILT+CLAY 72.14

LABELS SHEPARD -SAND FOLK(GMS)-SAND (SCS)-



NHB-CH-46A

210582

SIEVE ONLY

SAMPLE WT.=118.1230

06/14/82

PHI PCT. CUMPCT.

-2.00	.12	
-1.50	.33	.12
-1.00	1.10	.45
-.50	4.61	1.56
0.00	16.07	6.17
.50	33.26	22.24
1.00	26.67	55.50
1.50	12.69	82.16
2.00	3.01	94.85
2.50	1.32	97.86
3.00	.61	99.18
3.50	.15	99.79
4.00	.06	99.94

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MEAN ST.DEV. SKEWNESS KURTOSIS

.95 .68 .12 1.34

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURE FOR SIZE RANGE -1.5 TO 4.0 PHI

.93 .64 .03 1.07

FOLK GRAPHIC STATISTICAL PARAMETERS FOLK AND WARD, 1957

PERCENTILES	MEDIAN	.92	5TH	-.13	16TH	.31	25TH	.54
			75TH	1.37	84TH	1.57	95TH	2.02

PCT. GRAVEL .45 SAND 99.49 SILT+CLAY .06

GRAVEL+SAND 99.94 GRAV+SAND/SILT+CLAY 1686.47

LABELS SHEPARD -SAND FOLK(GMS)-SAND (SCS)-

NHB-CH-468

210582

SIEVE ONLY

SAMPLE WT.= 67.7490

06/14/82

PHI PCT. CUMPCT.

-2.50			*
-2.00	.59	.59	
-1.50	.20	.79	
-1.00	1.05	1.84	*
-.50	3.06	4.89	***
0.00	6.44	11.34	*****
.50	13.07	24.40	*****
1.00	16.24	40.65	*****
1.50	29.29	69.93	*****
2.00	11.69	81.62	***
2.50	3.34	84.96	**
3.00	2.31	87.27	**
3.50	2.23	89.50	**
4.00	1.64	91.14	*****
*****	8.86	100.00	

MEAN ST.DEV. SKEWNESS KURTOSIS

1.02 .97 .05 1.23

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURE FOR SIZE RANGE -2.0 TO 4.0 PHI

> 5 PERCENT OF THE FINES ARE NOT RESOLVED, OBTAIN FOLK STATS. GRAPHICALLY

PERCENTILES	MEDIAN	1.16	5TH	-.49	16TH	.18	25TH	.52
			75TH	1.72	84TH	2.35	95TH	*****

PCT. GRAVEL	1.84	SAND	89.30	SILT+CLAY	8.86
GRAVEL+SAND	91.14			GRAV+SAND/SILT+CLAY	10.28
LABELS SHEPARD	-SAND	FOLK (GMS) -SAND		(SCS) -	

NHB-CH-47A

210582

SIEVE ONLY

SAMPLE WT.=100.3050

06/14/82

PHI PCT. CUMPCT.

-2.00	.21	
-1.50	.14	.21
-1.00	.13	.35
-.50	.33	.48
0.00	.80	.81
.50	1.79	1.61
1.00	3.15	3.40
1.50	4.99	6.55
2.00	12.78	11.54
2.50	41.68	24.32
3.00	27.23	66.00
3.50	5.31	93.23
4.00	1.46	98.54

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\*\*\*\*\* 100.00

MEAN ST.DEV. SKEWNESS KURTOSIS

2.69 .71 -.96 6.34

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURE FOR SIZE RANGE -1.5 TO 4.0 PHI

2.77 .65 -.19 1.50

FOLK GRAPHIC STATISTICAL PARAMETERS FOLK AND WARD, 1957

PERCENTILES	MEDIAN	2.81	5TH	1.25	16TH	2.17	25TH	2.51
			75TH	3.17	84TH	3.33	95TH	3.67

PCT. GRAVEL .35 SAND 98.20 SILT+CLAY 1.46

GRAVEL+SAND 98.54 GRAV+SAND/SILT+CLAY 67.70

LABELS SHEPARD -SAND FOLK(GMS)-SAND (SCS)-

NHB-CH-478

210582

SIEVE ONLY

SAMPLE WT.= 97.3670

06/14/82

PHI PCT. CUMFCT.

-2.00			
-1.50	.04	.04	
-1.00	.08	.12	
-.50	.29	.41	
0.00	.65	1.06	*
	1.35		*
.50	2.40	2.40	**
1.00	3.59	4.60	****
1.50	7.61	8.40	*****
2.00	12.23	16.01	*****
2.50	35.19	28.23	*****
3.00	30.78	63.42	*****
3.50	4.56	94.21	*****
4.00	1.23	98.77	*
*****	100.00		

MEAN ST.DEV. SKEWNESS KURTOSIS

2.64	.78	-.79	3.22
2.71	.72	-.30	1.28

KRUMBEIN + PETTIJOHN (1936) MOMENT MEASURE FOR SIZE RANGE -1.5 TO 4.0 PHI

FOLK GRAPHIC STATISTICAL PARAMETERS FOLK AND WARD, 1957

PERCENTILES	MEDIAN	2.81	5TH	1.03	16TH	2.00	25TH	2.37
			75TH	3.19	84TH	3.33	95TH	3.59

PCT. GRAVEL .12 SAND 98.64 SILT+CLAY 1.23  
 GRAVEL+SAND 98.77 GRAV+SAND/SILT+CLAY 80.15  
 LABELS SHEPARD -SAND FOLK(GMS)-SAND (SCS)-

NHB-CH-48A

210582

SIEVE ONLY

SAMPLE WT.=123.3050

06/14/82

PHI	PCT.	CUMFCT.	
-5.00	23.74		*****
-4.50	0.00	23.74	
-4.00	0.00	23.74	
-3.50	0.00	23.74	
-3.00	1.22	23.74	*
-2.50	.84	24.95	*
-2.00	1.25	25.80	*
-1.50	2.05	27.05	**
-1.00	3.03	29.10	***
-.50	5.56	32.12	*****
0.00	12.58	37.69	*****
.50	22.64	50.27	*****
1.00	17.40	72.91	*****
1.50	7.31	90.31	*****
2.00	1.73	97.62	**
2.50	.49	99.35	
3.00	.11	99.84	
3.50	.03	99.96	
4.00	.02	99.98	
****	.02	100.00	

MEAN ST.DEV. SKEWNESS KURTOSIS

-.66	2.43	-.44	-.67	KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURE FOR SIZE RANGE -4.5 TO 4.0 PHI
-.95	2.51	-.66	.78	FOLK GRAPHIC STATISTICAL PARAMETERS FOLK AND WARD, 1957

PERCENTILES	MEDIAN	.49	5TH	-4.89	16TH	-4.66	25TH	-2.47
			75TH	1.06	84TH	1.32	95TH	1.82

PCT. GRAVEL	29.10	SAND	70.89	SILT+CLAY	.02
GRAVEL+SAND	99.98			GRAV+SAND/SILT+CLAY	6164.25

LABELS SHEPARD -SAND FOLK(GMS)-GRAVELLY SAND (SCS)-

NHB-CH-48B

250582

SIEVE ONLY

SAMPLE WT.=107.8750

05/14/82

PHI PCT. CUMFCT.

-3.50 1.85 \*\*

-3.00 0.00 1.85

-2.50 0.00 1.85

-2.00 .07 1.85

-1.50 .63 1.93 \*

-1.00 2.01 2.55 \*\*

-.50 4.47 4.56 \*\*\*\*

0.00 12.75 9.03 \*\*\*\*\*

.50 32.62 21.78 \*\*\*\*\*

1.00 32.32 54.40 \*\*\*\*\*

1.50 10.82 86.72 \*\*\*\*\*

2.00 1.80 97.54 \*\*

2.50 .50 99.34 \*

3.00 .10 99.84

3.50 .05 99.94

4.00 .01 99.99

\*\*\*\*\* 100.00

MEAN ST.DEV. SKEWNESS KURTOSIS

.83 .64 -1.09 6.81 KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURE FOR SIZE RANGE -3.0 TO 4.0 PHI

.89 .65 -.15 1.24 FOLK GRAPHIC STATISTICAL PARAMETERS FOLK AND WARD, 1957

PERCENTILES MEDIAN .93 5TH -.45 16TH .27 25TH .55 75TH 1.32 84TH 1.45 95TH 1.86

PCT. GRAVEL 2.55 SAND 97.43 SILT+CLAY .01

GRAVEL+SAND 99.99 GRAV+SAND/SILT+CLAY 7190.87

LABELS SHEPARD -SAND FOLK(GMS)-SAND (SCS)-

NHB-CH-49A

25J582

SIEVE ONLY

SAMPLE WT.=101.7750

06/14/82

PHI PCT. CUMPCT.

-2.50	1.18		*
-2.00	1.22	1.18	*
-1.50	2.97	2.40	***
-1.00	5.33	5.36	*****
-.50	11.42	10.69	*****
0.00	18.19	22.11	*****
.50	23.15	40.30	*****
1.00	21.15	63.45	*****
1.50	12.10	84.60	*****
2.00	3.02	96.70	***
2.50	.29	99.71	
3.00	.01	99.99	
3.50	.00	100.00	
4.00	.00	100.00	
*****	.00	100.00	

MEAN ST.DEV. SKEWNESS KURTOSIS

.62	.90	-.31	.46
.64	.89	-.15	1.03

KRUMBEIN + PETTITJOHN (1938) MOMENT MEASURE  
FOR SIZE RANGE -2.0 TO 4.0 PHI  
FOLK GRAPHIC STATISTICAL PARAMETERS  
FOLK AND WARD, 1957

PERCENTILES	MEDIAN	.71	5TH -1.06	16TH -.27	25TH .08
			75TH 1.27	84TH 1.49	95TH 1.93

PCT. GRAVEL 5.36 SAND 94.63 SILT+CLAY 0.00  
GRAVEL+SAND 100.00 GRAV+SAND/SILT+CLAY 99999.99  
LABELS SHEPARD -SAND FOLK(GMS)-GRAVELLY SAND (SCS)-

23718

NHB-CH-49B      250582      SIEVE ONLY      SAMPLE WT.=107.3550

06/14/82

PHI	FCT.	CUMPCT.	
-3.00			*
-2.50	.51	.51	*
-2.00	.51	1.02	*
-1.50	.65	1.68	*
-1.00	2.52	4.19	***
	6.46		*****
-.50		10.66	*****
0.00	11.44	22.10	*****
	18.17		*****
.50		40.27	*****
1.00	22.83	63.10	*****
	22.20		*****
1.50		65.30	*****
2.00	10.31	95.61	*****
2.50	3.60	99.22	****
3.00	.65	99.87	*
3.50	.08	99.95	
4.00	.01	99.96	
****	.04	100.00	

MEAN ST.DEV. SKEWNESS KURTOSIS

.63      .90      -.29      .74

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURE FOR SIZE RANGE -2.5 TO 4.0 PHI

.64      .87      -.13      1.00

FOLK GRAPHIC STATISTICAL PARAMETERS FOLK AND WARD, 1957

PERCENTILES	MEDIAN	.71	5TH	-.94	16TH	-.27	25TH	.03
			75TH	1.27	84TH	1.47	95TH	1.97

PCT. GRAVEL	4.19	SAND	95.77	SILT+CLAY	.04
GRAVEL+SAND	99.96			GRAV+SAND/SILT+CLAY	2682.87

LABELS SHEPARD -SAND      FOLK(GMS)-SAND      (SCS)-