

**HYDRAULICS DIVISION
TECHNICAL NOTE**

DATE: February 1983 **REPORT NO:** 83-04

TITLE: Particle Size Data Report - Lake Erie

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REASON FOR REPORT: This report responds to a request for particle size data from Dr. R. Bourbonniere, AED.

CORRESPONDENCE FILE NO:
5690 (Study No. 302)

1.0 INTRODUCTION

This report provides the results of particle size analysis on sediment samples from Lake Erie. Dr. R. A. Bournonniere, AED, submitted 53 samples from the Lake Erie sediment bank study requesting sand, silt and clay percentages.

The samples were analysed by K. Salisbury using an abbreviated sedigraph analysis (Duncan and LaHaie, 1979).

2.0 PROCEDURE

The Sieve and Sedigraph Method which provides sand, silt and clay percentages was used to analyse the samples.

Briefly the procedure consists of:

1. Splitting the sample to 2g.
2. Removing particles large enough to block Sedigraph Suction Tube (0.088 mm).
3. Dispersing sample in a Calgon suspension.
4. Automatic analysis with the Sedigraph.
5. Processing the results with SIZDIST: a FORTRAN IV computer program (Sandilands and Duncan, 1980).

3.0 RESULTS

For the Sieve and Sedigraph 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) and graphic (Folk and Ward, 1957) statistics.
4. Percentiles.
5. Percent gravel, sand, silt and clay.
6. Ratios used to plot Folk's Ternary Classification.
7. Shepard (1954) and Folk (1974) Ternary Classifications.

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. 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.

APPENDIX 1
SIZDIST OUTPUT

01/31/83

PHI PCT. CUMPCT.

3.50	0.00		
4.00	1.54	0.00	**
4.50	5.13	1.54	*****
5.00	7.18	6.67	*****
5.50	8.21	13.85	*****
6.00	7.18	22.05	*****
6.50	5.13	29.23	*****
7.00	7.18	34.36	*****
7.50	6.15	41.54	*****
8.00	5.13	47.69	*****
8.50	7.18	52.82	*****
9.00	40.00	60.00	*****
****	100.00		*****

MEAN ST.DEV. SKEWNESS KURTOSIS

6.67 1.32 .03 -1.15 KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURE FOR SIZE RANGE 4.0 TO 9.0 PHI

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

PERCENTILES MEDIAN 8.23 5TH 4.84 16TH 5.63 25TH 6.21 75TH***** 84TH***** 95TH*****

PCT. GRAVEL .00 SAND 0.00 SILT (PIPETTE) 0.00 CLAY (PIPETTE) 0.00 (SEDIGRAPH) 47.69 (SEDIGRAPH) 52.31

GRAVEL+SAND .00 SILT/(SILT+CLAY) 47.69 PCT.GRAV+SAND/SILT+CLAY .00

LABELS SHEPARD -SILTY CLAY FOLK(GMS)-MUD (SCS)-MUD

REPORT

01/31/83

PHI	PCT. CUMPGT.		
3.50	0.00		
4.00	.50	0.00	
4.50	1.49	.50	*
5.00	.99	1.98	*
5.50	1.98	2.97	**
6.00	3.96	4.95	****
6.50	2.97	8.91	***
7.00	5.94	11.88	*****
7.50	4.95	17.82	*****
8.00	4.95	22.77	*****
8.50	4.95	27.72	*****
9.00	67.33	32.67	*****
****	100.00		*****

MEAN ST.DEV. SKEWNESS KURTOSIS

7.23 1.16 -.29 -.39

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURES FOR SIZE RANGE 4.0 TO 9.0 PHI

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

PERCENTILES	MEDIAN*****	5TH 6.01	16TH 7.35	25TH 8.23
		75TH*****	84TH*****	95TH*****
PCT. GRAVEL	.00	SAND 0.00	SILT (PIPETTE) 0.00	CLAY (PIPETTE) 0.00
		(SEDIGRAPH) 22.77	(SEDIGRAPH) 77.23	
GRAVEL+SAND	.00	SILT/(SILT+CLAY) 22.77	PCT.GRAV+SAND/SILT+CLAY	.00
LABELS SHEPARD -CLAY		FOLK(GMS)-MUD	(SCS)-CLAY	

LAB REPORT

01/31/83

PHI PCT. CUMPCT.

3.50	0.00	0.00	
4.00	2.82	2.82	***
4.50	12.43	15.25	*****
5.00	15.82	31.07	*****
5.50	12.43	43.50	*****
6.00	6.78	50.28	*****
6.50	5.65	55.93	*****
7.00	4.52	60.45	***
7.50	3.39	63.84	***
8.00	3.39	67.23	*****
8.50	5.08	72.32	*****
9.00	27.68	100.00	*****

MEAN ST.DEV. SKEWNESS KURTOSIS

6.05 1.26 .38 -.45

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURES FOR SIZE RANGE 4.0 TO 9.0 PHI

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

PERCENTILES MEDIAN 6.48 5TH 4.59 16TH 5.02 25TH 5.31
 75TH***** 84TH***** 95TH*****

PCT. GRAVEL .00 SAND 0.00 SILT (PIPETTE) 0.00 CLAY (PIPETTE) 0.00
 (SEDIGRAPH) 63.84 (SEDIGRAPH) 36.16

GRAVEL+SAND .00 SILT/(SILT+CLAY) 63.84 PCT.GRAV+SAND/SILT+CLAY .00

LABELS SHEPARD -CLAYEY SILT FOLK(GMS)-MUD (SCS)-MUD

AUTOREPORT

01/31/83

PHI	PCT.	CUMPCT.	
3.50	0.00	0.00	
4.00	1.41	1.41	*
4.50	2.82	4.23	***
5.00	7.04	11.27	*****
5.50	11.27	22.54	*****
6.00	22.54	30.99	*****
6.50	30.99	40.85	*****
7.00	40.85	49.30	*****
7.50	49.30	57.75	*****
8.00	57.75	64.79	*****
8.50	64.79	71.83	*****
9.00	71.83	100.00	*****
*****	28.17	100.00	*****

MEAN ST.DEV. SKEWNESS KURTOSIS

6.78 1.20 -.00 -.97

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURES FOR SIZE RANGE 4.0 TO 9.0 PHI

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

PERCENTILES	MEDIAN	7.54	5TH	5.06	16TH	5.71	25TH	6.15
			75TH*****		84TH*****		95TH*****	
PCT. GRAVEL	.00	SAND	0.00	SILT (PIPETTE)	3.00	CLAY (PIPETTE)	0.00	
				(SEDIGRAPH)	57.75	(SEDIGRAPH)	42.25	
GRAVEL+SAND	.00	SILT/(SILT+CLAY)	57.75	PCT.GRAV+SAND/SILT+CLAY			.00	
LABELS SHEPARD	-CLAYEY	SILT FOLK(GMS)-MUD				(SCS)-MUD		

AUTOREPORT

01/31/83

PHI	PCT.	CUMPCT.	
3.50	0.00		
4.00	0.00	0.00	
4.50	2.88	0.00	***
5.00	4.81	2.88	*****
5.50	5.77	7.69	*****
6.00	7.69	13.46	*****
6.50	5.77	21.15	*****
7.00	11.54	26.92	*****
7.50	9.62	38.46	*****
8.00	7.69	48.08	*****
8.50	9.62	55.77	*****
9.00	34.62	65.38	*****
	100.00		*****

MEAN ST.DEV. SKEWNESS KURTOSIS

7.11 1.17 -.15 -.93

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURE FOR SIZE RANGE 4.0 TO 9.0 PHI

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

PERCENTILES	MEDIAN	8.13	5TH	5.22	16TH	6.17	25TH	6.83
			75TH*****		84TH*****		95TH*****	
PCT. GRAVEL	.00	SAND	0.00	SILT (PIPETTE)	0.00	CLAY (PIPETTE)	0.00	
				(SEDIGRAPH)	48.08	(SEDIGRAPH)	51.92	
GRAVEL+SAND	.00	SILT/(SILT+CLAY)	48.08	PCT.GRAV+SAND/SILT+CLAY			.00	
LABELS SHEPARD	-SILTY CLAY	FOLK(GMS)-MUD				(SCS)-MUD		

AUTOREPORT

PHI	PCT.	CUMPCT.	
50			
4.00	0.00	0.00	
4.50	3.13	3.13	***
5.00	1.56	4.69	**
5.50	1.56	6.25	**
6.00	3.13	9.38	***
6.50	1.56	10.94	**
7.00	4.69	15.63	*****
7.50	6.25	21.88	*****
8.00	9.38	31.25	*****
8.50	6.25	37.50	*****
9.00	9.38	46.88	*****
*****	53.13	100.00	*****

MEAN ST.DEV. SKEWNESS KURTOSIS

7.25 1.34 -.43 -.24

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURES FOR SIZE RANGE 4.0 TO 9.0 PHI

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

PERCENTILES	MEDIAN*****	5TH 5.10	16TH 7.03	25TH 7.67
		75TH*****	84TH*****	95TH*****
PCT. GRAVEL	.00	SAND 0.00	SILT (PIPETTE) 0.00	CLAY (PIPETTE) 0.00
		(SEDIGRAPH) 31.25	(SEDIGRAPH) 68.75	
GRAVEL+SAND	.00	SILT/(SILT+CLAY) 31.25	PCT.GRAV+SAND/SILT+CLAY	.00
LABELS SHEPARD	-SILTY CLAY	FOLK(GMS)-MUD	(SCS)-CLAY	

AUTOREPORT

PHI PCT. CUMPCT.

3.50	0.00		
4.00	0.00	0.00	
4.50	0.00	0.00	
5.00	0.00	0.00	
5.50	2.00	2.00	**
6.00	3.00	5.00	***
6.50	5.00	10.00	*****
7.00	6.00	16.00	*****
7.50	6.00	22.00	*****
8.00	6.00	28.00	*****
8.50	5.00	33.00	*****
9.00	5.00	38.00	*****
*****	62.00	100.00	*****

MEAN ST.DEV. SKEWNESS KURTOSIS

7.22 1.01 -.08 -.94

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURES FOR SIZE RANGE 4.0 TO 9.0 PHI

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

PERCENTILES	MEDIAN*****	5TH 5.00	16TH 7.00	25TH 7.75
		75TH*****	84TH*****	95TH*****
PCT. GRAVEL	.00	SAND 0.00	SILT (PIPETTE) 0.00	CLAY (PIPETTE) 0.00
			(SEDIGRAPH) 28.00	(SEDIGRAPH) 72.00
GRAVEL+SAND	.00	SILT/(SILT+CLAY)	28.00	PCT.GRAV+SAND/SILT+CLAY .00
LABELS SHEPARD	-SILTY CLAY	FOLK(GMS)-MUD		(SCS)-CLAY

AUTOREPORT

PHI PCT. CUMPCT.

4.00	0.00	0.00	
4.50	0.00	0.00	**
5.00	2.44	2.44	**
5.50	2.44	4.88	*
6.00	1.22	6.10	**
6.50	2.44	8.54	****
7.00	4.88	13.41	*****
7.50	4.88	18.29	*****
8.00	6.10	24.39	*****
8.50	4.88	29.27	*****
9.00	9.76	39.02	*****
****	60.98	100.00	*****

MEAN ST.DEV. SKEWNESS KURTOSIS

7.38 1.23 -.33 -.58 KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURES FOR SIZE RANGE 4.0 TO 9.0 PHI

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

PERCENTILES	MEDIAN*****	5TH 5.55	16TH 7.27	25TH 8.06
		75TH*****	84TH*****	95TH*****
PCT. GRAVEL	.00	SAND 0.00	SILT (PIPETTE) 0.00	CLAY (PIPETTE) 0.00
			(SEDIGRAPH) 24.39	(SEDIGRAPH) 75.61
GRAVEL+SAND	.00	SILT/(SILT+CLAY)	24.39	PCT.GRAV+SAND/SILT+CLAY .00
LABELS SHEPARD	-CLAY	FOLK(GMS)-MUD		(SCS)-CLAY

AUTOREPORT

01/31/83

PHI PCT. CUMPCT.

3.50	0.00		
4.00	0.00	0.00	
4.50	0.00	0.00	
5.00	1.00	1.00	*
5.50	2.00	3.00	**
6.00	3.00	6.00	***
6.50	5.00	11.00	*****
7.00	7.00	18.00	*****
7.50	11.00	29.00	*****
8.00	11.00	40.00	*****
8.50	10.00	50.00	*****
9.00	12.00	62.00	*****
****	38.00	100.00	*****

MEAN ST.DEV. SKEWNESS KURTOSIS

7.48 1.02 -.31 -.31

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURES FOR SIZE RANGE 4.0 TO 9.0 PHI

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

PERCENTILES	MEDIAN 8.50	5TH 5.83	16TH 6.85	25TH 7.32
		75TH*****	84TH*****	95TH*****
PCT. GRAVEL	.00	SAND 0.00	SILT (PIPETTE) 0.00	CLAY (PIPETTE) 0.00
			(SEDIGRAPH) 0.00	(SEDIGRAPH) 60.00
GRAVEL+SAND	.00	SILT/(SILT+CLAY) 40.00	PCT.GRAV+SAND/SILT+CLAY	.00
LABELS SHEPARD	-SILTY CLAY	FOLK(GMS)-MUD		(SCS)-MUD

AUTOREPORT

PHI PCT. CUMPCT.

3.50	0.00	0.00	
4.00	.50	0.50	*
4.50	2.01	2.51	**
5.00	3.02	5.53	***
5.50	5.03	10.56	*****
6.00	7.04	17.60	*****
6.50	6.03	23.63	*****
7.00	10.05	33.68	*****
7.50	8.04	41.72	*****
8.00	7.04	48.76	*****
8.50	3.02	51.78	***
9.00	48.24	100.00	*****

MEAN ST.DEV. SKEWNESS KURTOSIS

6.97 1.08 -.18 -.64 KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURES FOR SIZE RANGE 4.0 TO 9.0 PHI

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

PERCENTILES	MEDIAN 8.71	5TH 5.41	16TH 6.39	25TH 7.07
		75TH*****	84TH*****	95TH*****
PCT. GRAVEL	.00	SAND 0.00	SILT (PIPETTE) 0.00	CLAY (PIPETTE) 0.00
			(SEDIGRAPH) 41.71	(SEDIGRAPH) 58.29
GRAVEL+SAND	.00	SILT/(SILT+CLAY)	41.71PCT.GRAV+SAND/SILT+CLAY	.00
LABELS SHEPARD	-SILTY CLAY	FOLK(GMS)-MUD		(SCS)-MUD

AUTOREPORT

PHI	PCT.	CUMPCT.	
3.50	0.00		
4.00	2.00	2.00	**
4.50	6.00	8.00	*****
5.00	8.00	16.00	*****
5.50	9.00	25.00	*****
6.00	7.00	32.00	*****
6.50	8.00	40.00	*****
7.00	8.00	48.00	*****
7.50	6.00	54.00	*****
8.00	5.00	59.00	*****
8.50	6.00	65.00	*****
9.00	35.00	100.00	*****

MEAN ST.DEV. SKEWNESS KURTOSIS

6.57 1.28 .06 -1.04 KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURES FOR SIZE RANGE 4.0 TO 9.0 PHI

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

PERCENTILES	MEDIAN	7.67	5TH	4.75	16TH	5.50	25TH	6.00
			75TH*****		84TH*****		95TH*****	
PCT. GRAVEL	.00	SAND	0.00	SILT (PIPETTE)	0.00	CLAY (PIPETTE)	0.00	
				(SEDIGRAPH)	54.00	(SEDIGRAPH)	46.00	
GRAVEL+SAND	.00	SILT/(SILT+CLAY)	54.00	PCT.GRAV+SAND/SILT+CLAY			.00	
LABELS SHEPARD	-CLAYEY	SILT FOLK(GMS)-MUD				(SCS)-MUD		

AUTOREPORT

01/31/83

PHI	PCT. CUM PCT.	
3.50	0.00	
4.00	0.00	0.00
4.50	0.00	0.00
5.00	2.55	***
5.50	3.57	****
6.00	3.06	6.12
6.50	5.10	9.18
7.00	6.12	14.29
7.50	11.22	20.41
8.00	9.18	31.63
8.50	11.22	40.82
9.00	11.22	52.04
****	36.73	63.27
	100.00	

MEAN ST. DEV. SKEWNESS KURTOSIS

7.35 1.14 -.32 -.50

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURES FOR SIZE RANGE 4.0 TO 9.0 PHI

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

PERCENTILES	MEDIAN	8.41	5TH	5.34	16TH	6.64	25TH	7.20
			75TH	****	84TH	****	95TH	****
PCT. GRAVEL	.00	SAND	0.00	SILT (PIPETTE)	0.00	CLAY (PIPETTE)	0.00	
				(SEDIGRAPH)	40.82	(SEDIGRAPH)	59.18	
GRAVEL+SAND	.00	SILT/(SILT+CLAY)	40.82	PCT. GRAV+SAND/SILT+CLAY	.00			
LABELS SHEPARD	-SILTY CLAY	FOLK(GMS)-MUD		(SCS)-MUD				

AUTOREPORT

PHI PCT. CUMPCT.

50	0.00	0.00	
4.00	0.00	0.00	
4.50	3.19	3.19	***
5.00	5.32	8.51	*****
5.50	3.19	8.51	***
6.00	6.38	11.70	*****
6.50	5.32	18.09	*****
7.00	12.77	23.40	*****
7.50	10.64	36.17	*****
8.00	8.51	46.81	*****
8.50	10.64	55.32	*****
9.00	34.04	65.96	*****
*****	100.00		

MEAN ST.DEV. SKEWNESS KURTOSIS

7.21 1.18 -.25 -.73

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURES FOR SIZE RANGE 4.0 TO 9.0 PHI

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

PERCENTILES	MEDIAN 8.19	5TH 5.17	16TH 6.34	25TH 7.06
		75TH*****	84TH*****	95TH*****

PCT. GRAVEL	.00	SAND 0.00	SILT (PIPETTE) 0.00	CLAY (PIPETTE) 0.00
			(SEDIGRAPH) 46.81	(SEDIGRAPH) 53.19

GRAVEL+SAND .00 SILT/(SILT+CLAY) 46.81PCT.GRAV+SAND/SILT+CLAY .00

LABELS SHEPARD -SILTY CLAY FOLK(GMS)-MUD (SCS)-MUD

AUTOREPORT

14

PHI	PCT. CUMPCT.	
5.00	0.00	
4.00	0.00	0.00
4.50	0.00	0.00
5.00	2.44	**
5.50	2.44	2.44
5.50	2.44	**
5.50	4.88	4.88
6.00	4.88	*****
6.00	7.32	9.76
6.50	7.32	*****
6.50	8.54	17.07
7.00	8.54	*****
7.00	7.32	25.61
7.50	7.32	*****
7.50	8.54	32.93
8.00	8.54	*****
8.00	8.54	41.46
8.50	8.54	*****
8.50	8.54	50.00
9.00	8.54	*****
9.00	58.54	*****
*****	41.46	*****
*****	100.00	*****

MEAN ST.DEV. SKEWNESS KURTOSIS

7.18 1.13 -.16 -.83

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURES FOR SIZE RANGE 4.0 TO 9.0 PHI

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

PERCENTILES	MEDIAN	8.50	5TH	5.51	16TH	6.43	25TH	6.96
			75TH*****		84TH*****		95TH*****	
PCT. GRAVEL	.00	SAND	0.00	SILT (PIPETTE)	0.00	CLAY (PIPETTE)	0.00	
				(SEDIGRAPH)	41.46	(SEDIGRAPH)	58.54	
GRAVEL+SAND	.00	SILT/(SILT+CLAY)	41.46	PCT.GRAV+SAND/SILT+CLAY	.00			
LABELS SHEPARD	-SILTY CLAY	FOLK(GMS)-MUD		(SCS)-MUD				

AUTOREPORT

PHI PCT. CUM PCT.

0	0.00	0.00	
4.00	0.00	0.00	
4.50	0.00	0.00	
5.00	0.00	0.00	
5.50	1.27	1.27	*
6.00	6.33	7.59	*****
6.50	7.59	15.19	*****
7.00	7.59	22.78	*****
7.50	8.86	31.65	*****
8.00	8.86	40.51	*****
8.50	8.86	49.37	*****
9.00	6.33	55.70	*****
9.50	6.33	62.03	*****
10.00	3.80	65.82	****
10.50	3.80	69.62	*
11.00	1.27	70.89	**
11.50	3.16	74.05	**
12.00	1.90	75.95	*****
12.50	24.05	100.00	*****

MEAN ST.DEV. SKEWNESS KURTOSIS

8.82 1.61 .23 .52

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURES FOR SIZE RANGE 4.0 TO 12.0 PHI

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

PERCENTILES	MEDIAN	8.55	5TH	5.80	16TH	6.55	25TH	7.13
			75TH	11.75	84TH	*****	95TH	*****

PCT. GRAVEL .00 SAND 0.00 SILT (PIPETTE) 0.00 CLAY (PIPETTE) 0.00
 (SEDIGRAPH) 40.51 (SEDIGRAPH) 59.40

GRAVEL+SAND .00 SILT/(SILT+CLAY) 40.51 PCT.GRAV+SAND/SILT+CLAY .00

LABELS SHEPARD - SILTY CLAY FOLK (GMS) MUD (SGS) MUD

AUTOREPORT

PHI PCT. CUM PCT.

3.50	0.00	0.00	
4.00	1.35	1.35	*
4.50	1.35	2.70	*
5.00	6.76	9.46	*****
5.50	6.76	16.22	*****
6.00	9.46	25.68	*****
6.50	10.81	36.49	*****
7.00	12.16	48.65	*****
7.50	10.81	59.46	*****
8.00	8.11	67.57	*****
8.50	8.11	75.68	*****
9.00	24.32	100.00	*****

MEAN ST.DEV. SKEWNESS KURTOSIS

6.98 1.14 -.12 -.73

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURES FOR SIZE RANGE 4.0 TO 9.0 PHI

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

PERCENTILES	MEDIAN 7.56	5TH 5.17	16TH 5.98	25TH 6.46
		75TH 8.96	84TH*****	95TH*****
PCT. GRAVEL	.00	SAND 0.00	SILT (PIPETTE) 0.00	CLAY (PIPETTE) 0.00
			(SEDIGRAPH) 59.46	(SEDIGRAPH) 40.54
GRAVEL+SAND	.00	SILT/(SILT+CLAY)	59.46	PCT.GRAV+SAND/SILT+CLAY .00
LABELS SHEPARD	-CLAYEY SILT	FOLK(GMS)-MUD		(SCS)-MUD

AUTOREPORT

PHI	PCT. CUM PCT.	
5.00	0.00	0.00
4.00	0.00	0.00
4.50	0.00	0.00
5.00	2.02	2.02
5.50	2.02	2.02
6.00	3.03	4.04
6.50	5.05	7.07
7.00	10.10	12.12
7.50	9.09	22.22
8.00	9.09	31.31
8.50	11.11	40.40
9.00	9.09	51.52
9.50	8.08	60.61
10.00	6.06	68.69
10.50	6.06	74.75
11.00	5.05	80.81
11.50	4.04	85.86
12.00	10.10	89.90
12.50	100.00	100.00

MEAN ST.DEV. SKEWNESS KURTOSIS

8.74 1.61 .00 -.69

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURES FOR SIZE RANGE 4.0 TO 12.0 PHI

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

PERCENTILES	MEDIAN 8.93	5TH 6.16	16TH 7.19	25TH 7.65
		75TH 10.52	84TH 11.32	95TH *****

PCT. GRAVEL .00 SAND 0.00 SILT (PIPETTE) 0.00 CLAY (PIPETTE) 0.00
 (SEDIGRAPH) 31.31 (SEDIGRAPH) 68.69

GRAVEL+SAND .00 SILT/(SILT+CLAY) 31.31 PCT.GRAV+SAND/SILT+CLAY .00

LABELS SHEPARD -SILTY CLAY FOLK(GMS)-MUD (SCS)-CLAY

AUTOREPORT

PHI PCT. CUMPCT.

50	0.00	0.00	
4.00	0.00	0.00	
4.50	0.00	0.00	
5.00	1.00	0.00	*
5.50	2.00	1.00	**
6.00	2.00	3.00	**
6.50	6.00	5.00	*****
7.00	7.00	11.00	*****
7.50	8.00	18.00	*****
8.00	7.00	26.00	*****
8.50	10.00	33.00	*****
9.00	8.00	43.00	*****
9.50	7.00	51.00	*****
10.00	7.00	58.00	*****
10.50	5.00	65.00	*****
11.00	30.00	70.00	*****
*****	100.00		

AUTOREPORT

MEAN ST.DEV. SKEWNESS KURTOSIS

8.51 1.38 -.11 -.75

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURES FOR SIZE RANGE 4.0 TO 11.0 PHI

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

PERCENTILES	MEDIAN 9.44	5TH 6.50	16TH 7.36	25TH 7.94
		75TH*****	84TH*****	95TH*****

PCT. GRAVEL	.00	SAND 0.00	SILT (PIPETTE) 0.00	CLAY (PIPETTE) 0.00
			(SEDIGRAPH) 26.00	(SEDIGRAPH) 74.00

GRAVEL+SAND	.00	SILT/(SILT+CLAY)	26.00PCT.GRAV+SAND/SILT+CLAY	.00
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LABELS SHEPARD	-SILTY CLAY	FOLK(GMS)-MUD	(SCS)-CLAY
----------------	-------------	---------------	------------

MA

PHI	PCT.	CUMPCT.	
3.00	0.00	0.00	
4.00	1.00	1.00	*
4.50	1.00	2.00	*
5.00	3.00	5.00	***
5.50	3.00	8.00	***
6.00	8.00	16.00	*****
6.50	7.00	23.00	*****
7.00	11.00	34.00	*****
7.50	11.00	45.00	*****
8.00	10.00	55.00	*****
8.50	10.00	65.00	*****
9.00	35.00	100.00	*****

MEAN ST.DEV. SKEWNESS KURTOSIS

7.30 1.10 -.30 -.27 KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURES
 FOR SIZE RANGE 4.0 TO 9.0 PHI

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

PERCENTILES	MEDIAN	8.25	5TH	5.50	16TH	6.50	25TH	7.09
			75TH*****		84TH*****		95TH*****	
PCT. GRAVEL	.00	SAND	0.00	SILT (PIPETTE)	0.00	CLAY (PIPETTE)	0.00	0.00
				(SEDIGRAPH)	45.00	(SEDIGRAPH)	55.00	
GRAVEL+SAND	.00	SILT/(SILT+CLAY)	45.00	PCT.GRAV+SAND/SILT+CLAY			.00	
LABELS SHEPARD	-SILTY CLAY	FOLK(GMS)-MUD		(SGS)-MUD				

PHI PCT. CUM PCT.

5.00	0.00	0.00	
4.50	1.01	1.01	*
5.00	0.00	1.01	
5.50	1.01	2.02	*
6.00	1.01	3.03	*
6.50	5.05	8.08	*****
7.00	4.04	12.12	****
7.50	6.06	18.18	*****
8.00	6.06	24.24	*****
8.50	6.06	30.30	*****
9.00	6.06	36.36	*****
9.50	7.07	43.43	*****
10.00	5.05	48.48	*****
10.50	6.06	54.55	*****
11.00	6.06	60.61	*****
11.50	7.07	67.68	*****
12.00	5.05	72.73	*****
12.50	27.27	100.00	*****

MEAN ST.DEV. SKEWNESS KURTOSIS

8.92 1.83 -0.12 -0.79 ~~KRUMBEIN & PETTI JOHN (1938) MOMENT MEASURES FOR SIZE RANGE 4.0 TO 12.0 PHI~~

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

PERCENTILES	MEDIAN 10.13	5TH 6.20	16TH 7.32	25TH 8.06
		75TH*****	84TH*****	95TH*****
PCT. GRAVEL	.00	SAND 0.00	SILT (PIPETTE) 0.00	CLAY (PIPETTE) 0.00
			(SEDIGRAPH) 24.24	(SEDIGRAPH) 75.76
GRAVEL+SAND	.00	SILT/(SILT+CLAY)	24.24	PCT.GRAV+SAND/SILT+CLAY .00
LABELS SHEPARD	-CLAY	FOLK(GMS)-MUD		(SCS)-CLAY

AUTOREPORT

PHI PCT. CUMPCT.

50	0.00	0.00	*
4.00	1.11	1.11	***
4.50	3.33	4.44	****
5.00	4.44	8.89	*****
5.50	4.44	13.33	*****
6.00	6.67	20.00	*****
6.50	4.44	24.44	*****
7.00	6.67	31.11	*****
7.50	6.67	37.78	*****
8.00	6.67	44.44	*****
8.50	6.67	51.11	*****
9.00	48.89	100.00	*****

MEAN ST.DEV. SKEWNESS KURTOSIS

6.93 1.29 -.13 -1.04

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURES FOR SIZE RANGE 4.0 TO 9.0 PHI

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

PERCENTILES	MEDIAN 8.92	5TH 5.06	16TH 6.20	25TH 7.04
		75TH*****	84TH*****	95TH*****
PCT. GRAVEL	.00	SAND 0.00	SILT (PIPETTE) 0.00	CLAY (PIPETTE) 0.00
			(SEDIGRAPH) 37.78	(SEDIGRAPH) 62.22
GRAVEL+SAND	.00	SILT/(SILT+CLAY)	37.78	PCT.GRAV+SAND/SILT+CLAY .00
LABELS SHEPARD	-SILTY CLAY	FOLK(GMS)-MUD		(SCS)-MUD

AUTOREPORT

PHI PGT. CUMPGT.

5.50	0.00		
4.00	0.00	0.00	
4.50	0.00	0.00	*
5.00	.99	.99	**
5.50	1.98	2.97	*****
6.00	4.95	7.92	*****
6.50	5.94	13.86	*****
7.00	6.93	20.79	*****
7.50	9.90	30.69	*****
8.00	9.90	40.59	*****
8.50	9.90	50.50	*****
9.00	9.90	60.40	*****
9.50	9.90	70.30	*****
10.00	5.94	76.24	*****
10.50	4.95	81.19	*****
11.00	3.96	85.15	*****
11.50	3.96	89.11	*****
12.00	3.96	93.07	*****
*****	6.93	100.00	*****

MEAN ST.DEV. SKEWNESS KURTOSIS

8.36 1.69 .07 -.65

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURES FOR SIZE RANGE 4.0 TO 12.0 PHI

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

PERCENTILES	MEDIAN	8.48	5TH	5.71	16TH	6.65	25TH	7.21
			75TH	9.90	84TH	10.86	95TH	*****

PCT. GRAVEL .00 SAND 0.00 SILT (PIPETTE) 0.00 CLAY (PIPETTE) 0.00 (SEDIGRAPH) 40.59 (SEDIGRAPH) 59.41

GRAVEL+SAND .00 SILT/(SILT+CLAY) 40.59PCT.GRAV+SAND/SILT+CLAY .00

LABELS SHEPARD -SILTY CLAY FOLK(GMS)-MUD (SCS)-MUD

AUTOREPORT

01/31/83

PHI	PCT.	CUMPCT.	
3.50	0.00		
4.00	2.00	0.00	**
4.50	0.00	2.00	
5.00	2.00	2.00	**
5.50	4.00	4.00	
6.00	6.00	10.00	*****
6.50	4.00	16.00	****
7.00	8.00	20.00	*****
7.50	10.00	28.00	*****
8.00	6.00	38.00	*****
8.50	8.00	44.00	*****
9.00	48.00	52.00	*****
*****	100.00		

MEAN ST.DEV. SKEWNESS KURTOSIS

7.17 1.18 .27 .43

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURES FOR SIZE RANGE 4.0 TO 9.0 PHI

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

PERCENTILES	MEDIAN	8.88	5TH	5.58	16TH	6.50	25TH	7.31
			75TH*****		84TH*****		95TH*****	
PCT. GRAVEL	.00	SAND	0.00	SILT (PIPETTE)	0.00	CLAY (PIPETTE)	0.00	
				(SEDIGRAPH)	38.00	(SEDIGRAPH)	62.00	
GRAVEL+SAND	.00	SILT/(SILT+CLAY)	38.00	PCT.GRAV+SAND/SILT+CLAY			.00	
LABELS SHEPARD	-SILTY CLAY	FOLK(GMS)-MUD				(SCS)-MUD		

AUTOREPORT

PHI	PCT. CUMPCT.	
3.50	0.00	
4.00	8.00	0.00
4.50	23.00	8.00
5.00	31.00	31.00
5.50	41.00	41.00
6.00	47.00	47.00
6.50	51.00	51.00
7.00	54.00	54.00
7.50	57.00	57.00
8.00	61.00	61.00
8.50	65.00	65.00
9.00	69.50	69.50
****	100.00	100.00

MEAN ST.DEV. SKEWNESS KURTOSIS

5.76 1.40 .45 -.52

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURES FOR SIZE RANGE 4.0 TO 9.0 PHI

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

PERCENTILES	MEDIAN	5TH	16TH	25TH	75TH	84TH	95TH
	6.38	4.31	4.67	4.87	*****	*****	*****
PCT. GRAVEL	.00	SAND 0.00	SILT (PIPETTE) 0.00	CLAY (PIPETTE) 0.00	(SEDIGRAPH) 61.00	(SEDIGRAPH) 39.00	
GRAVEL+SAND	.00	SILT/(SILT+CLAY) 61.00	PCT.GRAV+SAND/SILT+CLAY .00				
LABELS SHEPARD	-CLAYEY SILT	FOLK(GMS)-MUD		(SCS)-MUD			

AUTOREPORT

LE82 LL5

SEDIGRAPH ANALYSIS

01/31/83

PHI	PCT. CUM PCT.	
3.50	0.00	
4.00	0.50	*
4.50	1.01	*
5.00	2.51	***
5.50	5.03	*****
6.00	11.06	*****
6.50	19.60	*****
7.00	29.65	*****
7.50	42.71	*****
8.00	52.76	*****
8.50	60.80	*****
9.00	69.35	*****
*****	100.00	*****

MEAN ST.DEV. SKEWNESS KURTOSIS

7.17 1.02 -.11 -.56

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURES FOR SIZE RANGE 4.0 TO 9.0 PHI

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

PERCENTILES	MEDIAN	7.86	5TH	5.65	16TH	6.34	25TH	6.77
			75TH*****		84TH*****		95TH*****	
PCT. GRAVEL	.00	SAND	0.00	SILT (PIPETTE)	0.00	CLAY (PIPETTE)	0.00	
				(SEDIGRAPH)	52.76	(SEDIGRAPH)	47.24	
GRAVEL+SAND	.00	SILT/(SILT+CLAY)	52.76	PCT.GRAV+SAND/SILT+CLAY			.00	
LABELS SHEPARD	-CLAYEY	SILT FOLK(GMS)-MUD				(SCS)-MUD		

AUTOREPORT

PHI PCT. CUMPCT.

50	0.00	0.00	
4.00	0.00	0.00	
4.50	1.02	0.00	*
5.00	2.04	1.02	**
5.50	4.08	3.06	****
6.00	6.12	7.14	*****
6.50	8.16	13.27	*****
7.00	10.20	21.43	*****
7.50	8.16	31.63	*****
8.00	9.18	39.80	*****
8.50	9.18	48.98	*****
9.00	41.84	58.16	*****
****	100.00		*****

MEAN ST. DEV. SKEWNESS KURTOSIS

7.32 1.04 -.19 -.67

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURES FOR SIZE RANGE 4.0 TO 9.0 PHI

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

PERCENTILES	MEDIAN 8.56	5TH 5.74	16TH 6.67	25TH 7.18
		75TH*****	84TH*****	95TH*****
PCT. GRAVEL	.00	SAND 0.00	SILT (PIPETTE) 0.00	CLAY (PIPETTE) 0.00
			(SEDIGRAPH) 39.80	(SEDIGRAPH) 60.20
GRAVEL+SAND	.00	SILT/(SILT+CLAY)	39.80PCT.GRAV+SAND/SILT+CLAY	.00
LABELS SHEPARD	-SILTY CLAY	FOLK(GMS)-MUD		(SCS)-MUD

AUTOREPORT

PHI	PCT. CUMPCT.	
0.50	0.00	
1.00	1.02	*
1.50	1.02	*****
2.00	11.22	*****
2.50	19.39	*****
3.00	31.63	*****
3.50	46.94	*****
4.00	57.14	*****
4.50	64.29	*****
5.00	70.41	*****
5.50	76.53	****
6.00	80.61	****
6.50	84.69	*****
7.00	100.00	

MEAN ST.DEV. SKEWNESS KURTOSIS

6.15 1.17 .34 -.53

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURES FOR SIZE RANGE 4.0 TO 9.0 PHI

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

PERCENTILES	MEDIAN	5TH	16TH	25TH
	6.15	4.68	5.10	5.33
		7.88	8.92	*****
PCT. GRAVEL	.00	SAND 0.00	SILT (PIPETTE) 0.00	CLAY (PIPETTE) 0.00
		(SEDIGRAPH) 76.53	(SEDIGRAPH) 23.47	
GRAVEL+SAND	.00	SILT/(SILT+CLAY) 76.53	PCT.GRAV+SAND/SILT+CLAY .00	
LABELS SHEPARD	-SILT	FOLK(GMS)-MUD	(SCS)-SILT	

AUTOREPORT

01/31/83

PHI	PCT.	CUMPCT.	
3.50	0.00		
4.00	1.00	0.00	*
4.50	4.00	1.00	****
5.00	3.00	5.00	***
5.50	6.00	8.00	*****
6.00	8.00	14.00	*****
6.50	8.00	22.00	*****
7.00	10.00	30.00	*****
7.50	8.00	40.00	*****
8.00	9.00	48.00	*****
8.50	9.00	57.00	*****
9.00	34.00	66.00	*****
*****	100.00		*****

MEAN ST.DEV. SKEWNESS KURTOSIS

7.05 1.22 -.17 -.80

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURES FOR SIZE RANGE 4.0 TO 9.0 PHI

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

PERCENTILES	MEDIAN	8.11	5TH	5.00	16TH	6.13	25TH	6.69
			75TH*****		84TH*****		95TH*****	
PCT. GRAVEL	.00	SAND	0.00	SILT (PIPETTE)	0.00	CLAY (PIPETTE)	0.00	
				(SEDIGRAPH)	48.00	(SEDIGRAPH)	52.00	
GRAVEL+SAND	.00	SILT/(SILT+CLAY)	48.00	PCT.GRAV+SAND/SILT+CLAY			.00	
LABELS SHEPARD	-SILTY CLAY	FOLK(GMS)-MUD				(SCS)-MUD		

AUTOREPORT

PHI	PCT. CUMPGT.	
50	0.00	
4.00	0.00	**
4.50	1.51	**
5.00	6.03	*****
5.50	11.06	*****
6.00	18.59	*****
6.50	29.65	*****
7.00	37.19	****
7.50	40.70	****
8.00	45.73	***
8.50	48.74	***
9.00	51.76	****
9.50	55.78	*****
10.00	100.00	*****

MEAN ST.DEV. SKEWNESS KURTOSIS

6.23 1.22 .31 -.61 KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURES FOR SIZE RANGE 4.0 TO 9.0 PHI

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

PERCENTILES	MEDIAN	8.21	5TH	4.79	16TH	5.38	25TH	5.79
			75TH*****		84TH*****		95TH*****	
PCT. GRAVEL	.00	SAND	0.00	SILT (PIPETTE)	0.00	CLAY (PIPETTE)	0.00	
				(SEDIGRAPH)	48.74	(SEDIGRAPH)	51.26	
GRAVEL+SAND	.00	SILT/(SILT+CLAY)	48.74	PCT.GRAV+SAND/SILT+CLAY	.00			
LABELS SHEPARD	-SILTY CLAY	FOLK(GMS)-MUD		(SCS)-MUD				

AUTOREPORT

LE82 L28

SEDIGRAPH ANALYSIS

01/31/83

PHI PCT. CUMPCT.

3.50	0.00	0.00	
4.00	1.00	1.00	*
4.50	4.00	5.00	****
5.00	4.00	9.00	****
5.50	4.00	13.00	****
6.00	5.00	18.00	*****
6.50	4.00	22.00	****
7.00	8.00	30.00	*****
7.50	8.00	38.00	*****
8.00	7.00	45.00	*****
8.50	7.00	52.00	*****
9.00	7.00	59.00	*****
9.50	5.00	64.00	*****
10.00	5.00	69.00	****
10.50	4.00	73.00	****
11.00	4.00	77.00	****
11.50	4.00	81.00	*****
12.00	19.00	100.00	*****

MEAN ST.DEV. SKEWNESS KURTOSIS

8.20 1.97 -0.01 -0.85

KRUMBEIN & PETTIJOHN (1938) MOMENT MEASURES FOR SIZE RANGE 4.0 TO 12.0 PHI

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

PERCENTILES	MEDIAN	8.86	5TH	5.00	16TH	6.30	25TH	7.19
			75TH	11.25	84TH	*****	95TH	*****

PCT. GRAVEL .00 SAND 0.00 SILT (PIPETTE) 0.00 CLAY (PIPETTE) 0.00
(SEDIGRAPH) 38.00 (SEDIGRAPH) 62.00

GRAVEL+SAND .00 SILT/(SILT+CLAY) 38.00 PCT.GRAV+SAND/SILT+CLAY .00

LABELS SHEPARD -SILTY CLAY FOLK(GMS)-MUO (SCS)-MUO

AUTOREPORT

01/31/83

PHI	PCT. CUMPCT.	
3.50	ASSUMED UPPER LIMIT	*****
4.00	12.37	*****
4.50	10.31 22.68	*****
5.00	15.46 38.14	*****
5.50	14.43 52.58	*****
6.00	11.34 63.92	*****
6.50	9.28 73.20	*****
7.00	5.15 78.35	*****
7.50	6.19 84.54	*****
8.00	2.06 86.60	***
8.50	2.58 89.18	**
9.00	2.06 91.24	*****
*****	8.76 100.00	*****

NO STATISTICS ARE COMPUTED BECAUSE THE UPPER SIZE LIMIT IS ASSUMED AND THIS AFFECTS MORE THAN 5 PERCENT OF THE SAMPLE

PERCENTILES	MEDIAN	5TH*****	16TH	25TH
	5.41	4.18	4.58	
		75TH 5.68	84TH 7.45	95TH*****

T. GRAVEL	.00	SAND 12.37	SILT (PIPETTE) 3.00	CLAY (PIPETTE) 0.00
			(SEDIGRAPH) 74.23	(SEDIGRAPH) 13.40
GRAVEL+SAND	12.37	SILT/(SILT+CLAY)	84.71PCT.GRAV+SAND/SILT+CLAY	.14
LABELS SHEPARD	-CLAYEY SILT	FOLK(GMS)-SANDY MUD	(SCS)-SANDY SILT	

AUTOREPORT

01/31/83

PHI	PCT. CUM PCT.		
3.50	0.00		
4.00	0.00	0.00	
4.50	0.00	0.00	
5.00	1.01	0.00	*
5.50	2.02	1.01	**
6.00	4.04	3.03	****
6.50	5.05	7.07	*****
7.00	9.09	12.12	*****
7.50	10.10	21.21	*****
8.00	10.10	31.31	*****
8.50	12.12	41.41	*****
9.00	46.46	53.54	*****
****	100.00		*****

MEAN ST.DEV. SKEWNESS KURTOSIS

7.66 .92 -.31 -.39 KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURES FOR SIZE RANGE 4.0 TO 9.0 PHI

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

PERCENTILES	MEDIAN	8.85	5TH	6.24	16TH	7.21	25TH	7.69
			75TH*****		84TH*****		95TH*****	
PCT. GRAVEL	.00	SAND	0.00	SILT (PIPETTE)	0.00	CLAY (PIPETTE)	0.00	
				(SEDIGRAPH)	31.31	(SEDIGRAPH)	68.69	
GRAVEL+SAND	.00	SILT/(SILT+CLAY)	31.31	PCT.GRAV+SAND/SILT+CLAY			.00	
LABELS SHEPARD	-SILTY CLAY	FOLK(GMS)-MUD				(SCS)-CLAY		

AUTOREPORT

01/31/83

PHI PCT. CUMPCT.

3.50	0.00	0.00	
4.00	0.00	0.00	
4.50	.98	0.98	*
5.00	.98	1.96	*
5.50	2.94	4.90	***
6.00	5.88	10.78	*****
6.50	5.88	16.67	*****
7.00	10.78	27.45	*****
7.50	9.80	37.25	*****
8.00	10.78	48.04	*****
8.50	10.78	58.82	*****
9.00	41.18	100.00	*****

MEAN ST.DEV. SKEWNESS KURTOSIS

7.49 .99 -.30 -.32

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURES FOR SIZE RANGE 4.0 TO 9.0 PHI

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

PERCENTILES	MEDIAN	8.59	5TH	6.01	16TH	6.94	25TH	7.39
			75TH	*****	84TH	*****	95TH	*****
PCT. GRAVEL	.00	SAND	0.00	SILT (PIPETTE)	0.00	CLAY (PIPETTE)	0.00	
				(SEDI GRAPH)	37.25	(SEDI GRAPH)	62.75	
GRAVEL+SAND	.00	SILT/(SILT+CLAY)	37.25	PCT.GRAV+SAND/SILT+CLAY	.00			
LABELS SHEPARD	-SILTY CLAY	FOLK(GMS)-MUD				(SCS)-MUD		

REPORT

01/31/83

PHI	PCT. CUM PCT.	
3.50	0.00	
4.00	1.59	0.00
4.50	.79	1.59
5.00	3.97	2.38
5.50	3.17	6.35
6.00	3.17	9.52
6.50	6.35	12.70
7.00	7.94	19.05
7.50	6.35	26.98
8.00	11.11	33.33
8.50	7.94	44.44
9.00	47.62	52.38
*****	100.00	

MEAN ST.DEV. SKEWNESS KURTOSIS

7.26 1.22 -.34 -.42

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURES FOR SIZE RANGE 4.0 TO 9.0 PHI

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

PERCENTILES	MEDIAN	8.85	5TH	5.33	16TH	6.75	25TH	7.38
			75TH*****		84TH*****		95TH*****	
PCT. GRAVEL	.00	SAND	0.00	SILT (PIPETTE)	0.00	CLAY (PIPETTE)	0.00	0.00
				(SEDIGRAPH)	33.33	(SEDIGRAPH)	66.67	
GRAVEL+SAND	.00	SILT/(SILT+CLAY)	33.33	PCT.GRAV+SAND/(SILT+CLAY)			.00	
LABELS SHEPARD	-SILTY CLAY	FOLK(GMS)-MUD		(SCS)-MUD				

LABORATORY REPORT

PHI	PCT. CUMPGT.	
0.50	12.37	ASSUMED UPPER LIMIT *****
4.00	10.31	12.37 *****
4.50	15.46	22.68 *****
5.00	14.43	38.14 *****
5.50	11.34	52.58 *****
6.00	9.28	63.92 *****
6.50	5.15	73.20 *****
7.00	6.19	78.35 *****
7.50	2.06	84.54 **
8.00	2.58	86.60 ***
8.50	2.06	89.18 **
9.00	8.76	91.24 *****
*****	100.00	

NO STATISTICS ARE COMPUTED BECAUSE THE UPPER SIZE LIMIT IS ASSUMED AND THIS AFFECTS MORE THAN 5 PERCENT OF THE SAMPLE

PERCENTILES	MEDIAN 5.41	5TH*****	16TH 4.18	25TH 4.58
		75TH 6.68	84TH 7.45	95TH*****

T. GRAVEL	.00	SAND 12.37	SILT (PIPETTE) 0.00	CLAY (PIPETTE) 0.00
			(SEDIGRAPH) 74.23	(SEDIGRAPH) 13.40
GRAVEL+SAND	12.37	SILT/(SILT+CLAY)	84.71	PCT.GRAV+SAND/SILT+CLAY .14
LABELS SHEPARD -CLAYEY SILT FOLK(GMS)-SANDY MUD			(SCS)-SANDY SILT	

AUTOREPORT

01/31/83

PHI	PCT. CUMPCT.	
3.50	0.00	
4.00	0.00	0.00
4.50	0.00	0.00
5.00	3.39	3.39 ***
5.50	1.69	5.08 **
6.00	5.08	10.17 *****
6.50	5.08	15.25 *****
7.00	5.08	20.34 *****
7.50	11.86	32.20 *****
8.00	10.17	42.37 *****
8.50	8.47	50.85 *****
9.00	8.47	59.32 *****
*****	40.68	100.00 *****

MEAN ST.DEV. SKEWNESS KURTOSIS

7.24 1.13 -.28 -.53

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURES FOR SIZE RANGE 4.0 TO 9.0 PHI

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

PERCENTILES	MEDIAN	8.45	5TH	5.48	16TH	6.57	25TH	7.20
			75TH*****		84TH*****		95TH*****	
PCT. GRAVEL	.00	SAND	0.00	SILT (PIPETTE)	0.00	CLAY (PIPETTE)	0.00	
				(SEDIGRAPH)	42.37	(SEDIGRAPH)	57.63	
GRAVEL+SAND	.00	SILT/(SILT+CLAY)	42.37	PCT.GRAV+SAND/SILT+CLAY			.00	
LABELS SHEPARD	-SILTY CLAY	FOLK(GMS)-MUD				(SCS)-MUD		

AUTOREPORT

01/31/83

PHI	PCT. CUMPCT.	
3.50	0.00	
4.00	0.00	0.00
4.50	1.01	0.00
5.00	2.02	1.01
5.50	3.03	3.03
6.00	5.05	6.06
6.50	7.07	11.11
7.00	7.07	18.18
7.50	6.06	25.25
8.00	6.06	31.31
8.50	6.06	37.37
9.00	6.06	43.43
*****	56.57	100.00

MEAN ST.DEV. SKEWNESS KURTOSIS

7.22 1.06 -.15 -.72

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURES FOR SIZE RANGE 4.0 TO 9.0 PHI

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

PERCENTILES	MEDIAN*****	5TH 5.83	16TH 6.85	25TH 7.48
		75TH*****	84TH*****	95TH*****
PCT. GRAVEL	.00	SAND 0.00	SILT (PIPETTE) 0.00	CLAY (PIPETTE) 0.00
		(SEDIGRAPH) 31.31	(SEDIGRAPH) 68.69	
GRAVEL+SAND	.00	SILT/(SILT+CLAY) 31.31	PCT.GRAV+SAND/SILT+CLAY	.00
LABELS SHEPARD	-SILTY CLAY	FOLK(GMS)-MUD	(SCS)-CLAY	

AUTOREPORT

PHI PCT. CUMPCT.

3.50	0.00		
4.00	0.00	0.00	
4.50	0.00	0.00	
5.00	0.00	0.00	*****
5.50	5.00	5.00	*****
6.00	10.00	15.00	*****
6.50	11.00	26.00	*****
7.00	8.00	34.00	*****
7.50	6.00	40.00	*****
8.00	6.00	46.00	*****
8.50	5.00	51.00	*****
9.00	5.00	56.00	*****
****	44.00	56.00	*****
****	100.00		

MEAN ST.DEV. SKEWNESS KURTOSIS

6.81 1.06 .18 -.99

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURES FOR SIZE RANGE 4.0 TO 9.0 PHI

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

PERCENTILES	MEDIAN 8.40	5TH 5.50	16TH 6.05	25TH 6.45
		75TH*****	84TH*****	95TH*****
PCT. GRAVEL	.00	SAND 0.00	SILT (PIPETTE) 0.00	CLAY (PIPETTE) 0.00
			(SEDIGRAPH) 46.00	(SEDIGRAPH) 54.00
GRAVEL+SAND	.00	SILT/(SILT+CLAY) 46.00	PCT.GRAV+SAND/SILT+CLAY	.00
LABELS SHEPARD	-SILTY CLAY	FOLK(GMS)-MUD		(SCS)-MUD

LABORATORY REPORT

LE82 M5

SEDIGRAPH ANALYSIS

01/31/83

PHI PCT. CUMPCT.

50			
4.00	0.00	0.00	
4.50	1.00	1.00	*
5.00	1.00	2.00	*
5.50	1.00	3.00	*
6.00	2.00	5.00	**
6.50	5.00	10.00	*****
7.00	6.00	16.00	*****
7.50	10.00	26.00	*****
8.00	9.00	35.00	*****
8.50	10.00	45.00	*****
9.00	10.00	55.00	*****
9.50	9.00	64.00	*****
10.00	6.00	70.00	*****
10.50	8.00	78.00	*****
11.00	9.00	87.00	*****
11.50	5.00	92.00	*****
12.00	3.00	95.00	*****
12.50	5.00	100.00	*****

MEAN ST.DEV. SKEWNESS KURTOSIS

8.65 1.70 .08 .60

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURES FOR SIZE RANGE 4.0 TO 12.0 PHI

8.86 1.87 .09 .86

FOLK GRAPHIC STATISTICAL PARAMETERS FOLK AND WARD, 1957

PERCENTILES	MEDIAN	8.75	5TH	6.00	16TH	7.00	25TH	7.45
			75TH	10.31	84TH	10.83	95TH	12.00

PCT. GRAVEL	.00	SAND	0.00	SILT (PIPETTE)	0.00	CLAY (PIPETTE)	0.00
				(SEDIGRAPH)	35.00	(SEDIGRAPH)	65.00

GRAVEL+SAND	.00	SILT/(SILT+CLAY)	35.00	PCT.GRAV+SAND/SILT+CLAY	.00
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LABELS SHEPARD -SILTY CLAY FOLK(GMS)-MUD (SCS)-MUD

AUTOREPORT

01/31/83

PHI PCT. CUM PCT.

3.50 ASSUMED UPPER LIMIT

4.00	1.00	1.00	*
4.50	6.00	2.00	*****
5.00	8.00	8.00	*****
5.50	11.00	16.00	*****
6.00	13.00	27.00	*****
6.50	7.00	40.00	*****
7.00	9.00	47.00	*****
7.50	6.00	56.00	*****
8.00	4.00	62.00	****
8.50	4.00	66.00	****
9.00	30.00	70.00	*****
*****	100.00		

MEAN ST.DEV. SKEWNESS KURTOSIS

6.43 1.18 .08 -.63

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURES FOR SIZE RANGE 4.0 TO 9.0 PHI

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

PERCENTILES	MEDIAN 7.17	5TH 4.75	16TH 5.50	25TH 5.91
		75TH*****	84TH*****	95TH*****
PCT. GRAVEL	.00	SAND 1.00	SILT (PIPETTE) 0.00	CLAY (PIPETTE) 0.00
			(SEDI GRAPH) 61.00	(SEDI GRAPH) 38.00
GRAVEL+SAND	1.00	SILT/(SILT+CLAY)	61.62PCT.GRAV+SAND/SILT+CLAY	.01
LABELS SHEPARD	-CLAYEY SILT	FOLK(GMS)-MUD		(SCS)-MUD

AUTOREPORT

01/31/83

PHI	PCT.	CUM.PCT.	
3.50	0.00		
4.00	0.00	0.00	
4.50	0.00	0.00	
5.00	2.05	2.05	**
5.50	.68	2.74	*
6.00	4.11	6.85	****
6.50	6.85	13.70	*****
7.00	8.22	21.92	*****
7.50	12.33	34.25	*****
8.00	10.96	45.21	*****
8.50	9.59	54.79	*****
9.00	10.96	65.75	*****
****	34.25	100.00	*****

MEAN ST.DEV. SKEWNESS KURTOSIS

7.37 1.03 -.25 -.34 KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURES FOR SIZE RANGE 4.0 TO 9.0 PHI

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

PERCENTILES	MEDIAN	8.25	5TH	5.78	16TH	6.64	25TH	7.13
			75TH*****		84TH*****		95TH*****	
PCT. GRAVEL	.00	SAND	0.00	SILT (PIPETTE)	0.00	CLAY (PIPETTE)	0.00	
				(SEDIGRAPH)	45.21	(SEDIGRAPH)	54.79	
GRAVEL+SAND	.00	SILT/(SILT+CLAY)	45.21	PCT.GRAV+SAND/SILT+CLAY			.00	
LABELS SHEPARD	-SILTY CLAY	FOLK(GMS)-MUD		(SCS)-MUD				

CORE REPORT

01/31/83

PHI	PCT. CUM PCT.	
3.50	0.00	
4.00	0.00	**
4.50	2.27	****
5.00	4.55	*****
5.50	6.82	*****
6.00	13.64	*****
6.50	21.59	*****
7.00	32.95	*****
7.50	43.18	*****
8.00	55.11	*****
8.50	63.64	*****
9.00	70.45	*****
9.50	76.14	*****
10.00	83.86	*****
10.50	100.00	*****

MEAN ST. DEV. SKEWNESS KURTOSIS

6.72 1.19 -.06 -.80 KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURE:
FOR SIZE RANGE 4.0 TO 9.0 PHI

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

PERCENTILES	MEDIAN	7.29	5TH	4.80	16TH	5.65	25TH	6.15
			75TH	8.90	84TH	*****	95TH	*****
PCT. GRAVEL	.00	SAND	0.00	SILT (PIPETTE)	0.00	CLAY (PIPETTE)	0.00	
				(SEDIGRAPH)	63.64	(SEDIGRAPH)	36.36	
GRAVEL+SAND	.00	SILT/(SILT+CLAY)	63.64	PCT.GRAV+SAND/SILT+CLAY	.00			
LABELS SHEPARD	-CLAYEY	SILT FOLK(GMS)-MUD				(SCS)-MUD		

AUTOREPORT

PHI PCT. CUMPCT.

5.50	0.00	0.00	
4.00	0.00	0.00	
4.50	0.00	0.00	****
5.00	4.17	4.17	*****
5.50	8.33	12.50	*****
6.00	12.50	25.00	*****
6.50	12.50	37.50	*****
7.00	6.25	43.75	*****
7.50	10.42	54.17	*****
8.00	8.33	62.50	*****
8.50	6.25	68.75	*****
9.00	5.21	73.96	*****
****	26.04	100.00	*****

MEAN ST.DEV. SKEWNESS KURTOSIS

6.67 1.14 .10 -1.01

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURES FOR SIZE RANGE 4.0 TO 9.0 PHI

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

PERCENTILES	MEDIAN 7.30	5TH 5.05	16TH 5.64	25TH 6.00
		75TH*****	84TH*****	95TH*****
PCT. GRAVEL	.00	SAND 0.00	SILT (PIPETTE) 0.00	CLAY (PIPETTE) 0.00
			(SEDIGRAPH) 62.50	(SEDIGRAPH) 37.50
GRAVEL+SAND	.00	SILT/(SILT+CLAY) 62.50	PCT.GRAV+SAND/SILT+CLAY	.00
LABELS-SHEPARD	-CLAYEY	SILT FOLK(GMS)-MUD		(SCS)-MUD

AUTOREPORT

01/31/83

PHI	PCT. CUM PCT.	
7.50	ASSUMED UPPER LIMIT	*****
4.00	9.09	9.09
4.50	4.04	13.13
5.00	3.03	16.16
5.50	2.02	18.18
6.00	4.55	22.73
6.50	7.07	29.80
7.00	8.59	38.38
7.50	12.12	50.51
8.00	10.10	60.61
8.50	7.07	67.68
9.00	6.06	73.74
*****	26.26	100.00

NO STATISTICS ARE COMPUTED BECAUSE THE UPPER SIZE LIMIT IS ASSUMED AND THIS AFFECTS MORE THAN 5 PERCENT OF THE SAMPLE

PERCENTILES	MEDIAN 7.48	5TH*****	16TH 4.97	25TH 6.16
		75TH*****	84TH*****	95TH*****
PCT. GRAVEL	.00	SAND 9.09	SILT (PIPETTE) 0.00	CLAY (PIPETTE) 0.00
			(SEDIGRAPH) 51.52	(SEDIGRAPH) 39.39
GRAVEL+SAND	9.09	SILT/(SILT+CLAY)	56.67	PCT.GRAV+SAND/SILT+CLAY .10
LABELS SHEPARD -CLAYEY SILT FOLK(GMS)-MUD			(SCS)-MUD	

AUTOREPORT

01/31/83

PHI	PCT.	CUMPCT.	
3.50	0.00		
4.00	0.00	0.00	
4.50	0.00	0.00	
5.00	2.02	2.02	**
5.50	4.55	6.57	*****
6.00	4.55	11.11	*****
6.50	5.05	16.16	*****
7.00	6.06	22.22	*****
7.50	7.07	29.29	*****
8.00	7.07	36.36	*****
8.50	6.06	42.42	*****
9.00	8.08	50.51	*****
9.50	5.05	55.56	*****
10.00	5.05	60.61	*****
10.50	5.05	65.66	*****
11.00	4.04	69.70	*****
11.50	7.07	76.77	*****
12.00	6.06	82.83	*****
*****	17.17	100.00	*****

MEAN ST.DEV. SKEWNESS KURTOSIS

8.46 2.01 .01 -1.07 KRUMBEIN + PETTICORN (1938) MOMENT MEASURES FOR SIZE RANGE 4.0 TO 12.0 PHI

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

PERCENTILES	MEDIAN	8.97	5TH	5.33	16TH	6.48	25TH	7.20
			75TH	11.38	84TH	*****	95TH	*****

PCT. GRAVEL	.00	SAND	0.00	SILT (PIPETTE)	0.00	CLAY (PIPETTE)	0.00
				(SEDIGRAPH)	36.36	(SEDIGRAPH)	63.64
GRAVEL+SAND	.00	SILT/(SILT+CLAY)	36.36	PCT.GRAV+SAND/SILT+CLAY			.00
LABELS SHEPARD	-SILTY CLAY	FOLK(GMS)-MUD				(SCS)-MUD	

LABORATORY REPORT

PHI PCT. CUMPCT.

5.00	ASSUMED UPPER LIMIT	*****
4.00	5.00	*****
4.50	10.00	*****
5.00	10.00	*****
5.50	4.00	****
6.00	4.00	****
6.50	3.00	***
7.00	3.00	***
7.50	3.00	***
8.00	4.00	****
8.50	5.00	*****
9.00	5.00	*****
9.50	4.00	****
10.00	5.00	*****
10.50	4.00	****
11.00	5.00	*****
11.50	3.00	***
12.00	18.00	*****
*****	100.00	

MEAN ST.DEV. SKEWNESS KURTOSIS

7.33 2.57 .08 -1.39

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURES FOR SIZE RANGE 4.0 TO 12.0 PHI

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

PERCENTILES	MEDIAN	8.40	5TH	4.00	16TH	4.55	25TH	5.00
			75TH	11.10	84TH	*****	95TH	*****

PCT. GRAVEL	.00	SAND	5.00	SILT (PIPETTE)	0.00	CLAY (PIPETTE)	0.00
				(SEDIGRAPH)	41.00	(SEDIGRAPH)	54.00

GRAVEL+SAND 5.00 SILT/(SILT+CLAY) 43.16 PCT. GRAV+SAND/SILT+CLAY .05

LABELS SHEPARD - SILTY CLAY FOLK (GMS) - MUD (SCS) - MUD

AUTOREPORT

01/31/83

PHI PCT. CUMPGT.

7.50 ASSUMED UPPER LIMIT

4.00	4.00	4.00	****
4.50	2.00	6.00	**
5.00	.50	6.50	*
5.50	1.50	8.00	**
6.00	3.00	11.00	***
6.50	5.00	16.00	*****
7.00	7.00	23.00	*****
7.50	8.00	31.00	*****
8.00	9.00	40.00	*****
8.50	7.50	47.50	*****
9.00	7.50	55.00	*****
****	45.00	100.00	*****

MEAN ST.DEV. SKEWNESS KURTOSIS

7.00 1.43 -.44 -.03 KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURES FOR SIZE RANGE 4.0 TO 9.0 PHI

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

PERCENTILES	MEDIAN 8.67	5TH 4.25	16TH 6.50	25TH 7.13
		75TH*****	84TH*****	95TH*****
PCT. GRAVEL	.00	SAND 4.00	SILT (PIPETTE) 0.00	CLAY (PIPETTE) 0.00
			(SEDIGRAPH) 36.00	(SEDIGRAPH) 60.00
GRAVEL+SAND	4.00	SILT/(SILT+CLAY)	37.50	PCT.GRAV+SAND/SILT+CLAY .04
LABELS SHEPARD	-SILTY CLAY	FOLK(GMS)-MUD		(SCS)-MUD

LAB REPORT

01/31/83

PHI PCT. CUMPCT.

3.50	0.00		
4.00	1.02	0.00	*
4.50	2.04	1.02	**
5.00	0.00	3.06	
5.50	1.02	3.06	*
6.00	4.08	4.08	****
6.50	5.10	8.16	*****
7.00	6.12	13.27	*****
7.50	6.12	19.39	*****
8.00	6.12	25.51	*****
8.50	6.12	31.63	*****
9.00	5.10	37.76	*****
9.50	6.12	42.86	*****
10.00	6.12	48.98	*****
10.50	5.10	55.10	*****
11.00	7.14	60.20	*****
11.50	7.14	67.35	*****
12.00	25.51	74.49	*****
*****	100.00		*****

AUTOREPORT
AS9

MEAN ST.DEV. SKEWNESS KURTOSIS

8.92 1.93 .14 .75 KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURES FOR SIZE RANGE 4.0 TO 12.0 PHI

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

PERCENTILES	MEDIAN 10.08	5TH 6.11	16TH 7.22	25TH 7.96
		75TH*****	84TH*****	95TH*****

PCT. GRAVEL	.00	SAND 0.00	SILT (PIPETTE) 0.00	CLAY (PIPETTE) 0.00
			(SEDIGRAPH) 25.51	(SEDIGRAPH) 74.49
GRAVEL+SAND	.00	SILT/(SILT+CLAY)	25.51PCT.GRAV+SAND/SILT+CLAY	.00
LABELS SHEPARD	SILTY CLAY	FOLK(GMS) MUD		(SCS) CLAY

01/31/83

PHI	PCT.	CUMPCT.	
3.50	0.00		
4.00	0.00	0.00	
4.50	.99	0.00	*
5.00	1.98	.99	**
5.50	4.95	2.97	*****
6.00	6.93	7.92	*****
6.50	4.95	14.85	*****
7.00	7.92	19.80	*****
7.50	5.94	27.72	*****
8.00	6.93	33.66	*****
8.50	7.92	40.59	*****
9.00	7.92	48.51	*****
9.50	5.94	56.44	*****
10.00	5.94	62.38	*****
10.50	3.96	68.32	****
11.00	4.95	72.28	*****
11.50	3.96	77.23	****
12.00	18.81	81.19	*****
*****	100.00		*****

MEAN ST.DEV. SKEWNESS KURTOSIS

8.46 1.82 .01 -.95 KRUMBEIN & PETTI JOHN (1938) MOMENT MEASURES FOR SIZE RANGE 4.0 TO 12.0 PHI

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

PERCENTILES	MEDIAN	9.09	5TH	5.71	16TH	6.62	25TH	7.33
			75TH	11.28	94TH	*****	95TH	*****
PCT. GRAVEL	.00	SAND	0.00	SILT (PIPETTE)	0.00	CLAY (PIPETTE)	0.00	
				(SEDIGRAPH)	33.66	(SEDIGRAPH)	66.34	
GRAVEL+SAND	.00	SILT/(SILT+CLAY)	33.66	PCT.GRAV+SAND/SILT+CLAY	.00			
LABELS SHEPARD - SILTY CLAY				FOLK(GMS)-MUD		(SCS)-MUD		

CORE REPORT

LE82 W41

SEDIGRAPH ANALYSIS

01/31/83

PHI PCT. CUMPCT.

0.50	0.00	0.00	
4.00	1.00	1.00	*
4.50	1.00	2.00	*
5.00	4.00	6.00	****
5.50	6.00	12.00	*****
6.00	9.00	21.00	*****
6.50	9.00	30.00	*****
7.00	10.00	40.00	*****
7.50	8.00	48.00	*****
8.00	7.00	55.00	*****
8.50	6.00	61.00	*****
9.00	39.00	100.00	*****

MEAN ST.DEV. SKEWNESS KURTOSIS

6.99 1.10 -.10 -.65

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURES FOR SIZE RANGE 4.0 TO 9.0 PHI

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

PERCENTILES	MEDIAN 8.14	5TH 5.38	16TH 6.22	25TH 6.72
		75TH*****	84TH*****	95TH*****
PCT. GRAVEL	.00	SAND 0.00	SILT (PIPETTE) 0.00	CLAY (PIPETTE) 0.00
			(SEDIGRAPH) 48.00	(SEDIGRAPH) 52.00
GRAVEL+SAND	.00	SILT/(SILT+CLAY)	48.00PCT.GRAV+SAND/SILT+CLAY	.00
LABELS SHEPARD	-SILTY CLAY	FOLK(GMS)-MUD		(SCS)-MUD

AUTOREPORT

LE82 W44

SEDIGRAPH ANALYSIS

01/31/83

PHI	PCT.	CUMPCT.	
0.50	0.00		
4.00	1.00	0.00	*
4.50	2.00	1.00	**
5.00	3.00	3.00	*****
5.50	6.00	9.00	*****
6.00	17.00	17.00	*****
6.50	26.00	26.00	*****
7.00	35.00	35.00	*****
7.50	46.00	46.00	*****
8.00	56.00	56.00	*****
8.50	65.00	65.00	*****
9.00	74.00	74.00	*****
*****	100.00	100.00	*****

MEAN ST.DEV. SKEWNESS KURTOSIS

7.01 1.17 -.11 -.89

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURES FOR SIZE RANGE 4.0 TO 9.0 PHI

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

PERCENTILES	MEDIAN	7.70	5TH	5.17	16TH	5.94	25TH	6.44
			75TH*****		84TH*****		95TH*****	
PCT. GRAVEL	.00	SAND	0.00	SILT (PIPETTE)	0.00	CLAY (PIPETTE)	0.00	
				(SEDIGRAPH)	56.00	(SEDIGRAPH)	44.00	
GRAVEL+SAND	.00	SILT/(SILT+CLAY)	56.00	PCT.GRAV+SAND/SILT+CLAY	.00			
LABELS SHEPARD	-CLAYEY	SILT FOLK(GMS)-MUD		(SCS)-MUD				

LAKE ST CLAIR SL

SEDIGRAPH ANALYSIS

01/31/83

PHI	PCT. CUM PCT.	
3.50	ASSUMED UPPER LIMIT	****
4.00	4.04	***
4.50	3.03	*****
5.00	13.13	*****
5.50	17.17	*****
6.00	20.20	*****
6.50	37.37	*****
7.00	15.15	*****
7.50	9.09	*****
8.00	61.62	*****
8.50	8.08	*****
9.00	69.70	*****
9.50	8.08	*****
10.00	77.78	*****
10.50	5.56	*****
11.00	83.33	*****
11.50	4.55	*****
12.00	87.88	*****
12.50	3.03	*****
13.00	90.91	*****
13.50	9.09	*****
14.00	100.00	*****

MEAN ST.DEV. SKEWNESS KURTOSIS

5.99 1.25 .20 -.57

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURES FOR SIZE RANGE 4.0 TO 9.0 PHI

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

PERCENTILES	MEDIAN	5.92	5TH	4.16	16TH	4.84	25TH	5.14
			75TH	7.33	84TH	8.07	95TH	*****
PCT. GRAVEL	.00	SAND	4.04	SILT (PIPETTE)	0.00	CLAY (PIPETTE)	0.00	
				(SEDIGRAPH)	79.29	(SEDIGRAPH)	16.67	
GRAVEL+SAND	4.04	SILT/(SILT+CLAY)	82.63	PCT.GRAV+SAND/SILT+CLAY	.04			
LABELS SHEPARD	-SILT	FOLK(GMS)-MUD		(SCS)-SILT				

REPORT

02/01/83

PHI	PCT. CUM PCT.	
3.50	0.00	
4.00	2.00	**
4.50	8.00	*****
5.00	11.00	*****
5.50	21.00	*****
6.00	34.00	*****
6.50	47.00	*****
7.00	56.00	*****
7.50	64.00	*****
8.00	69.00	****
8.50	73.00	****
9.00	77.00	*****
*****	100.00	*****

MEAN ST.DEV. SKEWNESS KURTOSIS

6.31 1.15 .20 -.61

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURES FOR SIZE RANGE 4.0 TO 9.0 PHI

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

PERCENTILES	MEDIAN	6.67	5TH	4.69	16TH	5.27	25TH	5.65
			75TH	8.75	84TH	*****	95TH	*****

PCT. GRAVEL	.00	SAND	0.00	SILT (PIPETTE)	0.00	CLAY (PIPETTE)	0.00
				(SEDIGRAPH)	69.00	(SEDIGRAPH)	31.00

GRAVEL+SAND .00 SILT/(SILT+CLAY) 69.00 PCT.GRAV+SAND/SILT+CLAY .00

LABELS SHEPARD -CLAYEY SILT FOLK(GMS)-MUD (SCS)-SILT

REPORT