

**HYDRAULICS DIVISION  
TECHNICAL NOTE**

**DATE:** January 1983      **REPORT NO:** 83-03

**TITLE:** Particle Size Data Report - E30 Core, Sediment  
Bank

**AUTHOR:** G. A. Duncan

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

**CORRESPONDENCE FILE NO:**  
5105 (Study No. 302)

## 1.0 INTRODUCTION

This report responds to a request for particle size analysis on 35 subsamples from a core in the Lake Ontario basin. Dr. R. Bourbonniere, AED, submitted the samples requesting sand, silt and clay percentages.

The samples were analysed using the sedigraph analyser (Duncan & 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.

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+

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**

LO81 530 1105-1111

SEDIGRAPH ANALYSIS

01/10/53

PHI	PCT. CUM PCT.	
0	0.00	
4.00	0.00	
4.50	.99	*
5.00	0.00	
5.50	0.00	
6.00	.99	*
6.50	0.00	
7.00	0.00	
7.50	.99	*
8.00	.99	*
8.50	1.98	**
9.00	1.98	**
9.50	3.96	****
10.00	3.96	*****
10.50	8.91	*****
11.00	8.91	*****
11.50	10.89	*****
12.00	14.85	*****
12.50	39.60	*****
13.00	100.00	*****

MEAN ST.DEV. SKEWNESS KURTOSIS

10.39 1.49 -.92 4.19 KROMBEIN + 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 11.65	5TH 8.26	16TH 9.92	25TH 10.46
		75TH*****	84TH*****	95TH*****
PCT. GRAVEL	.00	SAND 0.00	SILT (PIPETTE) 0.00	CLAY (PIPETTE) 0.00
			(SEDIGRAPH) 3.96	(SEDIGRAPH) 96.04
GRAVEL+SAND	.00	SILT/(SILT+CLAY)	3.96PCT.GRAV+SAND/SILT+CLAY	.00
LABELS SHEPARD -CLAY		FOLK(GMS)-MUD		(SGS)-CLAY

PHI	PCT. CUMFCT.	
0.00	0.00	
4.00	.99	*
4.50	0.00	
5.00	.99	**
5.50	1.98	
6.00	0.00	
6.50	0.00	
7.00	0.00	
7.50	.99	*
8.00	.99	*
8.50	.99	*
9.00	2.97	***
9.50	3.96	****
10.00	4.95	*****
10.50	7.92	*****
11.00	9.90	*****
11.50	11.88	*****
12.00	9.90	*****
12.50	42.57	*****
	100.00	

MEAN ST.DEV. SKEWNESS KURTOSIS

10.21 1.63 -.92 3.95 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 11.63	5TH 8.03	16TH 9.82	25TH 10.45
		75TH*****	84TH*****	95TH*****
PCT. GRAVEL	.00	SAND 0.00	SILT (PIPETTE) 0.00	CLAY (PIPETTE) 0.00
			(SEDIGRAPH) 4.95	(SEDIGRAPH) 95.05
GRAVEL+SAND	.00	SILT/(SILT+CLAY)	4.95	PCT.GRAV+SAND/SILT+CLAY .00
LABELS SHEPARD-CLAY		FOLK (GMS)-MUD		(SCS)-CLAY

L081 E30 1170-1176

SEDIGRAPH ANALYSIS

01/10/83

PHI FCT. CUMPCT.

4.00	0.00	0.00	
4.50	0.00	0.00	
5.00	1.00	1.00	*
5.50	0.00	1.00	
6.00	1.00	2.00	*
6.50	0.00	2.00	
7.00	.50	2.50	*
7.50	1.50	4.00	**
8.00	0.00	4.00	
8.50	1.00	5.00	*
9.00	3.00	8.00	***
9.50	3.00	11.00	***
10.00	6.00	17.00	*****
10.50	9.00	26.00	*****
11.00	14.00	40.00	*****
12.00	20.00	60.00	*****
12.00	12.00	72.00	*****
*****	28.00	100.00	*****

MEAN ST.DEV. SKEWNESS KURTOSIS

10.48 1.36 -1.03 4.95 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 11.25	5TH 8.50	16TH 9.92	25TH 10.44
		75TH*****	84TH*****	95TH*****
PCT. GRAVEL	.00	SAND 0.00	SILT (PIPETTE) 0.00	CLAY (PIPETTE) 0.00
			(SEDIGRAPH) 4.00	(SEDIGRAPH) 96.00
GRAVEL+SAND	.00	SILT/(SILT+CLAY)	4.00PCT.GRAV+SAND/SILT+CLAY	.00
LABELS SHEPARD -CLAY		FOLK(GMS)-MUD		(SCS)-CLAY



SEDIGRAPH ANALYSIS

01/10/83

PHI	PCT. CUMFCT.	
50		
4.00	0.00	0.00
4.50	0.06	0.00
5.00	.51	.51
5.50	.51	1.01
6.00	1.01	2.02
6.50	2.02	3.03
7.00	5.05	5.05
7.50	10.10	10.10
8.00	16.16	16.16
8.50	24.24	24.24
9.00	35.35	35.35
9.50	47.47	47.47
10.00	59.60	59.60
10.50	71.72	71.72
11.00	80.81	80.81
11.50	87.88	87.88
12.00	93.94	93.94
*****	100.00	100.00

MEAN ST.DEV. SKEWNESS KURTOSIS

9.58 1.45 -.23 -.04

KROMBEIN + 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	9.60	5TH	6.99	16TH	7.99	25TH	8.53
			75TH	10.65	84TH	11.23	95TH	*****
PCT. GRAVEL	.00	SAND	0.00	SILT (PIPETTE)	0.00	CLAY (PIPETTE)	0.00	
				(SEDIGRAPH)	16.16	(SEDIGRAPH)	83.84	
GRAVEL+SAND	.00	SILT/(SILT+CLAY)	16.16	PCT.GRAV+SAND/SILT+CLAY			.00	
LABELS SHEPARD	-CLAY	FOLK(GMS)-MUD		(SCS)-CLAY				

SEDIGRAPH ANALYSIS

01/10/33

PHI	PCT. CUMECT.	
4.00	0.00	0.00
4.50	.50	.50
5.00	0.00	.50
5.50	.50	1.00
6.00	0.00	1.00
6.50	1.00	2.00
7.00	2.00	4.00
7.50	3.00	7.00
8.00	5.00	12.00
8.50	5.00	17.00
9.00	8.00	25.00
9.50	10.00	35.00
10.00	7.00	42.00
10.50	9.00	51.00
11.00	8.00	59.00
11.50	11.00	70.00
12.00	10.00	80.00
	20.00	100.00

MEAN ST.DEV. SKEWNESS KURTOSIS

9.71 1.54 -.32 .06

KRUMBEIN + PETTIGORN (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 10.44	5TH 7.17	16TH 8.40	25TH 9.00
		75TH 11.75	84TH*****	95TH*****
PCT. GRAVEL	.00	SAND 0.00	SILT (PIPETTE) 0.00	CLAY (PIPETTE) 0.00
			(SEDIGRAPH) 12.00	(SEDIGRAPH) 85.00
GRAVEL+SAND	.00	SILT/(SILT+CLAY) 12.00	PCT.GRAV+SAND/SILT+CLAY	.00
LABELS SHEPARD -CLAY		FOLK (GMS)-MUD		(SCS)-CLAY

01/10/63

PHI	PCT. CUMFCT.	
4.00	0.00	0.00
4.50	0.00	0.00
5.00	1.00	1.00
5.50	0.00	1.00
6.00	1.00	2.00
6.50	1.00	3.00
7.00	2.00	5.00
7.50	5.00	10.00
8.00	16.00	
8.50	23.00	
9.00	34.00	
9.50	45.00	
10.00	55.00	
10.50	66.00	
11.00	77.00	
11.50	89.00	
	100.00	

MEAN ST.DEV. SKEWNESS KUPTOSIS

9.34 1.42 -.33 .12 KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURES FOR SIZE RANGE 4.0 TO 11.5 PHI

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

PERCENTILES	MEDIAN 9.75	5TH 7.00	16TH 8.00	25TH 8.59
		75TH 10.99	84TH 11.29	95TH+++++
PCT. GRAVEL	.00	SAND 0.00	SILT (PIPETTE) 0.00	CLAY (PIPETTE) 0.00
		(SEDIGRAPH) 16.00	(SEDIGRAPH) 84.00	
GRAVEL+SAND	.00	SILT/(SILT+CLAY)	16.00	PCT.GRAV+SAND/SILT+CLAY .00
LABELS SHEPARD	-CLAY	FOLK(GMS)-MUD		(SCS)-CLAY

PHI PCT. CUMFCT.

50 ASSUMED UPPER LIMIT

4.00	2.00	2.00	**
4.50	1.00	3.00	*
5.00	1.00	4.00	*
5.50	.50	4.50	*
6.00	1.50	6.00	**
6.50	2.00	8.00	**
7.00	3.00	11.00	***
7.50	7.00	18.00	*****
8.00	8.00	26.00	*****
8.50	8.00	34.00	*****
9.00	14.00	48.00	*****
9.50	9.00	57.00	*****
10.00	9.00	66.00	*****
10.50	8.00	74.00	*****
11.00	8.00	82.00	*****
11.50	6.00	88.00	*****
12.00	4.00	92.00	*****
****	8.00	100.00	*****

MEAN ST.DEV. SKEWNESS KURTOSIS

8.86 1.77 -.34 .46

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	9.11	5TH	5.67	16TH	7.36	25TH	7.94
			75TH	10.56	84TH	11.17	95TH	*****

PCT. GRAVEL	.00	SAND	2.00	SILT (PIPETTE)	0.00	CLAY (PIPETTE)	0.00
				(SEDIGRAPH)	24.00	(SEDIGRAPH)	74.00

GRAVEL+SAND 2.00 SILT/(SILT+CLAY) 24.49 PCT.GRAV+SAND/SILT+CLAY .02

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

PHI	PCT. CUMECT.	
4.00	0.00	0.00
4.50	.50	.50
5.00	1.00	1.00
5.50	2.00	2.00
6.00	4.00	4.00
6.50	7.00	7.00
7.00	12.00	12.00
7.50	19.00	19.00
8.00	28.00	28.00
8.50	38.00	38.00
9.00	50.00	50.00
9.50	60.00	60.00
10.00	69.00	69.00
10.50	77.00	77.00
11.00	89.00	89.00
11.50	96.00	96.00
12.00	100.00	100.00

MEAN ST.DEV. SKEWNESS KURTOSIS

8.87 1.56 -.19 -.46 KRUMBEIN + PETTIJOHN (1936) MOMENT MEASURES FOR SIZE RANGE 4.0 TO 11.5 PHI

9.03 1.67 -.23 .85 FOLK GRAPHIC STATISTICAL PARAMETERS FOLK AND WARD, 1957

PERCENTILES	MEDIAN	5TH	16TH	25TH
	9.00	6.17	7.29	7.83
		75TH	84TH	95TH
		10.38	10.79	11.43

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			

01/10/83

PHI	PCT.	CUMFCT.	
0.00	0.00	0.00	
4.00	.50	0.50	*
4.50	1.01	1.51	*
5.00	1.01	2.51	*
5.50	2.01	4.52	**
6.00	1.01	5.53	*
6.50	3.02	8.54	***
7.00	6.03	14.57	*****
7.50	7.04	21.61	*****
8.00	9.05	30.65	*****
8.50	13.07	43.72	*****
9.00	12.06	55.78	*****
9.50	9.05	64.82	*****
10.00	9.05	73.87	*****
10.50	8.04	81.91	*****
11.00	7.04	88.94	*****
11.50	4.02	92.96	*****
12.00	7.04	100.00	*****

MEAN ST.DEV. SKEWNESS KURTOSIS

9.07 1.58 -.24 .02 KRUMBEIN + FETTER (1952) 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	5TH	16TH	25TH
	9.26	6.24	7.60	8.19
		75TH 10.57	84TH 11.15	95TH *****
PCT. GRAVEL	.00	SAND 0.00	SILT (PIPETTE) 0.00	CLAY (PIPETTE) 0.00
			(SEDIGRAPH) 21.61	(SEDIGRAPH) 78.39
GRAVEL+SAND	.00	SILT/(SILT+CLAY) 21.61	PCT.GRAV+SAND/SILT+CLAY	.00
LABELS SHEPARD	-CLAY	FOLK (GMS)-MUD	(SGS)-CLAY	

01/10/33

PHI PCT. CUMPCT.

50 ASSUMED UPPER LIMIT

4.00	1.51	1.51	*
4.50	1.01	2.51	*
5.00	2.01	4.52	**
5.50	1.01	5.53	*
6.00	3.02	6.53	***
6.50	4.02	9.55	****
7.00	6.03	13.57	*****
7.50	9.05	19.60	*****
8.00	9.05	28.64	*****
8.50	13.07	37.69	*****
9.00	10.05	50.75	*****
9.50	8.04	60.80	*****
10.00	7.04	68.84	*****
10.50	6.03	75.88	*****
11.00	5.03	81.91	*****
11.50	4.52	86.93	*****
12.00	8.54	91.46	*****
*****	100.00		

MEAN ST.DEV. SKEWNESS KURTOSIS

8.72 1.79 -.28 .16

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	5.24	16TH	7.20	25TH	7.80
			75TH	10.44	84TH	11.21	95TH	*****

PCT. GRAVEL	.00	SAND	1.51	SILT (PIPETTE)	0.00	CLAY (PIPETTE)	0.00
				(SEDIGRAPH)	27.14	(SEDIGRAPH)	71.36

GRAVEL+SAND 1.51 SILT/(SILT+CLAY) 27.55PCT.GRAV+SAND/SILT+CLAY .02

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

PHI PCT. CUMECT.

4.00	0.00	0.00	
4.50	0.00	0.00	
5.00	1.00	1.00	*
5.50	1.00	2.00	*
6.00	2.00	4.00	**
6.50	4.00	8.00	****
7.00	4.00	12.00	****
7.50	8.00	20.00	*****
8.00	10.00	30.00	*****
8.50	9.00	39.00	*****
9.00	12.00	51.00	*****
9.50	11.00	62.00	*****
10.00	8.00	70.00	*****
10.50	6.00	76.00	*****
11.00	5.00	81.00	*****
11.50	4.00	85.00	****
12.00	3.00	88.00	***
12.50	12.00	100.00	*****

MEAN ST.DEV. SKEWNESS KURTOSIS

8.68 1.56 -.05 -.41 KUMBEIN + 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	8.96	5TH	6.13	16TH	7.25	25TH	7.75
			75TH	10.42	84TH	11.38	95TH	*****
PCT. GRAVEL	.00	SAND	0.00	SILT (PIPETTE)	0.00	CLAY (PIPETTE)	0.00	
				(SEDIGRAPH)	30.00	(SEDIGRAPH)	70.00	
GRAVEL+SAND	.00	SILT/(SILT+CLAY)	30.00	PCT.GRAV+SAND/SILT+CLAY			.00	
LABELS SHEPARD	-SILTY CLAY	FOLK (GRS)-MOD		(SCS)-CLAY				



01/10/53

PHI PCT. CUMFCT.

5.00	0.00	0.00	
4.00	0.00	0.00	
4.50	.50	0.50	*
5.00	1.00	1.50	*
5.50	1.50	3.00	*
6.00	2.00	5.00	**
6.50	3.00	8.00	***
7.00	7.00	15.00	*****
7.50	10.00	25.00	*****
8.00	12.00	37.00	*****
8.50	15.00	50.00	*****
9.00	18.00	65.00	*****
9.50	20.00	80.00	*****
10.00	22.00	90.00	*****
10.50	24.00	95.00	*****
11.00	25.00	97.00	*****
11.50	26.00	98.00	*****
12.00	27.00	100.00	*****

MEAN ST.DEV. SKEWNESS KURTOSIS

9.17 1.55 -.17 -.37 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	9.55	5TH	6.67	16TH	7.67	25TH	8.36
			75TH	10.94	84TH	11.70	95TH	*****
PCT. GRAVEL	.00	SAND	0.00	SILT (PIPETTE)	0.00	CLAY (PIPETTE)	0.00	
				(SEDIGRAPH)	20.00	(SEDIGRAPH)	80.00	
GRAVEL+SAND	.00	SILT/(SILT+CLAY)	20.00	PCT.GRAV+SAND/SILT+CLAY			.00	
LABELS SHEPARD	-CLAY	FOLK (GMS)	-MUD	(SCS)	-CLAY			

PHI	PCT. CUMFCT.	
5.00	0.00	
4.00	0.00	0.00
4.50	2.02	0.00
5.00	1.01	2.02
5.50	1.01	3.03
6.00	3.03	4.04
6.50	2.02	7.07
7.00	7.07	9.09
7.50	16.16	
8.00	24.24	
8.50	32.32	
9.00	43.43	
9.50	55.56	
10.00	64.65	
10.50	74.75	
11.00	80.81	
11.50	85.86	
12.00	90.91	
12.50	100.00	

MEAN ST.DEV. SKEWNESS KURTOSIS

8.98 1.62 -.20 -.15

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	9.27	5TH	6.16	16TH	7.49	25TH	8.05
			75TH	10.52	84TH	11.32	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			

01/10/33

PHI	FC7.	CUMFCT.	
	0.00	0.00	
4.00	1.03	1.03	*
4.50	2.06	3.09	**
5.00	1.03	4.12	*
5.50	2.06	6.19	**
6.00	2.06	8.25	**
6.50	3.09	11.34	***
7.00	7.22	18.56	*****
7.50	8.25	26.60	*****
8.00	9.28	36.08	*****
8.50	14.43	50.52	*****
9.00	10.31	60.82	*****
9.50	10.31	71.13	*****
10.00	6.25	79.38	*****
10.50	5.15	84.54	****
11.00	4.12	88.66	****
11.50	3.09	91.75	***
12.00	8.25	100.00	*****

MEAN ST.DEV. SKEWNESS KURTOSIS

8.75 1.63 -.24 .10

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	8.96	5TH	5.71	16TH	7.32	25TH	7.89
			75TH	10.23	84TH	10.95	95TH	*****
PCT. GRAVEL	.00	SAND	0.00	SILT (PIPETTE)	0.00	CLAY (PIPETTE)	0.00	
				(SEDIGRAPH)	26.80	(SEDIGRAPH)	73.20	
GRAVEL+SAND	.00	SILT/(SILT+CLAY)	26.80	PCT.GRAV+SAND/SILT+CLAY			.00	
LABELS SHEPARD	-SILTY CLAY	FOLK (GMS)-MOD		(SCS)-CLAY				

01/10/63

PHI PCT. CUMFCT.

50 ASSUMED UPPER LIMIT

4.00	1.00	1.00	*
4.50	.50	1.50	*
5.00	.50	2.00	*
5.50	1.00	3.00	*
6.00	1.00	4.00	*
6.50	3.00	7.00	***
7.00	3.00	10.00	***
7.50	6.00	16.00	*****
8.00	7.00	23.00	*****
8.50	9.00	32.00	*****
9.00	14.00	46.00	*****
9.50	12.00	58.00	*****
10.00	9.00	67.00	*****
10.50	9.00	76.00	*****
11.00	6.00	82.00	*****
11.50	4.00	86.00	****
12.00	3.00	89.00	***
12.50	11.00	100.00	*****

MEAN ST.DEV. SKEWNESS KURTOSIS

8.86 1.59 -.30 .55

KRUMBEIN + PETTIJAHN (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	9.17	5TH	6.17	16TH	7.50	25TH	8.11
			75TH	10.44	84TH	11.25	95TH	*****
PCT. GRAVEL	.00	SAND	1.00	SILT (PIPETTE)	0.00	CLAY (PIPETTE)	0.00	
				(SEDIGRAPH)	22.00	(SEDIGRAPH)	77.00	
GRAVEL+SAND	1.00	SILT/(SILT+CLAY)	22.22	PCT.GRAV+SAND/SILT+CLAY			.01	
LABELS SHEPARD	-CLAY	FOLK(GMS)-MUD		(SCS)-CLAY				

PHI	PCT. CUMECT.		
0	0.00	0.00	
4.00	.50	0.00	*
4.50	0.00	.50	
5.00	1.01	.50	*
5.50	2.01	1.51	**
6.00	3.02	3.52	***
6.50	3.02	6.53	***
7.00	7.04	9.55	*****
7.50	7.04	16.58	*****
8.00	9.05	23.62	*****
8.50	12.06	32.66	*****
9.00	10.05	44.72	*****
9.50	11.06	54.77	*****
10.00	9.05	65.83	*****
10.50	7.04	74.87	*****
11.00	4.02	81.91	****
11.50	4.52	85.93	****
12.00	9.55	90.45	*****
****	100.00		

MEAN ST.DEV. SKEWNESS KURTOSIS

8.97 1.56 -.16 -.29

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	9.26	5TH	6.25	16TH	7.46	25TH	8.00
			75TH	10.51	84TH	11.26	95TH	*****

PCT. GRAVEL .00 SAND 0.00 SILT (PIPETTE) 0.00 CLAY (PIPETTE) 0.00  
 (SEDIGRAPH) 23.62 (SEDIGRAPH) 76.38

GRAVEL+SAND .00 SILT/(SILT+CLAY) 23.62 PCT.GRAV+SAND/SILT+CLAY .00

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

01/10/63

PHI	PCT. CUMFCT.	
0.00	0.00	
4.00	0.50	*
4.50	1.01	*
5.00	1.51	*
5.50	2.51	*
6.00	3.52	***
6.50	6.53	***
7.00	9.55	****
7.50	13.57	*****
8.00	19.60	*****
8.50	27.64	*****
9.00	36.68	*****
9.50	45.73	*****
10.00	55.78	*****
10.50	66.83	*****
11.00	74.87	*****
11.50	81.91	*****
12.00	85.93	*****
14.07	100.00	*****

MEAN ST.DEV. SKEWNESS KURTOSIS

9.15 1.64 -.30 -.06 KROMBEIN + 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 9.71	5TH 6.25	16TH 7.70	25TH 6.34
		75TH 11.01	84TH 11.76	95TH *****
PCT. GRAVEL	.00	SAND 0.00	SILT (PIPETTE) 0.00	CLAY (PIPETTE) 0.00
			(SEDIGRAPH) 19.60	(SEDIGRAPH) 50.40
GRAVEL+SAND	.00	SILT/(SILT+CLAY) 19.6	PCT.GRAV+SAND/SILT+CLAY .00	
LABELS SHEPARD -CLAY		FOLK (GMS)-MUD	(SCS)-CLAY	

01/10/37

PHI	FCT.	CUMPCT.	
0	0.00		
4.00	0.00	0.00	
4.50	0.00	0.00	
5.00	0.00	0.00	
5.50	1.00	1.00	*
6.00	2.00	2.00	**
6.50	2.00	4.00	**
7.00	5.00	6.00	*****
7.50	11.00	11.00	*****
8.00	17.00	17.00	*****
8.50	25.00	25.00	*****
9.00	35.00	35.00	*****
9.50	44.00	44.00	*****
10.00	53.00	53.00	*****
10.50	63.00	63.00	*****
11.00	71.00	71.00	*****
11.50	79.00	79.00	*****
12.00	85.00	85.00	*****
12.50	100.00	100.00	*****

MEAN ST.DEV. SKEWNESS KURTOSIS

9.33 1.54 -.19 -.48

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 9.83	5TH 6.75	16TH 7.92	25TH 8.50
		75TH 11.25	84TH 11.92	95TH*****
PCT. GRAVEL	.00	SAND 0.00	SILT (PIPETTE) 0.00	CLAY (PIPETTE) 0.00
			(SEDIGRAPH) 17.00	(SEDIGRAPH) 83.00
GRAVEL+SAND	.00	SILT/(SILT+CLAY) 17.00	PCT.GRAV+SAND/SILT+CLAY	.00
LABELS SHEPARD	-CLAY	FOLK(GMS)-MUD		(SCS)-CLAY

PHI PCT. CUMPCT.

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	1.01	1.01	*
6.00	1.01	2.02	*
6.50	2.02	4.04	**
7.00	2.02	6.06	**
7.50	4.04	10.10	****
8.00	5.05	15.15	*****
8.50	7.07	22.22	*****
9.00	9.09	31.31	*****
9.50	10.10	41.41	*****
10.00	16.10	51.52	*****
10.50	10.10	61.62	*****
11.00	7.07	68.69	*****
11.50	8.08	76.77	*****
12.00	6.06	82.83	*****
****	17.17	100.00	*****

MEAN ST.DEV. SKEWNESS KURTOSIS

9.38 1.53 -.23 -.31 KROMBEIN + 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	9.93	5TH	6.74	16TH	8.06	25TH	8.65
			75TH	11.39	84TH	*****	95TH	*****
PCT. GRAVEL	.00	SAND	0.00	SILT (PIPETTE)	0.00	CLAY (PIPETTE)	0.00	
				(SEDIGRAPH)	15.15	(SEDIGRAPH)	84.85	
GRAVEL+SAND	.00	SILT/(SILT+CLAY)	15.15	PCT.GRAV+SAND/SILT+CLAY			.00	
LABELS SHEPARD	-CLAY	FOLK(GMS)	-MUD	(SCS)	-CLAY			



PHI	PCT. CORRECT.		
0	0.00		
4.00	0.00	0.00	
4.50	0.00	0.00	
5.00	1.00	1.00	*
5.50	0.00	1.00	
6.00	1.50	1.50	**
6.50	2.00	3.00	**
7.00	3.00	5.00	***
7.50	2.00	2.00	****
8.00	6.00	12.00	*****
8.50	10.00	18.00	*****
9.00	9.00	27.00	*****
9.50	8.00	37.00	*****
10.00	10.00	45.00	*****
10.50	10.00	55.00	*****
11.00	10.00	65.00	*****
11.50	10.00	75.00	*****
12.00	15.00	85.00	*****
****	100.00		

MEAN ST.DEV. SKEWNESS KURTOSIS

9.66 1.55 -.33 .06 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 10.25	5TH 7.00	16TH 8.33	25TH 8.85
		75TH 11.50	84TH 11.95	95TH*****
PCT. GRAVEL	.00	SAND 0.00	SILT (PIPETTE) 0.00	CLAY (PIPETTE) 0.00
			(SEDIGRAPH) 12.00	(SEDIGRAPH) 88.00
GRAVEL+SAND	.00	SILT/(SILT+CLAY) 12.00	PCT.GRAV+SAND/SILT+CLAY	.00
LABELS SHEPARD	-CLAY	FOLK(GMS)-MUD	(SCS)-CLAY	

01/10/53

PHI PCT. CUMFCT.

50			
4.00	0.00	0.00	
4.50	.50	.50	*
5.00	.50	1.00	*
5.50	1.00	2.00	*
6.00	1.00	3.00	*
6.50	2.00	5.00	**
7.00	3.00	8.00	***
7.50	4.00	12.00	****
8.00	5.00	16.00	*****
8.50	7.00	23.00	*****
9.00	8.00	31.00	*****
9.50	8.00	39.00	*****
10.00	8.00	47.00	*****
10.50	8.00	55.00	*****
11.00	7.00	62.00	*****
11.50	7.00	69.00	*****
12.00	6.00	75.00	*****
25.00	25.00	100.00	*****

MEAN ST.DEV. SKEWNESS KURTOSIS

9.26 1.88 -.27 -.20

KRUFBEIN + PETTIJOHN (1958) 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 10.19	5TH 6.50	16TH 8.00	25TH 8.63
		75TH 12.00	84TH*****	95TH*****
PCT. GRAVEL	.00	SAND 0.00	SILT (PIPETTE) 0.00	CLAY (PIPETTE) 0.00
			(SEDIGRAPH) 16.00	(SEDIGRAPH) 34.00
GRAVEL+SAND	.00	SILT/(SILT+CLAY)	16.00 PCT.GRAV+SAND/SILT+CLAY	.00
LABELS SHEPARD -CLAY		FOLK(GMS)-MUD		(SGS)-CLAY

PHI	PCT. CUMFCT.	
0	0.00	
4.00	0.00	0.00
4.50	0.00	0.00
5.00	.51	*
5.50	.51	*
6.00	1.01	*
6.50	2.02	**
7.00	4.04	**
7.50	6.06	***
8.00	9.09	****
8.50	14.14	*****
9.00	23.20	*****
9.50	29.29	*****
10.00	40.40	*****
10.50	50.51	*****
11.00	62.63	*****
11.50	72.73	*****
12.00	81.82	*****
12.50	87.86	*****
13.00	100.00	*****

MEAN ST.DEV. SKEWNESS KURTOSIS

9.51 1.51 -.33 .05

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 9.98	5TH 6.74	16TH 8.15	25TH 8.76
		75TH 11.13	84TH 11.63	95TH *****
PCT. GRAVEL	.00	SAND 0.00	SILT (PIPETTE) 0.00	CLAY (PIPETTE) 0.00
			(SEDIGRAPH) 14.14	(SEDIGRAPH) 85.86
GRAVEL+SAND	.00	SILT/(SILT+CLAY)	14.14	PCT.GRAV+SAND/SILT+CLAY .00
LABELS SHEPARD	-CLAY	FOLK(GMS)-MUD		(SCS)-CLAY

PHI PCT. CUMFCT.

4.00	0.00	0.00	
4.50	0.00	0.00	
5.00	1.00	1.00	*
5.50	0.00	1.00	
6.00	2.00	3.00	**
6.50	2.00	5.00	**
7.00	3.00	8.00	***
7.50	3.00	11.00	***
8.00	4.00	15.00	****
8.50	6.00	21.00	*****
9.00	9.00	30.00	*****
9.50	8.00	38.00	*****
10.00	9.00	47.00	*****
10.50	12.00	59.00	*****
11.00	11.00	70.00	*****
11.50	12.00	82.00	*****
12.00	7.00	89.00	*****
	11.00	100.00	*****

MEAN ST.DEV. SKEWNESS KURTOSIS

9.55 1.62 -.37 -.04

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 10.13	5TH 6.50	16TH 8.08	25TH 8.72
		75TH 11.21	84TH 11.64	95TH*****
PCT. GRAVEL	.00	SAND 0.00	SILT (PIPETTE) 0.00	CLAY (PIPETTE) 0.00
			(SEDIGRAPH) 15.00	(SEDIGRAPH) 85.00
GRAVEL+SAND	.00	SILT/(SILT+CLAY) 15.00	PCT.GRAV+SAND/SILT+CLAY	.00
LABELS SHEPARD -CLAY		FOLK(GMS)-MUD		(SCS)-CLAY

PHI	PCT.	CUM.PCT.	
5.00	0.00	0.00	
4.00	0.00	0.00	
4.50	0.00	0.00	
5.00	0.00	0.00	
5.50	2.02	2.02	**
6.00	2.02	4.04	**
6.50	3.03	7.07	***
7.00	4.04	11.11	****
7.50	6.06	17.17	*****
8.00	5.05	22.22	*****
8.50	5.05	27.27	*****
9.00	8.08	35.35	*****
9.50	8.08	43.43	*****
10.00	6.06	51.52	*****
10.50	11.11	62.63	*****
11.00	10.10	72.73	*****
11.50	10.10	82.83	*****
12.00	7.07	89.90	*****
*****	10.10	100.00	*****

MEAN ST.DEV. SKEWNESS KURTOSIS

9.31 1.74 -.25 -.70

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	9.91	5TH	5.16	16TH	7.40	25TH	8.28
			75TH	11.11	84TH	11.55	95TH	*****
PCT. GRAVEL	.00	SAND	0.00	SILT (PIPETTE)	0.00	CLAY (PIPETTE)	0.00	
				(SEDIGRAPH)	22.22	(SEDIGRAPH)	77.78	
GRAVEL+SAND	.00	SILT/(SILT+CLAY)	22.22	PCT.GRAV+SAND/SILT+CLAY			.00	
LABELS SHEPARD	-CLAY		FOLK(GMS)-MUD			(SCS)-CLAY		

01/10/63

PHI PCT. CUMFCT.

50			
4.00	0.00	0.00	
4.50	0.00	0.00	
5.00	0.00	0.00	
5.50	0.00	0.00	
6.00	1.00	1.00	
6.50	2.00	3.00	**
7.00	3.00	6.00	***
7.50	4.00	10.00	****
8.00	5.00	15.00	*****
8.50	5.00	20.00	*****
9.00	7.00	27.00	*****
9.50	7.00	34.00	*****
10.00	8.00	42.00	*****
10.50	11.00	53.00	*****
11.00	13.00	66.00	*****
11.50	12.00	78.00	*****
12.00	8.00	86.00	*****
12.50	14.00	100.00	*****

MEAN ST.DEV. SKEWNESS KURTOSIS

9.69 1.95 -.31 -.56 KRUMBEIN + PETTIJOHN (1936) 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 10.36	5TH 6.83	16TH 8.10	25TH 6.86
		75TH 11.33	84TH 11.63	95TH*****
PCT. GRAVEL	.00	SAND 0.00	SILT (PIPETTE) 0.00	CLAY (PIPETTE) 0.00
			(SEDIGRAPH) 15.00	(SEDIGRAPH) 95.00
GRAVEL+SAND	.00	SILT/(SILT+CLAY) 15.00	PCT.GRAV+SAND/SILT+CLAY	.00
LABELS SHEPARD -CLAY		FOLK (GMS) -MUD		(SCS) -CLAY

01/19/83

PHI PCT. CUMECT.

4.00	0.00	0.00	
4.50	0.00	0.00	
5.00	1.00	1.00	*
5.50	1.00	2.00	*
6.00	1.00	3.00	***
6.50	3.00	6.00	***
7.00	3.00	9.00	****
7.50	7.00	13.00	*****
8.00	7.00	20.00	*****
8.50	7.00	27.00	*****
9.00	8.00	35.00	*****
9.50	7.00	42.00	*****
10.00	9.00	51.00	*****
10.50	8.00	59.00	*****
11.00	10.00	69.00	*****
11.50	8.00	77.00	*****
12.00	23.00	100.00	*****

MEAN ST.DEV. SKEWNESS KURTOSIS

9.96 1.60 -.27 -.42 KRUPPEIN + 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 10.44	5TH 6.83	16TH 8.21	25TH 6.86
		75TH 11.88	84TH *****	95TH *****
PCT. GRAVEL	.00	SAND 0.00	SILT (PIPETTE) 0.00	CLAY (PIPETTE) 0.00
			(SEDIGRAPH) 13.00	(SEDIGRAPH) 87.00
GRAVEL+SAND	.00	SILT/(SILT+CLAY) 13.00	PCT.GRAV+SAND/SILT+CLAY	.00
LABELS SHEPARD -CLAY		FOLK(GMS)-MUJ		(SCS)-CLAY

L061 E30 772-776

SEDIGRAPH ANALYSIS

01/10/33

PHI	FCT.	CUMPCT.	
5.00	0.00	0.00	
4.00	.50	.50	
4.50	.50	.99	
5.00	.50	1.49	
5.50	1.49	2.97	*
6.00	.99	3.96	*
6.50	1.98	5.94	**
7.00	2.97	8.91	***
7.50	3.96	12.87	****
8.00	4.95	17.82	*****
8.50	7.92	25.74	*****
9.00	5.94	31.68	*****
9.50	7.92	39.60	*****
10.00	10.89	50.50	*****
10.50	9.90	60.40	*****
11.00	8.91	69.31	*****
11.50	3.96	73.27	*****
12.00	26.73	100.00	*****

MEAN ST.DEV. SKEWNESS KURTOSIS

9.48 1.61 -.42 .33

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 10.48	5TH 6.76	16TH 8.32	25TH 6.95
		75TH*****	84TH*****	95TH*****
PCT. GRAVEL	.00	SAND 0.00	SILT (PIPETTE) 0.00	CLAY (PIPETTE) 0.00
			(SEDIGRAPH) 12.87	(SEDIGRAPH) 37.13
GRAVEL+SAND	.00	SILT/(SILT+CLAY) 12.87	PCT.GRAV+SAND/SILT+CLAY	.00
LABELS SHEPARD	-CLAY	FOLK (GMS)-MUD		(SCS)-CLAY



01/10/63

PHI	PCT. CUMPT.		
4.00	0.00	0.00	
4.50	0.00	0.00	
5.00	0.00	0.00	
5.50	1.00	1.00	*
6.00	2.00	3.00	**
6.50	3.00	6.00	***
7.00	2.00	8.00	**
7.50	6.00	14.00	*****
8.00	6.00	20.00	*****
8.50	6.00	26.00	*****
9.00	9.00	35.00	*****
9.50	7.00	42.00	*****
10.00	6.00	43.00	*****
10.50	9.00	57.00	*****
11.00	8.00	65.00	*****
11.50	10.00	75.00	*****
12.00	7.00	82.00	*****
12.50	18.00	100.00	*****

MEAN ST.DEV. SKEWNESS KURTOSIS

9.31 1.76 -.19 -.79 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 10.11	5TH 6.33	16TH 7.67	25TH 8.42
		75TH 11.50	84TH*****	95TH*****
PCT. GRAVEL	.00	SAND 0.00	SILT (PIPETTE) 0.00	CLAY (PIPETTE) 0.00
			(SEDIGRAPH) 20.00	(SEDIGRAPH) 80.00
GRAVEL+SAND	.00	SILT/(SILT+CLAY)	20.00PCT.GRAV+SAND/SILT+CLAY	.00
LABELS SHEPARD	-CLAY	FOLK (GMS) -MUD		(SCS) -CLAY

LOE1 E30 832-238

SEDIGRAPH ANALYSIS

01/10/33

PHI PCT. CUMPCT.

5.00	0.00	0.00	
4.00	.50	0.50	
4.50	0.00	.50	
5.00	1.00	.50	
5.50	1.00	1.49	*
6.00	1.99	3.48	**
6.50	3.98	7.46	****
7.00	3.98	11.44	****
7.50	5.97	17.41	*****
8.00	5.97	23.38	*****
8.50	5.97	29.35	*****
9.00	5.97	35.32	*****
9.50	6.97	42.29	*****
10.00	5.97	48.26	*****
10.50	7.96	56.22	*****
11.00	6.97	63.18	*****
11.50	8.96	72.14	*****
12.00	7.96	80.10	*****
****	19.90	100.00	*****

MEAN ST.DEV. SKEWNESS KURTOSIS

9.18 1.93 -.17 -.87 KROMBEIN + 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 10.11	5TH 6.19	16TH 7.33	25TH 8.14
		75TH 11.68	84TH*****	95TH*****
PCT. GRAVEL	.00	SAND 0.00	SILT (PIPETTE) 0.00	CLAY (PIPETTE) 0.00
			(SEDIGRAPH) 23.38	(SEDIGRAPH) 76.62
GRAVEL+SAND	.00	SILT/(SILT+CLAY) 23.38	PCT.GRAV+SAND/SILT+CLAY	.00

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

PHI PCT. CUMPCT.

4.00	0.00	3.00	*
4.50	.50		
5.00	0.00	.50	
5.50	0.00	.50	
6.00	1.01	1.51	*
6.50	0.00	1.51	
7.00	1.01	2.51	*
7.50	1.01	3.52	*
8.00	2.01	5.53	**
8.50	2.01	7.54	****
9.00	4.02	11.56	*****
9.50	4.02	15.58	*****
10.00	6.03	21.61	*****
10.50	10.05	31.66	*****
11.00	13.07	44.72	*****
11.50	14.07	58.79	*****
12.00	11.06	69.85	*****
*****	30.15	100.00	*****

MEAN ST.DEV. SKEWNESS KURTOSIS

10.26 1.40 -.75 2.64

KRUMBEIN + PETTIJOHN (1936) 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 11.19	5TH 7.87	16TH 9.54	25TH 10.17
		75TH*****	84TH*****	95TH*****

PCT. GRAVEL	.00	SAND 0.00	SILT (PIPETTE) 0.00	CLAY (PIPETTE) 0.00
			(SEDIGRAPH) 5.53	(SEDIGRAPH) 94.47

GRAVEL+SAND	.00	SILT/(SILT+CLAY)	5.53PCT.GRAV+SAND/SILT+CLAY	.00
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LABELS SHEPARD -CLAY FOLK(GMS)-MUD (SCS)-CLAY

LOG# E30 905-911

SEDIGRAPH ANALYSIS

01/10/83

PHI	PCT. CUMFCT.	
0	0.00	
4.00	0.00	0.00
4.50	0.00	0.00
5.00	0.00	0.00
5.50	.99	*
6.00	0.00	.99
6.50	1.99	.99
7.00	2.97	**
7.50	2.97	
8.00	2.97	
8.50	4.95	**
9.00	7.92	***
9.50	10.89	***
10.00	14.85	****
10.50	22.77	*****
11.00	31.66	*****
11.50	45.54	*****
12.00	56.44	*****
12.50	103.00	*****

MEAN ST.DEV. SKEWNESS KURTOSIS

10.42 1.37 -.82 2.85

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 11.70	5TH 8.51	16TH 10.07	25TH 10.63
		75TH *****	84TH *****	95TH *****
PCT. GRAVEL	.00	SAND 0.00	SILT (PIPETTE) 0.00	CLAY (PIPETTE) 0.00
			(SEDIGRAPH) 2.97	(SEDIGRAPH) 97.03
GRAVEL+SAND	.00	SILT/(SILT+CLAY)	2.97	PCT.GRAV+SAND/SILT+CLAY .00
LABELS SHEPARD -CLAY		FOLK(GMS)-MUD		(SCS)-CLAY

PHI FCT. CUMFCT.

50	0.00		
4.00	0.00	0.00	
4.50	0.00	0.00	
5.00	0.00	0.00	
5.50	0.00	0.00	
6.00	0.00	0.00	
6.50	0.00	0.00	
7.00	.99	.99	*
7.50	.99	1.98	*
8.00	1.98	3.96	**
8.50	1.98	5.94	**
9.00	2.97	8.91	***
9.50	3.96	12.87	****
10.00	4.95	17.82	*****
10.50	9.90	27.72	*****
11.00	8.91	36.63	*****
11.50	13.86	50.50	*****
12.00	9.90	60.40	*****
12.50	39.60	100.00	*****

MEAN ST.DEV. SKEWNESS KURTOSIS

10.36 1.23 -.51 .42

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 11.48	5TH 8.26	16TH 9.62	25TH 10.36
		75TH*****	84TH*****	95TH*****
PCT. GRAVEL	.00	SAND 0.00	SILT (PIPETTE) 0.00	CLAY (PIPETTE) 0.00
			(SEDIGRAPH) 3.96	(SEDIGRAPH) 96.04
GRAVEL+SAND	.00	SILT/(SILT+CLAY)	3.96PCT.GRAV+SAND/SILT+CLAY	.00

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

01/10/83

PHI	PCT.	CUMFCT.	
4.00	0.00	0.00	
4.50	0.00	0.00	
5.00	.99	.99	*
5.50	0.00	.99	
6.00	.99	1.98	*
6.50	0.00	1.98	
7.00	0.00	1.98	
7.50	.99	2.97	*
8.00	.99	3.96	*
8.50	1.98	5.94	**
9.00	2.97	8.91	***
9.50	3.96	12.87	****
10.00	4.95	17.82	*****
10.50	9.90	27.72	*****
11.00	9.90	37.62	*****
11.50	11.88	49.50	*****
12.00	9.90	59.41	*****
12.50	40.59	100.00	*****

MEAN ST.DEV. SKEWNESS KURTOSIS

10.28 1.43 -.84 3.53 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 11.53	5TH 8.26	16TH 9.82	25TH 10.36
		75TH*****	84TH*****	95TH*****
PCT. GRAVEL	.00	SAND 0.00	SILT (PIPETTE) 0.00	CLAY (PIPETTE) 0.00
			(SEDIGRAPH) 3.96	(SEDIGRAPH) 96.04
GRAVEL+SAND	.00	SILT/(SILT+CLAY)	3.96PCT.GRAV+SAND/SILT+CLAY	.00
LABELS SHEPARD	-CLAY	FOLK (GMS) -MUD		(SCS) -CLAY

LO81 E30 1014-1020

SEDIGRAPH ANALYSIS

01/10/53

PHI PCT. CUMPCT.

3.50	0.00		
4.00	0.00	0.00	
4.50	0.00	0.00	
5.00	.50	.50	
5.50	0.00	.50	
6.00	0.00	.50	
6.50	0.00	.50	
7.00	0.00	.50	
7.50	.50	1.00	*
8.00	1.00	2.00	*
8.50	1.00	3.00	*
9.00	1.00	4.00	**
9.50	2.00	6.00	**
10.00	3.00	9.00	***
10.50	5.00	14.00	*****
11.00	8.00	22.00	*****
11.50	10.00	32.00	*****
12.00	10.00	42.00	*****
12.50	58.00	100.00	*****

MEAN ST.DEV. SKEWNESS KURTOSIS

10.61 1.23 -.97 5.17

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*****	5TH 9.25	16TH 10.63	25TH 11.15
		75TH*****	84TH*****	95TH*****
PCT. GRAVEL	.00	SAND 0.00	SILT (PIPETTE) 0.00	CLAY (PIPETTE) 0.00
			(SEDIGRAPH) 2.00	(SEDIGRAPH) 98.00
GRAVEL+SAND	.00	SILT/(SILT+CLAY)	2.00 PCT.GRAV+SAND/SILT+CLAY	.00
LABELS SHEPARD	-CLAY	FOLK (GMS) -MUD		(SCS) -CLAY

LOB1 E30 1061-1067

SEDIGRAPH ANALYSIS

01/10/83

PHI	FCT.	CUMFCT.	
5.00	0.00	0.00	
4.00	0.00	0.00	
4.50	0.00	0.00	
5.00	0.00	0.00	
5.50	0.00	0.00	
6.00	0.00	0.00	
6.50	.50	.50	*
7.00	1.50	2.00	**
7.50	1.00	3.00	*
8.00	2.00	5.00	**
8.50	2.00	7.00	**
9.00	3.00	10.00	***
9.50	5.00	15.00	*****
10.00	5.00	20.00	*****
10.50	8.00	28.00	*****
11.00	9.00	37.00	*****
11.50	11.00	48.00	*****
12.00	13.00	61.00	*****
12.50	39.00	100.00	*****

MEAN ST.DEV. SKEWNESS KURTOSIS

10.31 1.35 -.50 .34

KROMBEIN + 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 11.58	5TH 8.00	16TH 9.60	25TH 10.31
		75TH*****	84TH*****	95TH*****
PCT. GRAVEL	.00	SAND 0.00	SILT (PIPETTE) 0.00	CLAY (PIPETTE) 0.00
			(SEDIGRAPH) 5.00	(SEDIGRAPH) 95.00
GRAVEL+SAND	.00	SILT/(SILT+CLAY) 5.00	PCT.GRAV+SAND/SILT+CLAY .00	
LABELS SHEPARD -CLAY		FOLK(GMS)-MUD	(SCS)-CLAY	