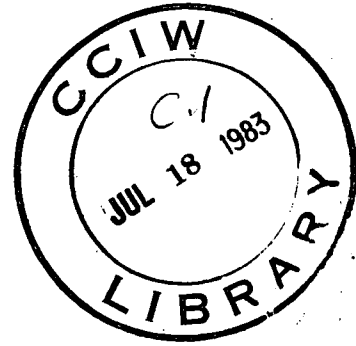


HYDRAULICS DIVISION
TECHNICAL NOTE



DATE:

May 1983

REPORT NO: 83-16

TITLE:

Particle Size Data Report

AUTHOR:

G.A. Duncan

REASON FOR REPORT:

This report provides size-analysis data on core sub-samples submitted to the Lab. by W. Booth, AED.

CORRESPONDENCE FILE NO: Study H83-302

1.0 INTRODUCTION

This report provides size-analysis data on core sub-samples submitted to the lab by W. Booth, AED.

The samples were originally run "as received", but due to organic material, most flocculated. New samples were then treated with 30% Hydrogen Peroxide (H_2O_2), heated to boiling, dried and re-dispersed with unadjusted calgon and analyzed on the Sedigraph Analyser. The percent organic by this weight-loss method is listed as a comment on the data sheet.

2.0 PROCEDURES

The Sieve and Sedigraph Method which provides sand, silt, and clay percentages was used to analyze 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 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 Fold (1974) Ternary Classification.

PHI CONVERSION

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

PHI (ϕ)	Millimeters	Microns	Wentworth Size Class
-5.0	32		
-4.5	24		
-4.0	16		Pebble (-2 to -6ϕ)
-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+

4.0 REFERENCES

- Duncan, G.A. AND LaHaie, G.G. 1979. Size Analysis Procedures used in the Sedimentology Laboratory, NWRI. NWRI, CCIW, Hydraulic 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

A1-02 H2O2 TREATED

SEDIGRAPH ANALYSIS

05/25/83

PHI	PCT.	CUMPCT.	
3.50			
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	0.00	0.00	
6.50	4.04	4.04	****
7.00	3.03	7.07	***
7.50	7.07	14.14	*****
8.00	7.07	21.21	*****
8.50	9.09	28.28	*****
9.00	7.07	37.37	*****
9.50	7.07	44.44	*****
10.00	7.07	51.52	*****
10.50	8.08	58.59	*****
11.00	7.07	66.67	*****
11.50	6.06	73.74	*****
12.00	20.20	79.80	*****
****	100.00		*****

MEAN ST.DEV. SKEWNESS KURTOSIS

~~9.20 1.59 .04 -1.06~~ 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 9.89	5TH 6.66	16TH 7.63	25TH 8.27
		75TH 11.60	84TH *****	95TH *****
PCT. GRAVEL	.00	SAND 0.00	SILT (PIPETTE) 0.00	CLAY (PIPETTE) 0.00
			(SEDIGRAPH) 21.21	(SEDIGRAPH) 78.79
GRAVEL+SAND	.00	SILT/(SILT+CLAY)	21.21	PCT.GRAV+SAND/SILT+CLAY .00
LABELS SHEPARD	CLAY	FOLK(GMS)-MUD		(SCS)-CLAY

COMMENTS -
8.2 PERCENT ORGANIC DETRITUS PRESENT IN SAMPLE

A1-24 H2O2 TREATED

SEDIGRAPH ANALYSIS

05/25/83

PHI	PCT.	CUM.PCT.	
3.50			
4.00	0.00	0.00	
4.50	0.00	0.00	
5.00	0.00	0.00	
5.50	.99	.99	*
6.00	2.97	3.96	***
6.50	1.98	5.94	**
7.00	4.95	10.89	*****
7.50	6.93	17.82	*****
8.00	8.91	26.73	*****
8.50	7.92	34.65	*****
9.00	8.91	43.56	*****
9.50	8.91	52.48	*****
10.00	7.92	60.40	*****
10.50	7.92	68.32	*****
11.00	7.92	76.24	*****
11.50	8.91	85.15	*****
12.00	3.96	89.11	****
*****	10.89	100.00	*****

MEAN ST.DEV. SKEWNESS KURTOSIS

~~9.02 1.65 .10 .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 9.36	5TH 6.26	16TH 7.37	25TH 7.90
		75TH 10.92	84TH 11.44	95TH *****
PCT. GRAVEL	.00	SAND 0.00	SILT (PIPETTE) 0.00	CLAY (PIPETTE) 0.00
			(SEDIGRAPH) 26.73	(SEDIGRAPH) 73.27
GRAVEL+SAND	.00	SILT/(SILT+CLAY)	26.73PCT.GRAV+SAND/SILT+CLAY	.00
LABELS SHEPARD	SILTY CLAY	FOLK(GMS) MUO		(SCS) CLAY

COMMENTS -
18.0 PERCENT ORGANIC DETRITUS PRESENT IN SAMPLE

AUTOREPORT

05/25/83

PHI	PCT.	CUMPCT.	
3.50			
4.00	0.00	0.00	
4.50	0.00	0.00	
5.00	1.01	1.01	*
5.50	.50	1.51	*
6.00	1.01	2.51	*
6.50	2.01	4.52	**
7.00	3.02	7.54	***
7.50	6.03	13.57	*****
8.00	6.03	19.60	*****
8.50	7.04	26.63	*****
9.00	9.05	35.68	*****
9.50	7.04	42.71	*****
10.00	7.04	49.75	*****
10.50	9.05	58.79	*****
11.00	9.05	67.84	*****
11.50	9.05	76.88	*****
12.00	5.03	81.91	*****
****	18.09	100.00	*****

MEAN ST.DEV. SKEWNESS KURTOSIS

~~9.26 1.65 -.21 -.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 10.01	5TH 6.58	16TH 7.70	25TH 8.38
		75TH 11.40	84TH *****	95TH *****
PCT. GRAVEL	.00	SAND 0.00	SILT (PIPETTE) 0.00	CLAY (PIPETTE) 0.00
			(SEDIGRAPH) 19.60	(SEDIGRAPH) 80.40
GRAVEL+SAND	.00	SILT/(SILT+CLAY) 19.60	PCT.GRAV+SAND/SILT+CLAY	.00
LABELS SHEPARD	CLAY	FOLK (GMS) MUD	(SCS) CLAY	

COMMENTS -
9.5 PERCENT ORGANIC DETRITUS PRESENT IN SAMPLE

05/25/83

PHI	PCT.	CUMPCT.	
3.50			
4.00	0.00	0.00	
4.50	0.00	0.00	
5.00	1.00	1.00	*
5.50	3.00	4.00	***
6.00	4.00	8.00	****
6.50	4.00	12.00	****
7.00	5.00	17.00	*****
7.50	8.00	25.00	*****
8.00	5.00	30.00	*****
8.50	6.00	36.00	*****
9.00	7.00	43.00	*****
9.50	7.00	50.00	*****
10.00	6.00	56.00	*****
10.50	7.00	63.00	*****
11.00	7.00	70.00	*****
11.50	6.50	76.50	*****
12.00	5.50	82.00	*****
****	18.00	100.00	*****

MEAN ST.DEV. SKEWNESS KURTOSIS

~~8.75 1.91 -.69 -1.02~~ 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	9.50	5TH	5.63	16TH	6.90	25TH	7.50
			75TH	11.38	84TH	*****	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(GMS)-MUD		(SCS)-CLAY				

COMMENTS -
7.1 PERCENT ORGANIC DETRITUS PRESENT IN SAMPLE

A2-24 H2O2 TREATED

SEDIGRAPH ANALYSIS

05/25/83

PHI	PCT.	CUMPCT.	
3.50			
4.00	0.00	0.00	
4.50	0.00	0.00	
5.00	1.01	1.01	*
5.50	4.04	5.05	****
6.00	6.06	11.11	*****
6.50	6.06	17.17	*****
7.00	6.06	23.23	*****
7.50	6.06	29.29	*****
8.00	5.05	35.35	*****
8.50	7.07	40.40	*****
9.00	6.06	47.47	*****
9.50	6.06	53.54	*****
10.00	7.58	59.60	*****
10.50	7.58	67.17	*****
11.00	7.07	74.75	*****
11.50	4.04	81.82	****
12.00	14.14	85.86	*****
****		100.00	

MEAN ST.DEV. SKEWNESS KURTOSIS

~~8.56 1.98 .85 -1.19~~

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	9.21	5TH	5.49	16TH	6.40	25TH	7.15
			75TH	11.02	84TH	11.77	95TH	*****
PCT. GRAVEL	.00	SAND	0.00	SILT (PIPETTE)	0.00	CLAY (PIPETTE)	0.00	
				(SEDIGRAPH)	35.35	(SEDIGRAPH)	64.65	
GRAVEL+SAND	.00	SILT/(SILT+CLAY)	35.35	PCT.GRAV+SAND/SILT+CLAY			.00	
LABELS SHEPARD	-SILTY CLAY	FOLK(GMS)-MUD				(SCS)-MUD		

COMMENTS -
7.2 PERCENT ORGANIC DETRITUS PRESENT IN SAMPLE

AUTOREPORT

05/25/83

PHI PCT. CUMPCT.

3.50			
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	5.00	10.00	*****
6.50	7.00	17.00	*****
7.00	7.00	24.00	*****
7.50	7.00	31.00	*****
8.00	6.00	37.00	*****
8.50	6.00	43.00	*****
9.00	7.00	50.00	*****
9.50	7.00	57.00	*****
10.00	5.00	62.00	*****
10.50	7.00	69.00	*****
11.00	7.00	76.00	*****
11.50	9.00	85.00	*****
12.00	6.00	91.00	*****
*****	9.00	100.00	*****

MEAN ST.DEV. SKEWNESS KURTOSIS

~~0.64 1.99 -0.83 -1.23~~

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 9.00	5TH 5.50	16TH 6.43	25TH 7.07
		75TH 10.93	84TH 11.44	95TH*****

PCT. GRAVEL	.00	SAND 0.00	SILT (PIPETTE) 0.00	CLAY (PIPETTE) 0.00
			(SEDIGRAPH) 37.00	(SEDIGRAPH) 63.00

GRAVEL+SAND .00 SILT/(SILT+CLAY) 37.00 PCT.GRAV+SAND/SILT+CLAY .00

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

COMMENTS -
7.7 PERCENT ORGANIC DETRITUS PRESENT IN SAMPLE

AUTOREPORT

20C-A2-02 H2O2 TREATED SEDIGRAPH ANALYSIS

05/25/83

PHI	PCT. CUM PCT.	
3.50	0.00	
4.00	0.00	0.00
4.50	1.01	0.00
5.00	3.03	1.01
5.50	6.06	4.04
6.00	10.10	10.10
6.50	16.16	16.16
7.00	24.24	24.24
7.50	32.32	32.32
8.00	39.39	39.39
8.50	48.48	48.48
9.00	57.58	57.58
9.50	64.65	64.65
10.00	71.72	71.72
10.50	77.78	77.78
11.00	82.83	82.83
11.50	88.89	88.89
12.00	93.94	93.94
****	100.00	100.00

MEAN ST.DEV. SKEWNESS KURTOSIS

8.45 1.86 .03 -.97

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	8.58	5TH	5.58	16TH	6.49	25TH	7.05
			75TH	10.27	84TH	11.10	95TH	*****

PCT. GRAVEL	.00	SAND	0.00	SILT (PIPETTE)	0.00	CLAY (PIPETTE)	0.00
				(SEDIGRAPH)	39.39	(SEDIGRAPH)	60.61

GRAVEL+SAND .00 SILT/(SILT+CLAY) 39.39 PCT.GRAV+SAND/SILT+CLAY .00

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

COMMENTS -
7.7 PERCENT ORGANIC DETRITUS PRESENT IN SAMPLE

AUTOREPORT

05/25/83

PHI	PCT.	CUMPCT.	
3.50			
4.00	0.00	0.00	
4.50	2.11	2.11	**
5.00	4.21	6.32	****
5.50	5.26	11.58	*****
6.00	5.26	16.84	*****
6.50	7.37	24.21	*****
7.00	6.32	30.53	*****
7.50	6.32	36.84	*****
8.00	6.32	43.16	*****
8.50	5.26	48.42	*****
9.00	7.37	55.79	*****
9.50	6.32	62.11	*****
10.00	4.21	66.32	****
10.50	6.32	72.63	*****
11.00	5.26	77.89	*****
11.50	5.26	83.16	*****
12.00	4.21	87.37	*****
*****	12.63	100.00	*****

MEAN ST.DEV. SKEWNESS KURTOSIS

~~8.10 2.11 .02 -1.09~~

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	8.61	5TH	4.84	16TH	5.92	25TH	6.56
			75TH	10.73	84TH	11.60	95TH	*****

PCT. GRAVEL	.00	SAND	0.00	SILT (PIPETTE)	0.00	CLAY (PIPETTE)	0.00
				(SEDIGRAPH)	43.16	(SEDIGRAPH)	56.84

GRAVEL+SAND .00 SILT/(SILT+CLAY) 43.16 PCT.GRAV+SAND/SILT+CLAY .00

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

COMMENTS - 6.9 PERCENT ORGANIC DETRITUS PRESENT IN SAMPLE

AUTOREPORT

05/25/83

PHI	PCT. CUM PCT.	
3.50		
4.00	0.00	0.00
4.50	0.00	0.00
5.00	1.01	1.01
5.50	4.04	5.05
6.00	4.84	9.09
6.50	6.57	15.66
7.00	4.55	20.20
7.50	7.07	27.27
8.00	6.86	33.33
8.50	7.07	40.40
9.00	7.07	47.47
9.50	9.09	56.57
10.00	9.89	65.66
10.50	5.05	70.71
11.00	2.02	72.73
11.50	4.04	76.77
12.00	5.05	81.82
****	18.18	100.00

MEAN ST.DEV. SKEWNESS KURTOSIS

8.44 1.85 -.01 -.87

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	9.14	5TH	5.49	16TH	6.54	25TH	7.34
			75TH	11.28	84TH	*****	95TH	*****
PCT. GRAVEL	.00	SAND	0.00	SILT (PIPETTE)	0.00	CLAY (PIPETTE)	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				

COMMENTS -
6.5 PERCENT ORGANIC DETRITUS PRESENT IN SAMPLE

AUTOREPORT

207-02 H2O2 TREATED

SEDIGRAPH ANALYSIS

05/25/83

PHI PCT. CUMPCT.

3.50			
4.00	0.00	0.00	
4.50	1.02	1.02	*
5.00	6.12	7.14	*****
5.50	8.16	15.31	*****
6.00	9.18	24.49	*****
6.50	8.16	32.65	*****
7.00	8.16	40.82	*****
7.50	8.16	48.98	*****
8.00	8.16	57.14	*****
8.50	7.14	64.29	*****
9.00	7.14	71.43	*****
9.50	5.10	76.53	*****
10.00	5.10	81.63	*****
10.50	3.06	84.69	***
11.00	4.08	88.78	***
11.50	4.59	93.37	*****
12.00	3.57	96.94	*****
*****	3.06	100.00	***

MEAN ST.DEV. SKEWNESS KURTOSIS

7.68	2.01	.18	-.87	KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURES FOR SIZE RANGE 4.0 TO 12.0 PHI
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7.83	2.26	.19	.85	FOLK GRAPHIC STATISTICAL PARAMETERS FOLK AND WARD, 1957
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PERCENTILES	MEDIAN	7.56	5TH	4.83	16TH	5.54	25TH	6.03
-------------	--------	------	-----	------	------	------	------	------

			75TH	9.35	84TH	10.39	95TH	11.73
--	--	--	------	------	------	-------	------	-------

PCT. GRAVEL	.00	SAND	0.00	SILT (PIPETTE)	0.00	CLAY (PIPETTE)	0.00
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			(SEDIGRAPH)	57.14		(SEDIGRAPH)	42.86
--	--	--	-------------	-------	--	-------------	-------

GRAVEL+SAND	.00	SILT/(SILT+CLAY)	57.14	PCT.GRAV+SAND/SILT+CLAY	.00
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LABELS SHEPARD	-CLAYEY SILT	FOLK(GMS)-MUD	(SCS)-MUD
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COMMENTS -

5.0 PERCENT ORGANIC DETRITUS PRESENT IN SAMPLE

05/25/83

PHI PCT. CUMPCT.

3.50 ASSUMED UPPER LIMIT

4.00	1.01	1.01	*
4.50	7.07	8.08	*****
5.00	14.14	22.22	*****
5.50	12.12	34.34	*****
6.00	9.09	43.43	*****
6.50	9.09	52.53	*****
7.00	6.06	58.59	*****
7.50	7.07	65.66	*****
8.00	6.06	71.72	*****
8.50	5.05	76.77	*****
9.00	4.04	80.81	****
9.50	4.04	84.85	****
10.00	2.02	86.87	**
10.50	2.53	89.39	***
11.00	1.52	90.91	**
11.50	2.02	92.93	**
12.00	2.02	94.95	**
*****	5.05	100.00	*****

MEAN ST.DEV. SKEWNESS KURTOSIS

6.69 1.98 .39 -.24

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	6.36	5TH	4.28	16TH	4.78	25TH	5.11
			75TH	8.33	84TH	9.40	95TH	*****

PCT. GRAVEL	.00	SAND	1.01	SILT (PIPETTE)	0.00	CLAY (PIPETTE)	0.00
				(SEDIGRAPH)	70.71	(SEDIGRAPH)	28.28

GRAVEL+SAND 1.01 SILT/(SILT+CLAY) 71.43PCT.GRAV+SAND/SILT+CLAY .01

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

COMMENTS -
3.3 PERCENT ORGANIC DETRITUS PRESENT IN SAMPLE

AUTOREPORT

209-02 H2O2 TREATED

SEDIGRAPH ANALYSIS

05/25/83

PHI PCT. CUMPCT.

3.50			
4.00	0.00	0.00	
4.50	0.00	0.00	
4.50	1.02	0.00	*
5.00	1.02	1.02	
5.00	4.57	1.02	*****
5.50	4.57	5.58	
5.50	7.11	5.58	*****
6.00	7.11	12.69	
6.00	9.14	12.69	*****
6.50	9.14	21.83	
6.50	9.14	21.83	*****
7.00	9.14	30.96	
7.00	9.14	30.96	*****
7.50	9.14	40.10	
7.50	11.17	40.10	*****
8.00	11.17	51.27	
8.00	6.09	51.27	*****
8.50	6.09	57.36	
8.50	8.12	57.36	*****
9.00	8.12	65.48	
9.00	6.09	65.48	*****
9.50	6.09	71.57	
9.50	5.08	71.57	*****
10.00	5.08	76.65	
10.00	4.06	76.65	****
10.50	4.06	80.71	
10.50	4.06	80.71	****
11.00	4.06	84.77	
11.00	4.06	84.77	****
11.50	4.06	88.83	
11.50	5.08	88.83	*****
12.00	5.08	93.91	
12.00	6.09	93.91	*****
****	6.09	100.00	

MEAN ST.DEV. SKEWNESS KURTOSIS

8.08 1.86 .18 -.82

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 7.94 5TH 5.44 16TH 6.18 25TH 6.67
75TH 9.84 84TH 10.91 95TH*****

PCT. GRAVEL .00 SAND 0.00 SILT (PIPETTE) 0.00 CLAY (PIPETTE) 0.00
(SEDIGRAPH) 51.27 (SEDIGRAPH) 48.73

GRAVEL+SAND .00 SILT/(SILT+CLAY) 51.27PCT.GRAV+SAND/SILT+CLAY .00

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

COMMENTS -
4.4 PERCENT ORGANIC DETRITUS PRESENT IN SAMPLE

AUTOREPORT

210-02 H2O2 TREATED

SEDIGRAPH ANALYSIS

05/25/83

PHI	PCT.	CUMPCT.	
3.50			
4.00	0.00	0.00	
4.50	1.22	1.22	*
5.00	4.88	6.10	*****
5.50	8.54	14.63	*****
6.00	7.32	21.95	*****
6.50	7.32	29.27	*****
7.00	10.98	40.24	*****
7.50	9.76	50.00	*****
8.00	7.32	57.32	*****
8.50	6.10	63.41	*****
9.00	6.10	69.51	*****
9.50	4.88	74.39	*****
10.00	2.44	76.83	**
10.50	3.66	80.49	****
11.00	3.66	84.15	****
11.50	3.66	87.80	****
12.00	2.44	90.24	**
*****	9.76	100.00	*****

MEAN ST.DEV. SKEWNESS KURTOSIS

7.55 1.93 .23 -.67

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	7.50	5TH	4.89	16TH	5.59	25TH	6.21
			75TH	9.53	84TH	10.98	95TH	*****
PCT. GRAVEL	.00	SAND	0.00	SILT (PIPETTE)	0.00	CLAY (PIPETTE)	0.00	
				(SEDIGRAPH)	57.32	(SEDIGRAPH)	42.68	
GRAVEL+SAND	.00	SILT/(SILT+CLAY)	57.32	PCT.GRAV+SAND/SILT+CLAY			.00	
LABELS SHEPARD	-CLAYEY SILT	FOLK(GMS)-MUD				(SCS)-MUD		

COMMENTS -
4.4 PERCENT ORGANIC DETRITUS PRESENT IN SAMPLE

AUTOREPORT

S3-06 H2O2 TREATED

SEDIGRAPH ANALYSIS

05/25/83

PHI	PCT. CUMPCT.	
3.50		
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	1.01	1.01
6.50	1.51	2.51
7.00	4.02	6.53
7.50	5.03	11.56
8.00	7.04	18.59
8.50	6.03	24.62
9.00	9.05	33.67
9.50	7.04	40.70
10.00	7.04	47.74
10.50	8.04	55.78
11.00	7.04	62.81
11.50	11.06	73.87
12.00	15.08	88.94
*****	11.06	100.00

MEAN ST.DEV. SKEWNESS KURTOSIS

9.62 1.67 -.17 -1.02

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 10.14	5TH 6.81	16TH 7.82	25TH 8.52
		75TH 11.54	84TH 11.84	95TH*****
PCT. GRAVEL	.00	SAND 0.00	SILT (PIPETTE) 0.00	CLAY (PIPETTE) 0.00
			(SEDIGRAPH) 18.59	(SEDIGRAPH) 81.41
GRAVEL+SAND	.00	SILT/(SILT+CLAY)	18.59PCT.GRAV+SAND/SILT+CLAY	.00
LABELS SHEPARD	-CLAY	FOLK(GMS)-MUD		(SCS)-CLAY

COMMENTS - 5.1 PERCENT ORGANIC DETRITUS PRESENT IN SAMPLE