

<b>DRILLING LOG</b>		<b>DIVISION</b> South Atlantic	<b>INSTALLATION</b> Jacksonville District	<b>SHEET 1</b> OF 1
1. PROJECT MARTIN COUNTY 1999		10. SIZE AND TYPE OF BIT 4" VIBRACORE		
2. LOCATION (Coordinates or Station) X=776670.200 Y=1044372.900		11. DATUM FOR ELEVATION SHOWN (TBM or MSL) MLLW		
3. DRILLING AGENCY Applied Technology and Management, Inc.		12. MANUFACTURER'S DESIGNATION OF DRILL PNEUMATIC VIBRACORE		
4. HOLE NO. (As shown on drawing title and file number) MC-3		13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN disturbed: 6 undisturbed: 0		
5. NAME OF DRILLER Mike Barnett, P.E.		14. TOTAL NUMBER OF CORE BOXES 2		
6. DIRECTION OF HOLE <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		15. ELEVATION GROUND WATER		
7. THICKNESS OF BURDEN 0 Ft.		16. DATE HOLE STARTED COMPLETED 7/30/99 7/30/99		
8. DEPTH DRILLED INTO ROCK 0 Ft.		17. ELEVATION TOP OF HOLE -24.7 Ft.		
9. TOTAL DEPTH OF HOLE 20.3 Ft.		18. TOTAL CORE RECOVERY FOR BORING 100 %		
		19. SIGNATURE OF G. ZARILLO, SEA, INC		

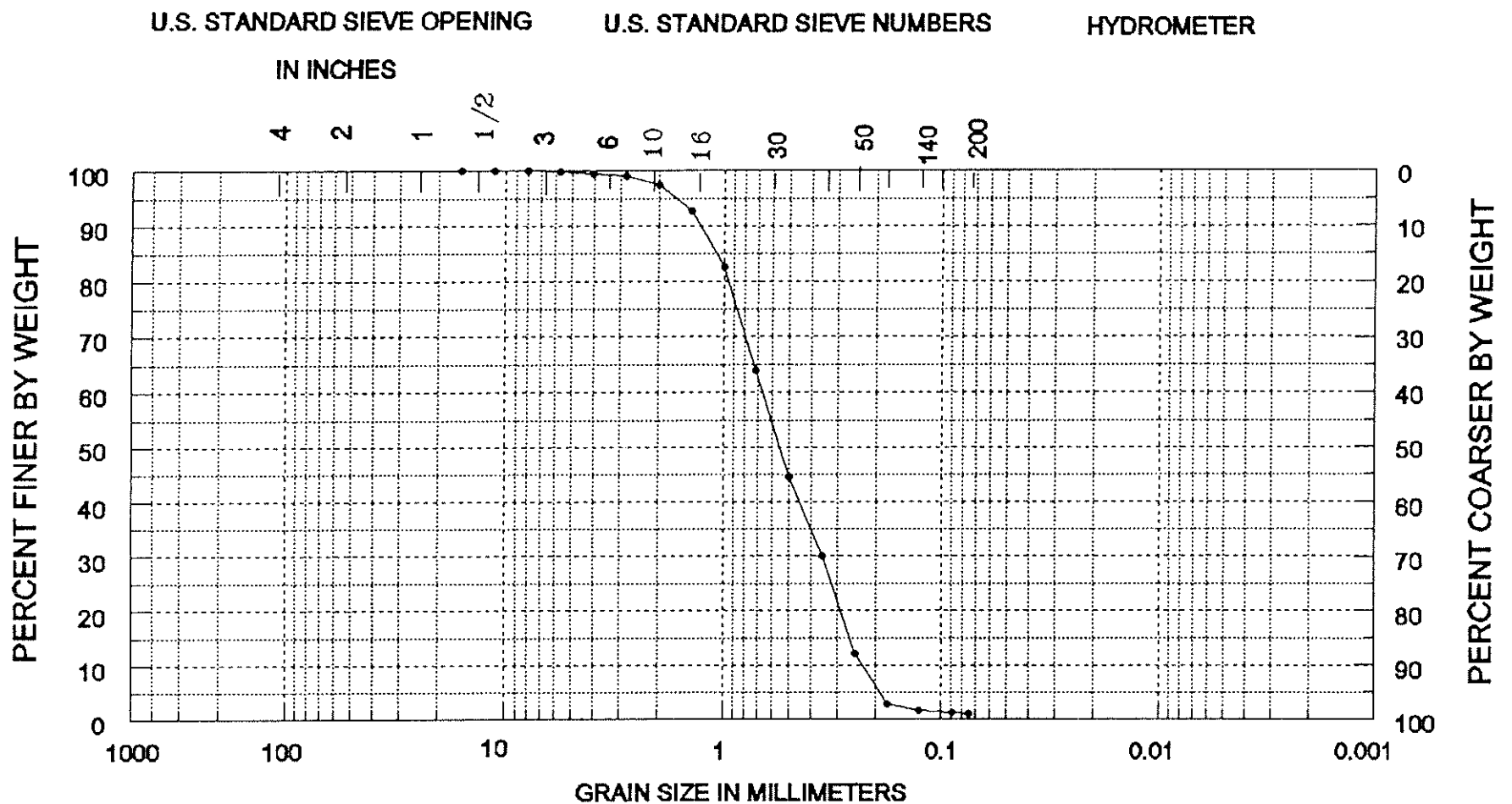
ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)	CORE REC %	SAMPLE NUMBER	REMARKS	
-24.7	0					-24.7	0
			Tan medium to fine sand, small shell fragments, whole shells to 1/2 inch. (SP)	100	0.5		2.5
					4.0		
					6.0	-29.7	5
-31.5	6.8		Light grey fine sand, medium to fine shell fragments. (SP)	100	9.0		7.5
					13.0	-34.7	10
-36.6	11.9		Tan medium to fine sand, small shell fragments, whole shells to 1 inch. (SP)	100	17.0		12.5
					19.5	-39.7	15
-39.8	15.1		Tan coarse shell material, medium to fine sand matrix. (SP)	100			17.5
-41.8	17.1		Grey coarse shell material, fine sand matrix. (SP)				
-44.2	19.5		Light grey fine sand. (SP)				20
-45.0	20.3					-45.0	22.5
						Composite 0-19 ft.	

# Sediment Analysis Data Sheet

Sample MC-3-0.5

Sieve	Size (mm)	Phi size	Wt	Wt %	Cuml %	Folk	Statistics phi	mm
	16.00	-4.00	0.00	0.00	0.00			
	11.31	-3.50	0.00	0.00	0.00			
	8.00	-3.00	0.00	0.00	0.00			
	5.66	-2.50	0.07	0.29	0.29	5%	-0.74	1.67
5	4.00	-2.00	0.06	0.23	0.52	16%	-0.07	1.05
7	2.83	-1.50	0.12	0.45	0.96	25%	0.20	0.87
10	2.00	-1.00	0.40	1.54	2.50	50%	0.86	0.55
14	1.41	-0.50	1.24	4.79	7.29	75%	1.64	0.32
18	1.00	0.00	2.61	10.11	17.40	84%	1.89	0.27
25	0.71	0.50	4.79	18.55	35.95	95%	2.38	0.19
35	0.50	1.00	5.02	19.46	55.41			
45	0.35	1.50	3.72	14.40	69.81	Med.	0.86	0.55
60	0.25	2.00	4.66	18.03	87.84	Mean	0.90	0.54
80	0.18	2.50	2.42	9.36	97.19	St Dev.	0.96	
120	0.13	3.00	0.29	1.12	98.32	Skew	0.01	
170	0.09	3.50	0.12	0.48	98.80	Kurt.	0.89	
200	0.07	3.75	0.05	0.21	99.01			
Pan			0.02	0.09	99.10			
Total			25.58	99.10	99.10			
						Moment Statistics		
							Phi	mm
Cu =	2.85		Gravel		0 %	Mean	1.09	0.47
			Coarse	Sand	2 %	St. Dev.	0.99	0.50
			Med.	Sand	60 %	Skewness	-0.43	
Cc =	0.82		Fine	Sand	36 %	Kurtosis	3.40	

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SAMPLE NO.	ELEV.	CLASSIFICATION	PROJECT
0.5	-25.2	Medium to fine sand (SP)	Martin County-ATM
			AREA Martin County
			BORING NO. MC-3
			DATE July 30, 1999

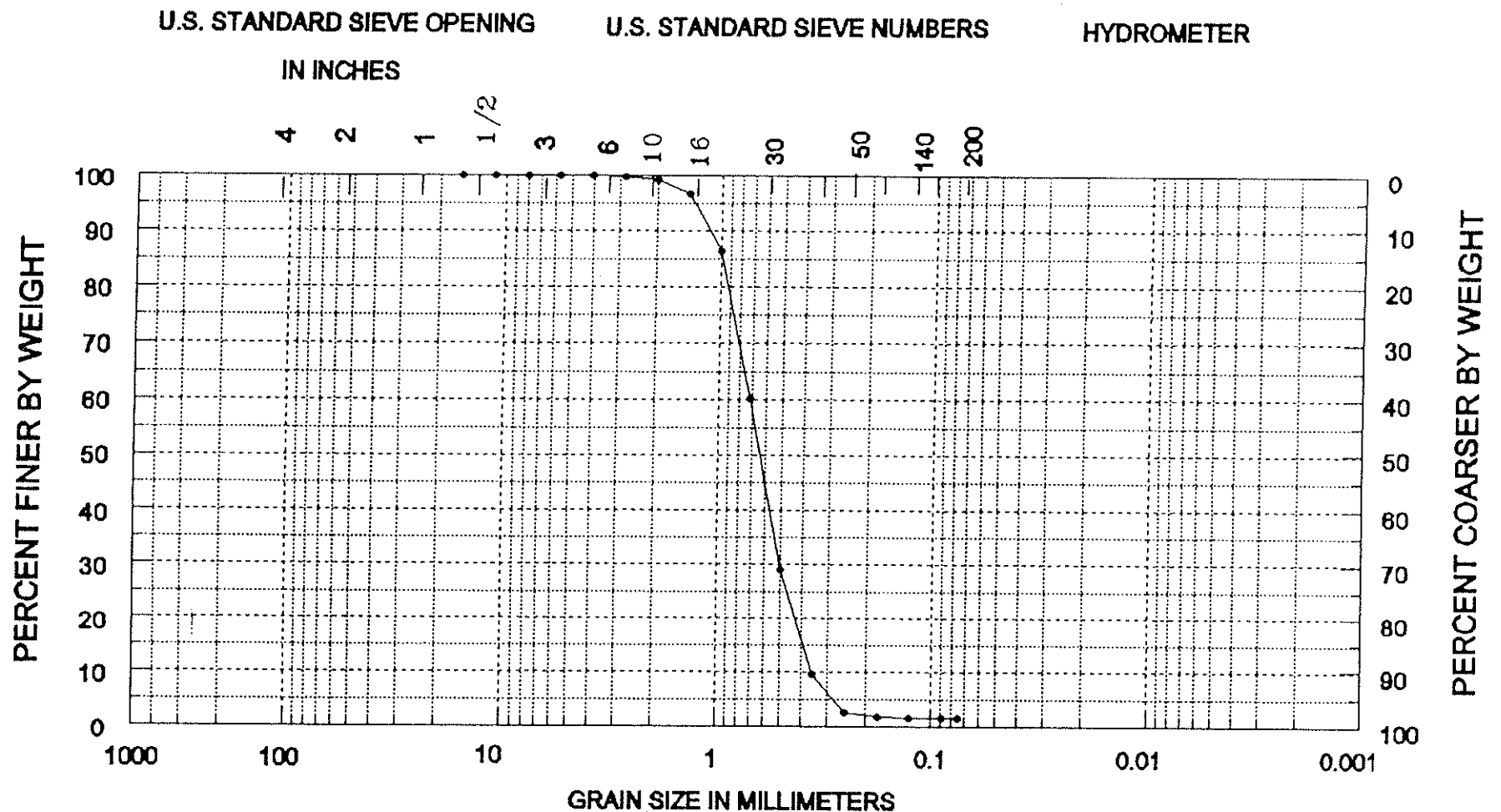
# Sediment Analysis Data Sheet

Sample MC-3-4.0

Sieve	Size (mm)	Phi size	Wt	Wt %	Cuml %	Folk	Statistics phi mm
	16.00	-4.00	0.00	0.00	0.00		
	11.31	-3.50	0.00	0.00	0.00		
	8.00	-3.00	0.00	0.00	0.00		
	5.66	-2.50	0.00	0.00	0.00	5% :	-0.49 1.41
5	4.00	-2.00	0.00	0.00	0.00	16% :	0.02 0.99
7	2.83	-1.50	0.11	0.47	0.47	25% :	0.20 0.87
10	2.00	-1.00	0.28	1.20	1.67	50% :	0.67 0.63
14	1.41	-0.50	0.73	3.14	4.81	75% :	1.21 0.43
18	1.00	0.00	2.36	10.23	15.04	84% :	1.48 0.36
25	0.71	0.50	5.84	25.28	40.32	95% :	2.06 0.24
35	0.50	1.00	6.40	27.71	68.03		
45	0.35	1.50	3.86	16.72	84.75	Med.	0.67 0.63
60	0.25	2.00	2.30	9.95	94.71	Mean	0.72 0.61
80	0.18	2.50	0.53	2.30	97.01	St Dev.	0.75
120	0.13	3.00	0.10	0.42	97.42	Skew	0.09
170	0.09	3.50	0.11	0.48	97.91	Kurt.	1.04
200	0.07	3.75	0.05	0.20	98.11		
Pan			0.02	0.09	98.20		
Total			22.68	98.20	98.20		
						Moment	Statistics
							Phi mm
Cu =	2.41		Gravel		0 %	Mean	0.92 0.53
			Coarse Sand	2 %		St. Dev.	0.79 0.58
			Med. Sand	75 %		Skewness	-0.08
Cc =	1.10		Fine Sand	22 %		Kurtosis	4.13

Sorting 0.73

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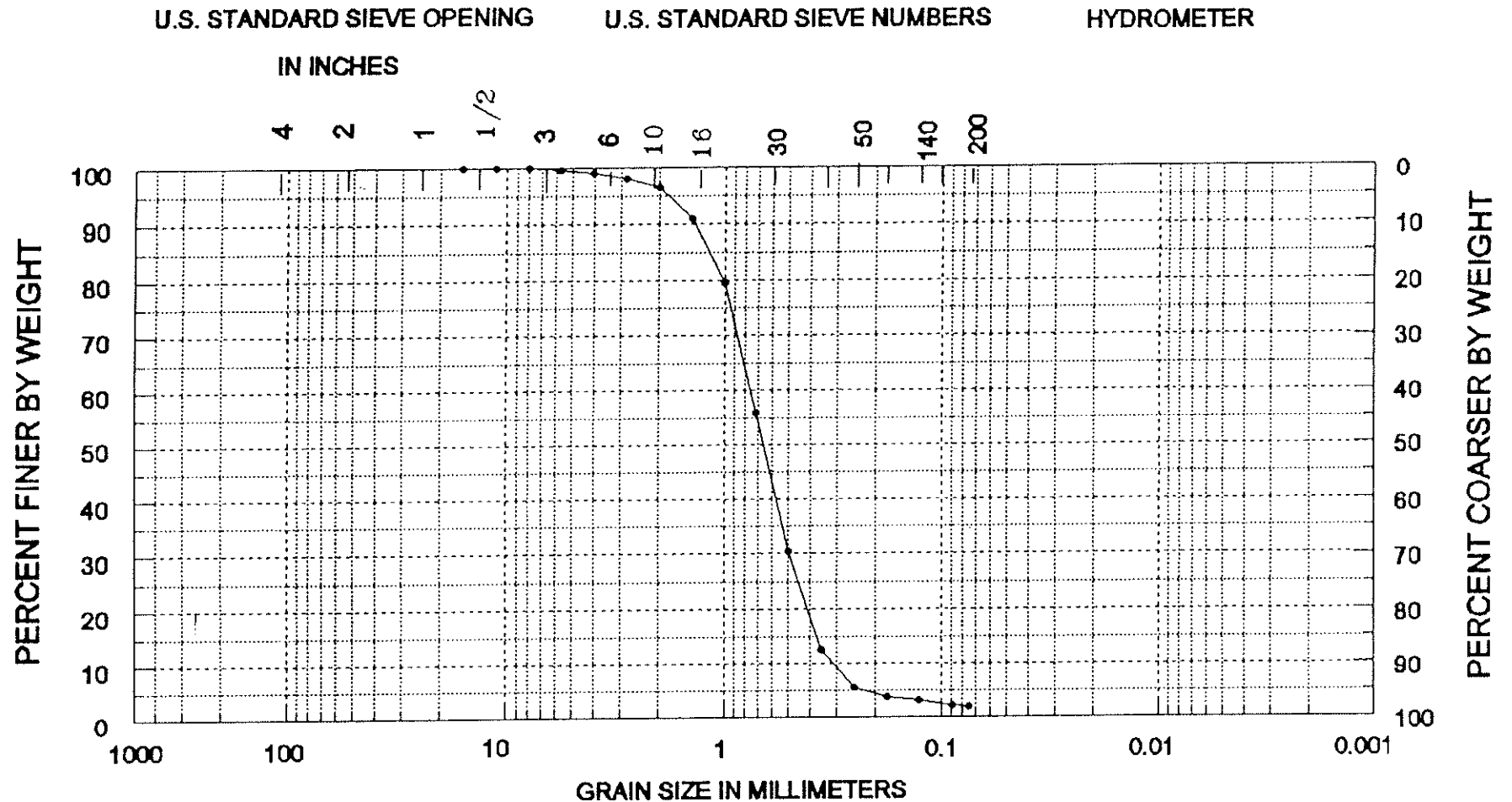


# Sediment Analysis Data Sheet

Sample MC-3-6.0

Sieve	Size (mm)	Phi size	Wt	Wt %	Cuml %	Folk Statistics		
						phi	mm	
	16.00	-4.00	0.00	0.00	0.00			
	11.31	-3.50	0.00	0.00	0.00			
	8.00	-3.00	0.00	0.00	0.00			
	5.66	-2.50	0.10	0.41	0.41	5% :	-0.87	1.83
5	4.00	-2.00	0.13	0.54	0.95	16% :	-0.20	1.15
7	2.83	-1.50	0.23	0.95	1.90	25% :	0.10	0.94
10	2.00	-1.00	0.42	1.72	3.62	50% :	0.62	0.65
14	1.41	-0.50	1.33	5.43	9.04	75% :	1.15	0.45
18	1.00	0.00	2.80	11.44	20.48	84% :	1.40	0.38
25	0.71	0.50	5.80	23.67	44.15	95% :	2.17	0.22
35	0.50	1.00	6.23	25.43	69.57			
45	0.35	1.50	4.41	18.01	87.59	Med.	0.62	0.65
60	0.25	2.00	1.67	6.81	94.40	Mean	0.61	0.66
80	0.18	2.50	0.44	1.78	96.18	St Dev.	0.86	
120	0.13	3.00	0.17	0.68	96.86	Skew	0.00	
170	0.09	3.50	0.25	1.01	97.87	Kurt.	1.18	
200	0.07	3.75	0.06	0.23	98.10			
Pan			0.00	0.00	98.10			
Total			24.03	98.10	98.10			
						Sorting 0.80		
						Moment	Statistics	
							Phi	mm
Cu =	2.40		Gravel		1 %	Mean	0.80	0.57
			Coarse Sand		3 %	St. Dev.	0.92	0.53
			Med. Sand		75 %	Skewness	-0.41	
Cc =	1.05		Fine Sand		20 %	Kurtosis	4.77	

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SAMPLE NO.	ELEV.	CLASSIFICATION	PROJECT
6.0	-30.7	Medium sand (SP)	Martin County--ATM
			AREA Martin County
			BORING NO. MC-3
			DATE July 30, 1999

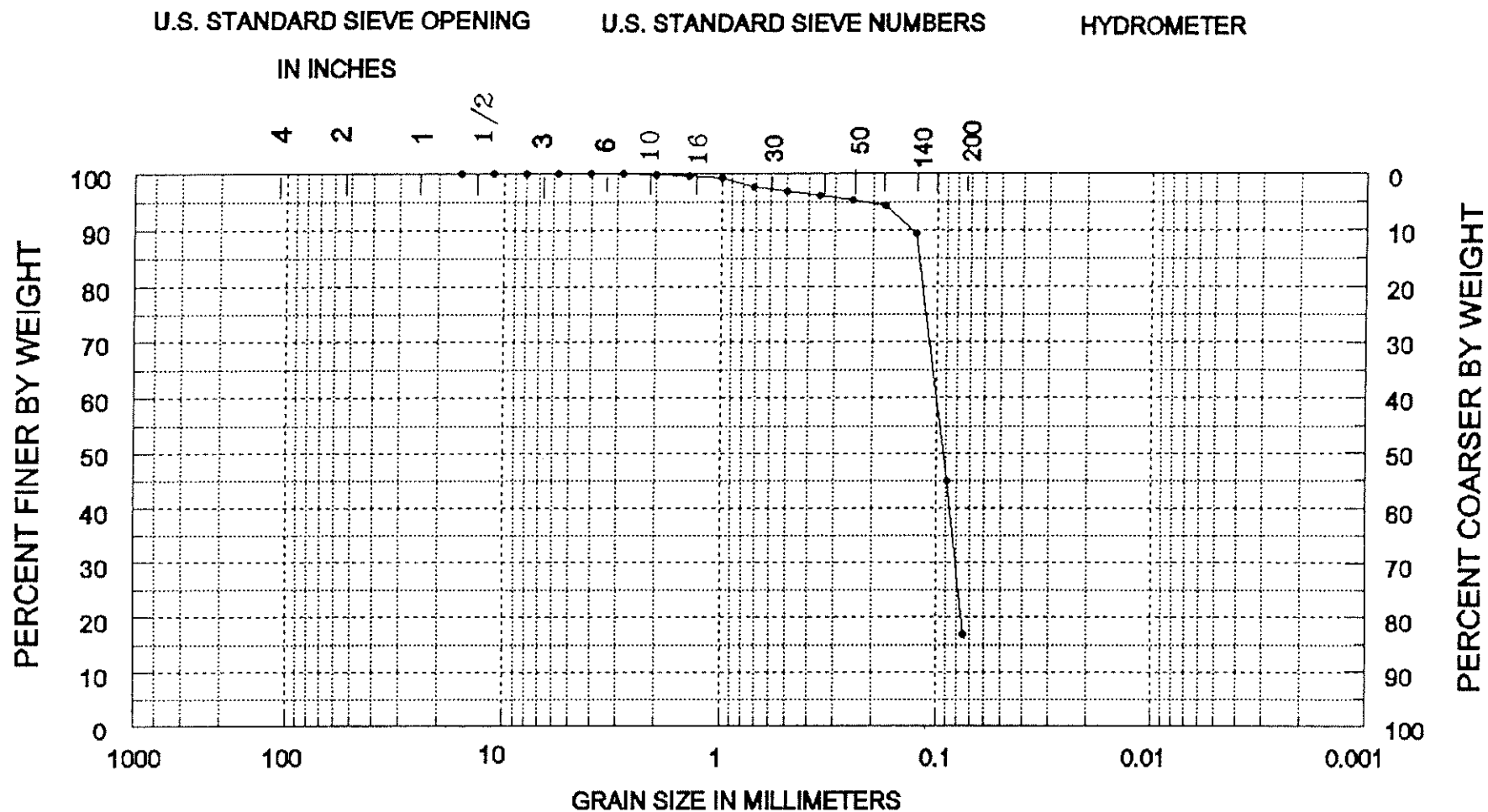
# Sediment Analysis Data Sheet

Sample MC-3-9.0

Sieve	Size (mm)	Phi size	Wt %	Wt %	Cuml %	Folk	Statistics phi mm
	16.00	-4.00	0.00	0.00	0.00		
	11.31	-3.50	0.00	0.00	0.00		
	8.00	-3.00	0.00	0.00	0.00		
	5.66	-2.50	0.00	0.00	0.00	5% :	2.13 0.23
5	4.00	-2.00	0.00	0.00	0.00	16% :	3.06 0.12 0.018
7	2.83	-1.50	0.00	0.00	0.00	25% :	3.16 0.11
10	2.00	-1.00	0.05	0.21	0.21	50% :	3.44 0.09
14	1.41	-0.50	0.05	0.18	0.39	75% :	3.60 0.08
18	1.00	0.00	0.10	0.37	0.76	84% :	-0.43 1.35 0.005
25	0.71	0.50	0.40	1.52	2.28	95% :	4.10 0.06
35	0.50	1.00	0.21	0.80	3.08		
45	0.35	1.50	0.23	0.87	3.95	Med.	3.44 0.09 0.00
60	0.25	2.00	0.21	0.80	4.74	Mean	2.02 0.25 0.000
80	0.18	2.50	0.25	0.95	5.70	St Dev.	-0.57
120	0.13	3.00	1.32	5.03	10.73	Skew	0.44
170	0.09	3.50	11.62	44.40	55.12	Kurt.	1.82
200	0.07	3.75	7.36	28.10	83.23		
Pan			1.46	5.57	88.80		
Total			23.25	88.80	88.80		
						Moment	Statistics
							Phi mm
Cu =	0.10		Gravel		0 %	Mean	3.18 0.11
			Coarse Sand		0 %	St. Dev.	0.70 0.62
			Med. Sand		3 %	Skewness	-2.57
Cc =	0.08		Fine Sand		80 %	Kurtosis	12.81

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COBBLES	GRAVEL		SAND			SILT OR CLAY
	COARSE	FINE	COARSE	MEDIUM	FINE	

SAMPLE NO.	ELEV.	CLASSIFICATION	PROJECT
9.0	-32.7	Fine muddy sand (SM)	Martin County-ATM
			AREA Martin County
			BORING NO. MC-3
			DATE July 30, 1999

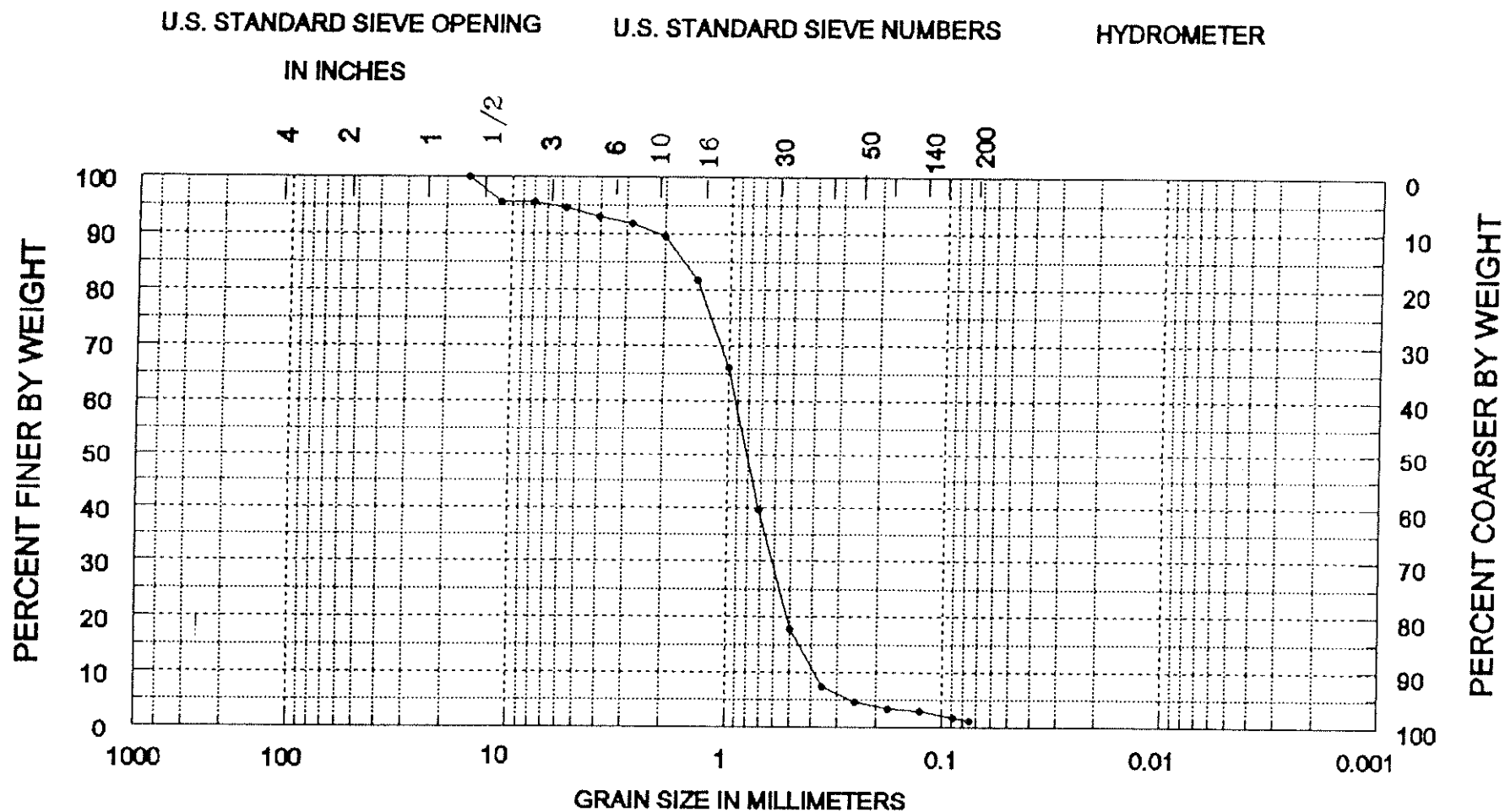
# Sediment Analysis Data Sheet

Sample MC-3-13.0

Sieve	Size (mm)	Phi size	Wt	Wt %	Cuml %	Folk Statistics phi mm
	16.00	-4.00	0.00	0.00	0.00	
	11.31	-3.50	1.16	4.63	4.63	
	8.00	-3.00	0.00	0.00	4.63	
	5.66	-2.50	0.24	0.96	5.59	5% : -2.81 7.00
5	4.00	-2.00	0.39	1.55	7.15	16% : -0.64 1.56
7	2.83	-1.50	0.29	1.17	8.32	25% : -0.28 1.22
10	2.00	-1.00	0.55	2.22	10.54	50% : 0.30 0.81
14	1.41	-0.50	1.91	7.64	18.18	75% : 0.84 0.56
18	1.00	0.00	3.93	15.75	33.93	84% : 1.09 0.47
25	0.71	0.50	6.61	26.49	60.42	95% : 1.91 0.27
35	0.50	1.00	5.42	21.73	82.15	
45	0.35	1.50	2.63	10.52	92.67	Med. 0.30 0.81
60	0.25	2.00	0.70	2.81	95.48	Mean 0.25 0.84
80	0.18	2.50	0.30	1.22	96.70	St Dev. 1.15
120	0.13	3.00	0.08	0.34	97.03	Skew -0.21
170	0.09	3.50	0.30	1.21	98.24	Kurt. 1.73
200	0.07	3.75	0.14	0.54	98.78	
Pan			0.00	0.02	98.80	Sorting 0.87
Total			24.66	98.80	98.80	

Moment						Statistics	
						Phi	mm
Cu =	2.39	Gravel		6	%	Mean	0.33 0.80
		Coarse	Sand	4	%	St. Dev.	1.34 0.40
		Med.	Sand	77	%	Skewness	-1.19
Cc =	1.03	Fine	Sand	11	%	Kurtosis	5.58

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COBBLES	GRAVEL		SAND			SILT OR CLAY
	COARSE	FINE	COARSE	MEDIUM	FINE	

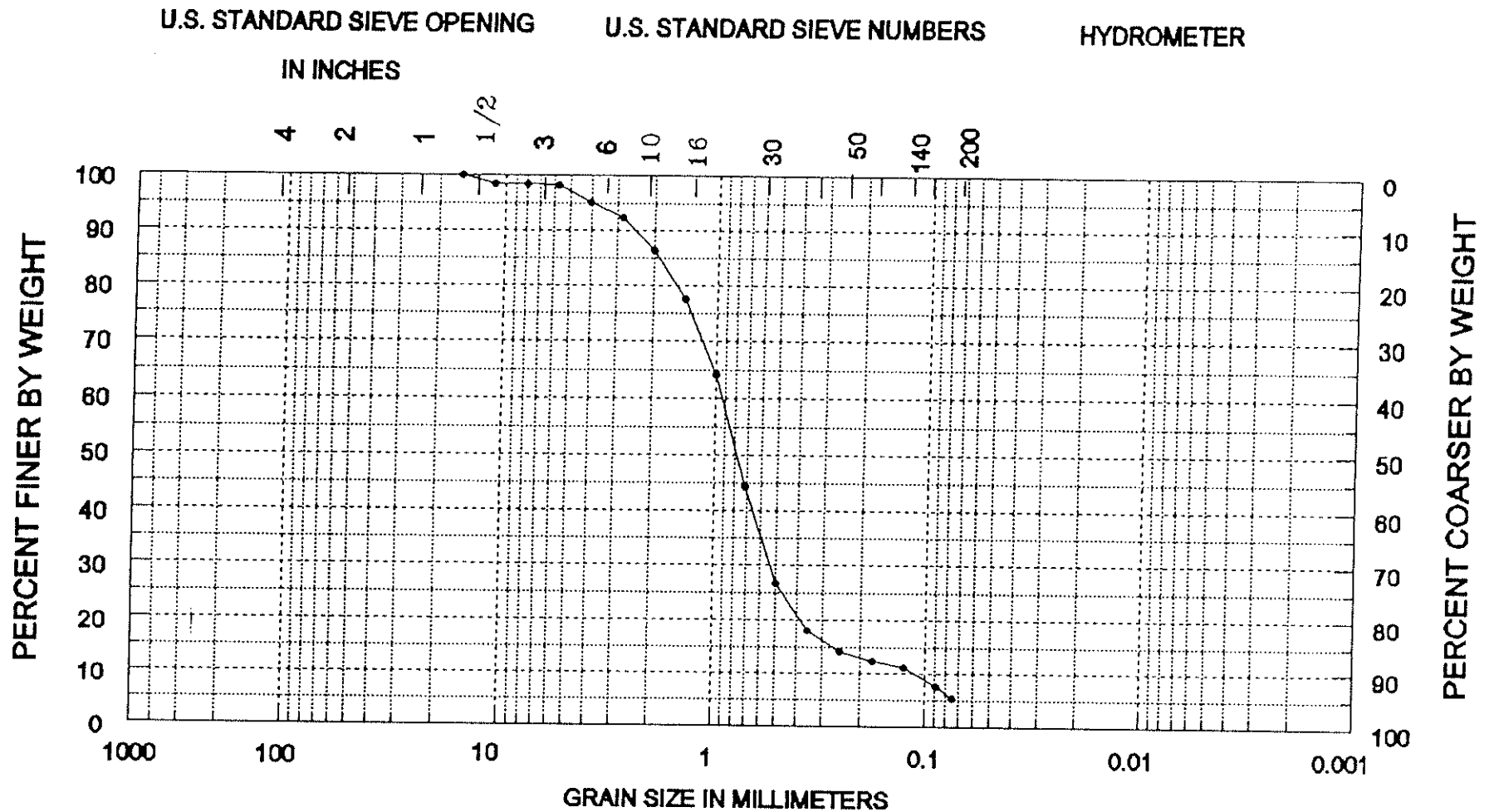
SAMPLE NO.	ELEV.	CLASSIFICATION	PROJECT
13.0	-37.7	Medium sand (SP)	Martin County-ATM
			AREA Martin County
			BORING NO. MC-3
			DATE July 30, 1999

# Sediment Analysis Data Sheet

Sample MC-3-17.0

Sieve	Size (mm)	Phi size	Wt	Wt %	Cuml %	Folk Statistics phi mm
	16.00	-4.00	0.00	0.00	0.00	
	11.31	-3.50	0.37	1.55	1.55	
	8.00	-3.00	0.00	0.00	1.55	
	5.66	-2.50	0.04	0.17	1.72	5% : -2.00 4.01
5	4.00	-2.00	0.79	3.30	5.02	16% : -0.86 1.82
7	2.83	-1.50	0.64	2.69	7.71	25% : -0.40 1.32
10	2.00	-1.00	1.40	5.87	13.58	50% : 0.36 0.78
14	1.41	-0.50	2.13	8.89	22.47	75% : 1.10 0.47
18	1.00	0.00	3.18	13.31	35.78	84% : 1.76 0.30
25	0.71	0.50	4.74	19.84	55.62	95% : -0.24 1.18
35	0.50	1.00	4.20	17.57	73.20	
45	0.35	1.50	2.10	8.81	82.00	Med. 0.36 0.78
60	0.25	2.00	0.92	3.84	85.84	Mean 0.42 0.75
80	0.18	2.50	0.43	1.78	87.62	St Dev. 0.92
120	0.13	3.00	0.32	1.32	88.94	Skew -0.81
170	0.09	3.50	0.83	3.48	92.42	Kurt. 0.48
200	0.07	3.75	0.54	2.25	94.68	
Pan			0.15	0.62	95.30	
Total			22.77	95.30	95.30	
						<div>Moment Statistics</div> <div>Phi mm</div> <div>Mean 0.47 0.72</div> <div>St. Dev. 1.43 0.37</div> <div>Skewness -0.10</div> <div>Kurtosis 3.72</div>
Cu =	8.26		Gravel	3	%	
			Coarse Sand	10	%	
			Med. Sand	64	%	
Cc =	2.71		Fine Sand	17	%	

SEA, INC.



COBBLES	GRAVEL		SAND			SILT OR CLAY
	COARSE	FINE	COARSE	MEDIUM	FINE	

SAMPLE NO.	ELEV.	CLASSIFICATION	PROJECT
17.0	-41.7	Medium sand, well graded (SW)	Martin County-ATM
			AREA Martin County
			BORING NO. MC-3
			DATE July 30, 1999

# Sediment Analysis Data Sheet

Sample MC-3-COMP

Sieve	Size (mm)	Phi size	Wt	Wt %	Cuml %	Folk	Statistics
						phi	mm
	16.00	-4.00	0.00	0.00	0.00		
	11.31	-3.50	0.00	0.00	0.00		
	8.00	-3.00	0.00	0.00	0.00		
	5.66	-2.50	0.00	0.00	0.00	5% :	-0.76 1.69
5	4.00	-2.00	0.06	0.16	0.16	16% :	-0.07 1.05
7	2.83	-1.50	0.21	0.56	0.72	25% :	0.18 0.88
10	2.00	-1.00	0.78	2.08	2.81	50% :	0.77 0.59
14	1.41	-0.50	1.68	4.48	7.29	75% :	1.55 0.34
18	1.00	0.00	3.77	10.06	17.34	84% :	2.32 0.20
25	0.71	0.50	7.77	20.72	38.06	95% :	3.51 0.09
35	0.50	1.00	8.31	22.16	60.22		
45	0.35	1.50	5.23	13.96	74.18	Med.	0.77 0.59
60	0.25	2.00	3.07	8.18	82.35	Mean	1.01 0.50
80	0.18	2.50	0.96	2.55	84.91	St Dev.	1.24
120	0.13	3.00	0.67	1.78	86.68	Skew	0.29
170	0.09	3.50	2.35	6.26	92.94	Kurt.	1.28
200	0.07	3.75	1.51	4.01	96.95		
Pan			0.28	0.75	97.70		
Total			36.64	97.70	97.70		
						Moment	Statistics
							Phi mm
Cu =	6.59		Gravel		0 %	Mean	1.14 0.45
			Coarse Sand		3 %	St. Dev.	1.19 0.44
			Med. Sand		64 %	Skewness	0.49
Cc =	2.16		Fine Sand		30 %	Kurtosis	3.22

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