

DRILLING LOG		DIVISION: South Atlantic	INSTALLATION: Jacksonville District	SHEET 1 of 1
1. PROJECT CAPTIVA ISLAND SAND STUDY		10. SIZE AND TYPE OF BIT 3 5/8"		
2. LOCATION (Coordinates or Station) X=564214.62 Y=830300.27		11. DATUM FOR ELEVATION SHOWN (TBM or MSL) NGVD		
3. DRILLING AGENCY: Alpine Ocean Seismic Survey Inc.		12. MANUFACTURER'S DESIGNATION OF DRILL ALPINE PNEUMATIC VIBRACORE		
4. HOLE NO. (As shown on drawing title and file number) CIVC-00-13		13. TOT NO. OF OVERBURDEN SAMPLES TAKEN Disturbed: 0 Undisturbed: 0		
5. NAME OF DRILLER MAURIZIO ROSSI		14. TOTAL NO. OF CORE BOXES		
6. DIRECTION OF HOLE VERTICAL		15. ELEVATION GROUND WATER		
7. THICKNESS OF BURDEN 0.0 FT		16. DATE HOLE Started 8/10/00 Completed 12:34		
8. DEPTH DRILLED INTO ROCK N/A		17. ELEVATION TOP OF HOLE - 23.7FT		
9. TOTAL DEPTH OF HOLE 18.6 FT		18. TOTAL CORE RECOVERY FOR BORING 96.5%		
		19. SIGNATURE OF GEOLOGIST SK/ID		

ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)	CORE REC %	SAMPLE NUMBER	REMARKS
-23.7	0					
	1		SAND, fine grained, some shell hash/ shell fragments, gray (5Y-5/1), (SP).		1	Sample #1, Depth = 1.0' Mean (mm): 0.51, Phi Sorting: 1.49 Silt: 2.12% (SW)
-26.3	2					
	3		fine grained, some shell hash/ shell fragments, gray (5Y-5/1), (SP).		2	Sample #2, Depth = 3.5' Mean (mm): 0.34, Phi Sorting: 1.37 Silt: 2.33% (SW)
-28.5	4					
	5		SAND, fine grained, little calcareous silt/clay, trace shell hash/fragments, gray (5Y-5/1), (SP-SM). 4" rock fragment @ 7.1'-7.3'.		3	Sample #3, Depth = 5.5' Mean (mm): 0.19, Phi Sorting: 1.93 Silt: 14.48% (SM)
-31.2	6					
	7					
	8		fine grained, little calcareous silt/clay, little shell hash/fragments, gray (5Y-5/1), (SM).		4	Sample #4, Depth = 7.5' Mean (mm): 0.24, Phi Sorting: 2.36 Silt: 21.33% (SM)
-32.9	9					
	10					
	11					
	12		SILTY CLAY (calcareous), trace calcareous sand, gray (5Y-5/1), at places mottled.			
	13					
	14					
-39.2	15					
	16		CARBONATE CLASTS, ranges from fine sand sized to 2", hard & compact, white (5Y-8/1), (GP).			
-41.6	17					
	18		No Recovery			
-42.3	19		End of Boring			
	20					
	21		Note: 1) Soils are field visually classified in accordance with the Unified Soil Classification System.			Note: This column contains laboratory data.
	22					
	23					
	24					

Gradation Analysis Report

Proj Name: Captiva Island
 Sample: CIVC-00-13#1
 Date: 1/1/2001
 By: ID



2841 N. W. Boca Raton Blvd. Boca Raton FL 33428

Elevation:	-24.7	Feet	Easting:	564214.62	State Plane	1983
Reference:	NGVD 29		Northing:	830300.27	FLA West	Feet

USCS:	SW	Munsel Dry:	5Y-6/1	Munsel Wet:	5Y-6/1
Comments:	0				

Dry Wt.	65.94	Percent Silt:	2.12
Wash Wt.	64.54		

Sieve Size	PHI Size	mm Size	Grams Retained	% Weight Retained	Cum. Grams Retained	C % Weight Retained
5/8	-4.000	16.000	0.000	0.000	0.000	0.000
5/16	-3.000	8.000	0.450	0.682	0.450	0.682
5	-2.000	4.000	1.300	1.971	1.750	2.654
7	-1.500	2.828	1.030	1.562	2.780	4.216
10	-1.000	2.000	2.400	3.640	5.180	7.856
14	-0.500	1.414	3.580	5.429	8.760	13.285
18	0.000	1.000	4.200	6.369	12.960	19.654
25	0.500	0.707	5.840	8.857	18.800	28.511
35	1.000	0.500	7.320	11.101	26.120	39.612
45	1.500	0.354	10.540	15.984	36.660	55.596
60	2.000	0.250	16.320	24.750	52.980	80.346
80	2.500	0.177	7.700	11.677	60.680	92.023
120	3.000	0.125	3.070	4.656	63.750	96.679
170	3.500	0.088	0.650	0.986	64.400	97.665
200	3.750	0.074	0.120	0.182	64.520	97.847
230	4.000	0.063	0.010	0.015	64.530	97.862
Pan	Pan	0.053	1.400	2.123	65.930	99.985

PHI 5	PHI 16	PHI 25	PHI 50	PHI 75	PHI 84	PHI 95
-1.39	-0.29	0.30	1.32	1.89	2.16	2.82

Median phi:	1.32	Median mm:	0.40
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	Mean phi	Mean mm	Sorting	Skewness	Kurtosis
Graphic	0.92	0.53	1.25	-0.48	1.09
Moment	0.97	0.51	1.49	-0.34	1.61

Gradation Analysis Report

Proj Name: Captiva Island
 Sample: CIVC-00-13#2
 Date: 1/1/2001
 By: ID



2841 N. W. Boca Raton Blvd. Boca Raton FL 33428

Elevation:	-27.2	Feet	Easting:	564214.62	State Plane	1983
Reference:	NGVD 29		Northing:	830300.27	FLA West	Feet

USCS:	SW	Munsel Dry:	5Y-6/1	Munsel Wet:	5Y-6/1
Comments:	0				

Dry Wt.	55.90	Percent Silt:	2.33
Wash Wt.	54.61		

Sieve Size	PHI Size	mm Size	Grams Retained	% Weight Retained	Cum. Grams Retained	C % Weight Retained
5/8	-4.000	16.000	0.000	0.000	0.000	0.000
5/16	-3.000	8.000	0.000	0.000	0.000	0.000
5	-2.000	4.000	0.130	0.233	0.130	0.233
7	-1.500	2.828	0.650	1.163	0.780	1.395
10	-1.000	2.000	1.040	1.860	1.820	3.256
14	-0.500	1.414	1.850	3.309	3.670	6.565
18	0.000	1.000	2.350	4.204	6.020	10.769
25	0.500	0.707	2.810	5.027	8.830	15.796
35	1.000	0.500	3.750	6.708	12.580	22.504
45	1.500	0.354	7.490	13.399	20.070	35.903
60	2.000	0.250	12.970	23.202	33.040	59.106
80	2.500	0.177	11.290	20.197	44.330	79.302
120	3.000	0.125	7.860	14.061	52.190	93.363
170	3.500	0.088	2.170	3.882	54.360	97.245
200	3.750	0.074	0.230	0.411	54.590	97.657
230	4.000	0.063	0.010	0.018	54.600	97.674
Pan	Pan	0.053	1.300	2.326	55.900	100.000

PHI 5	PHI 16	PHI 25	PHI 50	PHI 75	PHI 84	PHI 95
-0.74	0.52	1.09	1.80	2.39	2.67	3.21

Median phi:	1.80	Median mm:	0.29
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	Mean phi	Mean mm	Sorting	Skewness	Kurtosis
Graphic	1.49	0.36	1.14	-0.46	1.24
Moment	1.56	0.34	1.37	-0.45	1.82

Gradation Analysis Report

Proj Name: Captiva Island
 Sample: CIVC-00-13#3
 Date: 1/1/2001
 By: ID



2841 N. W. Boca Raton Blvd. Boca Raton FL 33428

Elevation:	-29.2	Feet	Easting:	564214.62	State Plane	1983
Reference:	NGVD 29		Northing:	830300.27	FLA West	Feet

USCS:	SM	Munsel Dry:	5Y-6/1	Munsel Wet:	5Y-6/1
Comments:	0				

Dry Wt.	60.50	Percent Silt:	14.48
Wash Wt.	51.84		

Sieve Size	PHI Size	mm Size	Grams Retained	% Weight Retained	Cum. Grams Retained	C % Weight Retained
5/8	-4.000	16.000	0.000	0.000	0.000	0.000
5/16	-3.000	8.000	0.000	0.000	0.000	0.000
5	-2.000	4.000	1.840	3.041	1.840	3.041
7	-1.500	2.828	1.350	2.231	3.190	5.273
10	-1.000	2.000	1.100	1.818	4.290	7.091
14	-0.500	1.414	0.960	1.587	5.250	8.678
18	0.000	1.000	0.830	1.372	6.080	10.050
25	0.500	0.707	0.910	1.504	6.990	11.554
35	1.000	0.500	0.890	1.471	7.880	13.025
45	1.500	0.354	0.850	1.405	8.730	14.430
60	2.000	0.250	2.270	3.752	11.000	18.182
80	2.500	0.177	3.810	6.298	14.810	24.479
120	3.000	0.125	15.890	26.264	30.700	50.744
170	3.500	0.088	16.950	28.017	47.650	78.760
200	3.750	0.074	3.680	6.083	51.330	84.843
230	4.000	0.063	0.390	0.645	51.720	85.488
Pan	Pan	0.053	8.760	14.479	60.480	99.967

PHI 5	PHI 16	PHI 25	PHI 50	PHI 75	PHI 84	PHI 95
-1.56	1.71	2.51	2.99	3.43	3.71	4.16

Median phi:	2.99	Median mm:	0.13
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	Mean phi	Mean mm	Sorting	Skewness	Kurtosis
Graphic	2.20	0.22	1.37	-1.63	2.54
Moment	2.42	0.19	1.93	-1.27	3.16

Gradation Analysis Report

Proj Name: Captiva Island
 Sample: CIVC-00-13#4
 Date: 1/1/2001
 By: ID



2841 N. W. Boca Raton Blvd. Boca Raton FL 33428

Elevation:	-31.2	Feet	Easting:	564214.62	State Plane	1983
Reference:	NGVD 29		Northing:	830300.27	FLA West	Feet

USCS:	SM	Munsel Dry:	5Y-6/1	Munsel Wet:	5Y-6/1
Comments:	0				

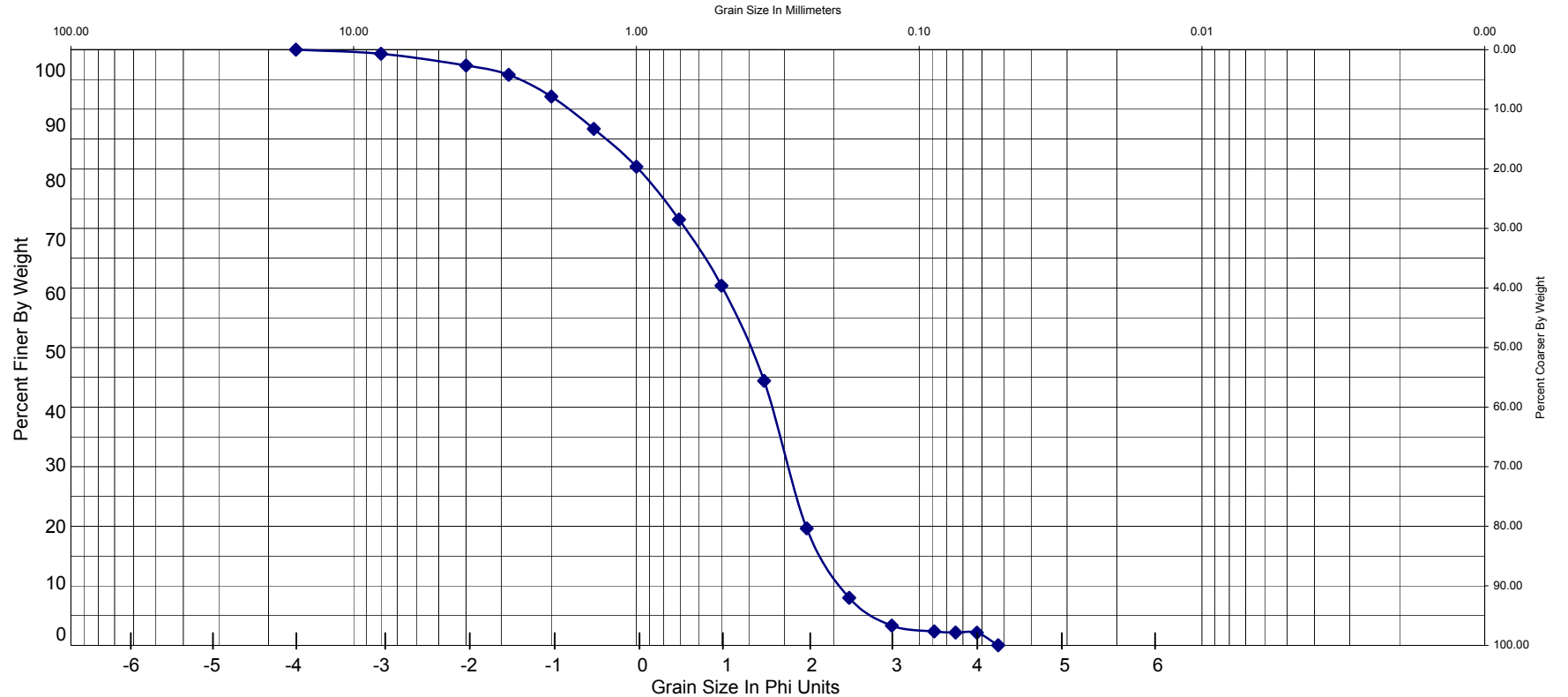
Dry Wt.	59.57	Percent Silt:	21.33
Wash Wt.	46.98		

Sieve Size	PHI Size	mm Size	Grams Retained	% Weight Retained	Cum. Grams Retained	C % Weight Retained
5/8	-4.000	16.000	0.000	0.000	0.000	0.000
5/16	-3.000	8.000	0.000	0.000	0.000	0.000
5	-2.000	4.000	2.870	4.818	2.870	4.818
7	-1.500	2.828	1.760	2.955	4.630	7.772
10	-1.000	2.000	1.610	2.703	6.240	10.475
14	-0.500	1.414	1.990	3.341	8.230	13.816
18	0.000	1.000	1.780	2.988	10.010	16.804
25	0.500	0.707	1.730	2.904	11.740	19.708
35	1.000	0.500	1.570	2.636	13.310	22.343
45	1.500	0.354	1.360	2.283	14.670	24.626
60	2.000	0.250	2.110	3.542	16.780	28.169
80	2.500	0.177	3.200	5.372	19.980	33.540
120	3.000	0.125	8.750	14.689	28.730	48.229
170	3.500	0.088	13.580	22.797	42.310	71.026
200	3.750	0.074	3.460	5.808	45.770	76.834
230	4.000	0.063	1.080	1.813	46.850	78.647
Pan	Pan	0.053	12.700	21.319	59.550	99.966

PHI 5	PHI 16	PHI 25	PHI 50	PHI 75	PHI 84	PHI 95
-1.97	-0.14	1.55	3.04	3.67	4.06	4.19

Median phi:	3.04	Median mm:	0.12
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	Mean phi	Mean mm	Sorting	Skewness	Kurtosis
Graphic	1.84	0.28	1.98	-1.00	1.19
Moment	2.06	0.24	2.36	-0.67	1.78

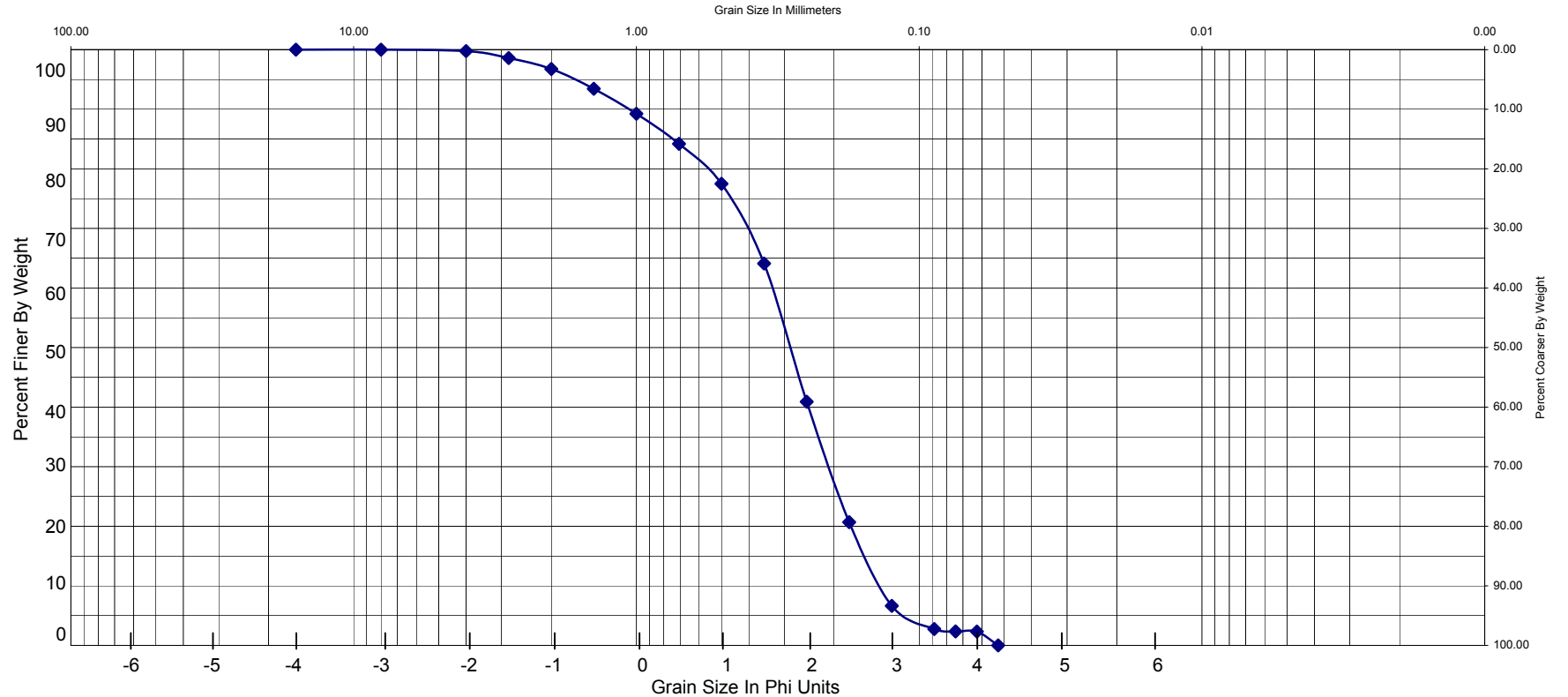


Gravel		Sand			Silt or Clay
Coarse	Fine	Coarse	Medium	Fine	

Sample No.	Depth	Description	USCS	% Silt	Median	Mean	Skew	Kurt	Sort	PL	LL	PI	Sample Information
◆ CIVC-00-13#1	1.0		SW	2.12	0.4	0.51	-0.34	1.61	1.49	NA	NA	NA	Project Name: Captiva Island
													Sample Type: Vibracores
													Collection Date: 1/1/2001
													Analysis By: ID
													Easting (X): 564214.62 Feet
													Northing (Y): 830300.27 Feet
													Sample Elevation:-24.7 NGVD 29
													Coord. System: State Plane 1983 FLA West



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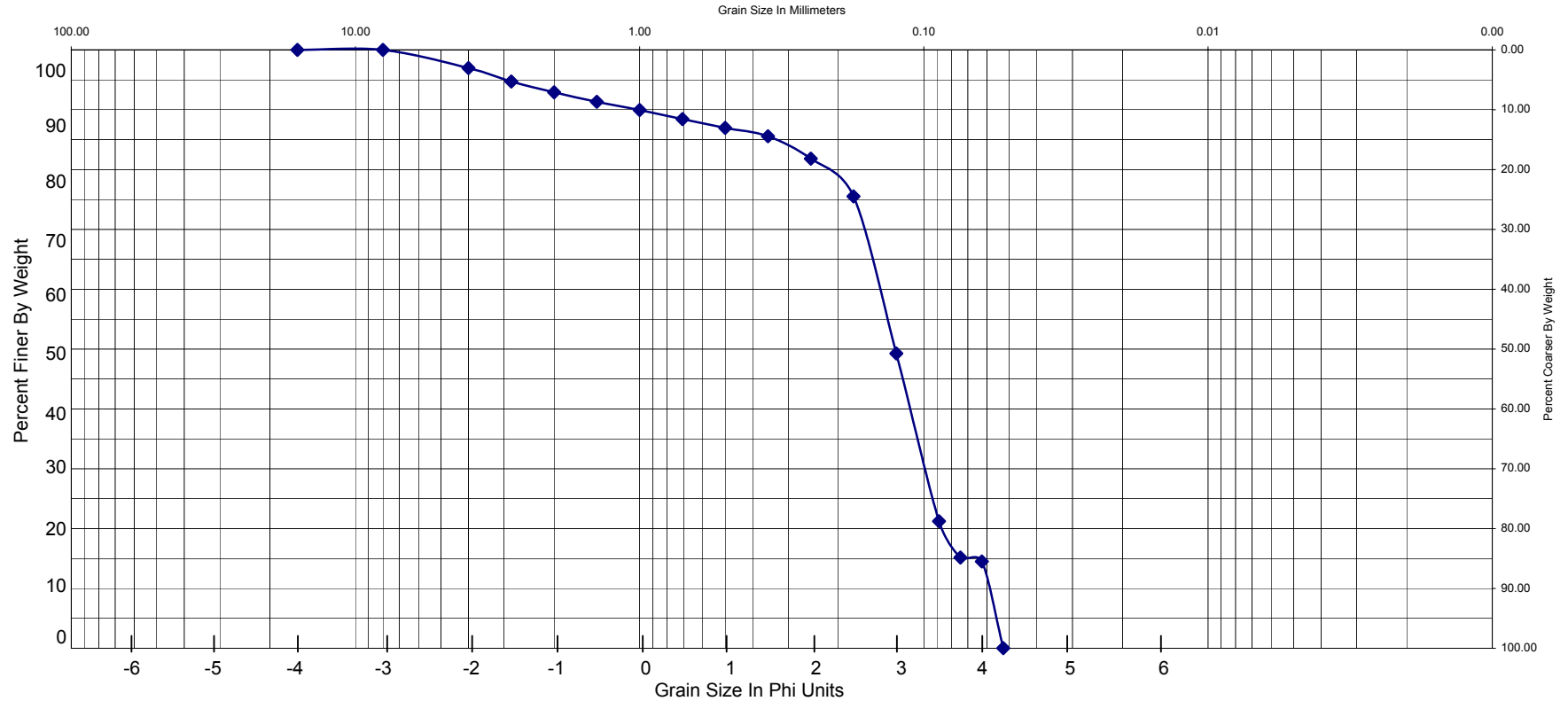


Gravel		Sand			Silt or Clay
Coarse	Fine	Coarse	Medium	Fine	

Sample No.	Depth	Description	USCS	% Silt	Median	Mean	Skew	Kurt	Sort	PL	LL	PI	Sample Information
◆ CIVC-00-13#2	3.5		SW	2.33	0.29	0.34	-0.45	1.82	1.37	NA	NA	NA	Project Name: Captiva Island
													Sample Type: Vibracores
													Collection Date: 1/1/2001
													Analysis By: ID
													Easting (X): 564214.62 Feet
													Northing (Y): 830300.27 Feet
													Sample Elevation: -27.2 NGVD 29
													Coord. System: State Plane 1983 FLA West



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Gravel		Sand			Silt or Clay
Coarse	Fine	Coarse	Medium	Fine	

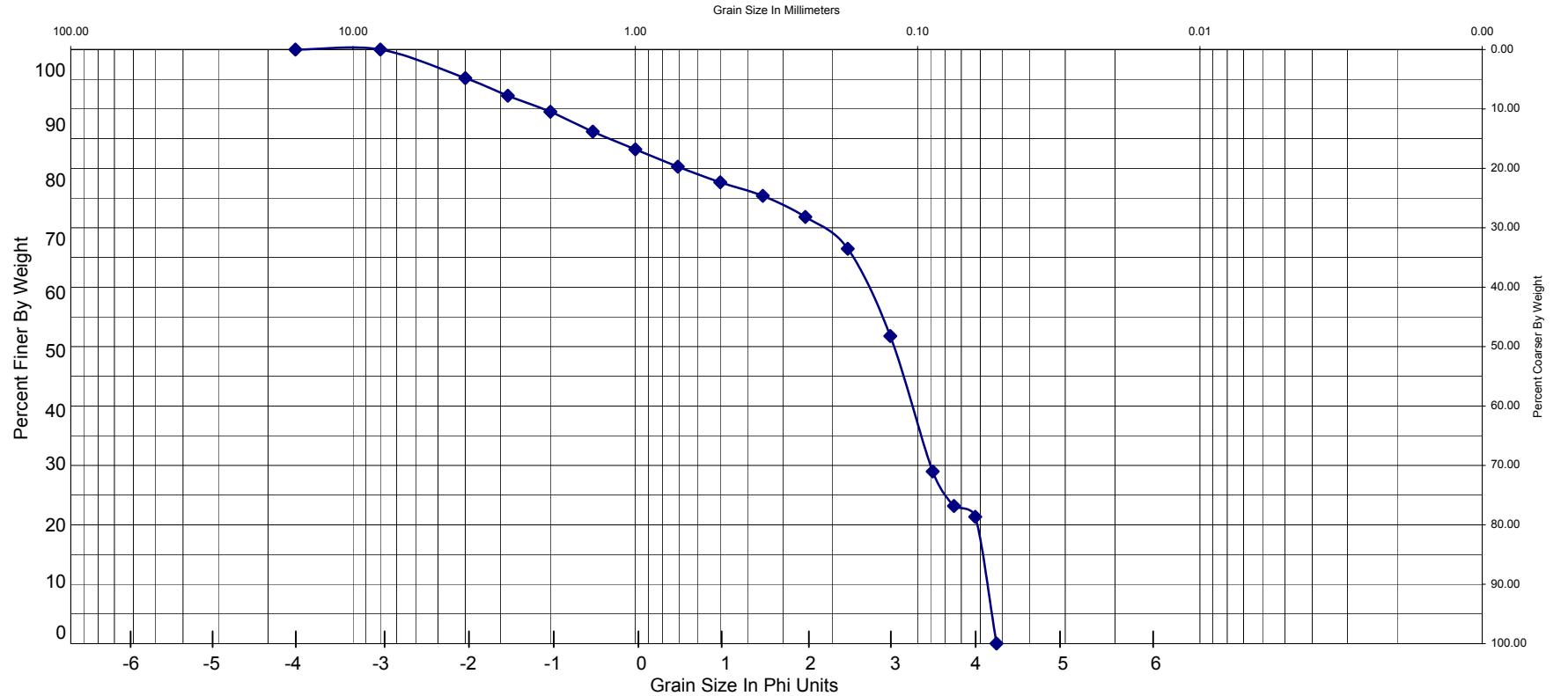
Sample No.	Depth	Description	USCS	% Silt	Median	Mean	Skew	Kurt	Sort	PL	LL	PI	Sample Information
◆ CIVC-00-13#3	5.5		SM	14.48	0.13	0.19	-1.27	3.16	1.93	NA	NA	NA	Project Name: Captiva Island
													Sample Type: Vibracores
													Collection Date: 1/1/2001
													Analysis By: ID



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Easting (X):	564214.62 Feet
Northing (Y):	830300.27 Feet
Sample Elevation:	-29.2 NGVD 29
Coord. System:	State Plane 1983 FLA West



Gravel		Sand			Silt or Clay
Coarse	Fine	Coarse	Medium	Fine	

Sample No.	Depth	Description	USCS	% Silt	Median	Mean	Skew	Kurt	Sort	PL	LL	PI	Sample Information
◆ CIVC-00-13#4	7.5		SM	21.33	0.12	0.24	-0.67	1.78	2.36	NA	NA	NA	Project Name: Captiva Island
													Sample Type: Vibracores
													Collection Date: 1/1/2001
													Analysis By: ID



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Easting (X):	564214.62 Feet
Northing (Y):	830300.27 Feet
Sample Elevation:	-31.2 NGVD 29
Coord. System:	State Plane 1983 FLA West

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