

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=547689.13 Y=768122.60		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-00-35		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 Completed 8/11/00 10:48		
8. DEPTH DRILLED INTO ROCK N/A		17. ELEVATION TOP OF HOLE -30.7 FT		
9. TOTAL DEPTH OF HOLE 18.8 FT		18. TOTAL CORE RECOVERY FOR BORING 100%		
		19. SIGNATURE OF GEOLOGIST ID		

ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)	CORE REC %	SAMPLE NUMBER	REMARKS
-30.7	0					
	1				1	Sample #1, Depth = 2.0' Mean (mm): 0.41, Phi Sorting: 1.25 Silt: 3.43% (SW)
	2					
	3					
	4					
	5		SAND, fine grained, some shell hash/fragments/whole shell, gray (5Y-6/1), (SP). 2" shell fragment @ 7.7', 2" whole shell @ 11.4'.		2	Sample #2, Depth = 6.0' Mean (mm): 0.68, Phi Sorting: 1.60 Silt: 1.51% (SW)
	6					
	7					
	8					
	9					
	10				3	Sample #3, Depth = 11.0' Mean (mm): 0.47, Phi Sorting: 1.61 Silt: 1.60% (SW)
	11					
-42.3	12					
	13		fine grained, some shell hash/fragments, light gray (5Y-7/1), (SP).		4	Sample #4, Depth = 14.0' Mean (mm): 0.36, Phi Sorting: 1.44 Silt: 2.74% (SW)
	14					
-45.7	15					
	16		SAND, fine grained, some shell hash/fragments, light gray (5Y-7/1), (SP).		5	Sample #5, Depth = 16.0' Mean (mm): 0.25, Phi Sorting: 1.09 Silt: 4.08% (SP)
	17					
	18					
-49.3	19					
	20		CARBONATE CLASTS, predominantly sand (calcareous) with carbonate fragments up to 2", light gray (5Y-7/1), (GP). Expansion from 18.8'.			
-51	21		End of Boring			Note: This column contains laboratory data.
	22		Note: 1) Soils are field visually classified in accordance with the Unified Soil Classification System.			
	23					
	24					

Gradation Analysis Report

Proj Name: Captiva Island
 Sample: CIVC-00-35#1
 Date: 1/1/2001
 By: ID



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

Elevation:	-32.7	Feet	Easting:	547689.13	State Plane	1983
Reference:	NGVD 29		Northing:	768122.60	FLA West	Feet

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

Dry Wt.	95.82	Percent Silt:	3.43
Wash Wt.	92.53		

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	0.300	0.313	0.300	0.313
5	-2.000	4.000	1.300	1.357	1.600	1.670
7	-1.500	2.828	0.890	0.929	2.490	2.599
10	-1.000	2.000	1.390	1.451	3.880	4.049
14	-0.500	1.414	2.610	2.724	6.490	6.773
18	0.000	1.000	3.800	3.966	10.290	10.739
25	0.500	0.707	6.750	7.044	17.040	17.783
35	1.000	0.500	11.400	11.897	28.440	29.681
45	1.500	0.354	17.410	18.169	45.850	47.850
60	2.000	0.250	24.370	25.433	70.220	73.283
80	2.500	0.177	19.120	19.954	89.340	93.237
120	3.000	0.125	2.990	3.120	92.330	96.358
170	3.500	0.088	0.160	0.167	92.490	96.525
200	3.750	0.074	0.030	0.031	92.520	96.556
230	4.000	0.063	0.010	0.010	92.530	96.566
Pan	Pan	0.053	3.290	3.434	95.820	100.000

PHI 5	PHI 16	PHI 25	PHI 50	PHI 75	PHI 84	PHI 95
-0.83	0.37	0.80	1.54	2.04	2.27	2.78

Median phi:	1.54	Median mm:	0.34
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	Mean phi	Mean mm	Sorting	Skewness	Kurtosis
Graphic	1.23	0.43	1.02	-0.49	1.19
Moment	1.28	0.41	1.25	-0.47	1.84

Gradation Analysis Report

Proj Name: Captiva Island
 Sample: CIVC-00-35#2
 Date: 1/1/2001
 By: ID



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

Elevation:	-36.7	Feet	Easting:	547689.13	State Plane	1983
Reference:	NGVD 29		Northing:	768122.60	FLA West	Feet

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

Dry Wt.	92.16	Percent Silt:	1.51
Wash Wt.	90.78		

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	1.840	1.997	1.840	1.997
5	-2.000	4.000	2.170	2.355	4.010	4.351
7	-1.500	2.828	1.980	2.148	5.990	6.500
10	-1.000	2.000	4.690	5.089	10.680	11.589
14	-0.500	1.414	7.990	8.670	18.670	20.258
18	0.000	1.000	9.200	9.983	27.870	30.241
25	0.500	0.707	13.010	14.117	40.880	44.358
35	1.000	0.500	12.800	13.889	53.680	58.247
45	1.500	0.354	16.530	17.936	70.210	76.183
60	2.000	0.250	6.820	7.400	77.030	83.583
80	2.500	0.177	9.720	10.547	86.750	94.130
120	3.000	0.125	3.350	3.635	90.100	97.765
170	3.500	0.088	0.480	0.521	90.580	98.286
200	3.750	0.074	0.150	0.163	90.730	98.448
230	4.000	0.063	0.030	0.033	90.760	98.481
Pan	Pan	0.053	1.390	1.508	92.150	99.989

PHI 5	PHI 16	PHI 25	PHI 50	PHI 75	PHI 84	PHI 95
-1.85	-0.75	-0.26	0.70	1.47	2.02	2.62

Median phi:	0.70	Median mm:	0.61
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	Mean phi	Mean mm	Sorting	Skewness	Kurtosis
Graphic	0.55	0.68	1.37	-0.17	1.06
Moment	0.56	0.68	1.60	-0.18	1.53

Gradation Analysis Report

Proj Name: Captiva Island
 Sample: CIVC-00-35#3
 Date: 1/1/2001
 By: ID



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

Elevation:	-41.7	Feet	Easting:	547689.13	State Plane	1983
Reference:	NGVD 29		Northing:	768122.60	FLA West	Feet

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

Dry Wt.	82.53	Percent Silt:	1.60
Wash Wt.	81.22		

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	2.660	3.223	2.660	3.223
7	-1.500	2.828	2.700	3.272	5.360	6.495
10	-1.000	2.000	2.560	3.102	7.920	9.597
14	-0.500	1.414	3.010	3.647	10.930	13.244
18	0.000	1.000	3.360	4.071	14.290	17.315
25	0.500	0.707	5.150	6.240	19.440	23.555
35	1.000	0.500	7.330	8.882	26.770	32.437
45	1.500	0.354	11.040	13.377	37.810	45.814
60	2.000	0.250	18.610	22.549	56.420	68.363
80	2.500	0.177	19.190	23.252	75.610	91.615
120	3.000	0.125	5.030	6.095	80.640	97.710
170	3.500	0.088	0.480	0.582	81.120	98.292
200	3.750	0.074	0.070	0.085	81.190	98.376
230	4.000	0.063	0.010	0.012	81.200	98.388
Pan	Pan	0.053	1.320	1.599	82.520	99.988

PHI 5	PHI 16	PHI 25	PHI 50	PHI 75	PHI 84	PHI 95
-1.73	-0.16	0.58	1.59	2.14	2.34	2.78

Median phi:	1.59	Median mm:	0.33
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	Mean phi	Mean mm	Sorting	Skewness	Kurtosis
Graphic	0.96	0.51	1.31	-0.76	1.18
Moment	1.08	0.47	1.61	-0.63	1.91

Gradation Analysis Report

Proj Name: Captiva Island
 Sample: CIVC-00-35#4
 Date: 1/1/2001
 By: ID



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

Elevation:	-44.7	Feet	Easting:	547689.13	State Plane	1983
Reference:	NGVD 29		Northing:	768122.60	FLA West	Feet

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

Dry Wt.	85.14	Percent Silt:	2.74
Wash Wt.	82.82		

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	0.780	0.916	0.780	0.916
5	-2.000	4.000	0.950	1.116	1.730	2.032
7	-1.500	2.828	1.010	1.186	2.740	3.218
10	-1.000	2.000	1.480	1.738	4.220	4.957
14	-0.500	1.414	2.180	2.560	6.400	7.517
18	0.000	1.000	2.970	3.488	9.370	11.005
25	0.500	0.707	5.540	6.507	14.910	17.512
35	1.000	0.500	8.000	9.396	22.910	26.909
45	1.500	0.354	9.060	10.641	31.970	37.550
60	2.000	0.250	16.020	18.816	47.990	56.366
80	2.500	0.177	19.670	23.103	67.660	79.469
120	3.000	0.125	13.130	15.422	80.790	94.891
170	3.500	0.088	1.650	1.938	82.440	96.829
200	3.750	0.074	0.280	0.329	82.720	97.158
230	4.000	0.063	0.080	0.094	82.800	97.252
Pan	Pan	0.053	2.330	2.737	85.130	99.988

PHI 5	PHI 16	PHI 25	PHI 50	PHI 75	PHI 84	PHI 95
-0.99	0.38	0.90	1.83	2.40	2.65	3.03

Median phi:	1.83	Median mm:	0.28
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	Mean phi	Mean mm	Sorting	Skewness	Kurtosis
Graphic	1.38	0.38	1.17	-0.58	1.09
Moment	1.46	0.36	1.44	-0.54	1.81

Gradation Analysis Report

Proj Name: Captiva Island
 Sample: CIVC-00-35#5
 Date: 1/1/2001
 By: ID



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

Elevation:	-46.7	Feet	Easting:	547689.13	State Plane	1983
Reference:	NGVD 29		Northing:	768122.60	FLA West	Feet

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

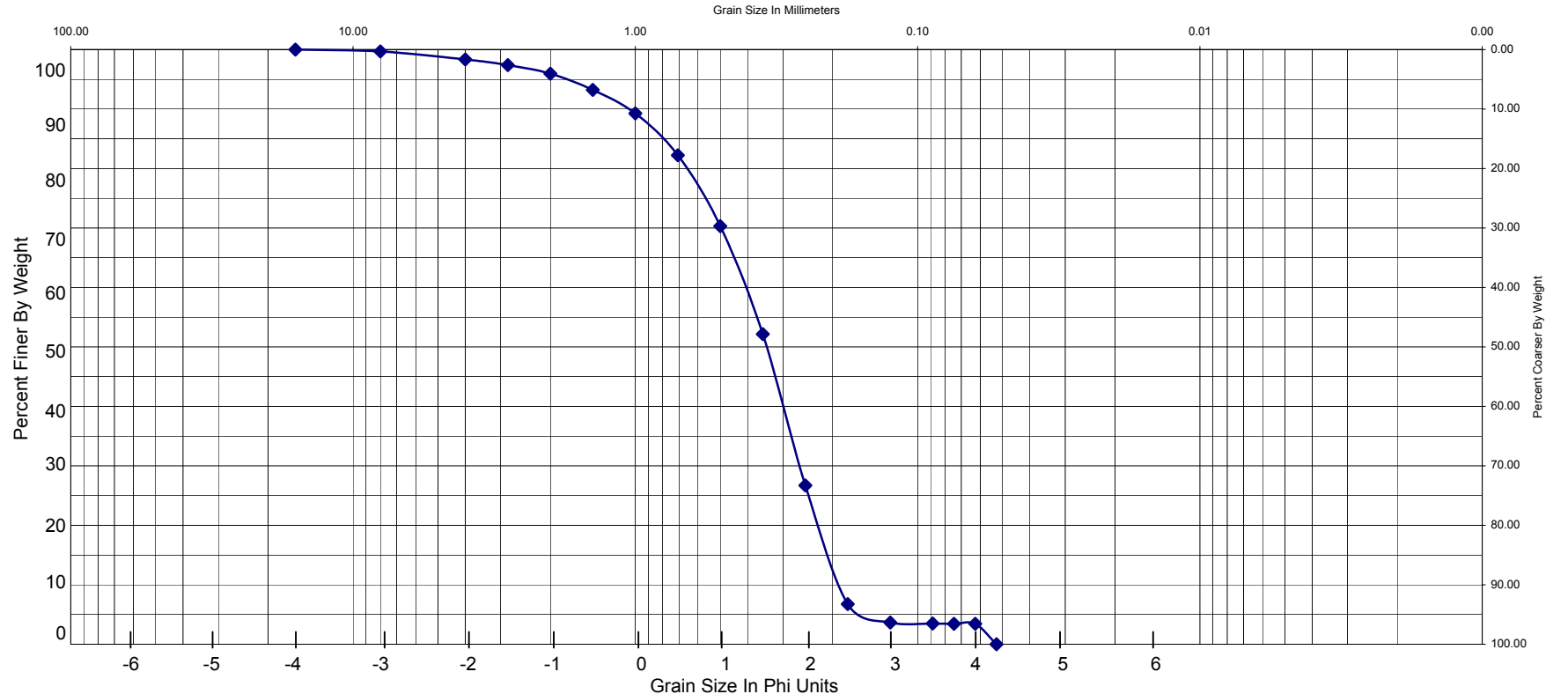
Dry Wt.	94.27	Percent Silt:	4.08
Wash Wt.	90.43		

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	0.560	0.594	0.560	0.594
7	-1.500	2.828	0.410	0.435	0.970	1.029
10	-1.000	2.000	0.350	0.371	1.320	1.400
14	-0.500	1.414	0.860	0.912	2.180	2.313
18	0.000	1.000	1.650	1.750	3.830	4.063
25	0.500	0.707	2.820	2.991	6.650	7.054
35	1.000	0.500	5.000	5.304	11.650	12.358
45	1.500	0.354	7.250	7.691	18.900	20.049
60	2.000	0.250	15.940	16.909	34.840	36.958
80	2.500	0.177	32.080	34.030	66.920	70.988
120	3.000	0.125	20.330	21.566	87.250	92.553
170	3.500	0.088	2.650	2.811	89.900	95.364
200	3.750	0.074	0.360	0.382	90.260	95.746
230	4.000	0.063	0.150	0.159	90.410	95.905
Pan	Pan	0.053	3.850	4.084	94.260	99.989

PHI 5	PHI 16	PHI 25	PHI 50	PHI 75	PHI 84	PHI 95
0.16	1.24	1.65	2.19	2.59	2.80	3.43

Median phi:	2.19	Median mm:	0.22
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	Mean phi	Mean mm	Sorting	Skewness	Kurtosis
Graphic	1.96	0.26	0.89	-0.45	1.42
Moment	2.01	0.25	1.09	-0.41	1.95



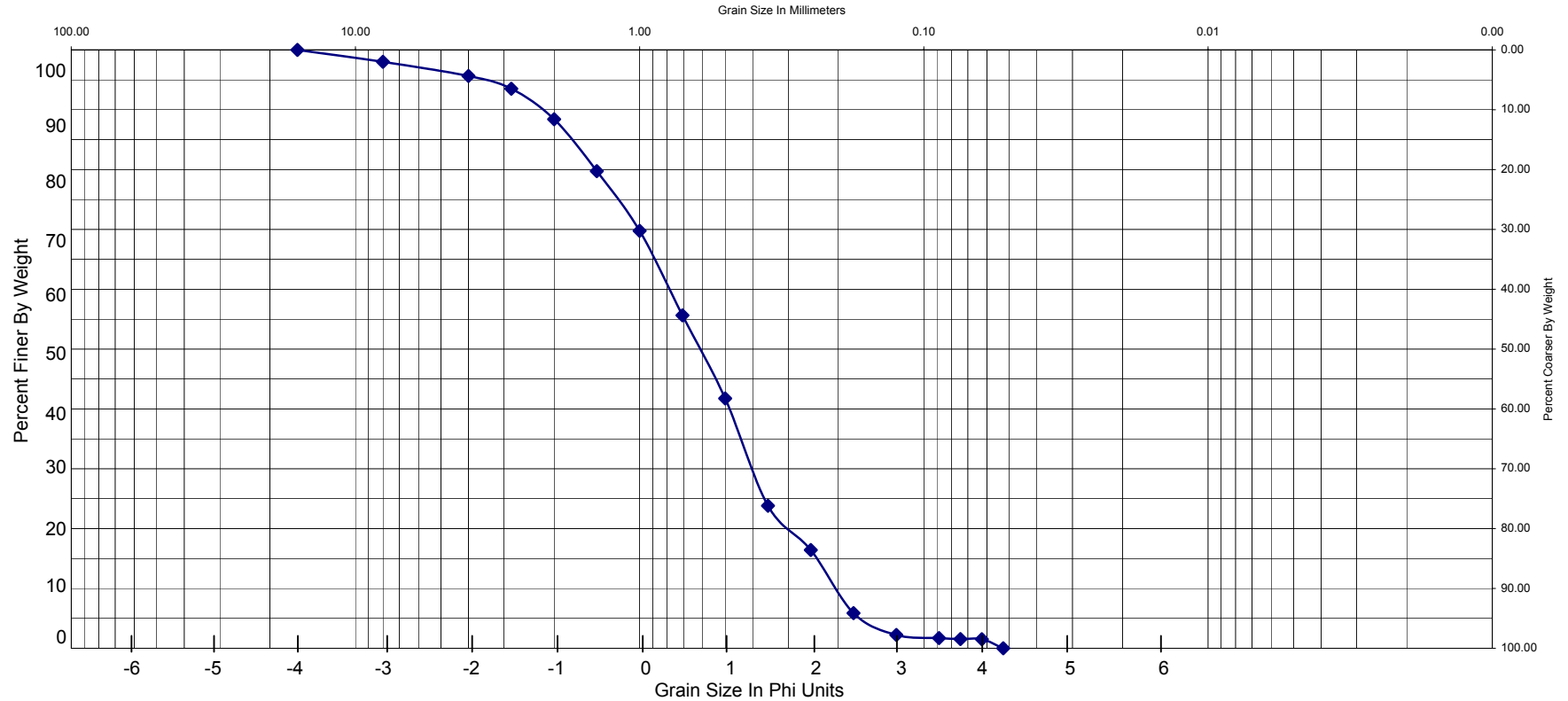
Gravel		Sand			Silt or Clay
Coarse	Fine	Coarse	Medium	Fine	

Sample No.	Depth	Description	USCS	% Silt	Median	Mean	Skew	Kurt	Sort	PL	LL	PI	Sample Information
◆ CIVC-00-35#1	2.0		SW	3.43	0.34	0.41	-0.47	1.84	1.25	NA	NA	NA	Project Name: Captiva Island
													Sample Type: Vibracores
													Collection Date: 1/1/2001
													Analysis By: ID



COASTAL PLANNING & ENGINEERING, INC.
2481 N. W. BOCA RATON BLVD.
BOCA RATON, FLORIDA 33431

Easting (X):	547689.13 Feet
Northing (Y):	768122.60 Feet
Sample Elevation:-	32.7 NGVD 29
Coord. System:	State Plane 1983 FLA West



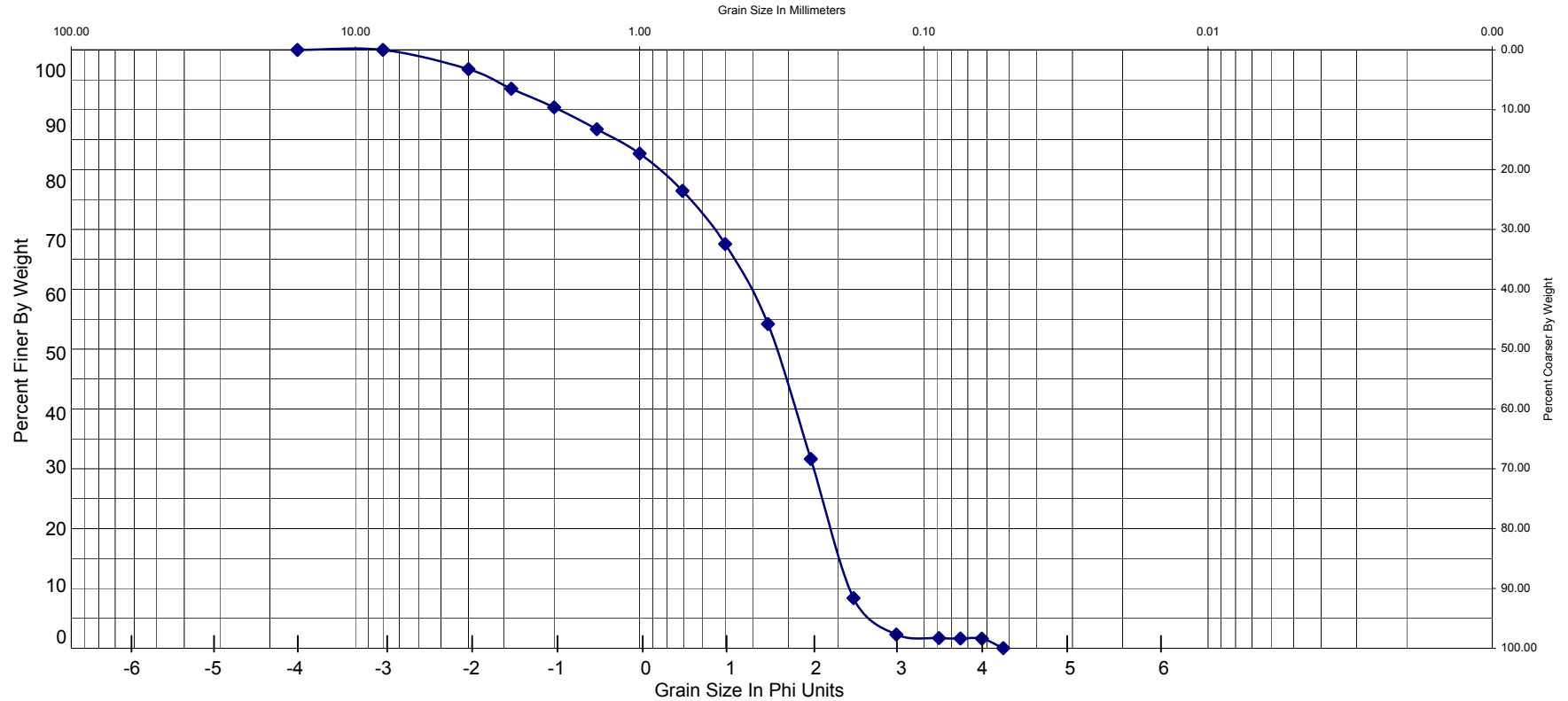
Gravel		Sand			Silt or Clay
Coarse	Fine	Coarse	Medium	Fine	

Sample No.	Depth	Description	USCS	% Silt	Median	Mean	Skew	Kurt	Sort	PL	LL	PI	Sample Information
◆ CIVC-00-35#2	6.0		SW	1.51	0.62	0.68	-0.18	1.53	1.6	NA	NA	NA	Project Name: Captiva Island
													Sample Type: Vibracores
													Collection Date: 1/1/2001
													Analysis By: ID



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2481 N. W. BOCA RATON BLVD.
BOCA RATON, FLORIDA 33431

Easting (X):	547689.13 Feet
Northing (Y):	768122.60 Feet
Sample Elevation:-	36.7 NGVD 29
Coord. System:	State Plane 1983 FLA West



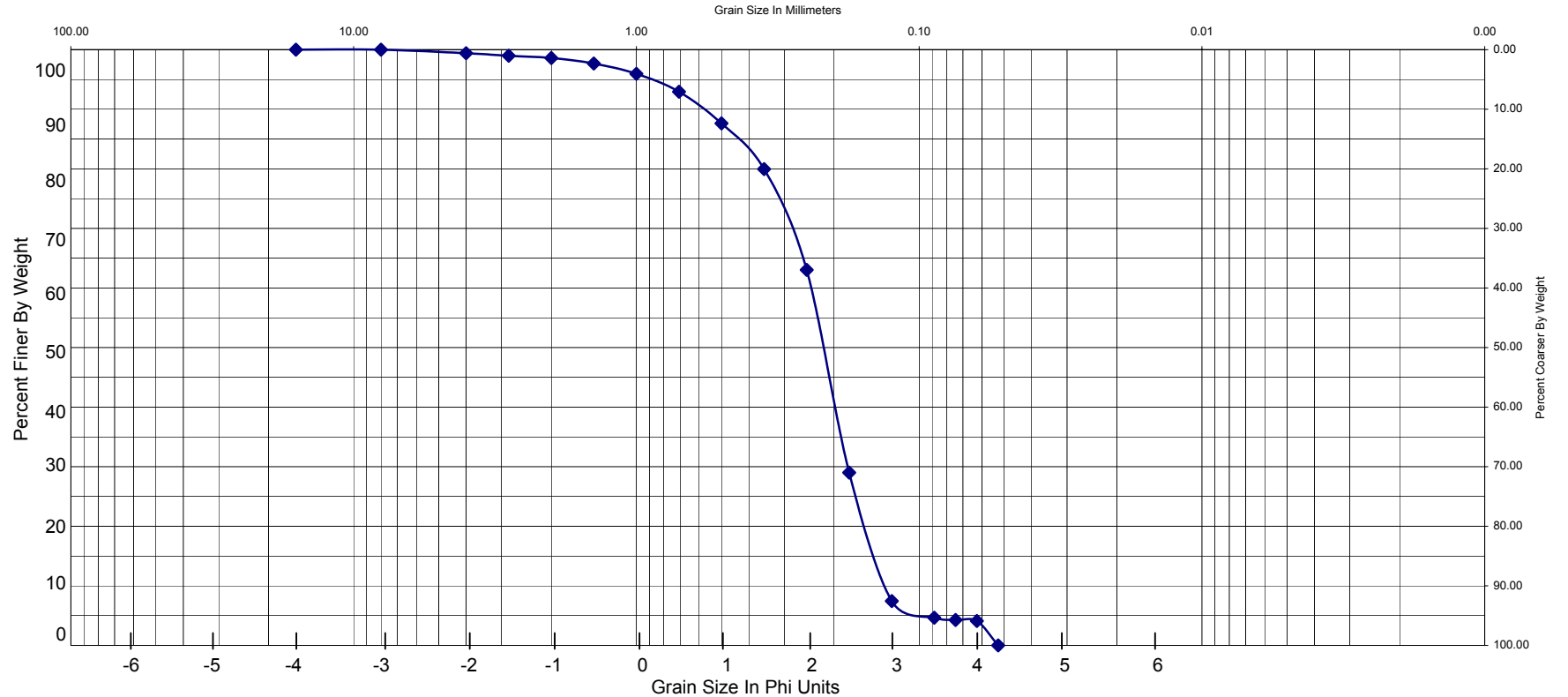
Gravel		Sand			Silt or Clay
Coarse	Fine	Coarse	Medium	Fine	

Sample No.	Depth	Description	USCS	% Silt	Median	Mean	Skew	Kurt	Sort	PL	LL	PI	Sample Information
◆ CIVC-00-35#3	11.0		SW	1.60	0.33	0.47	-0.63	1.91	1.61	NA	NA	NA	Project Name: Captiva Island
													Sample Type: Vibracores
													Collection Date: 1/1/2001
													Analysis By: ID



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2481 N. W. BOCA RATON BLVD.
BOCA RATON, FLORIDA 33431

Easting (X):	547689.13 Feet
Northing (Y):	768122.60 Feet
Sample Elevation:	-41.7 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-00-35#5	16.0		SP	4.08	0.22	0.25	-0.41	1.95	1.09	NA	NA	NA	Project Name: Captiva Island
													Sample Type: Vibracores
													Collection Date: 1/1/2001
													Analysis By: ID
													Easting (X): 547689.13 Feet
													Northing (Y): 768122.60 Feet
													Sample Elevation: -46.7 NGVD 29
													Coord. System: State Plane 1983 FLA West



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