

DRILLING LOG		DIVISION: South Atlantic	INSTALLATION: Jacksonville District	SHEET 1 of 1
1. PROJECT	CENTRAL BOCA SAND STUDY	10. SIZE AND TYPE OF BIT 3 5/8"		
(Coordinates or Station)		11. DATUM FOR ELEVATION SHOWN (TBM or MSL)		
2. LOCATION	X=964290.88 Y=737952.59	MLW		
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-00-04	13. TOT NO. OF OVERBURDEN SAMPLES TAKEN Disturbed: 0 Undisturbed: 0		
5. NAME OF DRILLER	JAMES COLE	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 3/22/01 9:48		
8. DEPTH DRILLED INTO ROCK N/A		17. ELEVATION TOP OF HOLE -57.6 ft		
9. TOTAL DEPTH OF HOLE 20.0 FT		18. TOTAL CORE RECOVERY FOR BORING 76%		
		19. SIGNATURE OF GEOLOGIST MW/ID		

ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)	CORE REC %	SAMPLE NUMBER	REMARKS
-57.6	0		SAND, fine to medium grained, trace shell hash, gray (5Y-5/1), (SP).		2	
-59	1		SHELLY SAND, gray (5Y-6/1), (SP). 1" shell @ 1.5'.			Sample #1, Depth = 1.5' Mean (mm): 0.38, Phi Sorting: 1.77 Silt: 1.87% (SW)
	2		SAND fine to medium grained, trace shell hash, gray (5Y-5/1), (SP). Some coral fragments from 4.4' to 4.8' ranging in size from 0.25" to 2.5".		2	Sample #2, Depth = 3.0' Mean (mm): 0.20, Phi Sorting: 0.78 Silt: 2.15% (SP)
-62.4	3					
	4					
	5					
	6					
	7		fine to medium grained, trace shell hash, gray (5Y-5/1), (SP) from 4.8' to 9.3'. 1" coral @ 8.5'.		3	Sample #3, Depth = 7.0' Mean (mm): 0.20, Phi Sorting: 0.76 Silt: 2.06% (SP)
-66.9	8					
	9					
	10					
	11					
	12		CARBONATE CLASTS and coral fragments, size ranges from 0.25" to 10.0", olive gray (5Y-5/2) from 9.3' to 13.2', light gray (5Y-7/2) from 13.2' to 15.2', (GP).			
	13					
	14					
-72.8	15					
	16					
	17					
	18		No Recovery			
	19					
-77.6	20					
	21		End of Boring			
	22		Note: 1) Soils are field visually classified in accordance with the Unified Soil Classification System.			Note: 1) This column contains laboratory data. 2) Samples are taken from a 3" section of the core, centered on the sample depth.
	23					
	24					

Gradation Analysis Report

Proj Name: Central Boca
 Sample: CBVC-01-04#1
 Date: 4/5/01
 By: ID

COASTAL PLANNING & ENGINEERING, INC.

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

Elevation: -59.10 Feet Easting: 964290.88 State Plane 1983
 Reference: NGVD Northing: 737952.59 FLA East Feet

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

Dry Wt. 55.08 Percent Silt: 1.87
 Wash Wt. 54.06

Sieve Size	PHI Size	mm Size	Grams Retained	% Weight Retained	Cum. Grams Retained	C % Weight Retained
3/4	-4.250	19.027	0.000	0.000	0.000	0.000
5/8	-4.000	16.000	0.000	0.000	0.000	0.000
5/16	-3.250	9.514	0.000	0.000	0.000	0.000
4	-3.000	8.000	1.480	2.687	1.480	2.687
5	-2.000	4.000	0.280	0.508	1.760	3.195
7	-1.500	2.828	1.430	2.596	3.190	5.792
10	-1.000	2.000	1.620	2.941	4.810	8.733
14	-0.500	1.414	1.880	3.413	6.690	12.146
18	0.000	1.000	2.300	4.176	8.990	16.322
25	0.500	0.707	2.740	4.975	11.730	21.296
35	1.000	0.500	3.400	6.173	15.130	27.469
45	1.500	0.354	3.720	6.754	18.850	34.223
60	2.000	0.250	6.250	11.347	25.100	45.570
80	2.500	0.177	12.900	23.420	38.000	68.991
120	3.000	0.125	13.630	24.746	51.630	93.736
170	3.500	0.088	2.340	4.248	53.970	97.985
200	3.750	0.074	0.070	0.127	54.040	98.112
230	4.000	0.063	0.010	0.018	54.050	98.130
Pan	Pan	0.053	1.020	1.852	55.070	99.982

PHI 5 PHI 16 PHI 25 PHI 50 PHI 75 PHI 84 PHI 95
 -1.65 -0.04 0.80 2.09 2.62 2.80 3.15

Median phi: 2.09 Median mm: 0.23

	Mean phi	Mean mm	Sorting	Skewness	Kurtosis
Graphic	1.27	0.41	1.44	-0.86	1.08
Moment	1.40	0.38	1.77	-0.64	1.82

Gradation Analysis Report

Proj Name: Central Boca
 Sample: CBVC-01-04#2
 Date: 4/5/01
 By: ID

COASTAL PLANNING & ENGINEERING, INC.

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

Elevation: -60.60 Feet Easting: 964290.88 State Plane 1983
 Reference: NGVD Northing: 737952.59 FLA East Feet

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

Dry Wt. 64.63 Percent Silt: 2.15
 Wash Wt. 63.25

Sieve Size	PHI Size	mm Size	Grams Retained	% Weight Retained	Cum. Grams Retained	C % Weight Retained
3/4	-4.250	19.027	0.000	0.000	0.000	0.000
5/8	-4.000	16.000	0.000	0.000	0.000	0.000
5/16	-3.250	9.514	0.000	0.000	0.000	0.000
4	-3.000	8.000	0.000	0.000	0.000	0.000
5	-2.000	4.000	0.060	0.093	0.060	0.093
7	-1.500	2.828	0.160	0.248	0.220	0.340
10	-1.000	2.000	0.300	0.464	0.520	0.805
14	-0.500	1.414	0.400	0.619	0.920	1.423
18	0.000	1.000	0.430	0.665	1.350	2.089
25	0.500	0.707	0.730	1.130	2.080	3.218
35	1.000	0.500	1.210	1.872	3.290	5.091
45	1.500	0.354	2.180	3.373	5.470	8.464
60	2.000	0.250	8.010	12.394	13.480	20.857
80	2.500	0.177	19.850	30.713	33.330	51.570
120	3.000	0.125	25.710	39.780	59.040	91.351
170	3.500	0.088	4.090	6.328	63.130	97.679
200	3.750	0.074	0.110	0.170	63.240	97.849
230	4.000	0.063	0.010	0.015	63.250	97.865
Pan	Pan	0.053	1.380	2.135	64.630	100.000

PHI 5 PHI 16 PHI 25 PHI 50 PHI 75 PHI 84 PHI 95
 0.98 1.80 2.07 2.47 2.79 2.91 3.29

Median phi: 2.47 Median mm: 0.18

	Mean phi	Mean mm	Sorting	Skewness	Kurtosis
Graphic	2.29	0.20	0.63	-0.49	1.30
Moment	2.33	0.20	0.78	-0.51	1.98

Gradation Analysis Report

Proj Name: Central Boca
Sample: CBVC-01-04#3
Date: 4/5/01
By: ID

COASTAL PLANNING & ENGINEERING, INC.

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

Elevation: -64.60 Feet Easting: 964290.88 State Plane 1983
Reference: NGVD Northing: 737952.59 FLA East Feet

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

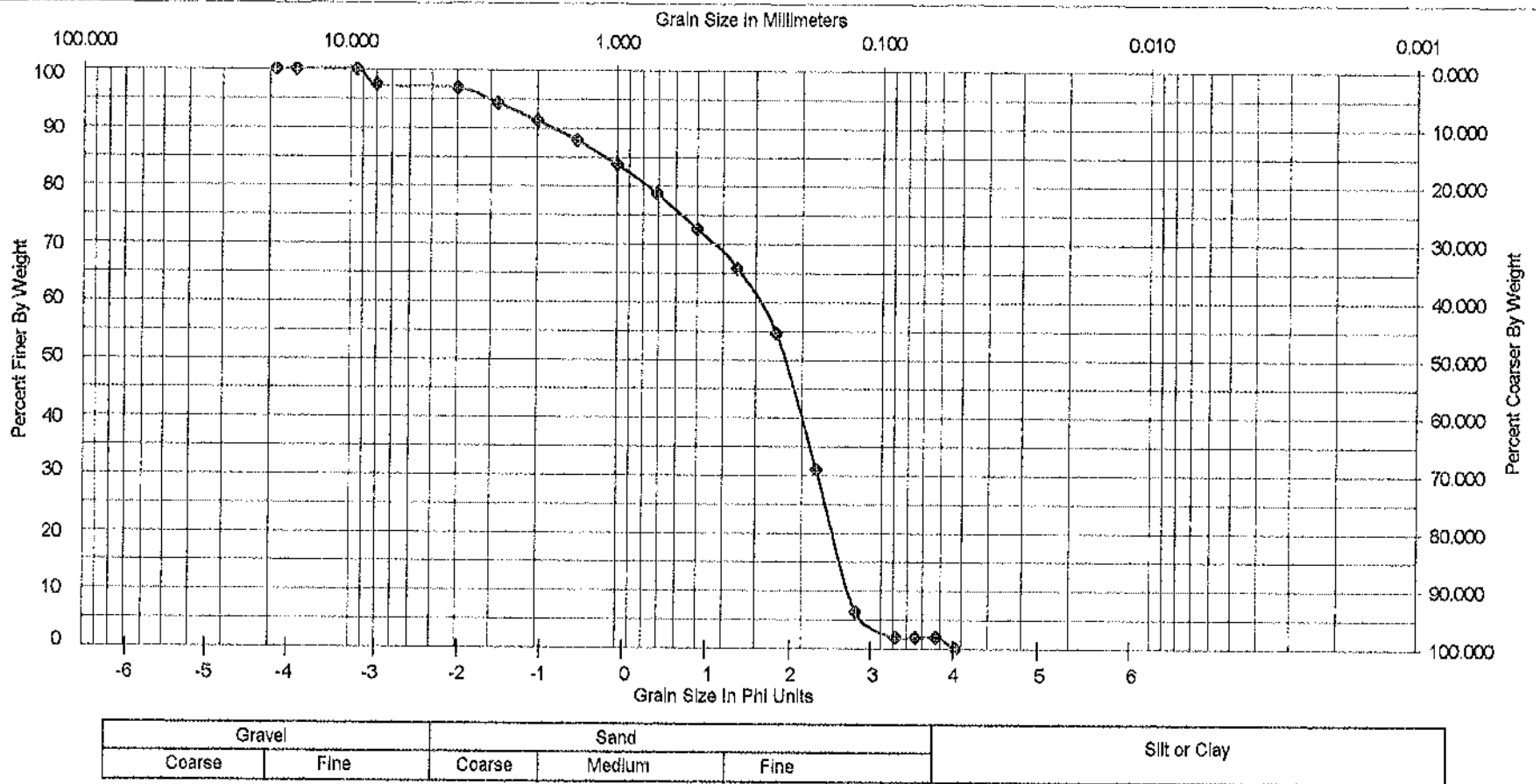
Dry Wt. 67.40 Percent Silt: 2.06
Wash Wt. 66.03

Sieve Size	Phi Size	mm Size	Grams Retained	% Weight Retained	Cum. Grams Retained	C % Weight Retained
3/4	-4.250	19.027	0.000	0.000	0.000	0.000
5/8	-4.000	16.000	0.000	0.000	0.000	0.000
5/16	-3.250	9.514	0.000	0.000	0.000	0.000
4	-3.000	8.000	0.000	0.000	0.000	0.000
5	-2.000	4.000	0.050	0.074	0.050	0.074
7	-1.500	2.828	0.010	0.015	0.060	0.089
10	-1.000	2.000	0.150	0.223	0.210	0.312
14	-0.500	1.414	0.310	0.460	0.520	0.772
18	0.000	1.000	0.430	0.638	0.950	1.409
25	0.500	0.707	0.700	1.039	1.650	2.448
35	1.000	0.500	1.380	2.047	3.030	4.496
45	1.500	0.354	3.220	4.777	6.250	9.273
60	2.000	0.250	9.220	13.680	15.470	22.953
80	2.500	0.177	19.220	28.516	34.690	51.469
120	3.000	0.125	27.160	40.297	61.850	91.766
170	3.500	0.088	4.020	5.964	65.870	97.730
200	3.750	0.074	0.120	0.178	65.990	97.908
230	4.000	0.063	0.010	0.015	66.000	97.923
Pan	Pan	0.053	1.380	2.047	67.380	99.970

Phi 5 Phi 16 Phi 25 Phi 50 Phi 75 Phi 84 Phi 95
1.05 1.75 2.04 2.47 2.79 2.90 3.27

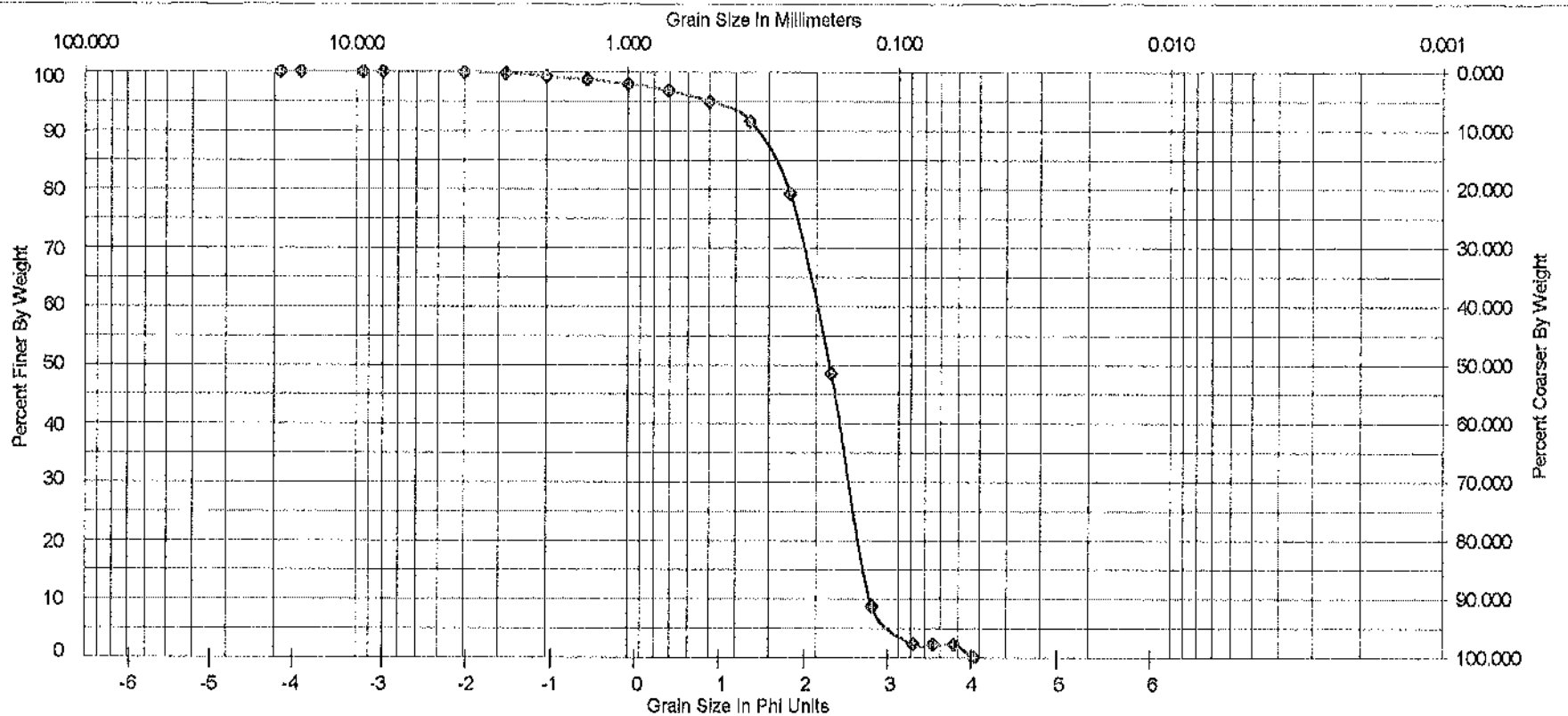
Median phi: 2.47 Median mm: 0.18

	Mean phi	Mean mm	Sorting	Skewness	Kurtosis
Graphic	2.29	0.20	0.63	-0.47	1.20
Moment	2.32	0.20	0.76	-0.42	1.80



Sample No.	Depth	Description	USCS	% Silt	Median	Mean	Skew	Kurt	Sort	PL	LL	PI	Sample Information
CBVC-01-04#1	1.5		SW	1.87	0.23	0.38	-0.64	1.82	1.77	NA	NA	NA	Project Name: Central Boca
													Sample Type: VibraCores
													Collection Date: 4/5/01
													Analysis By: ID
													Easting (X): 964290.88 Feet
													Northing (Y): 737952.59 Feet
													Sample Elevation: -59.1 NGVD
													Coord. System: State Plane 1983 FLA East

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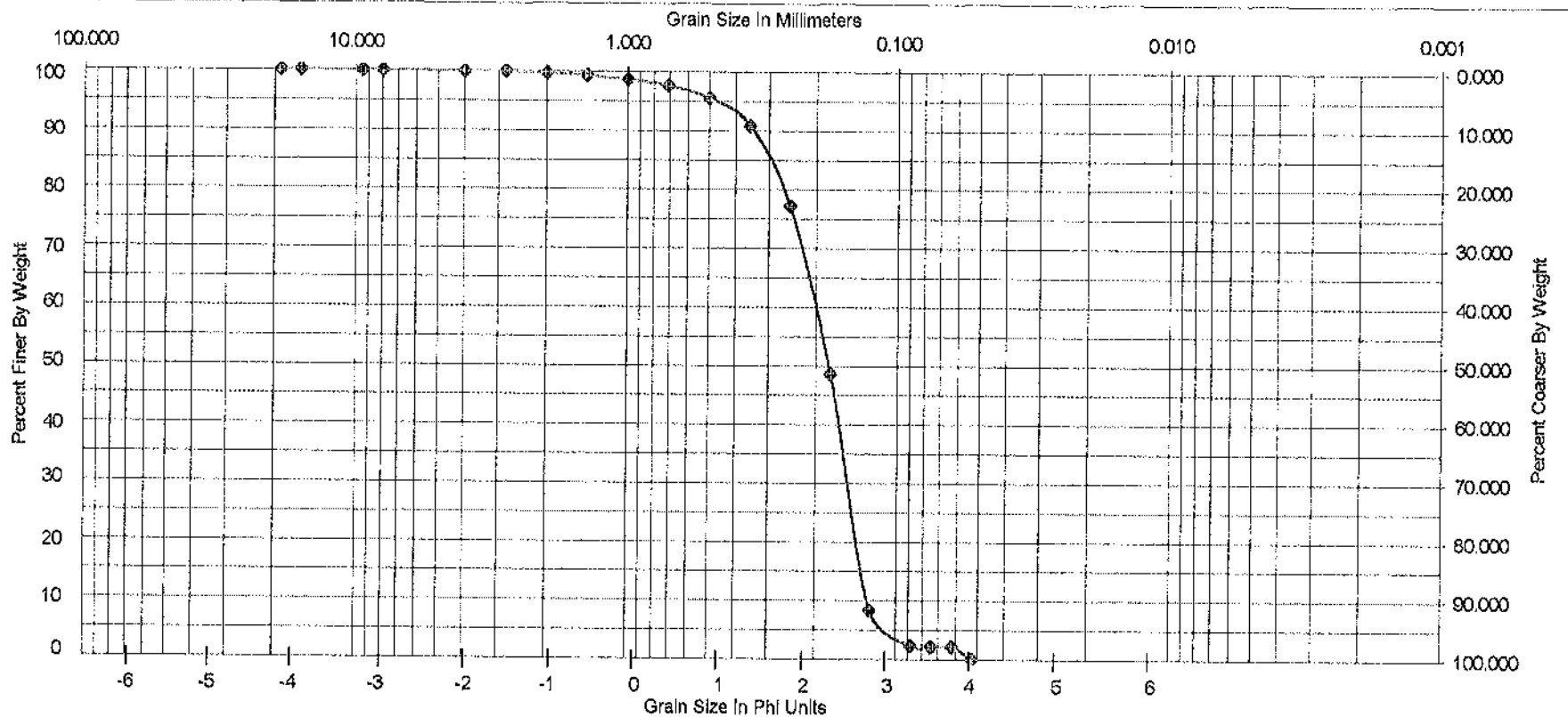


Gravel		Sand			Silt or Clay
Coarse	Fine	Coarse	Medium	Fine	

Sample No.	Depth	Description	USCS	% Silt	Median	Mean	Skew	Kurt	Sort	PL	LL	PI	Sample Information	
CBVC-01-04#2	3.0		SP	2.15	0.18	0.2	-0.51	1.98	0.78	NA	NA	NA	Project Name:	Central Boca
													Sample Type:	VibraCores
													Collection Date:	4/5/01
													Analysis By:	ID
													Easting (X):	964290.88 Feet
													Northing (Y):	737952.59 Feet
													Sample Elevation:	-60.6 NGVD
													Coord. System:	State Plane 1983 FLA East

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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	
CBVC-01-04#3	7.0		SP	2.06	0.18	0.2	-0.42	1.8	0.78	NA	NA	NA	Project Name:	Central Boca
													Sample Type:	VibraCores
													Collection Date:	4/5/01
													Analysis By:	ID
													Easting (X):	964290.88 Feet
													Northing (Y):	737952.59 Feet
													Sample Elevation:	-64.6 NGVD
													Coord. System:	State Plane 1983 FLA East

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