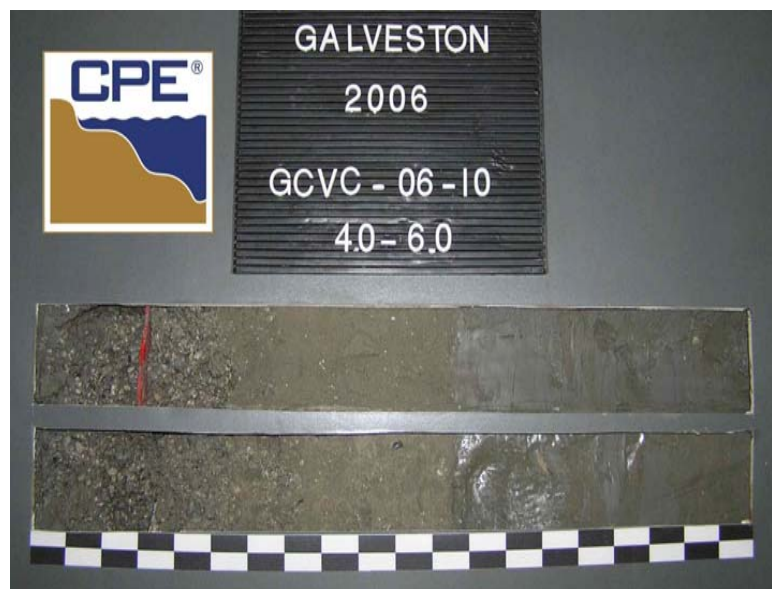
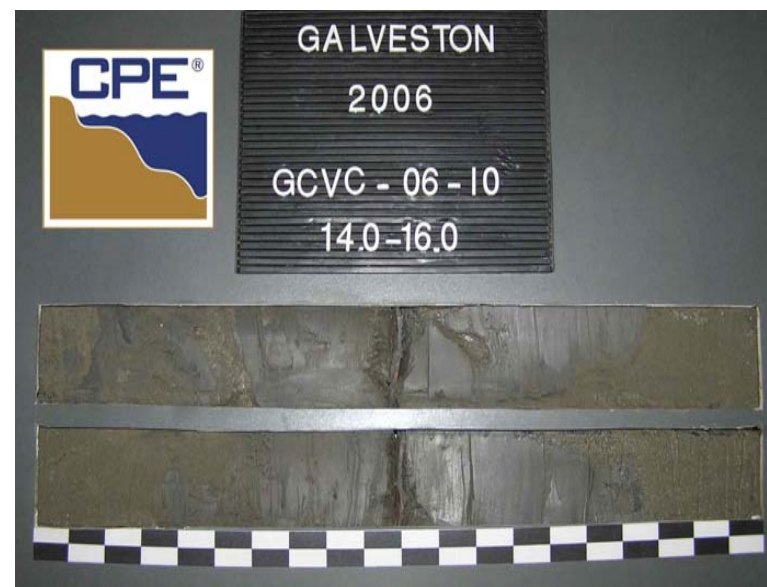
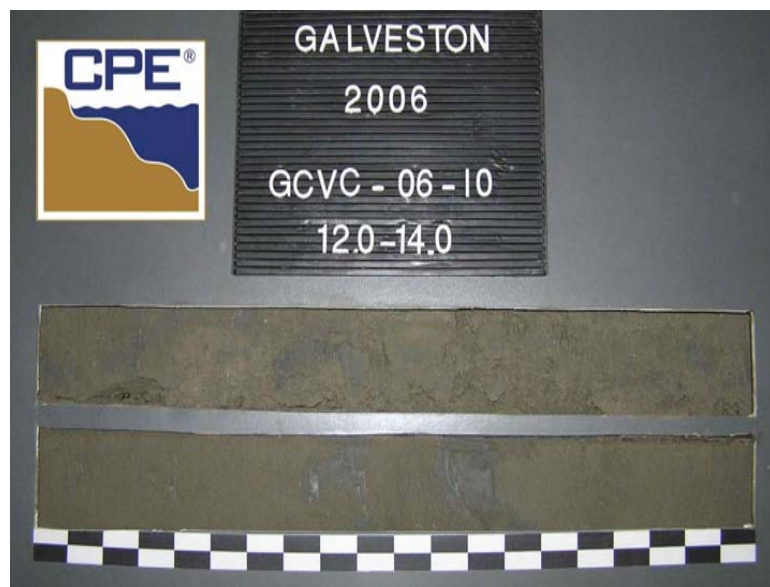
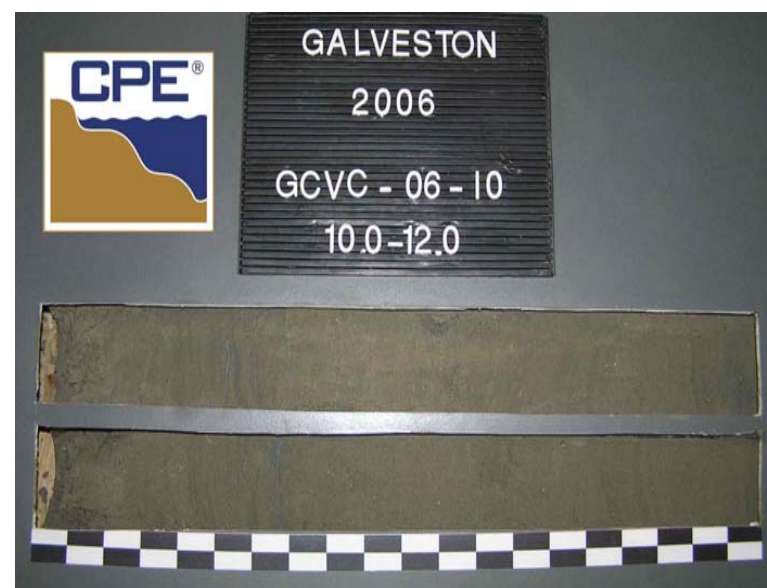
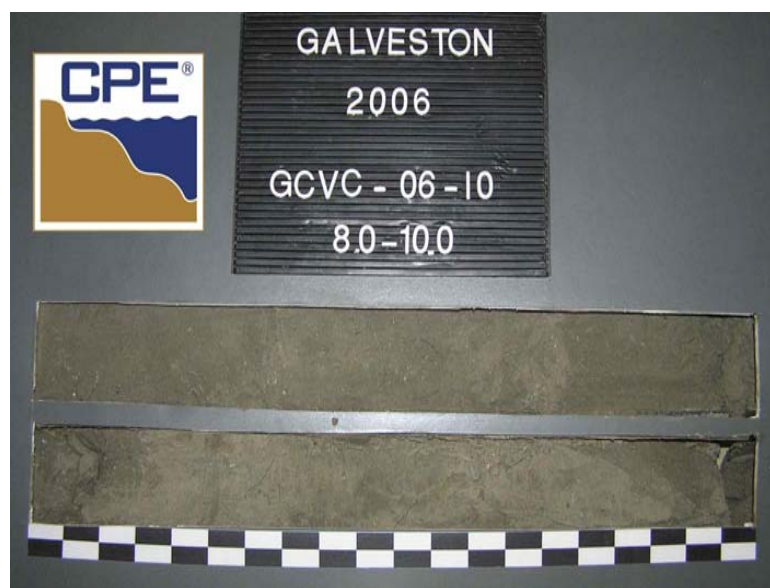
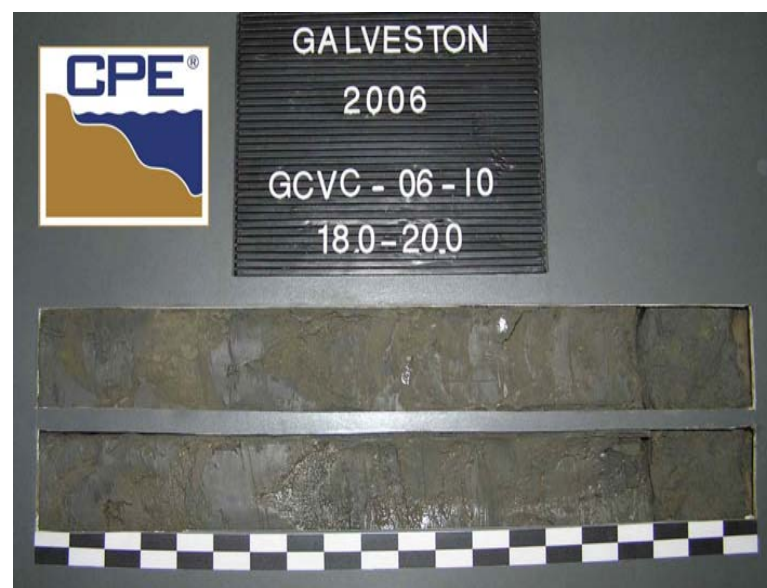
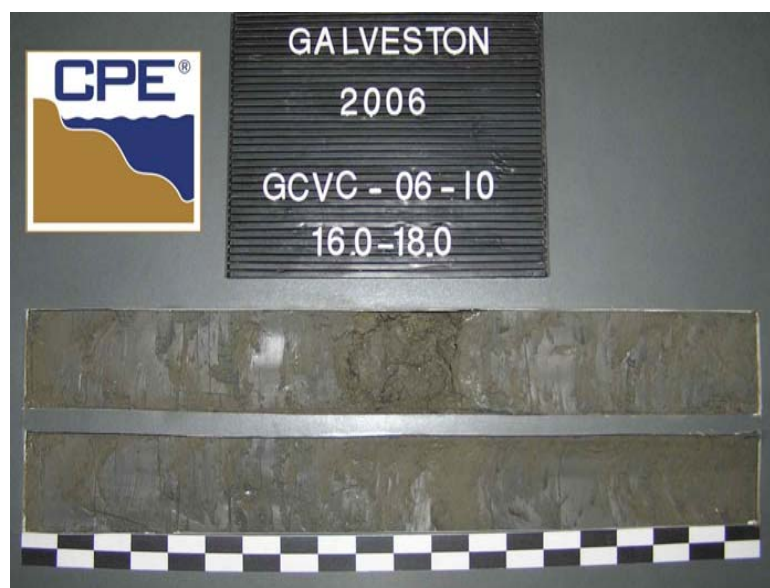








DRILLING LOG		DIVISION	INSTALLATION	SHEET 1 OF 1 SHEETS
1. PROJECT Texas Geotechnical Sand Search Galveston County Texas			9. SIZE AND TYPE OF BIT 3.0 In.	
2. BORING DESIGNATION GCVC-06-10			10. COORDINATE SYSTEM/DATUM Texas South Central	
3. DRILLING AGENCY Alpine Ocean Seismic Survey, Inc.			11. MANUFACTURER'S DESIGNATION OF DRILL ☐ AUTO HAMMER ☐ MANUAL HAMMER	
4. NAME OF DRILLER Charles Dill			12. TOTAL SAMPLES DISTURBED UNDISTURBED (UD)	
5. DIRECTION OF BORING ☒ VERTICAL ☐ INCLINED			13. TOTAL NUMBER CORE BOXES	
6. THICKNESS OF OVERBURDEN 0.0 Ft.			14. ELEVATION GROUND WATER	
7. DEPTH DRILLED INTO ROCK 0.0 Ft.			15. DATE BORING 10-07-06 18:18	
8. TOTAL DEPTH OF BORING 19.4 Ft.			16. ELEVATION TOP OF BORING -18.1 Ft.	
			17. TOTAL RECOVERY FOR BORING 20 Ft.	
			18. SIGNATURE AND TITLE OF INSPECTOR ML	

ELEV. (ft)	DEPTH (ft)	LEGEND	CLASSIFICATION OF MATERIALS Depths and elevations based on measured values	% REC.	BOX OR SAMPLE	REMARKS
-18.1	0.0					
-19.9	1.8		SAND, fine grained, quartz, little shell hash, trace silt, 2.0" shell hash layers @ 1.3' and 1.6', gray (5Y-5/1), (SW-SM).		1	Sample #1, Depth = 0.5' Mean (mm): 0.16, Phi Sorting: 1.20 Shell Hash: 1%, Fines (230): 8.72% (SW-SM)
-21.7	3.6		CLAY, trace shell hash, stiff, dark gray (5Y-4/1), (CL).			
-22.7	4.6		SHELL FRAGMENTS, little clay, little silt, shell fragments up to 0.25" x 0.5", gray (5Y-5/1), (GW).			
-23.2	5.1		SAND, fine grained, quartz, trace shell hash, trace silt, gray (5Y-5/1), (SP-SM).			
-24.8	6.7		CLAY, trace shell hash, stiff, dark gray (5Y-4/1), (CL).			
					2	Sample #2, Depth = 8.0' Mean (mm): 0.12, Phi Sorting: 0.85 Shell Hash: 1%, Fines (230): 8.39% (SP-SM)
-32.7	14.6		SAND, fine grained, quartz, trace shell hash, trace silt, gray (5Y-5/1), (SP-SM).			
-37.5	19.4		CLAY, stiff to soft; 5.0" sand layer @ 15.6', dark gray (5Y-4/1), (CL).			
-38.1	20.0		Expansion Material, (CL).			
			End of Boring			

FLORIDA DEP ROSS GALVESTON VIBRACORES, 2006.GPJ FL DEP ROSS.GDT 12/14/06

Granularmetric Report

Depths and elevations based on measured values



Coastal Planning & Engineering
2481 NW Boca Raton Blvd, Boca Raton
FL 33431
ph (561) 391-8102
fax (561) 391-9116

Project Name: Texas Geotechnical Sand Search

Sample Name: GCVC-06-10 #1

Analysis Date: 10-18-06

Analyzed By: ST

Easting (ft): 3,330,757	Northing (ft): 13,688,675	Coordinate System: Texas South Central	Elevation (ft): -18.6 MLLW
-----------------------------------	-------------------------------------	--	--------------------------------------

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

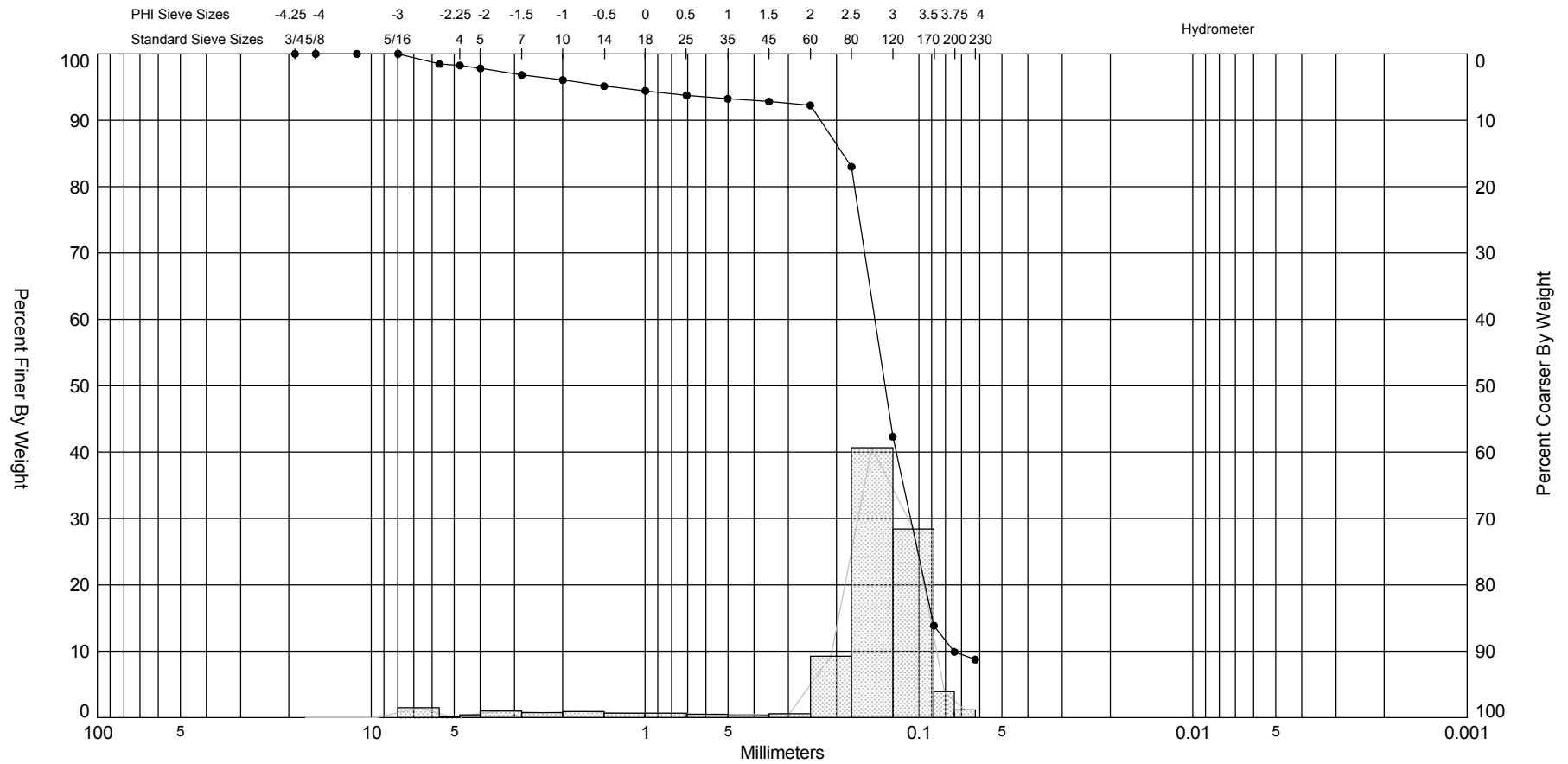
Dry Weight (g): 93.15	Wash Weight (g): 85.50	Pan Retained (g): 0.47	Sieve Loss (%): 0.01	Fines (%): #200 - 9.90 #230 - 8.72	Organics (%):	Carbonates (%):	Shell Hash (%): 1
---------------------------------	----------------------------------	----------------------------------	--------------------------------	--	---------------	-----------------	-----------------------------

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	Grams Retained	% Weight Retained	Cum. Grams Retained	C. % Weight Retained
3/4"	-4.25	19.03	0.00	0.00	0.00	0.00
5/8"	-4.00	16.00	0.00	0.00	0.00	0.00
7/16"	-3.50	11.31	0.00	0.00	0.00	0.00
5/16"	-3.00	8.00	0.00	0.00	0.00	0.00
3.5	-2.50	5.66	1.43	1.54	1.43	1.54
4	-2.25	4.76	0.19	0.20	1.62	1.74
5	-2.00	4.00	0.42	0.45	2.04	2.19
7	-1.50	2.83	0.92	0.99	2.96	3.18
10	-1.00	2.00	0.72	0.77	3.68	3.95
14	-0.50	1.41	0.86	0.92	4.54	4.87
18	0.00	1.00	0.65	0.70	5.19	5.57
25	0.50	0.71	0.63	0.68	5.82	6.25
35	1.00	0.50	0.49	0.53	6.31	6.78
45	1.50	0.35	0.37	0.40	6.68	7.18
60	2.00	0.25	0.55	0.59	7.23	7.77
80	2.50	0.18	8.62	9.25	15.85	17.02
120	3.00	0.13	37.89	40.68	53.74	57.70
170	3.50	0.09	26.50	28.45	80.24	86.15
200	3.75	0.07	3.68	3.95	83.92	90.10
230	4.00	0.06	1.10	1.18	85.02	91.28

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
	3.46	3.30	2.91	2.60	2.44	-0.41
Moment	Mean Phi	Mean mm	Sorting	Skewness	Kurtosis	
Statistics	2.6	0.16	1.2	-3.03	12.17	

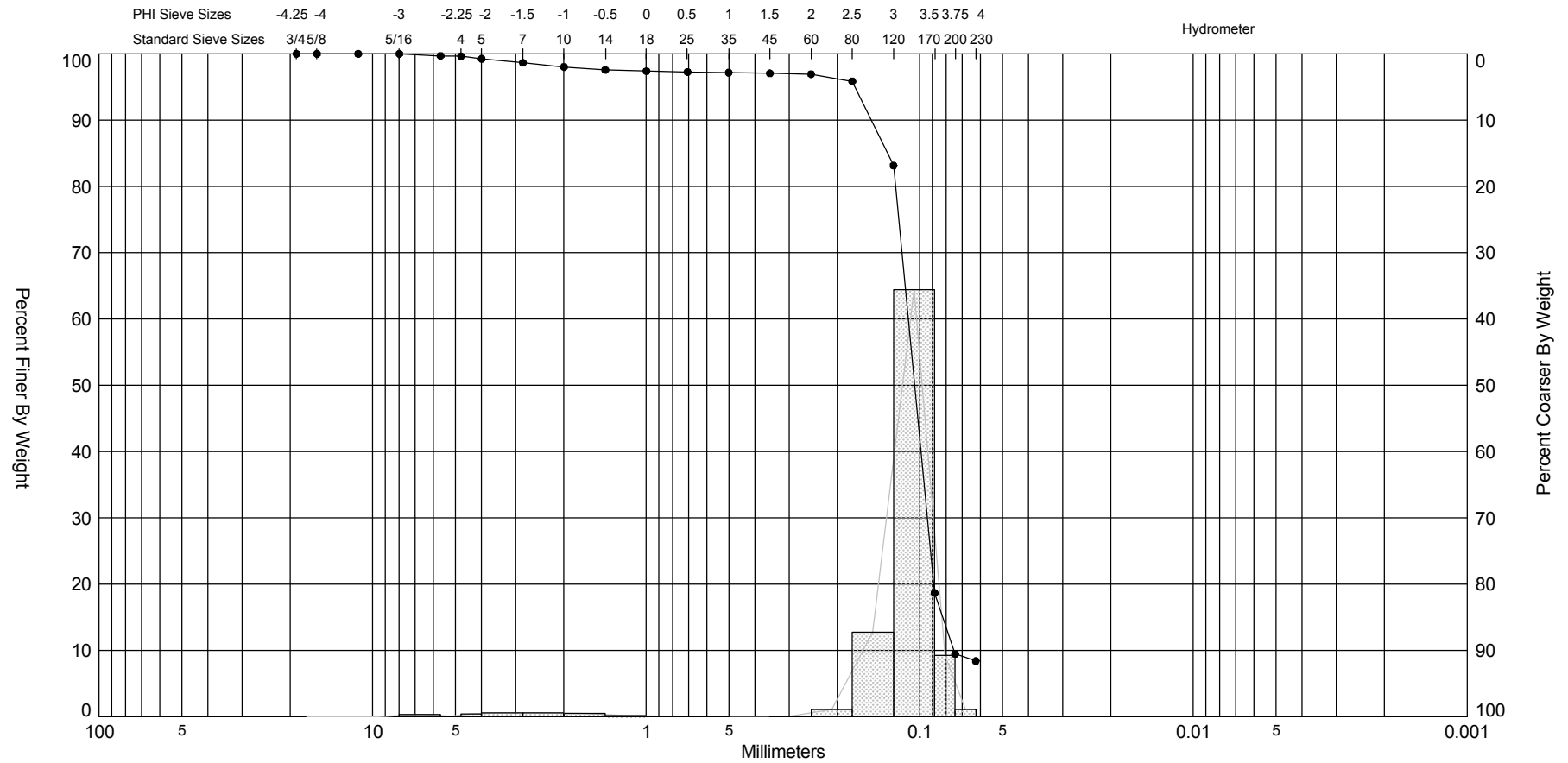
GRANULARMETRIC REPORT GALVESTON_VIBRACORES_2006.GPJ FL DEP ROSS.GDT 12/14/06

Granularmetric Report Depths and elevations based on measured values				 Coastal Planning & Engineering 2481 NW Boca Raton Blvd, Boca Raton FL 33431 ph (561) 391-8102 fax (561) 391-9116			
Project Name: Texas Geotechnical Sand Search							
Sample Name: GCVC-06-10 #2							
Analysis Date: 10-18-06							
Analyzed By: ST							
Easting (ft):		Northing (ft):		Coordinate System:		Elevation (ft):	
3,330,757		13,688,675		Texas South Central		-26.1 MLLW	
USCS:		Munsell:		Comments:			
SP-SM		Wet - 5Y-5/1 Dry - 5Y-5/1 Washed - 5Y-5/1					
Dry Weight (g):	Wash Weight (g):	Pan Retained (g):	Sieve Loss (%):	Fines (%):	Organics (%):	Carbonates (%):	Shell Hash (%):
94.90	87.52	0.51	0.07	#200 - 9.46 #230 - 8.39			1
Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	Grams Retained	% Weight Retained	Cum. Grams Retained	C. % Weight Retained	
3/4"	-4.25	19.03	0.00	0.00	0.00	0.00	
5/8"	-4.00	16.00	0.00	0.00	0.00	0.00	
7/16"	-3.50	11.31	0.00	0.00	0.00	0.00	
5/16"	-3.00	8.00	0.00	0.00	0.00	0.00	
3.5	-2.50	5.66	0.28	0.30	0.28	0.30	
4	-2.25	4.76	0.07	0.07	0.35	0.37	
5	-2.00	4.00	0.37	0.39	0.72	0.76	
7	-1.50	2.83	0.57	0.60	1.29	1.36	
10	-1.00	2.00	0.58	0.61	1.87	1.97	
14	-0.50	1.41	0.45	0.47	2.32	2.44	
18	0.00	1.00	0.17	0.18	2.49	2.62	
25	0.50	0.71	0.11	0.12	2.60	2.74	
35	1.00	0.50	0.09	0.09	2.69	2.83	
45	1.50	0.35	0.11	0.12	2.80	2.95	
60	2.00	0.25	0.10	0.11	2.90	3.06	
80	2.50	0.18	1.02	1.07	3.92	4.13	
120	3.00	0.13	12.09	12.74	16.01	16.87	
170	3.50	0.09	61.16	64.45	77.17	81.32	
200	3.75	0.07	8.75	9.22	85.92	90.54	
230	4.00	0.06	1.02	1.07	86.94	91.61	
Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95	
	3.57	3.45	3.26	3.06	2.97	2.53	
Moment	Mean Phi	Mean mm	Sorting	Skewness	Kurtosis		
Statistics	3.07	0.12	0.85	-4.87	28.01		



Gravel		Sand			Silt and Clay
Coarse	Fine	Coarse	Medium	Fine	

Sample	Symbol	Elev. (ft)	USCS	% Fines	% Organics	% Carbonates	Median	Mean	Skew	Kurt	Sort	Sample Information	
GCVC-06-10 #1	—●—	-18.6	SW-SM	#200 - 9.90 #230 - 8.72			2.91	2.6	-3.03	12.17	1.2	Project Name:	Texas Geotechnical Sand Search
Comments:												Analysis Date:	10-18-06
Depths and elevations based on measured values												Analyzed By:	ST
						Coastal Planning & Engineering 2481 NW Boca Raton Blvd, Boca Raton FL 33431 ph (561) 391-8102 fax (561) 391-9116						Easting (X, ft):	3,330,757
												Northing (Y, ft):	13,688,675
												Horizontal System:	NAD 1983
												Vertical System:	MLLW



Gravel		Sand			Silt and Clay
Coarse	Fine	Coarse	Medium	Fine	

Sample	Symbol	Elev. (ft)	USCS	% Fines	% Organics	% Carbonates	Median	Mean	Skew	Kurt	Sort	Sample Information	
GCVC-06-10 #2	—●—	-26.1	SP-SM	#200 - 9.46 #230 - 8.39			3.26	3.07	-4.87	28.01	0.85	Project Name:	Texas Geotechnical Sand Search
Comments:												Analysis Date:	10-18-06
Depths and elevations based on measured values												Analyzed By:	ST
						Coastal Planning & Engineering 2481 NW Boca Raton Blvd, Boca Raton FL 33431 ph (561) 391-8102 fax (561) 391-9116						Easting (X, ft):	3,330,757
												Northing (Y, ft):	13,688,675
												Horizontal System:	NAD 1983
												Vertical System:	MLLW