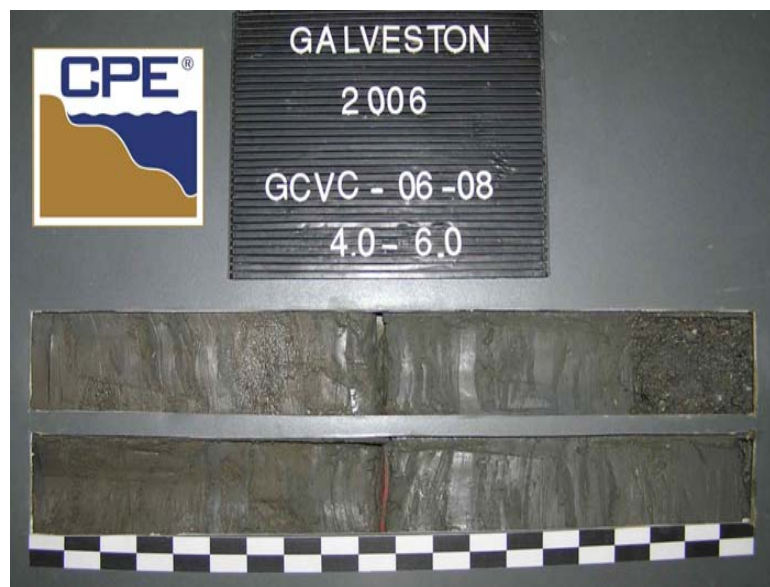
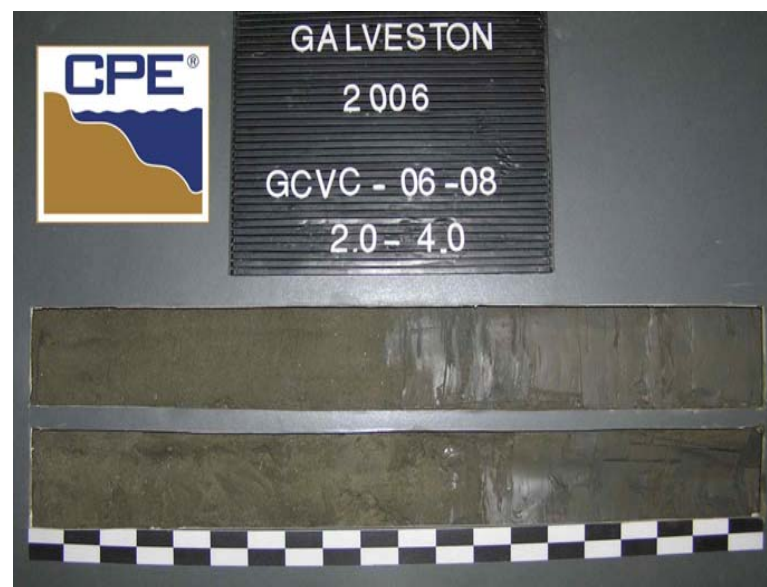
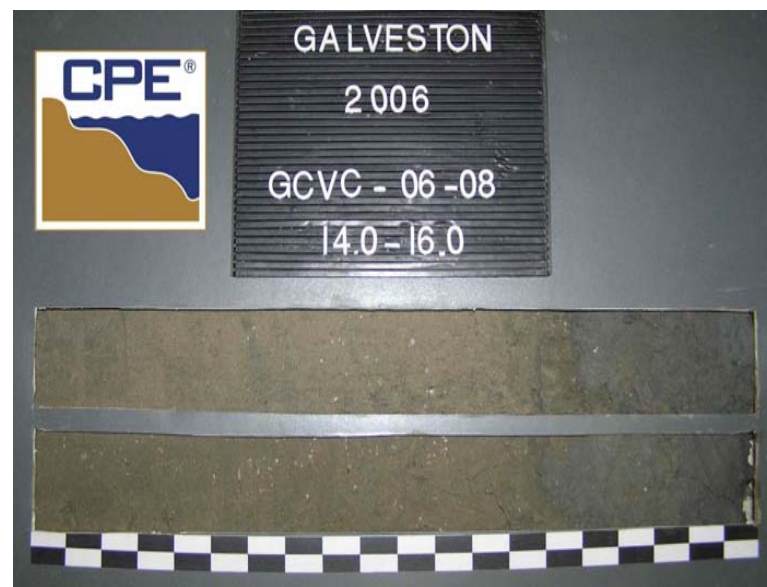
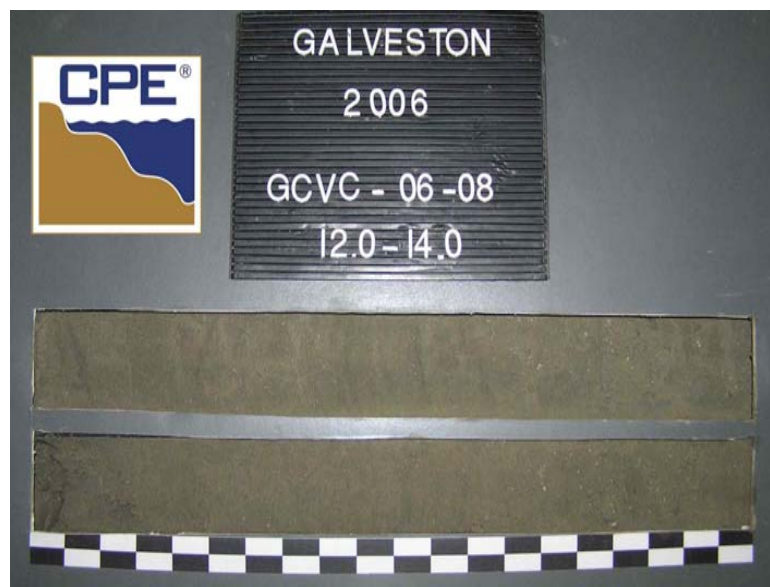
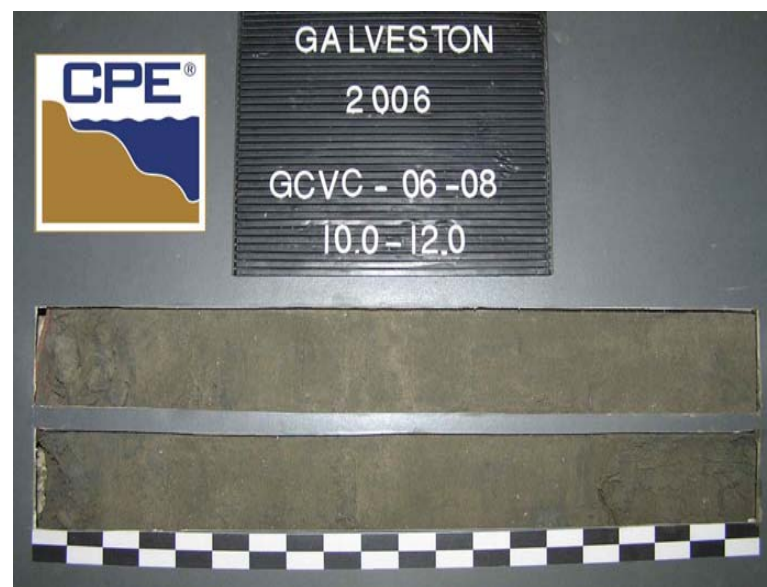






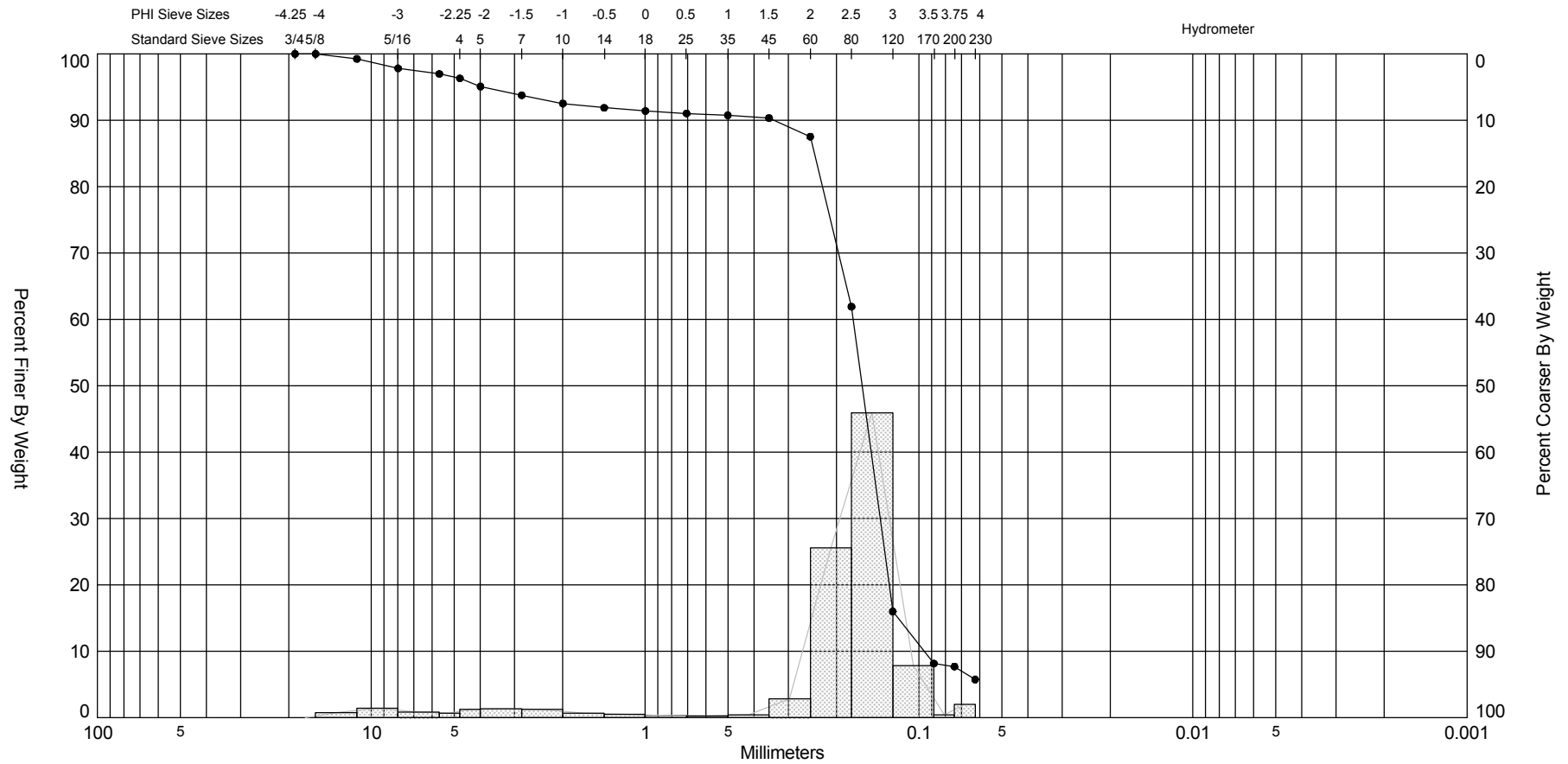
DRILLING LOG		DIVISION	INSTALLATION	SHEET 1
1. PROJECT Texas Geotechnical Sand Search Galveston County Texas			9. SIZE AND TYPE OF BIT 3.0 In.	
2. BORING DESIGNATION GCVC-06-08			10. COORDINATE SYSTEM/DATUM Texas South Central	
3. DRILLING AGENCY Alpine Ocean Seismic Survey, Inc.			11. MANUFACTURER'S 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 10-09-06 03:55	
8. TOTAL DEPTH OF BORING 19.2 Ft.			16. ELEVATION TOP OF BORING -16.8 Ft.	
			17. TOTAL RECOVERY FOR BORING 16 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
-16.8	0.0					
-19.8	3.0		SAND, fine grained, quartz, trace shell hash, trace silt, gray (5Y-5/1), (SW-SM).		1	Sample #1, Depth = 1.0' Mean (mm): 0.22, Phi Sorting: 1.46 Shell Hash: 6%, Fines (230): 5.74% (SW-SM)
-22.5	5.7		CLAY, trace shell hash, stiff to soft; (3.0"x2.0") shell hash layer, dark gray (5Y-4/1), (CL).			
-23.6	6.8		SHELL HASH, little sand, little silt, 2.0" clay layer@ 6.6', dark gray (5Y-4/1), (GW).			
-32.8	16.0		SAND, fine grained, quartz, trace shell hash, trace silt, gray (5Y-5/1), (SP-SM).		2	Sample #2, Depth = 12.0' Mean (mm): 0.11, Phi Sorting: 0.33 Shell Hash: 0%, Fines (230): 6.84% (SP-SM)
-36.0	19.2		No Recovery.			
			End of Boring			

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

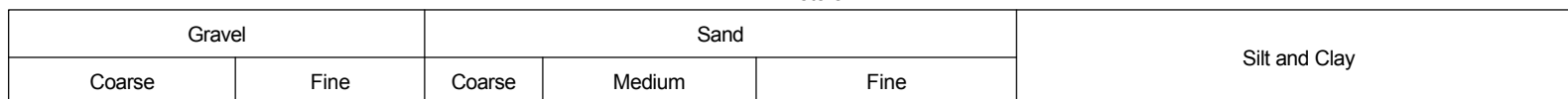
Granularmetric Report Depths and elevations based on measured values				 Coastal Planning & Engineering 2481 NW Boca Raton Blvd, Boca Raton FL 33431 ph (561) 391-8102 fax (561) 391-9116			
Project Name: Texas Geotechnical Sand Search							
Sample Name: GCVC-06-08 #1							
Analysis Date: 10-16-06							
Analyzed By: ST							
Easting (ft):		Northing (ft):		Coordinate System:		Elevation (ft):	
3,332,445		13,689,972		Texas South Central		-17.8 MLLW	
USCS:		Munsell:		Comments:			
SW-SM		Wet - 5Y-5/1 Dry - 5Y-6/1 Washed - 5Y-6/1					
Dry Weight (g):	Wash Weight (g):	Pan Retained (g):	Sieve Loss (%):	Fines (%):	Organics (%):	Carbonates (%):	Shell Hash (%):
97.00	92.34	0.89	0.02	#200 - 7.70 #230 - 5.74			6
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	0.73	0.75	0.73	0.75	
5/16"	-3.00	8.00	1.39	1.43	2.12	2.18	
3.5	-2.50	5.66	0.81	0.84	2.93	3.02	
4	-2.25	4.76	0.65	0.67	3.58	3.69	
5	-2.00	4.00	1.18	1.22	4.76	4.91	
7	-1.50	2.83	1.28	1.32	6.04	6.23	
10	-1.00	2.00	1.20	1.24	7.24	7.47	
14	-0.50	1.41	0.63	0.65	7.87	8.12	
18	0.00	1.00	0.47	0.48	8.34	8.60	
25	0.50	0.71	0.36	0.37	8.70	8.97	
35	1.00	0.50	0.27	0.28	8.97	9.25	
45	1.50	0.35	0.41	0.42	9.38	9.67	
60	2.00	0.25	2.72	2.80	12.10	12.47	
80	2.50	0.18	24.85	25.62	36.95	38.09	
120	3.00	0.13	44.54	45.92	81.49	84.01	
170	3.50	0.09	7.60	7.84	89.09	91.85	
200	3.75	0.07	0.44	0.45	89.53	92.30	
230	4.00	0.06	1.90	1.96	91.43	94.26	
Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95	
	3.00	2.90	2.63	2.24	2.07	-1.97	
Moment	Mean Phi	Mean mm	Sorting	Skewness	Kurtosis		
Statistics	2.18	0.22	1.46	-2.63	9.17		

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-06-08 #2						
Analysis Date: 10-16-06						
Analyzed By: ST						
Easting (ft): 3,332,445		Northing (ft): 13,689,972		Coordinate System: Texas South Central		Elevation (ft): -28.8 MLLW
USCS: SP-SM		Munsell: Wet - 5Y-5/1 Dry - 5Y-5/1 Washed - 5Y-5/1		Comments:		
Dry Weight (g): 96.10	Wash Weight (g): 90.53	Pan Retained (g): 0.99	Sieve Loss (%): 0.00	Fines (%): #200 - 8.48 #230 - 6.84	Organics (%):	Carbonates (%): 0
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	0.00	0.00	0.00	0.00
4	-2.25	4.76	0.00	0.00	0.00	0.00
5	-2.00	4.00	0.05	0.05	0.05	0.05
7	-1.50	2.83	0.05	0.05	0.10	0.10
10	-1.00	2.00	0.03	0.03	0.13	0.13
14	-0.50	1.41	0.02	0.02	0.15	0.15
18	0.00	1.00	0.01	0.01	0.16	0.16
25	0.50	0.71	0.02	0.02	0.18	0.18
35	1.00	0.50	0.03	0.03	0.21	0.21
45	1.50	0.35	0.03	0.03	0.24	0.24
60	2.00	0.25	0.15	0.16	0.39	0.40
80	2.50	0.18	0.78	0.81	1.17	1.21
120	3.00	0.13	8.69	9.04	9.86	10.25
170	3.50	0.09	67.77	70.52	77.63	80.77
200	3.75	0.07	10.33	10.75	87.96	91.52
230	4.00	0.06	1.58	1.64	89.54	93.16
Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
	3.58	3.46	3.28	3.10	3.04	2.71
Moment	Mean Phi	Mean mm	Sorting	Skewness	Kurtosis	
Statistics	3.23	0.11	0.33	-6.61	94.23	



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-06-08 #1	—●—	-17.8	SW-SM	#200 - 7.70 #230 - 5.74			2.63	2.18	-2.63	9.17	1.46	Project Name:	Texas Geotechnical Sand Search
Comments:												Analysis Date:	10-16-06
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):	3,332,445
												Northing (Y, ft):	13,689,972
												Horizontal System:	NAD 1983
												Vertical System:	MLLW



Sample	Symbol	Elev. (ft)	USCS	% Fines	% Organics	% Carbonates	Median	Mean	Skew	Kurt	Sort	Sample Information	
GCVC-06-08 #2		-28.8	SP-SM	#200 - 8.48 #230 - 6.84			3.28	3.23	-6.61	94.23	0.33	Project Name:	Texas Geotechnical Sand Search
Comments:												Analysis Date:	10-16-06
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):	3,332,445
												Northing (Y, ft):	13,689,972
												Horizontal System:	NAD 1983
												Vertical System:	MLLW