







<b>Granularmetric Report</b> Depths and elevations based on measured values				 <b>COASTAL TECH</b> Coastal Geology & Sediments Laboratory  715 North Drive Suite E Melbourne, FL 32934 Phone (321) 751-1135 Fax (321) 751-2343			
Project Name: 2011 SLC Geotech Investigation							
Sample Name: SLC-11-A09 #1							
Analysis Date:							
Analyzed By: JB							
Easting (ft): <div style="text-align: center;">930,991</div>		Northing (ft): <div style="text-align: center;">1,079,435</div>		Coordinate System: <div style="text-align: center;">Florida State Plane East</div>		Elevation (ft): <div style="text-align: center;">-38.4 NAVD 88</div>	
USCS: <div style="text-align: center;">SW</div>		Munsell: Wet - 2.5Y-5/3 Dry - 2.5Y-6/2		Comments:			
Dry Weight (g): <div style="text-align: center;">136.79</div>	Wash Weight (g): <div style="text-align: center;">136.79</div>	Pan Retained (g): <div style="text-align: center;">0.17</div>	Sieve Loss (%): <div style="text-align: center;">0.04</div>	Fines (%): #200 - 0.17 #230 - 0.15	Organics (%): <div style="text-align: center;">1.70</div>	Carbonates (%): <div style="text-align: center;">73.70</div>	Shells (%):
Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	Grams Retained	% Weight Retained	Cum. Grams Retained	C. % Weight Retained	
3/4"	-4.25	19.03	2.56	1.87	2.56	1.87	
5/8"	-4.00	16.00	2.21	1.62	4.77	3.49	
11/16"	-3.50	11.31	0.00	0.00	4.77	3.49	
5/16"	-3.00	8.00	2.03	1.48	6.80	4.97	
3.5	-2.50	5.66	0.90	0.66	7.70	5.63	
4	-2.25	4.76	0.32	0.23	8.02	5.86	
5	-2.00	4.00	0.83	0.61	8.85	6.47	
7	-1.50	2.83	0.63	0.46	9.48	6.93	
10	-1.00	2.00	1.60	1.17	11.08	8.10	
14	-0.50	1.41	3.56	2.60	14.64	10.70	
18	0.00	1.00	7.29	5.33	21.93	16.03	
25	0.50	0.71	14.77	10.80	36.70	26.83	
35	1.00	0.50	28.46	20.81	65.16	47.64	
45	1.50	0.35	36.63	26.78	101.79	74.42	
60	2.00	0.25	25.40	18.57	127.19	92.99	
80	2.50	0.18	7.52	5.50	134.71	98.49	
120	3.00	0.13	1.44	1.05	136.15	99.54	
170	3.50	0.09	0.30	0.22	136.45	99.76	
200	3.75	0.07	0.09	0.07	136.54	99.83	
230	4.00	0.06	0.03	0.02	136.57	99.85	
Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95	
2.18	1.76	1.52	1.04	0.42	0.00	-2.98	
Moment	Mean Phi	Mean mm	Sorting	Skewness	Kurtosis		
Statistics	0.72	0.61	1.2	-1.72	7.53		

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Project Name: 2011 SLC Geotech Investigation							
Sample Name: SLC-11-A09 #2							
Analysis Date:							
Analyzed By: JB							
Easting (ft): <div style="text-align: center;">930,991</div>		Northing (ft): <div style="text-align: center;">1,079,435</div>		Coordinate System: <div style="text-align: center;">Florida State Plane East</div>		Elevation (ft): <div style="text-align: center;">-42.9 NAVD 88</div>	
USCS: <div style="text-align: center;">SP</div>		Munsell: <div style="text-align: center;">Wet - 2.5Y-4/2 Dry - 5Y-6/1</div>		Comments:			
Dry Weight (g): <div style="text-align: center;">130.13</div>	Wash Weight (g): <div style="text-align: center;">130.13</div>	Pan Retained (g): <div style="text-align: center;">0.28</div>	Sieve Loss (%): <div style="text-align: center;">0.00</div>	Fines (%): #200 - 0.34 #230 - 0.20	Organics (%): <div style="text-align: center;">2.00</div>	Carbonates (%): <div style="text-align: center;">79.70</div>	Shells (%):
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	
11/16"	-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	0.35	0.27	0.35	0.27	
4	-2.25	4.76	0.28	0.22	0.63	0.49	
5	-2.00	4.00	0.25	0.19	0.88	0.68	
7	-1.50	2.83	0.55	0.42	1.43	1.10	
10	-1.00	2.00	1.23	0.95	2.66	2.05	
14	-0.50	1.41	2.63	2.02	5.29	4.07	
18	0.00	1.00	4.89	3.76	10.18	7.83	
25	0.50	0.71	10.87	8.35	21.05	16.18	
35	1.00	0.50	22.85	17.56	43.90	33.74	
45	1.50	0.35	37.04	28.46	80.94	62.20	
60	2.00	0.25	35.99	27.66	116.93	89.86	
80	2.50	0.18	8.57	6.59	125.50	96.45	
120	3.00	0.13	2.95	2.27	128.45	98.72	
170	3.50	0.09	0.95	0.73	129.40	99.45	
200	3.75	0.07	0.27	0.21	129.67	99.66	
230	4.00	0.06	0.18	0.14	129.85	99.80	
Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95	
2.39	1.89	1.73	1.29	0.75	0.49	-0.38	
Moment	Mean Phi	Mean mm	Sorting	Skewness	Kurtosis		
Statistics	1.18	0.44	0.85	-0.94	5.66		

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Project Name: 2011 SLC Geotech Investigation							
Sample Name: SLC-11-A09 #3							
Analysis Date:							
Analyzed By: JB							
Easting (ft): <div style="text-align: center;">930,991</div>		Northing (ft): <div style="text-align: center;">1,079,435</div>		Coordinate System: <div style="text-align: center;">Florida State Plane East</div>		Elevation (ft): <div style="text-align: center;">-46.4 NAVD 88</div>	
USCS: <div style="text-align: center;">SW</div>		Munsell: Wet - 5Y-4/2 Dry - 5Y-5/2		Comments:			
Dry Weight (g): <div style="text-align: center;">158.29</div>	Wash Weight (g): <div style="text-align: center;">155.38</div>	Pan Retained (g): <div style="text-align: center;">0.15</div>	Sieve Loss (%): <div style="text-align: center;">0.11</div>	Fines (%): #200 - 2.19 #230 - 2.04	Organics (%): <div style="text-align: center;">1.80</div>	Carbonates (%): <div style="text-align: center;">78.90</div>	Shells (%):
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	0.75	0.47	0.75	0.47	
11/16"	-3.50	11.31	0.00	0.00	0.75	0.47	
5/16"	-3.00	8.00	3.66	2.31	4.41	2.78	
3.5	-2.50	5.66	3.76	2.38	8.17	5.16	
4	-2.25	4.76	1.31	0.83	9.48	5.99	
5	-2.00	4.00	1.53	0.97	11.01	6.96	
7	-1.50	2.83	3.54	2.24	14.55	9.20	
10	-1.00	2.00	5.31	3.35	19.86	12.55	
14	-0.50	1.41	9.11	5.76	28.97	18.31	
18	0.00	1.00	13.23	8.36	42.20	26.67	
25	0.50	0.71	20.29	12.82	62.49	39.49	
35	1.00	0.50	29.46	18.61	91.95	58.10	
45	1.50	0.35	27.39	17.30	119.34	75.40	
60	2.00	0.25	19.46	12.29	138.80	87.69	
80	2.50	0.18	10.17	6.42	148.97	94.11	
120	3.00	0.13	4.04	2.55	153.01	96.66	
170	3.50	0.09	1.34	0.85	154.35	97.51	
200	3.75	0.07	0.47	0.30	154.82	97.81	
230	4.00	0.06	0.24	0.15	155.06	97.96	
Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95	
2.67	1.85	1.49	0.78	-0.10	-0.70	-2.53	
Moment	Mean Phi	Mean mm	Sorting	Skewness	Kurtosis		
Statistics	0.53	0.69	1.4	-0.88	3.84		

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Project Name: 2011 SLC Geotech Investigation							
Sample Name: SLC-11-A09 #4							
Analysis Date:							
Analyzed By: JB							
Easting (ft): <div style="text-align: center;">930,991</div>		Northing (ft): <div style="text-align: center;">1,079,435</div>		Coordinate System: <div style="text-align: center;">Florida State Plane East</div>		Elevation (ft): <div style="text-align: center;">-49.4 NAVD 88</div>	
USCS: <div style="text-align: center;">SW</div>		Munsell: Wet - 5Y-4/2 Dry - 5Y-5/2		Comments:			
Dry Weight (g): <div style="text-align: center;">137.58</div>	Wash Weight (g): <div style="text-align: center;">137.58</div>	Pan Retained (g): <div style="text-align: center;">0.86</div>	Sieve Loss (%): <div style="text-align: center;">0.12</div>	Fines (%): #200 - 1.01 #230 - 0.74	Organics (%): <div style="text-align: center;">1.90</div>	Carbonates (%): <div style="text-align: center;">85.20</div>	Shells (%):
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	
11/16"	-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	0.07	0.05	0.07	0.05	
4	-2.25	4.76	0.08	0.06	0.15	0.11	
5	-2.00	4.00	0.29	0.21	0.44	0.32	
7	-1.50	2.83	0.65	0.47	1.09	0.79	
10	-1.00	2.00	1.24	0.90	2.33	1.69	
14	-0.50	1.41	3.42	2.49	5.75	4.18	
18	0.00	1.00	7.30	5.31	13.05	9.49	
25	0.50	0.71	14.95	10.87	28.00	20.36	
35	1.00	0.50	25.48	18.52	53.48	38.88	
45	1.50	0.35	33.12	24.07	86.60	62.95	
60	2.00	0.25	29.99	21.80	116.59	84.75	
80	2.50	0.18	12.70	9.23	129.29	93.98	
120	3.00	0.13	4.49	3.26	133.78	97.24	
170	3.50	0.09	1.87	1.36	135.65	98.60	
200	3.75	0.07	0.54	0.39	136.19	98.99	
230	4.00	0.06	0.37	0.27	136.56	99.26	
Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95	
2.66	1.98	1.78	1.23	0.63	0.30	-0.42	
Moment	Mean Phi	Mean mm	Sorting	Skewness	Kurtosis		
Statistics	1.16	0.45	0.91	-0.36	3.89		

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Project Name: 2011 SLC Geotech Investigation							
Sample Name: SLC-11-A09 #5							
Analysis Date:							
Analyzed By: JB							
Easting (ft): <div style="text-align: center;">930,991</div>		Northing (ft): <div style="text-align: center;">1,079,435</div>		Coordinate System: <div style="text-align: center;">Florida State Plane East</div>		Elevation (ft): <div style="text-align: center;">-51.6 NAVD 88</div>	
USCS: <b>SW WITH GRAVEL</b>		Munsell: Wet - 5Y-4/1 Dry - 2.5Y-5/1		Comments:			
Dry Weight (g): <div style="text-align: center;">142.61</div>	Wash Weight (g): <div style="text-align: center;">140.82</div>	Pan Retained (g): <div style="text-align: center;">0.23</div>	Sieve Loss (%): <div style="text-align: center;">0.04</div>	Fines (%): #200 - 1.61 #230 - 1.46	Organics (%): <div style="text-align: center;">1.80</div>	Carbonates (%): <div style="text-align: center;">77.80</div>	Shells (%):
Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	Grams Retained	% Weight Retained	Cum. Grams Retained	C. % Weight Retained	
3/4"	-4.25	19.03	8.34	5.85	8.34	5.85	
5/8"	-4.00	16.00	11.17	7.83	19.51	13.68	
11/16"	-3.50	11.31	6.25	4.38	25.76	18.06	
5/16"	-3.00	8.00	3.63	2.55	29.39	20.61	
3.5	-2.50	5.66	3.13	2.19	32.52	22.80	
4	-2.25	4.76	1.67	1.17	34.19	23.97	
5	-2.00	4.00	1.76	1.23	35.95	25.20	
7	-1.50	2.83	3.32	2.33	39.27	27.53	
10	-1.00	2.00	3.34	2.34	42.61	29.87	
14	-0.50	1.41	5.58	3.91	48.19	33.78	
18	0.00	1.00	5.43	3.81	53.62	37.59	
25	0.50	0.71	6.31	4.42	59.93	42.01	
35	1.00	0.50	9.45	6.63	69.38	48.64	
45	1.50	0.35	13.42	9.41	82.80	58.05	
60	2.00	0.25	20.03	14.05	102.83	72.10	
80	2.50	0.18	22.11	15.50	124.94	87.60	
120	3.00	0.13	12.08	8.47	137.02	96.07	
170	3.50	0.09	2.79	1.96	139.81	98.03	
200	3.75	0.07	0.51	0.36	140.32	98.39	
230	4.00	0.06	0.22	0.15	140.54	98.54	
Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95	
2.94	2.38	2.09	1.07	-2.04	-3.74		
Moment	Mean Phi	Mean mm	Sorting	Skewness	Kurtosis		
Statistics	0.04	0.97	2.24	-0.43	2.05		

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Project Name: 2011 SLC Geotech Investigation							
Sample Name: SLC-11-A09 #6							
Analysis Date:							
Analyzed By: JB							
Easting (ft): <div style="text-align: center;">930,991</div>		Northing (ft): <div style="text-align: center;">1,079,435</div>		Coordinate System: <div style="text-align: center;">Florida State Plane East</div>		Elevation (ft): <div style="text-align: center;">-52.9 NAVD 88</div>	
USCS: <div style="text-align: center;">SW</div>		Munsell: <div style="text-align: center;">Wet - 5Y-4/1 Dry - 2.5Y-5/1</div>		Comments:			
Dry Weight (g): <div style="text-align: center;">89.74</div>	Wash Weight (g): <div style="text-align: center;">89.74</div>	Pan Retained (g): <div style="text-align: center;">0.85</div>	Sieve Loss (%): <div style="text-align: center;">0.00</div>	Fines (%): #200 - 1.66 #230 - 0.96	Organics (%): <div style="text-align: center;">1.70</div>	Carbonates (%): <div style="text-align: center;">79.90</div>	Shells (%):
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	
11/16"	-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	0.30	0.33	0.30	0.33	
4	-2.25	4.76	0.04	0.04	0.34	0.37	
5	-2.00	4.00	0.29	0.32	0.63	0.69	
7	-1.50	2.83	0.36	0.40	0.99	1.09	
10	-1.00	2.00	0.74	0.82	1.73	1.91	
14	-0.50	1.41	1.57	1.75	3.30	3.66	
18	0.00	1.00	2.62	2.92	5.92	6.58	
25	0.50	0.71	4.53	5.05	10.45	11.63	
35	1.00	0.50	8.30	9.25	18.75	20.88	
45	1.50	0.35	13.92	15.51	32.67	36.39	
60	2.00	0.25	19.75	22.01	52.42	58.40	
80	2.50	0.18	16.76	18.68	69.18	77.08	
120	3.00	0.13	14.59	16.26	83.77	93.34	
170	3.50	0.09	3.52	3.92	87.29	97.26	
200	3.75	0.07	0.97	1.08	88.26	98.34	
230	4.00	0.06	0.63	0.70	88.89	99.04	
Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95	
3.21	2.71	2.44	1.81	1.13	0.74	-0.27	
Moment	Mean Phi	Mean mm	Sorting	Skewness	Kurtosis		
Statistics	1.68	0.31	1.04	-0.92	4.54		