






Granularmetric Report Depths and elevations based on measured values				 CB&I Coastal Planning & Engineering, Inc. 2481 NW Boca Raton Blvd. Boca Raton, FL 33431 ph (561) 391 8102			
Project Name: Inventory of Potential Beach Nourishment and Coastal Restoration							
Sand Sources on the Atlantic OCS							
Sample Name: FL-BOEM-2015-VC21 #1							
Analysis Date: 10-05-15							
Analyzed By: SMT		Northing (m):		Coordinate System:		Elevation (ft):	
Easting (m):		3,376,131		UTM 17		-51.6 NAVD88	
USCS:		Munsell:		Comments:			
SW-SM		Wet - 5Y-4/1 Dry - 5Y-6/1 Washed - 5Y-7/1					
Dry Weight (g):	Wash Weight (g):	Pan Retained (g):	Sieve Loss (%):	Fines (%):	Organics (%):	Carbonates (%):	Shell Hash (%):
90.47	84.46	0.06	0.08	#200 - 7.32 #230 - 6.78		8	
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	0.18	0.20	0.18	0.20	
4	-2.25	4.76	0.17	0.19	0.35	0.39	
5	-2.00	4.00	0.32	0.35	0.67	0.74	
7	-1.50	2.83	0.63	0.70	1.30	1.44	
10	-1.00	2.00	0.58	0.64	1.88	2.08	
14	-0.50	1.41	0.66	0.73	2.54	2.81	
18	0.00	1.00	0.45	0.50	2.99	3.31	
25	0.50	0.71	0.53	0.59	3.52	3.90	
35	1.00	0.50	0.55	0.61	4.07	4.51	
45	1.50	0.35	1.04	1.15	5.11	5.66	
60	2.00	0.25	2.59	2.86	7.70	8.52	
80	2.50	0.18	13.11	14.49	20.81	23.01	
120	3.00	0.13	46.82	51.75	67.63	74.76	
170	3.50	0.09	14.83	16.39	82.46	91.15	
200	3.75	0.07	1.38	1.53	83.84	92.68	
230	4.00	0.06	0.49	0.54	84.33	93.22	
Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95	
	3.28	3.01	2.76	2.52	2.26	1.21	
Moment	Mean Phi	Mean mm	Sorting	Skewness	Kurtosis		
Statistics	2.56	0.17	0.9	-3.34	16.11		

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Project Name: Inventory of Potential Beach Nourishment and Coastal Restoration							
Sand Sources on the Atlantic OCS							
Sample Name: FL-BOEM-2015-VC21 #2							
Analysis Date: 10-05-15							
Analyzed By: SMT		Northing (m):		Coordinate System:		Elevation (ft):	
Easting (m):							
465,510		3,376,131		UTM 17		-54.8 NAVD88	
USCS:		Munsell:		Comments:			
SM		Wet - 5Y-3/1 Dry - 5Y-5/1 Washed - 5Y-7/1					
Dry Weight (g):	Wash Weight (g):	Pan Retained (g):	Sieve Loss (%):	Fines (%):	Organics (%):	Carbonates (%):	Shell Hash (%):
87.13	73.29	0.22	0.03	#200 - 18.08 #230 - 16.19		10	
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	0.32	0.28	0.32	
4	-2.25	4.76	0.16	0.18	0.44	0.50	
5	-2.00	4.00	0.10	0.11	0.54	0.61	
7	-1.50	2.83	0.75	0.86	1.29	1.47	
10	-1.00	2.00	0.76	0.87	2.05	2.34	
14	-0.50	1.41	0.80	0.92	2.85	3.26	
18	0.00	1.00	0.76	0.87	3.61	4.13	
25	0.50	0.71	0.71	0.81	4.32	4.94	
35	1.00	0.50	0.81	0.93	5.13	5.87	
45	1.50	0.35	0.95	1.09	6.08	6.96	
60	2.00	0.25	1.17	1.34	7.25	8.30	
80	2.50	0.18	4.73	5.43	11.98	13.73	
120	3.00	0.13	39.60	45.45	51.58	59.18	
170	3.50	0.09	16.63	19.09	68.21	78.27	
200	3.75	0.07	3.18	3.65	71.39	81.92	
230	4.00	0.06	1.65	1.89	73.04	83.81	
Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95	
		3.41	2.90	2.62	2.52	0.53	
Moment	Mean Phi	Mean mm	Sorting	Skewness	Kurtosis		
Statistics	2.62	0.16	1.04	-2.89	12.12		

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Project Name: Inventory of Potential Beach Nourishment and Coastal Restoration							
Sand Sources on the Atlantic OCS							
Sample Name: FL-BOEM-2015-VC21 #3							
Analysis Date: 10-05-15							
Analyzed By: SMT		Northing (m):		Coordinate System:		Elevation (ft):	
Easting (m):							
465,510		3,376,131		UTM 17		-65.3 NAVD88	
USCS:		Munsell:		Comments:			
SW-SM		Wet - 5Y-4/1 Dry - 5Y-6/1 Washed - 5Y-7/1					
Dry Weight (g):	Wash Weight (g):	Pan Retained (g):	Sieve Loss (%):	Fines (%):	Organics (%):	Carbonates (%):	Shell Hash (%):
90.74	81.40	0.02	0.09	#200 - 11.00 #230 - 10.42		11	
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	0.49	0.54	0.49	0.54	
3.5	-2.50	5.66	0.60	0.66	1.09	1.20	
4	-2.25	4.76	0.79	0.87	1.88	2.07	
5	-2.00	4.00	0.30	0.33	2.18	2.40	
7	-1.50	2.83	1.40	1.54	3.58	3.94	
10	-1.00	2.00	2.02	2.23	5.60	6.17	
14	-0.50	1.41	3.91	4.31	9.51	10.48	
18	0.00	1.00	6.78	7.47	16.29	17.95	
25	0.50	0.71	10.86	11.97	27.15	29.92	
35	1.00	0.50	15.43	17.00	42.58	46.92	
45	1.50	0.35	15.47	17.05	58.05	63.97	
60	2.00	0.25	10.71	11.80	68.76	75.77	
80	2.50	0.18	7.66	8.44	76.42	84.21	
120	3.00	0.13	2.09	2.30	78.51	86.51	
170	3.50	0.09	1.58	1.74	80.09	88.25	
200	3.75	0.07	0.68	0.75	80.77	89.00	
230	4.00	0.06	0.53	0.58	81.30	89.58	
Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95	
	2.49	1.97	1.09	0.29	-0.13	-1.26	
Moment	Mean Phi	Mean mm	Sorting	Skewness	Kurtosis		
Statistics	0.86	0.55	1.22	-0.51	3.88		

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Project Name: Inventory of Potential Beach Nourishment and Coastal Restoration							
Sand Sources on the Atlantic OCS							
Sample Name: FL-BOEM-2015-VC21 #4							
Analysis Date: 09-30-15							
Analyzed By: SMT		Northing (m):		Coordinate System:		Elevation (ft):	
Easting (m):							
465,510		3,376,131		UTM 17		-66.8 NAVD88	
USCS:		Munsell:		Comments:			
SC		Wet - 5Y-4/1 Dry - 5Y-5/1 Washed - 5Y-7/1					
Dry Weight (g):	Wash Weight (g):	Pan Retained (g):	Sieve Loss (%):	Fines (%):	Organics (%):	Carbonates (%):	Shell Hash (%):
84.56	64.65	0.13	0.12	#200 - 25.36 #230 - 23.83		4	
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	0.14	0.17	0.14	0.17	
4	-2.25	4.76	0.00	0.00	0.14	0.17	
5	-2.00	4.00	0.05	0.06	0.19	0.23	
7	-1.50	2.83	0.06	0.07	0.25	0.30	
10	-1.00	2.00	0.35	0.41	0.60	0.71	
14	-0.50	1.41	0.90	1.06	1.50	1.77	
18	0.00	1.00	2.04	2.41	3.54	4.18	
25	0.50	0.71	4.07	4.81	7.61	8.99	
35	1.00	0.50	6.74	7.97	14.35	16.96	
45	1.50	0.35	11.23	13.28	25.58	30.24	
60	2.00	0.25	14.26	16.86	39.84	47.10	
80	2.50	0.18	9.90	11.71	49.74	58.81	
120	3.00	0.13	6.85	8.10	56.59	66.91	
170	3.50	0.09	4.88	5.77	61.47	72.68	
200	3.75	0.07	1.66	1.96	63.13	74.64	
230	4.00	0.06	1.29	1.53	64.42	76.17	
Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95	
		3.81	2.12	1.30	0.94	0.09	
Moment	Mean Phi	Mean mm	Sorting	Skewness	Kurtosis		
Statistics	1.72	0.30	1.06	-0.34	3.46		

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Project Name: Inventory of Potential Beach Nourishment and Coastal Restoration							
Sand Sources on the Atlantic OCS							
Sample Name: FL-BOEM-2015-VC21 #5							
Analysis Date: 09-30-15							
Analyzed By: SMT		Northing (m):		Coordinate System:		Elevation (ft):	
Easting (m):							
465,510		3,376,131		UTM 17		-69.0 NAVD88	
USCS:		Munsell:		Comments:			
SP-SM		Wet - 5Y-3/2 Dry - 5Y-4/2 Washed - 5Y-7/1					
Dry Weight (g):	Wash Weight (g):	Pan Retained (g):	Sieve Loss (%):	Fines (%):	Organics (%):	Carbonates (%):	Shell Hash (%):
89.04	84.36	0.01	0.06	#200 - 5.43 #230 - 5.32		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	0.00	0.00	0.00	0.00	
4	-2.25	4.76	0.00	0.00	0.00	0.00	
5	-2.00	4.00	0.00	0.00	0.00	0.00	
7	-1.50	2.83	0.00	0.00	0.00	0.00	
10	-1.00	2.00	0.03	0.03	0.03	0.03	
14	-0.50	1.41	0.57	0.64	0.60	0.67	
18	0.00	1.00	1.75	1.97	2.35	2.64	
25	0.50	0.71	4.52	5.08	6.87	7.72	
35	1.00	0.50	8.98	10.09	15.85	17.81	
45	1.50	0.35	15.63	17.55	31.48	35.36	
60	2.00	0.25	20.93	23.51	52.41	58.87	
80	2.50	0.18	19.22	21.59	71.63	80.46	
120	3.00	0.13	10.83	12.16	82.46	92.62	
170	3.50	0.09	1.49	1.67	83.95	94.29	
200	3.75	0.07	0.25	0.28	84.20	94.57	
230	4.00	0.06	0.10	0.11	84.30	94.68	
Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95	
	2.65	2.37	1.81	1.20	0.91	0.23	
Moment	Mean Phi	Mean mm	Sorting	Skewness	Kurtosis		
Statistics	1.69	0.31	0.8	-0.44	3.03		