






<b>Granularmetric Report</b> Depths and elevations based on measured values				 <b>Coastal Planning &amp; Engineering</b> 2481 NW Boca Raton Blvd. Boca Raton, FL 33431 ph (561) 391-8102 fax (561) 391-9116			
Project Name: AMI 2013 Sand Search							
Sample Name: AMVC-13-22 #1							
Analysis Date: 02-22-13							
Analyzed By: AV/JH							
Easting (ft): <b>411,748</b>		Northing (ft): <b>1,161,051</b>		Coordinate System: <b>Florida State Plane West</b>		Elevation (ft): <b>-10.0 NAVD 88</b>	
USCS: <b>SW</b>		Munsell: Wet - 5Y-7/1 Dry - 5Y-7/2 Washed - 5Y-7/1		Comments:			
Dry Weight (g): <b>100.93</b>	Wash Weight (g): <b>99.93</b>	Pan Retained (g): <b>0.01</b>	Sieve Loss (%): <b>0.00</b>	Fines (%): #200 - 1.00 #230 - 1.00	Organics (%):	Carbonates (%): <b>16</b>	Shell Hash (%):
<b>Sieve Number</b>	<b>Sieve Size (Phi)</b>	<b>Sieve Size (Millimeters)</b>	<b>Grams Retained</b>	<b>% Weight Retained</b>	<b>Cum. Grams Retained</b>	<b>C. % Weight Retained</b>	
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	0.21	0.21	0.21	0.21	
5	-2.00	4.00	0.43	0.43	0.64	0.64	
7	-1.50	2.83	0.97	0.96	1.61	1.60	
10	-1.00	2.00	1.85	1.83	3.46	3.43	
14	-0.50	1.41	2.42	2.40	5.88	5.83	
18	0.00	1.00	2.23	2.21	8.11	8.04	
25	0.50	0.71	1.99	1.97	10.10	10.01	
35	1.00	0.50	2.18	2.16	12.28	12.17	
45	1.50	0.35	2.47	2.45	14.75	14.62	
60	2.00	0.25	7.23	7.16	21.98	21.78	
80	2.50	0.18	41.09	40.71	63.07	62.49	
120	3.00	0.13	35.09	34.77	98.16	97.26	
170	3.50	0.09	1.74	1.72	99.90	98.98	
200	3.75	0.07	0.02	0.02	99.92	99.00	
230	4.00	0.06	0.00	0.00	99.92	99.00	
Shell Hash calculated from visual estimate of shell <4.75mm and >2.8mm.							
<b>Phi 5</b>	<b>Phi 16</b>	<b>Phi 25</b>	<b>Phi 50</b>	<b>Phi 75</b>	<b>Phi 84</b>	<b>Phi 95</b>	
2.97	2.81	2.68	2.35	2.04	1.60	-0.67	
<b>Moment</b>	<b>Mean Phi</b>	<b>Mean mm</b>	<b>Sorting</b>	<b>Skewness</b>	<b>Kurtosis</b>		
<b>Statistics</b>	2.05	0.24	1.05	-2.17	7.26		

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Project Name: AMI 2013 Sand Search							
Sample Name: AMVC-13-22 #2							
Analysis Date: 02-22-13							
Analyzed By: AV/JH							
Easting (ft): <b>411,748</b>		Northing (ft): <b>1,161,051</b>		Coordinate System: <b>Florida State Plane West</b>		Elevation (ft): <b>-10.8 NAVD 88</b>	
USCS: <b>SW</b>		Munsell: Wet - 2.5Y-6/1 Dry - 2.5Y-7/1 Washed - 2.5Y-7/1		Comments:			
Dry Weight (g): <b>110.03</b>	Wash Weight (g): <b>109.00</b>	Pan Retained (g): <b>0.04</b>	Sieve Loss (%): <b>0.09</b>	Fines (%): <b>#200 - 1.07</b> <b>#230 - 1.05</b>	Organics (%):	Carbonates (%): <b>51</b>	Shell Hash (%):
<b>Sieve Number</b>	<b>Sieve Size (Phi)</b>	<b>Sieve Size (Millimeters)</b>	<b>Grams Retained</b>	<b>% Weight Retained</b>	<b>Cum. Grams Retained</b>	<b>C. % Weight Retained</b>	
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	0.92	0.84	0.92	0.84	
5/16"	-3.00	8.00	4.17	3.79	5.09	4.63	
3.5	-2.50	5.66	6.80	6.18	11.89	10.81	
4	-2.25	4.76	2.34	2.13	14.23	12.94	
5	-2.00	4.00	3.84	3.49	18.07	16.43	
7	-1.50	2.83	7.25	6.59	25.32	23.02	
10	-1.00	2.00	8.71	7.92	34.03	30.94	
14	-0.50	1.41	7.96	7.23	41.99	38.17	
18	0.00	1.00	5.14	4.67	47.13	42.84	
25	0.50	0.71	4.03	3.66	51.16	46.50	
35	1.00	0.50	3.02	2.74	54.18	49.24	
45	1.50	0.35	2.97	2.70	57.15	51.94	
60	2.00	0.25	5.47	4.97	62.62	56.91	
80	2.50	0.18	18.12	16.47	80.74	73.38	
120	3.00	0.13	26.71	24.28	107.45	97.66	
170	3.50	0.09	1.35	1.23	108.80	98.89	
200	3.75	0.07	0.04	0.04	108.84	98.93	
230	4.00	0.06	0.02	0.02	108.86	98.95	
Shell Hash calculated from visual estimate of shell <4.75mm and >2.8mm.							
<b>Phi 5</b>	<b>Phi 16</b>	<b>Phi 25</b>	<b>Phi 50</b>	<b>Phi 75</b>	<b>Phi 84</b>	<b>Phi 95</b>	
2.95	2.72	2.53	1.14	-1.37	-2.03	-2.97	
<b>Moment</b>	<b>Mean Phi</b>	<b>Mean mm</b>	<b>Sorting</b>	<b>Skewness</b>	<b>Kurtosis</b>		
<b>Statistics</b>	0.51	0.70	2.11	-0.36	1.62		

<b>Granularmetric Report</b> Depths and elevations based on measured values				 <b>Coastal Planning &amp; Engineering</b> 2481 NW Boca Raton Blvd. Boca Raton, FL 33431 ph (561) 391-8102 fax (561) 391-9116			
Project Name: AMI 2013 Sand Search							
Sample Name: AMVC-13-22 #3							
Analysis Date: 02-21-13							
Analyzed By: AV/JH							
Easting (ft): <b>411,748</b>		Northing (ft): <b>1,161,051</b>		Coordinate System: <b>Florida State Plane West</b>		Elevation (ft): <b>-14.1 NAVD 88</b>	
USCS: <b>SP</b>		Munsell: Wet - 5Y-8/1 Dry - 5Y-8/1 Washed - 5Y-8/1		Comments:			
Dry Weight (g): <b>104.71</b>	Wash Weight (g): <b>103.63</b>	Pan Retained (g): <b>0.02</b>	Sieve Loss (%): <b>0.00</b>	Fines (%): #200 - 1.08 #230 - 1.06	Organics (%):	Carbonates (%): <b>35</b>	Shell Hash (%):
<b>Sieve Number</b>	<b>Sieve Size (Phi)</b>	<b>Sieve Size (Millimeters)</b>	<b>Grams Retained</b>	<b>% Weight Retained</b>	<b>Cum. Grams Retained</b>	<b>C. % Weight Retained</b>	
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	0.07	0.07	0.12	0.12	
10	-1.00	2.00	0.16	0.15	0.28	0.27	
14	-0.50	1.41	0.39	0.37	0.67	0.64	
18	0.00	1.00	0.34	0.32	1.01	0.96	
25	0.50	0.71	0.30	0.29	1.31	1.25	
35	1.00	0.50	0.39	0.37	1.70	1.62	
45	1.50	0.35	0.62	0.59	2.32	2.21	
60	2.00	0.25	2.14	2.04	4.46	4.25	
80	2.50	0.18	44.48	42.48	48.94	46.73	
120	3.00	0.13	46.91	44.80	95.85	91.53	
170	3.50	0.09	7.52	7.18	103.37	98.71	
200	3.75	0.07	0.22	0.21	103.59	98.92	
230	4.00	0.06	0.02	0.02	103.61	98.94	
Shell Hash calculated from visual estimate of shell <4.75mm and >2.8mm.							
<b>Phi 5</b>	<b>Phi 16</b>	<b>Phi 25</b>	<b>Phi 50</b>	<b>Phi 75</b>	<b>Phi 84</b>	<b>Phi 95</b>	
3.24	2.92	2.82	2.54	2.24	2.14	2.01	
<b>Moment</b>	<b>Mean Phi</b>	<b>Mean mm</b>	<b>Sorting</b>	<b>Skewness</b>	<b>Kurtosis</b>		
<b>Statistics</b>	2.49	0.18	0.5	-3.21	23.18		

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Project Name: AMI 2013 Sand Search							
Sample Name: AMVC-13-22 #4							
Analysis Date: 02-22-13							
Analyzed By: AV/JH							
Easting (ft): <b>411,748</b>		Northing (ft): <b>1,161,051</b>		Coordinate System: <b>Florida State Plane West</b>		Elevation (ft): <b>-15.8 NAVD 88</b>	
USCS: <b>SW</b>		Munsell: Wet - 2.5Y-6/1 Dry - 2.5Y-7/1 Washed - 2.5Y-7/1		Comments:			
Dry Weight (g): <b>111.86</b>	Wash Weight (g): <b>110.73</b>	Pan Retained (g): <b>0.01</b>	Sieve Loss (%): <b>0.05</b>	Fines (%): <b>#200 - 1.09</b> <b>#230 - 1.08</b>	Organics (%):	Carbonates (%):	Shell Hash (%):
<b>Sieve Number</b>	<b>Sieve Size (Phi)</b>	<b>Sieve Size (Millimeters)</b>	<b>Grams Retained</b>	<b>% Weight Retained</b>	<b>Cum. Grams Retained</b>	<b>C. % Weight Retained</b>	
3/4"	-4.25	19.03	0.00	0.00	0.00	0.00	
5/8"	-4.00	16.00	1.36	1.22	1.36	1.22	
7/16"	-3.50	11.31	1.46	1.31	2.82	2.53	
5/16"	-3.00	8.00	4.60	4.11	7.42	6.64	
3.5	-2.50	5.66	3.60	3.22	11.02	9.86	
4	-2.25	4.76	2.71	2.42	13.73	12.28	
5	-2.00	4.00	4.13	3.69	17.86	15.97	
7	-1.50	2.83	9.53	8.52	27.39	24.49	
10	-1.00	2.00	13.70	12.25	41.09	36.74	
14	-0.50	1.41	17.04	15.23	58.13	51.97	
18	0.00	1.00	12.70	11.35	70.83	63.32	
25	0.50	0.71	9.53	8.52	80.36	71.84	
35	1.00	0.50	8.26	7.38	88.62	79.22	
45	1.50	0.35	5.57	4.98	94.19	84.20	
60	2.00	0.25	3.30	2.95	97.49	87.15	
80	2.50	0.18	6.93	6.20	104.42	93.35	
120	3.00	0.13	5.53	4.94	109.95	98.29	
170	3.50	0.09	0.64	0.57	110.59	98.86	
200	3.75	0.07	0.06	0.05	110.65	98.91	
230	4.00	0.06	0.01	0.01	110.66	98.92	
Shell Hash calculated from visual estimate of shell <4.75mm and >2.8mm.							
<b>Phi 5</b>	<b>Phi 16</b>	<b>Phi 25</b>	<b>Phi 50</b>	<b>Phi 75</b>	<b>Phi 84</b>	<b>Phi 95</b>	
2.67	1.48	0.71	-0.56	-1.48	-2.00	-3.20	
<b>Moment</b>	<b>Mean Phi</b>	<b>Mean mm</b>	<b>Sorting</b>	<b>Skewness</b>	<b>Kurtosis</b>		
<b>Statistics</b>	-0.42	1.34	1.66	0.15	2.56		

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Project Name: AMI 2013 Sand Search							
Sample Name: AMVC-13-22 #5							
Analysis Date: 02-22-13							
Analyzed By: AV/JH							
Easting (ft): <b>411,748</b>		Northing (ft): <b>1,161,051</b>		Coordinate System: <b>Florida State Plane West</b>		Elevation (ft): <b>-17.9 NAVD 88</b>	
USCS: <b>SW</b>		Munsell: Wet - 5Y-5/2 Dry - 5Y-7/2 Washed - 5Y-7/1		Comments:			
Dry Weight (g): <b>109.39</b>	Wash Weight (g): <b>106.06</b>	Pan Retained (g): <b>0.03</b>	Sieve Loss (%): <b>0.03</b>	Fines (%): <b>#200 - 3.13</b> <b>#230 - 3.11</b>	Organics (%):	Carbonates (%):	Shell Hash (%):
<b>Sieve Number</b>	<b>Sieve Size (Phi)</b>	<b>Sieve Size (Millimeters)</b>	<b>Grams Retained</b>	<b>% Weight Retained</b>	<b>Cum. Grams Retained</b>	<b>C. % Weight Retained</b>	
3/4"	-4.25	19.03	0.00	0.00	0.00	0.00	
5/8"	-4.00	16.00	3.38	3.09	3.38	3.09	
7/16"	-3.50	11.31	3.63	3.32	7.01	6.41	
5/16"	-3.00	8.00	5.41	4.95	12.42	11.36	
3.5	-2.50	5.66	9.64	8.81	22.06	20.17	
4	-2.25	4.76	4.18	3.82	26.24	23.99	
5	-2.00	4.00	6.02	5.50	32.26	29.49	
7	-1.50	2.83	9.04	8.26	41.30	37.75	
10	-1.00	2.00	8.84	8.08	50.14	45.83	
14	-0.50	1.41	9.71	8.88	59.85	54.71	
18	0.00	1.00	7.77	7.10	67.62	61.81	
25	0.50	0.71	6.91	6.32	74.53	68.13	
35	1.00	0.50	5.85	5.35	80.38	73.48	
45	1.50	0.35	6.35	5.80	86.73	79.28	
60	2.00	0.25	4.84	4.42	91.57	83.70	
80	2.50	0.18	5.45	4.98	97.02	88.68	
120	3.00	0.13	8.05	7.36	105.07	96.04	
170	3.50	0.09	0.85	0.78	105.92	96.82	
200	3.75	0.07	0.06	0.05	105.98	96.87	
230	4.00	0.06	0.02	0.02	106.00	96.89	
Shell Hash calculated from visual estimate of shell <4.75mm and >2.8mm.							
<b>Phi 5</b>	<b>Phi 16</b>	<b>Phi 25</b>	<b>Phi 50</b>	<b>Phi 75</b>	<b>Phi 84</b>	<b>Phi 95</b>	
2.93	2.03	1.13	-0.77	-2.20	-2.74	-3.71	
<b>Moment</b>	<b>Mean Phi</b>	<b>Mean mm</b>	<b>Sorting</b>	<b>Skewness</b>	<b>Kurtosis</b>		
<b>Statistics</b>	-0.66	1.58	1.98	0.2	2.02		