


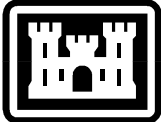


Granularmetric Report				 <p>US Army Corps of Engineers Jacksonville District</p>			
Project Name: Flagler HSDR Flagler HSDR							
Sample Name: VB-FC18-15 @ 1 ft							
Analysis Date: 3/29/2019							
Easting (ft): <div style="text-align: center;">668,152</div>		Northing (ft): <div style="text-align: center;">1,904,661</div>		Coordinate System: <div style="text-align: center;">State Plane, FLE (U.S. Ft.)</div>		Elevation (ft): <div style="text-align: center;">-54.3 NAVD88</div>	
USCS: <div style="text-align: center;">SW</div>		Munsell: <div style="text-align: center;">10Y 6/1</div>		Fines (%): #200 - 1.55 #230 - 1.50		Organics (%): Carbonates (%): Shells (%): <div style="text-align: center;">23</div>	
Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained		C. % Weight Retained		
#3.5	-2.50	5.60	0.00		0.00		
#4	-2.25	4.75	0.05		0.05		
#5	-2.00	4.00	0.14		0.18		
#7	-1.50	2.80	0.43		0.61		
#10	-1.00	2.00	0.92		1.53		
#14	-0.50	1.40	1.73		3.26		
#18	0.00	1.00	2.78		6.04		
#25	0.50	0.71	3.94		9.98		
#35	1.00	0.50	7.04		17.01		
#45	1.50	0.36	11.29		28.31		
#60	2.00	0.25	20.63		48.94		
#80	2.50	0.18	35.17		84.11		
#120	3.00	0.13	13.55		97.66		
#170	3.50	0.09	0.54		98.21		
#200	3.75	0.08	0.24		98.45		
#230	4.00	0.06	0.05		98.50		
SAND, poorly-graded, mostly fine to medium-grained sand-sized quartz, little fine to coarse-grained sand-sized shell, trace silt							
Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95	
2.90	2.50	2.37	2.02	1.35	0.93	-0.19	
Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	1.74	0.30	2.02	0.25	0.91	-1.36	5.05

Granularmetric Report				 US Army Corps of Engineers Jacksonville District			
Project Name: Flagler HSDR Flagler HSDR							
Sample Name: VB-FC18-15 @ 4 ft							
Analysis Date: 3/29/2019							
Easting (ft): 668,152		Northing (ft): 1,904,661		Coordinate System: State Plane, FLE (U.S. Ft.)		Elevation (ft): -57.3 NAVD88	
USCS: SW		Munsell: 10Y 6/1		Fines (%): #200 - 1.89 #230 - 1.86		Organics (%): Carbonates (%): 23.97	
Shells (%): 26.6							
Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained		C. % Weight Retained		
3/8"	-3.25	9.50	0.00		0.00		
#3.5	-2.50	5.60	0.22		0.22		
#4	-2.25	4.75	0.51		0.73		
#5	-2.00	4.00	0.18		0.92		
#7	-1.50	2.80	0.34		1.26		
#10	-1.00	2.00	1.03		2.29		
#14	-0.50	1.40	1.93		4.22		
#18	0.00	1.00	2.61		6.82		
#25	0.50	0.71	4.07		10.89		
#35	1.00	0.50	6.80		17.69		
#45	1.50	0.36	10.40		28.09		
#60	2.00	0.25	18.44		46.52		
#80	2.50	0.18	35.44		81.96		
#120	3.00	0.13	15.32		97.28		
#170	3.50	0.09	0.74		98.02		
#200	3.75	0.08	0.09		98.11		
#230	4.00	0.06	0.03		98.14		
<p>SAND, poorly-graded, mostly fine to medium-grained sand-sized quartz, little fine to coarse-grained sand-sized shell, trace silt</p>							
Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95	
2.93	2.57	2.40	2.05	1.35	0.88	-0.35	
Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	1.73	0.30	2.05	0.24	0.99	-1.61	6.07

Granularmetric Report				 US Army Corps of Engineers Jacksonville District			
Project Name: Flagler HSDR Flagler HSDR							
Sample Name: VB-FC18-15 @ 8 ft							
Analysis Date: 3/29/2019							
Easting (ft): 668,152		Northing (ft): 1,904,661		Coordinate System: State Plane, FLE (U.S. Ft.)		Elevation (ft): -61.3 NAVD88	
USCS: SW		Munsell: 10Y 6/1		Fines (%): #200 - 1.52 #230 - 1.47		Organics (%): Carbonates (%): Shells (%): 25.5	
Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained		C. % Weight Retained		
3/8"	-3.25	9.50	0.00		0.00		
#3.5	-2.50	5.60	0.11		0.11		
#4	-2.25	4.75	0.18		0.29		
#5	-2.00	4.00	0.24		0.53		
#7	-1.50	2.80	0.40		0.93		
#10	-1.00	2.00	0.83		1.76		
#14	-0.50	1.40	1.34		3.10		
#18	0.00	1.00	2.00		5.10		
#25	0.50	0.71	2.90		8.00		
#35	1.00	0.50	6.51		14.50		
#45	1.50	0.36	10.40		24.90		
#60	2.00	0.25	19.25		44.15		
#80	2.50	0.18	39.72		83.87		
#120	3.00	0.13	13.49		97.36		
#170	3.50	0.09	0.98		98.34		
#200	3.75	0.08	0.14		98.48		
#230	4.00	0.06	0.05		98.53		
SAND, poorly-graded, mostly fine to medium-grained sand-sized quartz, little fine to coarse-grained sand-sized shell, trace silt							
Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95	
2.91	2.50	2.39	2.07	1.50	1.07	-0.02	
Moment Statistics	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
	1.81	0.29	2.07	0.24	0.9	-1.71	6.89

Granularmetric Report				 US Army Corps of Engineers Jacksonville District			
Project Name: Flagler HSDR							
Sample Name: VB-FC18-15 @ 11 ft							
Analysis Date: 3/29/2019							
Easting (ft): <div style="text-align: center;">668,152</div>		Northing (ft): <div style="text-align: center;">1,904,661</div>		Coordinate System: <div style="text-align: center;">State Plane, FLE (U.S. Ft.)</div>		Elevation (ft): <div style="text-align: center;">-64.3 NAVD88</div>	
USCS: <div style="text-align: center;">SP</div>		Munsell: <div style="text-align: center;">10Y 4/1</div>		Fines (%): #200 - 3.52 #230 - 3.37		Organics (%): Carbonates (%): Shells (%): <div style="text-align: center;">12.6</div>	
Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained		C. % Weight Retained		
3/8"	-3.25	9.50	0.00		0.00		
#3.5	-2.50	5.60	0.13		0.13		
#4	-2.25	4.75	0.07		0.20		
#5	-2.00	4.00	0.04		0.24		
#7	-1.50	2.80	0.13		0.37		
#10	-1.00	2.00	0.19		0.56		
#14	-0.50	1.40	0.23		0.79		
#18	0.00	1.00	0.33		1.12		
#25	0.50	0.71	0.39		1.52		
#35	1.00	0.50	0.56		2.07		
#45	1.50	0.36	1.11		3.19		
#60	2.00	0.25	4.64		7.82		
#80	2.50	0.18	30.51		38.33		
#120	3.00	0.13	50.36		88.69		
#170	3.50	0.09	6.88		95.57		
#200	3.75	0.08	0.91		96.48		
#230	4.00	0.06	0.16		96.63		
SAND, poorly-graded, mostly fine-grained sand-sized quartz, few fine to medium-grained sand-sized shell, trace silt							
Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95	
3.46	2.95	2.86	2.62	2.28	2.13	1.70	
Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	2.50	0.18	2.62	0.16	0.6	-3.57	25.42