Granularmetric Report

Project Name:
St. Johns County Ebb Shoal Borrow Area

Sample Name: VB-SJES25-01 @ 1 ft

Analysis Date: 1/27/2026

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
570,627	2,028,209	State Plane, FLE (U.S. Ft.)	-21.8 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	10YR 6/1	#200 - 0.93 #230 - 0.85		2.40	0

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
#4	-2.25	4.75	0.00	0.00
#5	-2.00	4.00	0.48	0.48
#7	-1.50	2.80	0.26	0.74
#10	-1.00	2.00	0.00	0.74
#14	-0.50	1.40	0.34	1.08
#18	0.00	1.00	0.59	1.67
#25	0.50	0.71	0.71	2.38
#35	1.00	0.50	2.41	4.79
#45	1.50	0.36	10.41	15.20
#60	2.00	0.25	27.54	42.74
#80	2.50	0.18	29.76	72.50
#120	3.00	0.13	24.64	97.14
#170	3.50	0.09	1.82	98.96
#200	3.75	0.08	0.11	99.07
#230	4.00	0.06	0.08	99.15

SAND, poorly-graded, mostly fine to medium-grained sand-sized quartz, trace silt

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
2.96	2.73	2.55	2.12	1.68	1.51	1.01

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	2.04	0.24	2.12	0.23	0.71	-1.86	10.62

GRANULARMETRIC REPORT % TEST_2025_AND_2009.GPJ CESAJ 20171021.GDT 4/21/26

Granularmetric Report

US Army Corps of Engineers
Jacksonville District

Project Name:
St. Johns County Ebb Shoal Borrow Area

Sample Name: VB-SJES25-01 @ 1.1 ft

Analysis Date: 1/27/2026

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
570,627	2,028,209	State Plane, FLE (U.S. Ft.)	-21.9 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	10YR 6/1	#200 - 4.95 #230 - 4.76			0

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
#4	-2.25	4.75	0.00	0.00
#5	-2.00	4.00	0.37	0.37
#7	-1.50	2.80	0.19	0.56
#10	-1.00	2.00	0.00	0.56
#14	-0.50	1.40	0.08	0.64
#18	0.00	1.00	0.15	0.79
#25	0.50	0.71	0.37	1.16
#35	1.00	0.50	0.90	2.06
#45	1.50	0.36	6.90	8.96
#60	2.00	0.25	28.03	36.99
#80	2.50	0.18	29.69	66.68
#120	3.00	0.13	25.75	92.43
#170	3.50	0.09	2.47	94.90
#200	3.75	0.08	0.15	95.05
#230	4.00	0.06	0.19	95.24

SAND, poorly-graded, mostly fine to medium-grained sand-sized quartz, trace silt

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.67	2.84	2.66	2.22	1.79	1.63	1.21

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	2.14	0.23	2.22	0.21	0.63	-1.89	13.32

GRANULARMETRIC REPORT % TEST_2025_AND_2009.GPJ CESAJ 20171021.GDT 4/21/26

Granularmetric Report

Project Name:
St. Johns County Ebb Shoal Borrow Area

Sample Name: VB-SJES25-01 @ 3 ft

Analysis Date: 1/27/2026

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
570,627	2,028,209	State Plane, FLE (U.S. Ft.)	-23.8 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	10YR 6/1	#200 - 1.25 #230 - 1.20			0

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
#5	-2.00	4.00	0.00	0.00
#7	-1.50	2.80	0.08	0.08
#10	-1.00	2.00	0.00	0.08
#14	-0.50	1.40	0.04	0.12
#18	0.00	1.00	0.09	0.21
#25	0.50	0.71	0.18	0.39
#35	1.00	0.50	0.47	0.86
#45	1.50	0.36	1.93	2.79
#60	2.00	0.25	8.57	11.36
#80	2.50	0.18	24.10	35.46
#120	3.00	0.13	54.34	89.80
#170	3.50	0.09	8.68	98.48
#200	3.75	0.08	0.27	98.75
#230	4.00	0.06	0.05	98.80

SAND, poorly-graded, mostly fine-grained sand-sized quartz, trace silt

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.30	2.95	2.86	2.63	2.28	2.10	1.63

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	2.54	0.17	2.63	0.16	0.48	-1.75	11.09

GRANULARMETRIC REPORT % TEST_2025_AND_2009.GPJ CESAJ 20171021.GDT 4/21/26

Granularmetric Report

US Army Corps of Engineers
Jacksonville District

Project Name:
St. Johns County Ebb Shoal Borrow Area

Sample Name: VB-SJES25-01 @ 5 ft

Analysis Date: 1/27/2026

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
570,627	2,028,209	State Plane, FLE (U.S. Ft.)	-25.8 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	10YR 6/1	#200 - 1.18 #230 - 1.12			0

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	0.07	0.07
#5	-2.00	4.00	0.00	0.07
#7	-1.50	2.80	0.17	0.24
#10	-1.00	2.00	0.05	0.29
#14	-0.50	1.40	0.06	0.35
#18	0.00	1.00	0.08	0.43
#25	0.50	0.71	0.09	0.52
#35	1.00	0.50	0.21	0.73
#45	1.50	0.36	0.47	1.20
#60	2.00	0.25	3.03	4.23
#80	2.50	0.18	28.80	33.03
#120	3.00	0.13	57.85	90.88
#170	3.50	0.09	7.65	98.53
#200	3.75	0.08	0.29	98.82
#230	4.00	0.06	0.06	98.88

SAND, poorly-graded, mostly fine-grained sand-sized quartz, trace silt

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.27	2.94	2.86	2.65	2.36	2.20	2.01

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	2.58	0.17	2.65	0.16	0.45	-3.71	34.63

GRANULARMETRIC REPORT % TEST_2025_AND_2009.GPJ CESAJ 20171021.GDT 4/21/26

Granularmetric Report

Project Name:
St. Johns County Ebb Shoal Borrow Area

Sample Name: VB-SJES25-01 @ 7 ft

Analysis Date: 1/27/2026

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
570,627	2,028,209	State Plane, FLE (U.S. Ft.)	-27.8 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SW	10YR 6/1	#200 - 2.41 #230 - 2.03			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	0.91	0.91
#4	-2.25	4.75	0.00	0.91
#5	-2.00	4.00	0.80	1.71
#7	-1.50	2.80	0.42	2.13
#10	-1.00	2.00	0.37	2.50
#14	-0.50	1.40	0.68	3.18
#18	0.00	1.00	0.69	3.87
#25	0.50	0.71	0.56	4.43
#35	1.00	0.50	0.43	4.86
#45	1.50	0.36	0.33	5.19
#60	2.00	0.25	0.77	5.96
#80	2.50	0.18	7.75	13.71
#120	3.00	0.13	53.77	67.48
#170	3.50	0.09	27.99	95.47
#200	3.75	0.08	2.12	97.59
#230	4.00	0.06	0.38	97.97

SAND, poorly-graded, mostly fine to medium-grained sand-sized quartz, trace silt, few sand to gravel-sized shell

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.49	3.30	3.13	2.84	2.60	2.52	1.21

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	2.67	0.16	2.84	0.14	0.98	-3.82	18.95

GRANULARMETRIC REPORT % TEST_2025_AND_2009.GPJ CESAJ 20171021.GDT 4/21/26

Granularmetric Report

Project Name:
St. Johns County Ebb Shoal Borrow Area

Sample Name: VB-SJES25-01 @ 8.5 ft

Analysis Date: 1/27/2026

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
570,627	2,028,209	State Plane, FLE (U.S. Ft.)	-29.3 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	10YR 5/1	#200 - 3.99 #230 - 3.20			0

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	0.08	0.08
#4	-2.25	4.75	0.02	0.10
#5	-2.00	4.00	0.13	0.23
#7	-1.50	2.80	0.03	0.26
#10	-1.00	2.00	0.05	0.31
#14	-0.50	1.40	0.04	0.35
#18	0.00	1.00	0.05	0.40
#25	0.50	0.71	0.05	0.45
#35	1.00	0.50	0.05	0.50
#45	1.50	0.36	0.11	0.61
#60	2.00	0.25	0.41	1.02
#80	2.50	0.18	3.79	4.81
#120	3.00	0.13	42.65	47.46
#170	3.50	0.09	43.67	91.13
#200	3.75	0.08	4.88	96.01
#230	4.00	0.06	0.79	96.80

SAND, poorly-graded, mostly fine-grained sand-sized quartz, trace silt

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.70	3.42	3.32	3.03	2.74	2.63	2.50

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	2.98	0.13	3.03	0.12	0.47	-5.04	55.13

GRANULARMETRIC REPORT % TEST_2025_AND_2009.GPJ CESAJ 20171021.GDT 4/21/26

Granularmetric Report

US Army Corps of Engineers
Jacksonville District

Project Name:
St. Johns County Ebb Shoal Borrow Area

Sample Name: VB-SJES25-01 @ 11 ft

Analysis Date: 1/27/2026

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
570,627	2,028,209	State Plane, FLE (U.S. Ft.)	-31.8 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
	10YR 5/1	#200 - 5.51 #230 - 4.27			0

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
#4	-2.25	4.75	0.00	0.00
#5	-2.00	4.00	0.09	0.09
#7	-1.50	2.80	0.10	0.19
#10	-1.00	2.00	0.03	0.22
#14	-0.50	1.40	0.10	0.32
#18	0.00	1.00	0.12	0.44
#25	0.50	0.71	0.09	0.53
#35	1.00	0.50	0.17	0.70
#45	1.50	0.36	0.34	1.04
#60	2.00	0.25	0.95	1.99
#80	2.50	0.18	6.38	8.37
#120	3.00	0.13	42.76	51.13
#170	3.50	0.09	36.85	87.98
#200	3.75	0.08	6.51	94.49
#230	4.00	0.06	1.24	95.73

SAND, poorly-graded with clay, mostly fine-grained sand-sized quartz, few clay

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.85	3.45	3.32	2.99	2.69	2.59	2.24

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	2.94	0.13	2.99	0.13	0.5	-3.26	28.38

GRANULARMETRIC REPORT % TEST_2025_AND_2009.GPJ CESAJ 20171021.GDT 4/21/26

Granularmetric Report

US Army Corps of Engineers
Jacksonville District

Project Name:
St. Johns County Ebb Shoal Borrow Area

Sample Name: VB-SJES25-02 @ 1 ft

Analysis Date: 1/27/2026

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
571,606	2,028,378	State Plane, FLE (U.S. Ft.)	-22.1 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	10YR 6/1	#200 - 1.10 #230 - 1.02		2.50	0

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
#7	-1.50	2.80	0.00	0.00
#10	-1.00	2.00	0.04	0.04
#14	-0.50	1.40	0.09	0.13
#18	0.00	1.00	0.00	0.13
#25	0.50	0.71	0.12	0.25
#35	1.00	0.50	0.17	0.42
#45	1.50	0.36	1.19	1.61
#60	2.00	0.25	13.33	14.94
#80	2.50	0.18	39.44	54.38
#120	3.00	0.13	40.46	94.84
#170	3.50	0.09	3.93	98.77
#200	3.75	0.08	0.13	98.90
#230	4.00	0.06	0.08	98.98

SAND, poorly-graded, mostly fine-grained sand-sized quartz, trace silt

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.02	2.87	2.75	2.44	2.13	2.01	1.63

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	2.41	0.19	2.44	0.18	0.43	-1	7.89

GRANULARMETRIC REPORT % TEST_2025_AND_2009.GPJ CESAJ 20171021.GDT 4/21/26

Granularmetric Report

Project Name:
St. Johns County Ebb Shoal Borrow Area

Sample Name: VB-SJES25-02 @ 1.1 ft

Analysis Date: 1/27/2026

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
571,606	2,028,378	State Plane, FLE (U.S. Ft.)	-22.2 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	10YR 6/1	#200 - 2.31 #230 - 2.26			0

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
#7	-1.50	2.80	0.00	0.00
#10	-1.00	2.00	0.04	0.04
#14	-0.50	1.40	0.00	0.04
#18	0.00	1.00	0.00	0.04
#25	0.50	0.71	0.00	0.04
#35	1.00	0.50	0.05	0.09
#45	1.50	0.36	0.59	0.68
#60	2.00	0.25	13.55	14.23
#80	2.50	0.18	36.62	50.85
#120	3.00	0.13	41.33	92.18
#170	3.50	0.09	5.21	97.39
#200	3.75	0.08	0.30	97.69
#230	4.00	0.06	0.05	97.74

SAND, poorly-graded, mostly fine-grained sand-sized quartz, trace silt

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.27	2.90	2.79	2.49	2.15	2.02	1.66

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	2.44	0.18	2.49	0.18	0.42	-0.47	5.14

GRANULARMETRIC REPORT % TEST_2025_AND_2009.GPJ CESAJ 20171021.GDT 4/21/26

Granularmetric Report

US Army Corps of Engineers
Jacksonville District

Project Name:
St. Johns County Ebb Shoal Borrow Area

Sample Name: VB-SJES25-02 @ 4 ft

Analysis Date: 1/27/2026

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
571,606	2,028,378	State Plane, FLE (U.S. Ft.)	-25.1 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	10YR 6/1	#200 - 1.14 #230 - 1.11			0

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
#10	-1.00	2.00	0.00	0.00
#14	-0.50	1.40	0.09	0.09
#18	0.00	1.00	0.13	0.22
#25	0.50	0.71	0.10	0.32
#35	1.00	0.50	0.16	0.48
#45	1.50	0.36	0.24	0.72
#60	2.00	0.25	1.83	2.55
#80	2.50	0.18	22.99	25.54
#120	3.00	0.13	63.74	89.28
#170	3.50	0.09	9.34	98.62
#200	3.75	0.08	0.24	98.86
#230	4.00	0.06	0.03	98.89

SAND, poorly-graded, mostly fine-grained sand-sized quartz, trace silt

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.31	2.96	2.89	2.69	2.49	2.29	2.05

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	2.65	0.16	2.69	0.15	0.37	-2.12	17.49

GRANULARMETRIC REPORT % TEST_2025_AND_2009.GPJ CESAJ 20171021.GDT 4/21/26

Granularmetric Report

US Army Corps of Engineers
Jacksonville District

Project Name:
St. Johns County Ebb Shoal Borrow Area

Sample Name: VB-SJES25-02 @ 8 ft

Analysis Date: 1/27/2026

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
571,606	2,028,378	State Plane, FLE (U.S. Ft.)	-29.1 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	10YR 6/1	#200 - 1.30 #230 - 1.19			5

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	0.13	0.13
#5	-2.00	4.00	0.43	0.56
#7	-1.50	2.80	0.46	1.02
#10	-1.00	2.00	0.89	1.91
#14	-0.50	1.40	1.10	3.01
#18	0.00	1.00	0.27	3.28
#25	0.50	0.71	0.13	3.41
#35	1.00	0.50	0.19	3.60
#45	1.50	0.36	0.28	3.88
#60	2.00	0.25	1.54	5.42
#80	2.50	0.18	16.42	21.84
#120	3.00	0.13	59.20	81.04
#170	3.50	0.09	16.81	97.85
#200	3.75	0.08	0.85	98.70
#230	4.00	0.06	0.11	98.81

SAND, poorly-graded, mostly fine-grained sand-sized quartz, trace silt, few medium to coarse-grained sand-sized shell

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.42	3.09	2.95	2.74	2.53	2.32	1.86

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	2.60	0.16	2.74	0.15	0.8	-3.85	20.04

GRANULARMETRIC REPORT % TEST_2025_AND_2009.GPJ CESAJ 20171021.GDT 4/21/26

Granularmetric Report

US Army Corps of Engineers
Jacksonville District

Project Name:
St. Johns County Ebb Shoal Borrow Area

Sample Name: VB-SJES25-02 @ 12 ft

Analysis Date: 1/27/2026

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
571,606	2,028,378	State Plane, FLE (U.S. Ft.)	-33.1 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	10YR 6/1	#200 - 1.18 #230 - 1.08			0

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
#5	-2.00	4.00	0.00	0.00
#7	-1.50	2.80	0.13	0.13
#10	-1.00	2.00	0.20	0.33
#14	-0.50	1.40	0.10	0.43
#18	0.00	1.00	0.12	0.55
#25	0.50	0.71	0.14	0.69
#35	1.00	0.50	0.24	0.93
#45	1.50	0.36	0.52	1.45
#60	2.00	0.25	2.01	3.46
#80	2.50	0.18	16.63	20.09
#120	3.00	0.13	61.76	81.85
#170	3.50	0.09	16.19	98.04
#200	3.75	0.08	0.78	98.82
#230	4.00	0.06	0.10	98.92

SAND, poorly-graded, mostly fine-grained sand-sized quartz, trace silt

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.41	3.07	2.94	2.74	2.54	2.38	2.05

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	2.70	0.15	2.74	0.15	0.47	-3.52	28.69

GRANULARMETRIC REPORT % TEST_2025_AND_2009.GPJ CESAJ 20171021.GDT 4/21/26

Granularmetric Report

Project Name:
St. Johns County Ebb Shoal Borrow Area

Sample Name: VB-SJES25-02 @ 15.5 ft

Analysis Date: 1/27/2026

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
571,606	2,028,378	State Plane, FLE (U.S. Ft.)	-36.6 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	10YR 6/1	#200 - 1.55 #230 - 1.47			0

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
#10	-1.00	2.00	0.00	0.00
#14	-0.50	1.40	0.02	0.02
#18	0.00	1.00	0.02	0.04
#25	0.50	0.71	0.05	0.09
#35	1.00	0.50	0.13	0.22
#45	1.50	0.36	0.54	0.76
#60	2.00	0.25	2.39	3.15
#80	2.50	0.18	20.66	23.81
#120	3.00	0.13	60.80	84.61
#170	3.50	0.09	13.26	97.87
#200	3.75	0.08	0.58	98.45
#230	4.00	0.06	0.08	98.53

SAND, poorly-graded, mostly fine-grained sand-sized quartz, trace silt

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.39	2.99	2.92	2.72	2.51	2.31	2.04

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	2.68	0.16	2.72	0.15	0.37	-1.02	7.98

GRANULARMETRIC REPORT % TEST_2025_AND_2009.GPJ CESAJ 20171021.GDT 4/21/26

Granularmetric Report

US Army Corps of Engineers
Jacksonville District

Project Name:
St. Johns County Ebb Shoal Borrow Area

Sample Name: VB-SJES25-02 @ 16.5 ft

Analysis Date: 1/27/2026

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
571,606	2,028,378	State Plane, FLE (U.S. Ft.)	-37.6 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	10YR 6/1	#200 - 2.89 #230 - 2.27			0

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
#35	1.00	0.50	0.00	0.00
#45	1.50	0.36	0.04	0.04
#60	2.00	0.25	1.24	1.28
#80	2.50	0.18	14.67	15.95
#120	3.00	0.13	49.20	65.15
#170	3.50	0.09	28.91	94.06
#200	3.75	0.08	3.05	97.11
#230	4.00	0.06	0.62	97.73

SAND, poorly-graded, mostly fine-grained sand-sized quartz, trace silt

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.58	3.33	3.17	2.85	2.59	2.50	2.13

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	2.84	0.14	2.85	0.14	0.38	-0.15	3.02

GRANULARMETRIC REPORT % TEST_2025_AND_2009.GPJ CESAJ 20171021.GDT 4/21/26

Granularmetric Report

US Army Corps of Engineers
Jacksonville District

Project Name:
St. Johns County Ebb Shoal Borrow Area

Sample Name: VB-SJES25-03 @ 1 ft

Analysis Date: 1/27/2026

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
572,583	2,028,624	State Plane, FLE (U.S. Ft.)	-26.1 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	10YR 6/1	#200 - 1.34 #230 - 1.31		2.10	0

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
#10	-1.00	2.00	0.00	0.00
#14	-0.50	1.40	0.10	0.10
#18	0.00	1.00	0.00	0.10
#25	0.50	0.71	0.04	0.14
#35	1.00	0.50	0.10	0.24
#45	1.50	0.36	0.41	0.65
#60	2.00	0.25	1.79	2.44
#80	2.50	0.18	16.71	19.15
#120	3.00	0.13	59.57	78.72
#170	3.50	0.09	18.87	97.59
#200	3.75	0.08	1.07	98.66
#230	4.00	0.06	0.03	98.69

SAND, poorly-graded, mostly fine-grained sand-sized quartz, trace silt

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.43	3.14	2.97	2.76	2.55	2.41	2.08

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	2.74	0.15	2.76	0.15	0.38	-1.36	11.83

GRANULARMETRIC REPORT % TEST_2025_AND_2009.GPJ CESAJ 20171021.GDT 4/21/26

Granularmetric Report

US Army Corps of Engineers
Jacksonville District

Project Name:
St. Johns County Ebb Shoal Borrow Area

Sample Name: VB-SJES25-03 @ 1.1 ft

Analysis Date: 1/27/2026

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
572,583	2,028,624	State Plane, FLE (U.S. Ft.)	-26.2 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	10YR 6/1	#200 - 3.63 #230 - 3.42			0

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
#18	0.00	1.00	0.00	0.00
#25	0.50	0.71	0.03	0.03
#35	1.00	0.50	0.04	0.07
#45	1.50	0.36	0.31	0.38
#60	2.00	0.25	1.33	1.71
#80	2.50	0.18	11.12	12.83
#120	3.00	0.13	56.21	69.04
#170	3.50	0.09	26.01	95.05
#200	3.75	0.08	1.32	96.37
#230	4.00	0.06	0.21	96.58

SAND, poorly-graded, mostly fine-grained sand-sized quartz, trace silt

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.50	3.29	3.11	2.83	2.61	2.53	2.15

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	2.82	0.14	2.83	0.14	0.36	-0.63	5.34

GRANULARMETRIC REPORT % TEST_2025_AND_2009.GPJ CESAJ 20171021.GDT 4/21/26

Granularmetric Report

US Army Corps of Engineers
Jacksonville District

Project Name:
St. Johns County Ebb Shoal Borrow Area

Sample Name: VB-SJES25-03 @ 3 ft

Analysis Date: 1/27/2026

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
572,583	2,028,624	State Plane, FLE (U.S. Ft.)	-28.1 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	10YR 6/1	#200 - 1.70 #230 - 1.65			0

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	0.23	0.23
#4	-2.25	4.75	0.00	0.23
#5	-2.00	4.00	0.08	0.31
#7	-1.50	2.80	0.06	0.37
#10	-1.00	2.00	0.12	0.49
#14	-0.50	1.40	0.18	0.67
#18	0.00	1.00	0.19	0.86
#25	0.50	0.71	0.18	1.04
#35	1.00	0.50	0.41	1.45
#45	1.50	0.36	0.85	2.30
#60	2.00	0.25	2.63	4.93
#80	2.50	0.18	17.94	22.87
#120	3.00	0.13	57.78	80.65
#170	3.50	0.09	16.64	97.29
#200	3.75	0.08	1.01	98.30
#230	4.00	0.06	0.05	98.35

SAND, poorly-graded, mostly fine-grained sand-sized quartz, trace silt

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.43	3.10	2.95	2.73	2.52	2.31	2.00

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	2.66	0.16	2.73	0.15	0.57	-4.26	34.71

GRANULARMETRIC REPORT % TEST_2025_AND_2009.GPJ CESAJ 20171021.GDT 4/21/26

Granularmetric Report

US Army Corps of Engineers
Jacksonville District

Project Name:
St. Johns County Ebb Shoal Borrow Area

Sample Name: VB-SJES25-03 @ 6 ft

Analysis Date: 1/27/2026

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
572,583	2,028,624	State Plane, FLE (U.S. Ft.)	-31.1 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	10YR 6/1	#200 - 2.46 #230 - 2.41			0

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
#10	-1.00	2.00	0.00	0.00
#14	-0.50	1.40	0.07	0.07
#18	0.00	1.00	0.08	0.15
#25	0.50	0.71	0.00	0.15
#35	1.00	0.50	0.00	0.15
#45	1.50	0.36	0.06	0.21
#60	2.00	0.25	0.78	0.99
#80	2.50	0.18	15.61	16.60
#120	3.00	0.13	63.34	79.94
#170	3.50	0.09	16.63	96.57
#200	3.75	0.08	0.97	97.54
#230	4.00	0.06	0.05	97.59

SAND, poorly-graded, mostly fine-grained sand-sized quartz, trace silt

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.45	3.12	2.96	2.76	2.57	2.48	2.13

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	2.75	0.15	2.76	0.15	0.34	-1.37	15.69

GRANULARMETRIC REPORT % TEST_2025_AND_2009.GPJ CESAJ 20171021.GDT 4/21/26

Granularmetric Report

US Army Corps of Engineers
Jacksonville District

Project Name:
St. Johns County Ebb Shoal Borrow Area

Sample Name: VB-SJES25-03 @ 10 ft

Analysis Date: 1/27/2026

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
572,583	2,028,624	State Plane, FLE (U.S. Ft.)	-35.1 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	10YR 6/1	#200 - 4.14 #230 - 4.10			0

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
#14	-0.50	1.40	0.00	0.00
#18	0.00	1.00	0.17	0.17
#25	0.50	0.71	0.00	0.17
#35	1.00	0.50	0.05	0.22
#45	1.50	0.36	0.22	0.44
#60	2.00	0.25	2.20	2.64
#80	2.50	0.18	28.41	31.05
#120	3.00	0.13	51.34	82.39
#170	3.50	0.09	12.41	94.80
#200	3.75	0.08	1.06	95.86
#230	4.00	0.06	0.04	95.90

SAND, poorly-graded, mostly fine-grained sand-sized quartz, trace silt

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.55	3.06	2.93	2.68	2.39	2.24	2.04

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	2.64	0.16	2.68	0.16	0.39	-0.8	8.42

GRANULARMETRIC REPORT % TEST_2025_AND_2009.GPJ CESAJ 20171021.GDT 4/21/26

Granularmetric Report

US Army Corps of Engineers
Jacksonville District

Project Name:
St. Johns County Ebb Shoal Borrow Area

Sample Name: VB-SJES25-03 @ 11.3 ft

Analysis Date: 1/27/2026

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
572,583	2,028,624	State Plane, FLE (U.S. Ft.)	-36.4 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	10YR 6/1	#200 - 3.39 #230 - 3.34			0

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
#14	-0.50	1.40	0.00	0.00
#18	0.00	1.00	0.34	0.34
#25	0.50	0.71	0.00	0.34
#35	1.00	0.50	0.06	0.40
#45	1.50	0.36	0.00	0.40
#60	2.00	0.25	0.67	1.07
#80	2.50	0.18	14.05	15.12
#120	3.00	0.13	59.32	74.44
#170	3.50	0.09	20.92	95.36
#200	3.75	0.08	1.25	96.61
#230	4.00	0.06	0.05	96.66

SAND, poorly-graded, mostly fine-grained sand-sized quartz, trace silt

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.49	3.23	3.01	2.79	2.58	2.51	2.14

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	2.78	0.15	2.79	0.14	0.38	-1.9	17.23

GRANULARMETRIC REPORT % TEST_2025_AND_2009.GPJ CESAJ 20171021.GDT 4/21/26

Granularmetric Report

Project Name:
St. Johns County Ebb Shoal Borrow Area

Sample Name: VB-SJES25-04 @ 1 ft

Analysis Date: 1/27/2026

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
571,070	2,027,371	State Plane, FLE (U.S. Ft.)	-17.8 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	10YR 6/1	#200 - 1.09 #230 - 0.97		3.30	0

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
#7	-1.50	2.80	0.00	0.00
#10	-1.00	2.00	0.04	0.04
#14	-0.50	1.40	0.49	0.53
#18	0.00	1.00	0.60	1.13
#25	0.50	0.71	1.01	2.14
#35	1.00	0.50	2.14	4.28
#45	1.50	0.36	5.87	10.15
#60	2.00	0.25	11.19	21.34
#80	2.50	0.18	31.65	52.99
#120	3.00	0.13	40.79	93.78
#170	3.50	0.09	4.85	98.63
#200	3.75	0.08	0.28	98.91
#230	4.00	0.06	0.12	99.03

SAND, poorly-graded, mostly fine to medium-grained sand-sized quartz, trace silt

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.13	2.88	2.77	2.45	2.06	1.76	1.06

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	2.31	0.20	2.45	0.18	0.65	-1.6	6.92

GRANULARMETRIC REPORT % TEST_2025_AND_2009.GPJ CESAJ 20171021.GDT 4/21/26

Granularmetric Report

US Army Corps of Engineers
Jacksonville District

Project Name:
St. Johns County Ebb Shoal Borrow Area

Sample Name: VB-SJES25-04 @ 1.1 ft

Analysis Date: 1/27/2026

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
571,070	2,027,371	State Plane, FLE (U.S. Ft.)	-17.9 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	10YR 6/1	#200 - 4.66 #230 - 4.58			0

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
#14	-0.50	1.40	0.00	0.00
#18	0.00	1.00	0.04	0.04
#25	0.50	0.71	0.21	0.25
#35	1.00	0.50	0.85	1.10
#45	1.50	0.36	3.35	4.45
#60	2.00	0.25	11.61	16.06
#80	2.50	0.18	26.03	42.09
#120	3.00	0.13	46.39	88.48
#170	3.50	0.09	6.58	95.06
#200	3.75	0.08	0.28	95.34
#230	4.00	0.06	0.08	95.42

SAND, poorly-graded, mostly fine to medium-grained sand-sized quartz, trace silt

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.50	2.95	2.85	2.59	2.17	2.00	1.52

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	2.45	0.18	2.59	0.17	0.5	-0.99	4.54

GRANULARMETRIC REPORT % TEST_2025_AND_2009.GPJ CESAJ 20171021.GDT 4/21/26

Granularmetric Report

Project Name:
St. Johns County Ebb Shoal Borrow Area

Sample Name: VB-SJES25-04 @ 4 ft

Analysis Date: 1/27/2026

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
571,070	2,027,371	State Plane, FLE (U.S. Ft.)	-20.8 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	10YR 6/1	#200 - 2.36 #230 - 2.23			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	0.11	0.22
#5	-2.00	4.00	0.03	0.25
#7	-1.50	2.80	0.29	0.54
#10	-1.00	2.00	0.32	0.86
#14	-0.50	1.40	0.74	1.60
#18	0.00	1.00	0.85	2.45
#25	0.50	0.71	0.70	3.15
#35	1.00	0.50	1.15	4.30
#45	1.50	0.36	1.78	6.08
#60	2.00	0.25	5.92	12.00
#80	2.50	0.18	36.35	48.35
#120	3.00	0.13	44.27	92.62
#170	3.50	0.09	4.70	97.32
#200	3.75	0.08	0.32	97.64
#230	4.00	0.06	0.13	97.77

SAND, poorly-graded, mostly fine to medium-grained sand-sized quartz, trace silt, few sand to gravel-sized shell

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.25	2.90	2.80	2.52	2.18	2.06	1.20

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	2.37	0.19	2.52	0.17	0.72	-3.12	16.67

GRANULARMETRIC REPORT % TEST_2025_AND_2009.GPJ CESAJ 20171021.GDT 4/21/26

Granularmetric Report

Project Name:
St. Johns County Ebb Shoal Borrow Area

Sample Name: VB-SJES25-04 @ 8 ft

Analysis Date: 1/27/2026

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
571,070	2,027,371	State Plane, FLE (U.S. Ft.)	-24.8 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	10YR 5/1	#200 - 3.19 #230 - 3.16			0

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	0.07	0.07
#4	-2.25	4.75	0.00	0.07
#5	-2.00	4.00	0.08	0.15
#7	-1.50	2.80	0.13	0.28
#10	-1.00	2.00	0.07	0.35
#14	-0.50	1.40	0.29	0.64
#18	0.00	1.00	0.43	1.07
#25	0.50	0.71	0.53	1.60
#35	1.00	0.50	1.17	2.77
#45	1.50	0.36	1.94	4.71
#60	2.00	0.25	2.78	7.49
#80	2.50	0.18	14.61	22.10
#120	3.00	0.13	53.28	75.38
#170	3.50	0.09	20.03	95.41
#200	3.75	0.08	1.40	96.81
#230	4.00	0.06	0.03	96.84

SAND, poorly-graded, mostly fine to medium-grained sand-sized quartz, trace silt

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.49	3.22	3.00	2.76	2.53	2.29	1.55

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	2.65	0.16	2.76	0.15	0.64	-3.03	18.08

GRANULARMETRIC REPORT % TEST_2025_AND_2009.GPJ CESAJ 20171021.GDT 4/21/26

Granularmetric Report

US Army Corps of Engineers
Jacksonville District

Project Name:
St. Johns County Ebb Shoal Borrow Area

Sample Name: VB-SJES25-04 @ 12 ft

Analysis Date: 1/27/2026

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
571,070	2,027,371	State Plane, FLE (U.S. Ft.)	-28.8 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	10YR 5/1	#200 - 2.71 #230 - 2.68			0

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
#35	1.00	0.50	0.00	0.00
#45	1.50	0.36	0.14	0.14
#60	2.00	0.25	1.39	1.53
#80	2.50	0.18	19.25	20.78
#120	3.00	0.13	60.36	81.14
#170	3.50	0.09	15.12	96.26
#200	3.75	0.08	1.03	97.29
#230	4.00	0.06	0.03	97.32

SAND, poorly-graded, mostly fine to medium-grained sand-sized quartz, trace silt

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.46	3.09	2.95	2.74	2.53	2.38	2.09

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	2.72	0.15	2.74	0.15	0.34	-0.19	3.8

GRANULARMETRIC REPORT % TEST_2025_AND_2009.GPJ CESAJ 20171021.GDT 4/21/26

Granularmetric Report

Project Name:
St. Johns County Ebb Shoal Borrow Area

Sample Name: VB-SJES25-04 @ 16 ft

Analysis Date: 1/27/2026

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
571,070	2,027,371	State Plane, FLE (U.S. Ft.)	-32.8 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SW	10YR 5/1	#200 - 3.46 #230 - 3.24			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	0.25	0.25
#4	-2.25	4.75	0.00	0.25
#5	-2.00	4.00	0.17	0.42
#7	-1.50	2.80	0.44	0.86
#10	-1.00	2.00	0.62	1.48
#14	-0.50	1.40	1.10	2.58
#18	0.00	1.00	4.74	7.32
#25	0.50	0.71	5.68	13.00
#35	1.00	0.50	8.24	21.24
#45	1.50	0.36	12.78	34.02
#60	2.00	0.25	15.63	49.65
#80	2.50	0.18	18.90	68.55
#120	3.00	0.13	22.74	91.29
#170	3.50	0.09	4.74	96.03
#200	3.75	0.08	0.51	96.54
#230	4.00	0.06	0.22	96.76

SAND, poorly-graded, mostly fine to medium-grained sand-sized quartz, trace silt, few sand to gravel-sized shell

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.39	2.84	2.64	2.01	1.15	0.68	-0.24

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	1.75	0.30	2.01	0.25	1.07	-0.92	3.89

GRANULARMETRIC REPORT % TEST_2025_AND_2009.GPJ CESAJ 20171021.GDT 4/21/26

Granularmetric Report

Project Name:
St. Johns County Ebb Shoal Borrow Area

Sample Name: VB-SJES25-04 @ 19.5 ft

Analysis Date: 1/27/2026

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
571,070	2,027,371	State Plane, FLE (U.S. Ft.)	-36.3 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
	10YR 5/1	#200 - 8.08 #230 - 7.49			0

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
#5	-2.00	4.00	0.00	0.00
#7	-1.50	2.80	0.04	0.04
#10	-1.00	2.00	0.05	0.09
#14	-0.50	1.40	0.06	0.15
#18	0.00	1.00	0.18	0.33
#25	0.50	0.71	0.31	0.64
#35	1.00	0.50	0.52	1.16
#45	1.50	0.36	1.01	2.17
#60	2.00	0.25	2.34	4.51
#80	2.50	0.18	12.76	17.27
#120	3.00	0.13	46.24	63.51
#170	3.50	0.09	25.78	89.29
#200	3.75	0.08	2.63	91.92
#230	4.00	0.06	0.59	92.51

SAND, poorly-graded with clay, mostly fine to medium-grained sand-sized quartz, few clay

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
	3.40	3.22	2.85	2.58	2.45	2.02

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	2.78	0.15	2.85	0.14	0.52	-2.09	13.2

GRANULARMETRIC REPORT % TEST_2025_AND_2009.GPJ CESAJ 20171021.GDT 4/21/26

Granularmetric Report

Project Name:
St. Johns County Ebb Shoal Borrow Area

Sample Name: VB-SJES25-05 @ 1 ft

Analysis Date: 1/27/2026

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
571,919	2,027,501	State Plane, FLE (U.S. Ft.)	-22.3 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	10YR 6/1	#200 - 2.05 #230 - 1.83		3.90	0

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	0.16	0.16
#4	-2.25	4.75	0.00	0.16
#5	-2.00	4.00	0.00	0.16
#7	-1.50	2.80	0.22	0.38
#10	-1.00	2.00	0.55	0.93
#14	-0.50	1.40	0.30	1.23
#18	0.00	1.00	1.10	2.33
#25	0.50	0.71	0.98	3.31
#35	1.00	0.50	1.10	4.41
#45	1.50	0.36	1.45	5.86
#60	2.00	0.25	3.64	9.50
#80	2.50	0.18	16.75	26.25
#120	3.00	0.13	54.59	80.84
#170	3.50	0.09	16.18	97.02
#200	3.75	0.08	0.93	97.95
#230	4.00	0.06	0.22	98.17

SAND, poorly-graded, mostly fine to medium-grained sand-sized quartz, trace silt

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.44	3.10	2.95	2.72	2.46	2.19	1.20

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	2.57	0.17	2.72	0.15	0.75	-3.07	15.79

GRANULARMETRIC REPORT % TEST_2025_AND_2009.GPJ CESAJ 20171021.GDT 4/21/26

Granularmetric Report

Project Name:
St. Johns County Ebb Shoal Borrow Area

Sample Name: VB-SJES25-05 @ 1.1 ft

Analysis Date: 1/27/2026

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
571,919	2,027,501	State Plane, FLE (U.S. Ft.)	-22.4 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	10YR 6/1	#200 - 4.92 #230 - 3.92			0

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	0.17	0.17
#5	-2.00	4.00	0.00	0.17
#7	-1.50	2.80	0.00	0.17
#10	-1.00	2.00	0.08	0.25
#14	-0.50	1.40	0.11	0.36
#18	0.00	1.00	0.22	0.58
#25	0.50	0.71	0.45	1.03
#35	1.00	0.50	0.64	1.67
#45	1.50	0.36	1.28	2.95
#60	2.00	0.25	3.36	6.31
#80	2.50	0.18	17.19	23.50
#120	3.00	0.13	55.45	78.95
#170	3.50	0.09	15.29	94.24
#200	3.75	0.08	0.84	95.08
#230	4.00	0.06	1.00	96.08

SAND, poorly-graded, mostly fine to medium-grained sand-sized quartz, trace silt

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.73	3.17	2.96	2.74	2.51	2.28	1.81

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	2.66	0.16	2.74	0.15	0.56	-2.9	20.91

GRANULARMETRIC REPORT % TEST_2025_AND_2009.GPJ CESAJ 20171021.GDT 4/21/26

Granularmetric Report

Project Name:
St. Johns County Ebb Shoal Borrow Area

Sample Name: VB-SJES25-05 @ 3 ft

Analysis Date: 1/27/2026

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
571,919	2,027,501	State Plane, FLE (U.S. Ft.)	-24.3 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	10YR 6/1	#200 - 1.93 #230 - 1.70			0

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
#4	-2.25	4.75	0.00	0.00
#5	-2.00	4.00	0.02	0.02
#7	-1.50	2.80	0.00	0.02
#10	-1.00	2.00	0.03	0.05
#14	-0.50	1.40	0.03	0.08
#18	0.00	1.00	0.17	0.25
#25	0.50	0.71	0.12	0.37
#35	1.00	0.50	0.17	0.54
#45	1.50	0.36	0.69	1.23
#60	2.00	0.25	2.49	3.72
#80	2.50	0.18	12.30	16.02
#120	3.00	0.13	53.78	69.80
#170	3.50	0.09	26.62	96.42
#200	3.75	0.08	1.65	98.07
#230	4.00	0.06	0.23	98.30

SAND, poorly-graded, mostly fine to medium-grained sand-sized quartz, trace silt

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.47	3.27	3.10	2.82	2.58	2.50	2.05

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	2.79	0.14	2.82	0.14	0.44	-1.99	14.78

GRANULARMETRIC REPORT % TEST_2025_AND_2009.GPJ CESAJ 20171021.GDT 4/21/26

Granularmetric Report

Project Name:
St. Johns County Ebb Shoal Borrow Area

Sample Name: VB-SJES25-05 @ 6 ft

Analysis Date: 1/27/2026

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
571,919	2,027,501	State Plane, FLE (U.S. Ft.)	-27.3 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SW	10YR 6/1	#200 - 3.99 #230 - 3.65			10

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	0.22	0.22
#5	-2.00	4.00	0.41	0.63
#7	-1.50	2.80	0.40	1.03
#10	-1.00	2.00	0.80	1.83
#14	-0.50	1.40	0.96	2.79
#18	0.00	1.00	4.38	7.17
#25	0.50	0.71	5.76	12.93
#35	1.00	0.50	9.24	22.17
#45	1.50	0.36	12.54	34.71
#60	2.00	0.25	11.58	46.29
#80	2.50	0.18	13.44	59.73
#120	3.00	0.13	26.01	85.74
#170	3.50	0.09	9.33	95.07
#200	3.75	0.08	0.94	96.01
#230	4.00	0.06	0.34	96.35

SAND, poorly-graded, mostly fine to medium-grained sand-sized quartz, trace silt, few sand to gravel-sized shell

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.50	2.97	2.79	2.14	1.11	0.67	-0.25

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	1.83	0.28	2.14	0.23	1.14	-0.83	3.39

GRANULARMETRIC REPORT % TEST_2025_AND_2009.GPJ CESAJ 20171021.GDT 4/21/26

Granularmetric Report

Project Name:
St. Johns County Ebb Shoal Borrow Area

Sample Name: VB-SJES25-05 @ 8 ft

Analysis Date: 1/27/2026

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
571,919	2,027,501	State Plane, FLE (U.S. Ft.)	-29.3 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	10YR 6/1	#200 - 3.84 #230 - 3.44			0

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	0.18	0.18
#5	-2.00	4.00	0.08	0.26
#7	-1.50	2.80	0.06	0.32
#10	-1.00	2.00	0.07	0.39
#14	-0.50	1.40	0.15	0.54
#18	0.00	1.00	0.36	0.90
#25	0.50	0.71	0.17	1.07
#35	1.00	0.50	0.30	1.37
#45	1.50	0.36	0.42	1.79
#60	2.00	0.25	1.09	2.88
#80	2.50	0.18	11.22	14.10
#120	3.00	0.13	56.57	70.67
#170	3.50	0.09	23.54	94.21
#200	3.75	0.08	1.95	96.16
#230	4.00	0.06	0.40	96.56

SAND, poorly-graded, mostly fine to medium-grained sand-sized quartz, trace silt

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.60	3.28	3.09	2.82	2.60	2.52	2.09

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	2.77	0.15	2.82	0.14	0.55	-4.13	33.08

GRANULARMETRIC REPORT % TEST_2025_AND_2009.GPJ CESAJ 20171021.GDT 4/21/26

Granularmetric Report

US Army Corps of Engineers
Jacksonville District

Project Name:
St. Johns County Ebb Shoal Borrow Area

Sample Name: VB-SJES25-05 @ 8.5 ft

Analysis Date: 1/27/2026

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
571,919	2,027,501	State Plane, FLE (U.S. Ft.)	-29.8 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	10YR 5/1	#200 - 3.96 #230 - 3.41			0

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
3/4	-4.25	19.00	0.00	0.00
3/8	-3.25	9.50	0.61	0.61
#3.5	-2.50	5.60	0.09	0.70
#4	-2.25	4.75	0.00	0.70
#5	-2.00	4.00	0.00	0.70
#7	-1.50	2.80	0.03	0.73
#10	-1.00	2.00	0.05	0.78
#14	-0.50	1.40	0.11	0.89
#18	0.00	1.00	0.15	1.04
#25	0.50	0.71	0.17	1.21
#35	1.00	0.50	0.17	1.38
#45	1.50	0.36	0.31	1.69
#60	2.00	0.25	1.05	2.74
#80	2.50	0.18	11.05	13.79
#120	3.00	0.13	54.28	68.07
#170	3.50	0.09	25.74	93.81
#200	3.75	0.08	2.23	96.04
#230	4.00	0.06	0.55	96.59

SAND, poorly-graded, mostly fine to medium-grained sand-sized quartz, trace silt

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.63	3.31	3.13	2.83	2.60	2.52	2.10

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	2.77	0.15	2.83	0.14	0.7	-6.05	53.57

GRANULARMETRIC REPORT % TEST_2025_AND_2009.GPJ CESAJ 20171021.GDT 4/21/26

Granularmetric Report

Project Name:
St. Johns County Ebb Shoal Borrow Area

Sample Name: VB-SJES25-06 @ 1 ft

Analysis Date: 1/27/2026

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
572,602	2,027,647	State Plane, FLE (U.S. Ft.)	-27.1 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	10YR 6/1	#200 - 2.75 #230 - 2.57		2.20	0

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
#7	-1.50	2.80	0.00	0.00
#10	-1.00	2.00	0.18	0.18
#14	-0.50	1.40	0.06	0.24
#18	0.00	1.00	0.12	0.36
#25	0.50	0.71	0.21	0.57
#35	1.00	0.50	0.22	0.79
#45	1.50	0.36	0.39	1.18
#60	2.00	0.25	1.42	2.60
#80	2.50	0.18	11.04	13.64
#120	3.00	0.13	57.65	71.29
#170	3.50	0.09	24.45	95.74
#200	3.75	0.08	1.51	97.25
#230	4.00	0.06	0.18	97.43

SAND, poorly-graded, mostly fine to medium-grained sand-sized quartz, trace silt

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.48	3.26	3.08	2.82	2.60	2.52	2.11

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	2.79	0.14	2.82	0.14	0.44	-2.86	22.83

GRANULARMETRIC REPORT % TEST_2025_AND_2009.GPJ CESAJ 20171021.GDT 4/21/26

Granularmetric Report

Project Name:
St. Johns County Ebb Shoal Borrow Area

Sample Name: VB-SJES25-06 @ 1.1 ft

Analysis Date: 1/27/2026

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
572,602	2,027,647	State Plane, FLE (U.S. Ft.)	-27.2 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	10YR 6/1	#200 - 4.64 #230 - 4.36			0

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
#18	0.00	1.00	0.00	0.00
#25	0.50	0.71	0.06	0.06
#35	1.00	0.50	0.16	0.22
#45	1.50	0.36	0.28	0.50
#60	2.00	0.25	1.42	1.92
#80	2.50	0.18	11.45	13.37
#120	3.00	0.13	56.99	70.36
#170	3.50	0.09	23.54	93.90
#200	3.75	0.08	1.46	95.36
#230	4.00	0.06	0.28	95.64

SAND, poorly-graded, mostly fine to medium-grained sand-sized quartz, trace silt

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.69	3.29	3.10	2.82	2.60	2.52	2.13

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	2.81	0.14	2.82	0.14	0.37	-0.81	6.72

GRANULARMETRIC REPORT % TEST_2025_AND_2009.GPJ CESAJ 20171021.GDT 4/21/26

Granularmetric Report

Project Name:
St. Johns County Ebb Shoal Borrow Area

Sample Name: VB-SJES25-06 @ 3 ft

Analysis Date: 1/27/2026

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
572,602	2,027,647	State Plane, FLE (U.S. Ft.)	-29.1 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	10YR 6/1	#200 - 2.68 #230 - 2.35			0

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
#5	-2.00	4.00	0.00	0.00
#7	-1.50	2.80	0.07	0.07
#10	-1.00	2.00	0.02	0.09
#14	-0.50	1.40	0.01	0.10
#18	0.00	1.00	0.09	0.19
#25	0.50	0.71	0.20	0.39
#35	1.00	0.50	0.43	0.82
#45	1.50	0.36	0.86	1.68
#60	2.00	0.25	3.01	4.69
#80	2.50	0.18	15.08	19.77
#120	3.00	0.13	55.05	74.82
#170	3.50	0.09	21.22	96.04
#200	3.75	0.08	1.28	97.32
#230	4.00	0.06	0.33	97.65

SAND, poorly-graded, mostly fine to medium-grained sand-sized quartz, trace silt

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.48	3.22	3.00	2.77	2.55	2.38	2.01

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	2.73	0.15	2.77	0.15	0.46	-2.02	14.74

GRANULARMETRIC REPORT % TEST_2025_AND_2009.GPJ CESAJ 20171021.GDT 4/21/26

Granularmetric Report

Project Name:
St. Johns County Ebb Shoal Borrow Area

Sample Name: VB-SJES25-06 @ 6 ft

Analysis Date: 1/27/2026

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
572,602	2,027,647	State Plane, FLE (U.S. Ft.)	-32.1 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	10YR 6/1	#200 - 1.78 #230 - 1.56			0

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
#7	-1.50	2.80	0.00	0.00
#10	-1.00	2.00	0.03	0.03
#14	-0.50	1.40	0.00	0.03
#18	0.00	1.00	0.03	0.06
#25	0.50	0.71	0.07	0.13
#35	1.00	0.50	0.06	0.19
#45	1.50	0.36	0.24	0.43
#60	2.00	0.25	1.64	2.07
#80	2.50	0.18	15.24	17.31
#120	3.00	0.13	58.88	76.19
#170	3.50	0.09	20.83	97.02
#200	3.75	0.08	1.20	98.22
#230	4.00	0.06	0.22	98.44

SAND, poorly-graded, mostly fine to medium-grained sand-sized quartz, trace silt

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.45	3.19	2.99	2.78	2.57	2.46	2.10

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	2.77	0.15	2.78	0.15	0.37	-1.09	10.5

GRANULARMETRIC REPORT % TEST_2025_AND_2009.GPJ CESAJ 20171021.GDT 4/21/26

Granularmetric Report

Project Name:
St. Johns County Ebb Shoal Borrow Area

Sample Name: VB-SJES25-06 @ 7 ft

Analysis Date: 1/27/2026

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
572,602	2,027,647	State Plane, FLE (U.S. Ft.)	-33.1 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
	10YR 5/1	#200 - 6.77 #230 - 5.58			0

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
#5	-2.00	4.00	0.00	0.00
#7	-1.50	2.80	0.01	0.01
#10	-1.00	2.00	0.04	0.05
#14	-0.50	1.40	0.02	0.07
#18	0.00	1.00	0.02	0.09
#25	0.50	0.71	0.07	0.16
#35	1.00	0.50	0.07	0.23
#45	1.50	0.36	0.21	0.44
#60	2.00	0.25	0.68	1.12
#80	2.50	0.18	4.92	6.04
#120	3.00	0.13	40.97	47.01
#170	3.50	0.09	41.62	88.63
#200	3.75	0.08	4.60	93.23
#230	4.00	0.06	1.19	94.42

SAND, poorly-graded with clay, mostly fine to medium-grained sand-sized quartz, few clay

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
	3.44	3.34	3.04	2.73	2.62	2.39

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	2.98	0.13	3.04	0.12	0.39	-1.74	16.01

GRANULARMETRIC REPORT % TEST_2025_AND_2009.GPJ CESAJ 20171021.GDT 4/21/26

Granularmetric Report

US Army Corps of Engineers
Jacksonville District

Project Name:
St. Johns County Ebb Shoal Borrow Area

Sample Name: VB-SJES25-07 @ 1 ft

Analysis Date: 1/27/2026

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
573,092	2,027,755	State Plane, FLE (U.S. Ft.)	-22.9 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	10YR 6/1	#200 - 1.72 #230 - 1.48		2.10	0

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
#14	-0.50	1.40	0.00	0.00
#18	0.00	1.00	0.08	0.08
#25	0.50	0.71	0.40	0.48
#35	1.00	0.50	0.24	0.72
#45	1.50	0.36	0.40	1.12
#60	2.00	0.25	2.19	3.31
#80	2.50	0.18	15.68	18.99
#120	3.00	0.13	55.76	74.75
#170	3.50	0.09	22.26	97.01
#200	3.75	0.08	1.27	98.28
#230	4.00	0.06	0.24	98.52

SAND, poorly-graded, mostly fine to medium-grained sand-sized quartz, trace silt

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.45	3.21	3.01	2.78	2.55	2.40	2.05

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	2.75	0.15	2.78	0.15	0.43	-1.55	10.22

GRANULARMETRIC REPORT % TEST_2025_AND_2009.GPJ CESAJ 20171021.GDT 4/21/26

Granularmetric Report

Project Name:
St. Johns County Ebb Shoal Borrow Area

Sample Name: VB-SJES25-07 @ 1.1 ft

Analysis Date: 1/27/2026

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
573,092	2,027,755	State Plane, FLE (U.S. Ft.)	-23.0 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	10YR 6/1	#200 - 4.50 #230 - 4.46			0

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
#14	-0.50	1.40	0.00	0.00
#18	0.00	1.00	0.04	0.04
#25	0.50	0.71	0.00	0.04
#35	1.00	0.50	0.00	0.04
#45	1.50	0.36	0.37	0.41
#60	2.00	0.25	1.98	2.39
#80	2.50	0.18	15.45	17.84
#120	3.00	0.13	54.26	72.10
#170	3.50	0.09	22.02	94.12
#200	3.75	0.08	1.38	95.50
#230	4.00	0.06	0.04	95.54

SAND, poorly-graded, mostly fine to medium-grained sand-sized quartz, trace silt

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.66	3.27	3.07	2.80	2.57	2.44	2.08

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	2.77	0.15	2.80	0.14	0.38	-0.64	5.43

GRANULARMETRIC REPORT % TEST_2025_AND_2009.GPJ CESAJ 20171021.GDT 4/21/26

Granularmetric Report

Project Name:
St. Johns County Ebb Shoal Borrow Area

Sample Name: VB-SJES25-07 @ 4 ft

Analysis Date: 1/27/2026

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
573,092	2,027,755	State Plane, FLE (U.S. Ft.)	-25.9 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	10YR 6/1	#200 - 2.27 #230 - 2.00			0

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
#5	-2.00	4.00	0.00	0.00
#7	-1.50	2.80	0.04	0.04
#10	-1.00	2.00	0.10	0.14
#14	-0.50	1.40	0.01	0.15
#18	0.00	1.00	0.16	0.31
#25	0.50	0.71	0.21	0.52
#35	1.00	0.50	0.24	0.76
#45	1.50	0.36	0.45	1.21
#60	2.00	0.25	2.17	3.38
#80	2.50	0.18	11.36	14.74
#120	3.00	0.13	57.19	71.93
#170	3.50	0.09	24.35	96.28
#200	3.75	0.08	1.45	97.73
#230	4.00	0.06	0.27	98.00

SAND, poorly-graded, mostly fine to medium-grained sand-sized quartz, trace silt

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.47	3.25	3.06	2.81	2.59	2.51	2.07

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	2.78	0.15	2.81	0.14	0.45	-2.56	19.99

GRANULARMETRIC REPORT % TEST_2025_AND_2009.GPJ CESAJ 20171021.GDT 4/21/26

Granularmetric Report

Project Name:
St. Johns County Ebb Shoal Borrow Area

Sample Name: VB-SJES25-07 @ 7 ft

Analysis Date: 1/27/2026

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
573,092	2,027,755	State Plane, FLE (U.S. Ft.)	-28.9 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	10YR 6/1	#200 - 1.69 #230 - 1.46			0

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
#5	-2.00	4.00	0.00	0.00
#7	-1.50	2.80	0.34	0.34
#10	-1.00	2.00	0.19	0.53
#14	-0.50	1.40	0.08	0.61
#18	0.00	1.00	0.61	1.22
#25	0.50	0.71	0.88	2.10
#35	1.00	0.50	1.69	3.79
#45	1.50	0.36	3.75	7.54
#60	2.00	0.25	8.17	15.71
#80	2.50	0.18	19.72	35.43
#120	3.00	0.13	46.57	82.00
#170	3.50	0.09	15.35	97.35
#200	3.75	0.08	0.96	98.31
#230	4.00	0.06	0.23	98.54

SAND, poorly-graded, mostly fine to medium-grained sand-sized quartz, trace silt

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.42	3.07	2.92	2.66	2.24	2.01	1.16

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	2.50	0.18	2.66	0.16	0.7	-2.1	10.32

GRANULARMETRIC REPORT % TEST_2025_AND_2009.GPJ CESAJ 20171021.GDT 4/21/26

Granularmetric Report

US Army Corps of Engineers
Jacksonville District

Project Name:
St. Johns County Ebb Shoal Borrow Area

Sample Name: VB-SJES25-07 @ 9 ft

Analysis Date: 1/27/2026

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
573,092	2,027,755	State Plane, FLE (U.S. Ft.)	-30.9 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	10YR 6/1	#200 - 4.02 #230 - 3.06			0

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	0.61	0.61
#4	-2.25	4.75	0.00	0.61
#5	-2.00	4.00	0.00	0.61
#7	-1.50	2.80	0.09	0.70
#10	-1.00	2.00	0.05	0.75
#14	-0.50	1.40	0.01	0.76
#18	0.00	1.00	0.05	0.81
#25	0.50	0.71	0.01	0.82
#35	1.00	0.50	0.05	0.87
#45	1.50	0.36	0.12	0.99
#60	2.00	0.25	0.69	1.68
#80	2.50	0.18	4.94	6.62
#120	3.00	0.13	41.29	47.91
#170	3.50	0.09	43.31	91.22
#200	3.75	0.08	4.76	95.98
#230	4.00	0.06	0.96	96.94

SAND, poorly-graded, mostly fine to medium-grained sand-sized quartz, trace silt

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.70	3.42	3.31	3.02	2.72	2.61	2.34

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	2.95	0.13	3.02	0.12	0.62	-6.02	55.4

GRANULARMETRIC REPORT % TEST_2025_AND_2009.GPJ CESAJ 20171021.GDT 4/21/26

Granularmetric Report

Project Name:
St. Johns County Ebb Shoal Borrow Area

Sample Name: VB-SJES25-07 @ 11 ft

Analysis Date: 1/27/2026

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
573,092	2,027,755	State Plane, FLE (U.S. Ft.)	-32.9 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
	10YR 5/1	#200 - 5.08 #230 - 5.07			0

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
#4	-2.25	4.75	0.00	0.00
#5	-2.00	4.00	0.18	0.18
#7	-1.50	2.80	0.00	0.18
#10	-1.00	2.00	0.00	0.18
#14	-0.50	1.40	0.00	0.18
#18	0.00	1.00	0.00	0.18
#25	0.50	0.71	0.00	0.18
#35	1.00	0.50	0.00	0.18
#45	1.50	0.36	0.00	0.18
#60	2.00	0.25	0.21	0.39
#80	2.50	0.18	3.98	4.37
#120	3.00	0.13	48.66	53.03
#170	3.50	0.09	38.27	91.30
#200	3.75	0.08	3.62	94.92
#230	4.00	0.06	0.01	94.93

SAND, poorly-graded with clay, mostly fine to medium-grained sand-sized quartz, few clay

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
	3.40	3.29	2.97	2.71	2.62	2.51

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	2.95	0.13	2.97	0.13	0.38	-4.42	59.72

GRANULARMETRIC REPORT % TEST_2025_AND_2009.GPJ CESAJ 20171021.GDT 4/21/26

Granularmetric Report

US Army Corps of Engineers
Jacksonville District

Project Name:
St. Johns County Ebb Shoal Borrow Area

Sample Name: VB-SJES25-08 @ 1 ft

Analysis Date: 1/27/2026

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
571,723	2,026,379	State Plane, FLE (U.S. Ft.)	-13.9 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	10YR 6/1	#200 - 0.86 #230 - 0.80		4.00	0

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
#7	-1.50	2.80	0.00	0.00
#10	-1.00	2.00	0.16	0.16
#14	-0.50	1.40	0.61	0.77
#18	0.00	1.00	1.15	1.92
#25	0.50	0.71	2.08	4.00
#35	1.00	0.50	5.80	9.80
#45	1.50	0.36	11.97	21.77
#60	2.00	0.25	21.67	43.44
#80	2.50	0.18	34.15	77.59
#120	3.00	0.13	20.04	97.63
#170	3.50	0.09	1.35	98.98
#200	3.75	0.08	0.16	99.14
#230	4.00	0.06	0.06	99.20

SAND, poorly-graded, mostly fine to medium-grained sand-sized quartz, trace silt

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
2.93	2.66	2.46	2.10	1.57	1.26	0.59

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	1.96	0.26	2.10	0.23	0.72	-1.06	4.61

GRANULARMETRIC REPORT % TEST_2025_AND_2009.GPJ CESAJ 20171021.GDT 4/21/26

Granularmetric Report

US Army Corps of Engineers
Jacksonville District

Project Name:
St. Johns County Ebb Shoal Borrow Area

Sample Name: VB-SJES25-08 @ 1.1 ft

Analysis Date: 1/27/2026

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
571,723	2,026,379	State Plane, FLE (U.S. Ft.)	-14.0 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	10YR 6/1	#200 - 4.95 #230 - 4.92			0

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
#5	-2.00	4.00	0.00	0.00
#7	-1.50	2.80	0.06	0.06
#10	-1.00	2.00	0.10	0.16
#14	-0.50	1.40	0.20	0.36
#18	0.00	1.00	0.80	1.16
#25	0.50	0.71	1.39	2.55
#35	1.00	0.50	3.43	5.98
#45	1.50	0.36	10.32	16.30
#60	2.00	0.25	23.25	39.55
#80	2.50	0.18	31.70	71.25
#120	3.00	0.13	21.96	93.21
#170	3.50	0.09	1.78	94.99
#200	3.75	0.08	0.06	95.05
#230	4.00	0.06	0.03	95.08

SAND, poorly-graded, mostly fine to medium-grained sand-sized quartz, trace silt

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.54	2.79	2.59	2.16	1.69	1.49	0.86

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	2.04	0.24	2.16	0.22	0.66	-1.08	5.28

GRANULARMETRIC REPORT % TEST_2025_AND_2009.GPJ CESAJ 20171021.GDT 4/21/26

Granularmetric Report

US Army Corps of Engineers
Jacksonville District

Project Name:
St. Johns County Ebb Shoal Borrow Area

Sample Name: VB-SJES25-08 @ 4 ft

Analysis Date: 1/27/2026

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
571,723	2,026,379	State Plane, FLE (U.S. Ft.)	-16.9 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SW	10YR 6/1	#200 - 0.90 #230 - 0.88			10

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	0.34	0.34
#4	-2.25	4.75	0.12	0.46
#5	-2.00	4.00	0.35	0.81
#7	-1.50	2.80	0.29	1.10
#10	-1.00	2.00	0.66	1.76
#14	-0.50	1.40	2.73	4.49
#18	0.00	1.00	4.30	8.79
#25	0.50	0.71	4.95	13.74
#35	1.00	0.50	7.91	21.65
#45	1.50	0.36	11.43	33.08
#60	2.00	0.25	17.29	50.37
#80	2.50	0.18	26.59	76.96
#120	3.00	0.13	20.42	97.38
#170	3.50	0.09	1.64	99.02
#200	3.75	0.08	0.08	99.10
#230	4.00	0.06	0.02	99.12

SAND, poorly-graded, mostly fine to medium-grained sand-sized quartz, trace silt, few sand to gravel-sized shell

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
2.94	2.67	2.46	1.99	1.15	0.64	-0.44

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	1.68	0.31	1.99	0.25	1.06	-1.23	4.56

GRANULARMETRIC REPORT % TEST_2025_AND_2009.GPJ CESAJ 20171021.GDT 4/21/26

Granularmetric Report

US Army Corps of Engineers
Jacksonville District

Project Name:
St. Johns County Ebb Shoal Borrow Area

Sample Name: VB-SJES25-08 @ 8 ft

Analysis Date: 1/27/2026

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
571,723	2,026,379	State Plane, FLE (U.S. Ft.)	-20.9 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	10YR 6/1	#200 - 0.92 #230 - 0.89			0

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
#4	-2.25	4.75	0.00	0.00
#5	-2.00	4.00	0.08	0.08
#7	-1.50	2.80	0.08	0.16
#10	-1.00	2.00	0.10	0.26
#14	-0.50	1.40	0.27	0.53
#18	0.00	1.00	0.65	1.18
#25	0.50	0.71	0.76	1.94
#35	1.00	0.50	1.45	3.39
#45	1.50	0.36	2.79	6.18
#60	2.00	0.25	5.68	11.86
#80	2.50	0.18	36.49	48.35
#120	3.00	0.13	47.16	95.51
#170	3.50	0.09	3.41	98.92
#200	3.75	0.08	0.16	99.08
#230	4.00	0.06	0.03	99.11

SAND, poorly-graded, mostly fine to medium-grained sand-sized quartz, trace silt

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
2.99	2.88	2.78	2.52	2.18	2.06	1.29

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	2.40	0.19	2.52	0.17	0.59	-2.63	14.04

GRANULARMETRIC REPORT % TEST_2025_AND_2009.GPJ CESAJ 20171021.GDT 4/21/26

Granularmetric Report

US Army Corps of Engineers
Jacksonville District

Project Name:
St. Johns County Ebb Shoal Borrow Area

Sample Name: VB-SJES25-08 @ 12 ft

Analysis Date: 1/27/2026

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
571,723	2,026,379	State Plane, FLE (U.S. Ft.)	-24.9 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	10YR 6/1	#200 - 2.01 #230 - 1.99			0

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	0.08	0.08
#5	-2.00	4.00	0.16	0.24
#7	-1.50	2.80	0.22	0.46
#10	-1.00	2.00	0.25	0.71
#14	-0.50	1.40	0.75	1.46
#18	0.00	1.00	0.46	1.92
#25	0.50	0.71	0.47	2.39
#35	1.00	0.50	0.80	3.19
#45	1.50	0.36	0.98	4.17
#60	2.00	0.25	2.93	7.10
#80	2.50	0.18	25.13	32.23
#120	3.00	0.13	53.49	85.72
#170	3.50	0.09	11.30	97.02
#200	3.75	0.08	0.97	97.99
#230	4.00	0.06	0.02	98.01

SAND, poorly-graded, mostly fine to medium-grained sand-sized quartz, trace silt

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.41	2.98	2.90	2.67	2.36	2.18	1.64

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	2.54	0.17	2.67	0.16	0.67	-3.4	19.45

GRANULARMETRIC REPORT % TEST_2025_AND_2009.GPJ CESAJ 20171021.GDT 4/21/26

Granularmetric Report

Project Name:
St. Johns County Ebb Shoal Borrow Area

Sample Name: VB-SJES25-08 @ 16 ft

Analysis Date: 1/27/2026

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
571,723	2,026,379	State Plane, FLE (U.S. Ft.)	-28.9 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	10YR 6/1	#200 - 2.82 #230 - 2.67			0

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
#5	-2.00	4.00	0.00	0.00
#7	-1.50	2.80	0.14	0.14
#10	-1.00	2.00	0.03	0.17
#14	-0.50	1.40	0.27	0.44
#18	0.00	1.00	0.21	0.65
#25	0.50	0.71	0.18	0.83
#35	1.00	0.50	0.33	1.16
#45	1.50	0.36	0.81	1.97
#60	2.00	0.25	2.96	4.93
#80	2.50	0.18	27.66	32.59
#120	3.00	0.13	55.63	88.22
#170	3.50	0.09	8.16	96.38
#200	3.75	0.08	0.80	97.18
#230	4.00	0.06	0.15	97.33

SAND, poorly-graded, mostly fine to medium-grained sand-sized quartz, trace silt

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.42	2.96	2.88	2.66	2.36	2.20	2.00

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	2.58	0.17	2.66	0.16	0.48	-2.99	22.42

GRANULARMETRIC REPORT % TEST_2025_AND_2009.GPJ CESAJ 20171021.GDT 4/21/26

Granularmetric Report

Project Name:
St. Johns County Ebb Shoal Borrow Area

Sample Name: VB-SJES25-08 @ 17 ft

Analysis Date: 1/27/2026

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
571,723	2,026,379	State Plane, FLE (U.S. Ft.)	-29.9 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	10YR 6/1	#200 - 4.78 #230 - 4.02			0

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
#5	-2.00	4.00	0.00	0.00
#7	-1.50	2.80	0.02	0.02
#10	-1.00	2.00	0.00	0.02
#14	-0.50	1.40	0.04	0.06
#18	0.00	1.00	0.03	0.09
#25	0.50	0.71	0.02	0.11
#35	1.00	0.50	0.08	0.19
#45	1.50	0.36	0.16	0.35
#60	2.00	0.25	0.78	1.13
#80	2.50	0.18	8.39	9.52
#120	3.00	0.13	44.94	54.46
#170	3.50	0.09	36.63	91.09
#200	3.75	0.08	4.13	95.22
#230	4.00	0.06	0.76	95.98

SAND, poorly-graded, mostly fine to medium-grained sand-sized quartz, trace silt

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.74	3.40	3.28	2.95	2.67	2.57	2.23

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	2.93	0.13	2.95	0.13	0.4	-1.31	12.34

GRANULARMETRIC REPORT % TEST_2025_AND_2009.GPJ CESAJ 20171021.GDT 4/21/26

Granularmetric Report

Project Name:
St. Johns County Ebb Shoal Borrow Area

Sample Name: VB-SJES25-09 @ 1 ft

Analysis Date: 1/27/2026

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
572,226	2,026,533	State Plane, FLE (U.S. Ft.)	-23.8 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SW	10YR 6/1	#200 - 0.93 #230 - 0.86		12.20	15

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
#4	-2.25	4.75	0.00	0.00
#5	-2.00	4.00	0.25	0.25
#7	-1.50	2.80	0.65	0.90
#10	-1.00	2.00	1.36	2.26
#14	-0.50	1.40	5.43	7.69
#18	0.00	1.00	5.18	12.87
#25	0.50	0.71	6.11	18.98
#35	1.00	0.50	7.55	26.53
#45	1.50	0.36	6.43	32.96
#60	2.00	0.25	6.51	39.47
#80	2.50	0.18	21.03	60.50
#120	3.00	0.13	32.92	93.42
#170	3.50	0.09	5.36	98.78
#200	3.75	0.08	0.29	99.07
#230	4.00	0.06	0.07	99.14

SAND, poorly-graded, mostly fine to medium-grained sand-sized quartz, trace silt, little medium to coarse-grained sand-sized shell

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.15	2.86	2.72	2.25	0.90	0.26	-0.75

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	1.76	0.30	2.25	0.21	1.24	-0.96	2.84

GRANULARMETRIC REPORT % TEST_2025_AND_2009.GPJ CESAJ 20171021.GDT 4/21/26

Granularmetric Report

Project Name:
St. Johns County Ebb Shoal Borrow Area

Sample Name: VB-SJES25-09 @ 1.1 ft

Analysis Date: 1/27/2026

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
572,226	2,026,533	State Plane, FLE (U.S. Ft.)	-23.9 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
	10YR 6/1	#200 - 8.73 #230 - 8.62			0

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
#14	-0.50	1.40	0.00	0.00
#18	0.00	1.00	5.79	5.79
#25	0.50	0.71	5.72	11.51
#35	1.00	0.50	6.56	18.07
#45	1.50	0.36	6.62	24.69
#60	2.00	0.25	7.10	31.79
#80	2.50	0.18	18.79	50.58
#120	3.00	0.13	34.25	84.83
#170	3.50	0.09	6.08	90.91
#200	3.75	0.08	0.36	91.27
#230	4.00	0.06	0.11	91.38

SAND, poorly-graded with silt, mostly fine to medium-grained sand-sized quartz, few silt

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
	2.99	2.86	2.48	1.52	0.84	-0.07

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	2.01	0.25	2.48	0.18	1.01	-0.92	2.7

GRANULARMETRIC REPORT % TEST_2025_AND_2009.GPJ CESAJ 20171021.GDT 4/21/26

Granularmetric Report

Project Name:
St. Johns County Ebb Shoal Borrow Area

Sample Name: VB-SJES25-09 @ 4 ft

Analysis Date: 1/27/2026

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
572,226	2,026,533	State Plane, FLE (U.S. Ft.)	-26.8 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	10YR 6/1	#200 - 1.47 #230 - 1.44			0

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
#4	-2.25	4.75	0.00	0.00
#5	-2.00	4.00	0.12	0.12
#7	-1.50	2.80	0.05	0.17
#10	-1.00	2.00	0.08	0.25
#14	-0.50	1.40	0.17	0.42
#18	0.00	1.00	0.17	0.59
#25	0.50	0.71	0.21	0.80
#35	1.00	0.50	0.30	1.10
#45	1.50	0.36	0.55	1.65
#60	2.00	0.25	2.37	4.02
#80	2.50	0.18	21.86	25.88
#120	3.00	0.13	57.80	83.68
#170	3.50	0.09	13.94	97.62
#200	3.75	0.08	0.91	98.53
#230	4.00	0.06	0.03	98.56

SAND, poorly-graded, mostly fine to medium-grained sand-sized quartz, trace silt

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.41	3.01	2.92	2.71	2.48	2.27	2.02

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	2.65	0.16	2.71	0.15	0.49	-3.34	26.95

GRANULARMETRIC REPORT % TEST_2025_AND_2009.GPJ CESAJ 20171021.GDT 4/21/26

Granularmetric Report

US Army Corps of Engineers
Jacksonville District

Project Name:
St. Johns County Ebb Shoal Borrow Area

Sample Name: VB-SJES25-09 @ 8 ft

Analysis Date: 1/27/2026

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
572,226	2,026,533	State Plane, FLE (U.S. Ft.)	-30.8 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	10YR 6/1	#200 - 2.63 #230 - 2.61			0

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	0.10	0.10
#4	-2.25	4.75	0.00	0.10
#5	-2.00	4.00	0.02	0.12
#7	-1.50	2.80	0.15	0.27
#10	-1.00	2.00	0.06	0.33
#14	-0.50	1.40	0.06	0.39
#18	0.00	1.00	0.03	0.42
#25	0.50	0.71	0.02	0.44
#35	1.00	0.50	0.05	0.49
#45	1.50	0.36	0.13	0.62
#60	2.00	0.25	0.69	1.31
#80	2.50	0.18	8.61	9.92
#120	3.00	0.13	54.46	64.38
#170	3.50	0.09	30.04	94.42
#200	3.75	0.08	2.95	97.37
#230	4.00	0.06	0.02	97.39

SAND, poorly-graded, mostly fine to medium-grained sand-sized quartz, trace silt

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.55	3.33	3.18	2.87	2.64	2.56	2.21

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	2.86	0.14	2.87	0.14	0.46	-4.68	50.64

GRANULARMETRIC REPORT % TEST_2025_AND_2009.GPJ CESAJ 20171021.GDT 4/21/26

Granularmetric Report

Project Name:
St. Johns County Ebb Shoal Borrow Area

Sample Name: VB-SJES25-09 @ 12 ft

Analysis Date: 1/27/2026

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
572,226	2,026,533	State Plane, FLE (U.S. Ft.)	-34.8 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	10YR 6/1	#200 - 1.10 #230 - 0.95			0

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
#5	-2.00	4.00	0.00	0.00
#7	-1.50	2.80	0.03	0.03
#10	-1.00	2.00	0.00	0.03
#14	-0.50	1.40	0.05	0.08
#18	0.00	1.00	0.04	0.12
#25	0.50	0.71	0.05	0.17
#35	1.00	0.50	0.09	0.26
#45	1.50	0.36	0.13	0.39
#60	2.00	0.25	0.89	1.28
#80	2.50	0.18	13.02	14.30
#120	3.00	0.13	64.95	79.25
#170	3.50	0.09	18.65	97.90
#200	3.75	0.08	1.00	98.90
#230	4.00	0.06	0.15	99.05

SAND, poorly-graded, mostly fine to medium-grained sand-sized quartz, trace silt

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.42	3.13	2.97	2.77	2.58	2.51	2.14

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	2.77	0.15	2.77	0.15	0.35	-1.84	20.68

GRANULARMETRIC REPORT % TEST_2025_AND_2009.GPJ CESAJ 20171021.GDT 4/21/26

Granularmetric Report

US Army Corps of Engineers
Jacksonville District

Project Name:
St. Johns County Ebb Shoal Borrow Area

Sample Name: VB-SJES25-09 @ 16 ft

Analysis Date: 1/27/2026

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
572,226	2,026,533	State Plane, FLE (U.S. Ft.)	-38.8 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	10YR 6/1	#200 - 2.34 #230 - 1.90			0

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
#35	1.00	0.50	0.00	0.00
#45	1.50	0.36	0.05	0.05
#60	2.00	0.25	1.05	1.10
#80	2.50	0.18	15.02	16.12
#120	3.00	0.13	53.50	69.62
#170	3.50	0.09	25.53	95.15
#200	3.75	0.08	2.51	97.66
#230	4.00	0.06	0.44	98.10

SAND, poorly-graded, mostly fine to medium-grained sand-sized quartz, trace silt

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.50	3.28	3.11	2.82	2.58	2.50	2.13

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	2.82	0.14	2.82	0.14	0.37	-0.08	3.18

GRANULARMETRIC REPORT % TEST_2025_AND_2009.GPJ CESAJ 20171021.GDT 4/21/26

Granularmetric Report

US Army Corps of Engineers
Jacksonville District

Project Name:
St. Johns County Ebb Shoal Borrow Area

Sample Name: VB-SJES25-09 @ 19.5 ft

Analysis Date: 1/27/2026

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
572,226	2,026,533	State Plane, FLE (U.S. Ft.)	-42.3 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	10YR 6/1	#200 - 3.27 #230 - 2.86			0

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
#4	-2.25	4.75	0.00	0.00
#5	-2.00	4.00	0.04	0.04
#7	-1.50	2.80	0.09	0.13
#10	-1.00	2.00	0.06	0.19
#14	-0.50	1.40	0.08	0.27
#18	0.00	1.00	0.11	0.38
#25	0.50	0.71	0.16	0.54
#35	1.00	0.50	0.36	0.90
#45	1.50	0.36	1.00	1.90
#60	2.00	0.25	3.34	5.24
#80	2.50	0.18	17.22	22.46
#120	3.00	0.13	53.75	76.21
#170	3.50	0.09	18.92	95.13
#200	3.75	0.08	1.60	96.73
#230	4.00	0.06	0.41	97.14

SAND, poorly-graded, mostly fine to medium-grained sand-sized quartz, trace silt

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.50	3.21	2.99	2.76	2.52	2.31	1.96

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	2.70	0.15	2.76	0.15	0.5	-2.45	18.77

GRANULARMETRIC REPORT % TEST_2025_AND_2009.GPJ CESAJ 20171021.GDT 4/21/26

Granularmetric Report

US Army Corps of Engineers
Jacksonville District

Project Name:
St. Johns County Ebb Shoal Borrow Area

Sample Name: VB-SJES25-10 @ 1 ft

Analysis Date: 1/27/2026

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
572,834	2,026,699	State Plane, FLE (U.S. Ft.)	-20.8 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	10YR 6/1	#200 - 1.29 #230 - 1.18		3.50	0

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
#4	-2.25	4.75	0.00	0.00
#5	-2.00	4.00	0.11	0.11
#7	-1.50	2.80	0.15	0.26
#10	-1.00	2.00	0.29	0.55
#14	-0.50	1.40	0.48	1.03
#18	0.00	1.00	0.41	1.44
#25	0.50	0.71	0.37	1.81
#35	1.00	0.50	0.59	2.40
#45	1.50	0.36	1.03	3.43
#60	2.00	0.25	3.02	6.45
#80	2.50	0.18	21.49	27.94
#120	3.00	0.13	55.47	83.41
#170	3.50	0.09	14.56	97.97
#200	3.75	0.08	0.74	98.71
#230	4.00	0.06	0.11	98.82

SAND, poorly-graded, mostly fine to medium-grained sand-sized quartz, trace silt

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.40	3.02	2.92	2.70	2.43	2.22	1.76

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	2.60	0.16	2.70	0.15	0.62	-3.34	20.29

GRANULARMETRIC REPORT % TEST_2025_AND_2009.GPJ CESAJ 20171021.GDT 4/21/26

Granularmetric Report

US Army Corps of Engineers
Jacksonville District

Project Name:
St. Johns County Ebb Shoal Borrow Area

Sample Name: VB-SJES25-10 @ 1.1 ft

Analysis Date: 1/27/2026

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
572,834	2,026,699	State Plane, FLE (U.S. Ft.)	-20.9 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	10YR 6/1	#200 - 3.13 #230 - 3.06			0

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
#14	-0.50	1.40	0.00	0.00
#18	0.00	1.00	0.19	0.19
#25	0.50	0.71	0.11	0.30
#35	1.00	0.50	0.37	0.67
#45	1.50	0.36	0.82	1.49
#60	2.00	0.25	3.28	4.77
#80	2.50	0.18	22.46	27.23
#120	3.00	0.13	54.98	82.21
#170	3.50	0.09	13.95	96.16
#200	3.75	0.08	0.71	96.87
#230	4.00	0.06	0.07	96.94

SAND, poorly-graded, mostly fine to medium-grained sand-sized quartz, trace silt

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.46	3.06	2.93	2.71	2.45	2.25	2.01

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	2.65	0.16	2.71	0.15	0.43	-1.44	9.33

GRANULARMETRIC REPORT % TEST_2025_AND_2009.GPJ CESAJ 20171021.GDT 4/21/26

Granularmetric Report

Project Name:
St. Johns County Ebb Shoal Borrow Area

Sample Name: VB-SJES25-10 @ 5 ft

Analysis Date: 1/27/2026

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
572,834	2,026,699	State Plane, FLE (U.S. Ft.)	-24.8 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	10YR 6/1	#200 - 1.98 #230 - 1.66			0

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	0.00	0.11
#5	-2.00	4.00	0.07	0.18
#7	-1.50	2.80	0.09	0.27
#10	-1.00	2.00	0.10	0.37
#14	-0.50	1.40	0.22	0.59
#18	0.00	1.00	0.23	0.82
#25	0.50	0.71	0.29	1.11
#35	1.00	0.50	0.50	1.61
#45	1.50	0.36	0.73	2.34
#60	2.00	0.25	1.30	3.64
#80	2.50	0.18	8.89	12.53
#120	3.00	0.13	57.23	69.76
#170	3.50	0.09	26.46	96.22
#200	3.75	0.08	1.80	98.02
#230	4.00	0.06	0.32	98.34

SAND, poorly-graded, mostly fine to medium-grained sand-sized quartz, trace silt

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.48	3.27	3.10	2.83	2.61	2.53	2.08

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	2.78	0.15	2.83	0.14	0.56	-4.07	31.66

GRANULARMETRIC REPORT % TEST_2025_AND_2009.GPJ CESAJ 20171021.GDT 4/21/26

Granularmetric Report

US Army Corps of Engineers
Jacksonville District

Project Name:
St. Johns County Ebb Shoal Borrow Area

Sample Name: VB-SJES25-10 @ 10 ft

Analysis Date: 1/27/2026

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
572,834	2,026,699	State Plane, FLE (U.S. Ft.)	-29.8 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	10YR 6/1	#200 - 2.06 #230 - 1.78			0

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
#25	0.50	0.71	0.00	0.00
#35	1.00	0.50	0.03	0.03
#45	1.50	0.36	0.09	0.12
#60	2.00	0.25	0.55	0.67
#80	2.50	0.18	7.07	7.74
#120	3.00	0.13	60.32	68.06
#170	3.50	0.09	28.32	96.38
#200	3.75	0.08	1.56	97.94
#230	4.00	0.06	0.28	98.22

SAND, poorly-graded, mostly fine to medium-grained sand-sized quartz, trace silt

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.48	3.28	3.12	2.85	2.64	2.57	2.31

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	2.87	0.14	2.85	0.14	0.32	-0.21	4.53

GRANULARMETRIC REPORT % TEST_2025_AND_2009.GPJ CESAJ 20171021.GDT 4/21/26

Granularmetric Report

US Army Corps of Engineers
Jacksonville District

Project Name:
St. Johns County Ebb Shoal Borrow Area

Sample Name: VB-SJES25-10 @ 15 ft

Analysis Date: 1/27/2026

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
572,834	2,026,699	State Plane, FLE (U.S. Ft.)	-34.8 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	10YR 6/1	#200 - 1.99 #230 - 1.63			0

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
#45	1.50	0.36	0.00	0.00
#60	2.00	0.25	0.08	0.08
#80	2.50	0.18	3.33	3.41
#120	3.00	0.13	57.49	60.90
#170	3.50	0.09	34.69	95.59
#200	3.75	0.08	2.42	98.01
#230	4.00	0.06	0.36	98.37

SAND, poorly-graded, mostly fine to medium-grained sand-sized quartz, trace silt

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.49	3.33	3.20	2.91	2.69	2.61	2.51

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	2.93	0.13	2.91	0.13	0.29	0.25	2.86

GRANULARMETRIC REPORT % TEST_2025_AND_2009.GPJ CESAJ 20171021.GDT 4/21/26

Granularmetric Report

Project Name:
St. Johns County Ebb Shoal Borrow Area

Sample Name: VB-SJES25-10 @ 18 ft

Analysis Date: 1/27/2026

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
572,834	2,026,699	State Plane, FLE (U.S. Ft.)	-37.8 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	10YR 6/1	#200 - 2.35 #230 - 2.29			0

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	0.16	0.16
#4	-2.25	4.75	0.13	0.29
#5	-2.00	4.00	0.00	0.29
#7	-1.50	2.80	0.12	0.41
#10	-1.00	2.00	0.09	0.50
#14	-0.50	1.40	0.55	1.05
#18	0.00	1.00	0.61	1.66
#25	0.50	0.71	0.55	2.21
#35	1.00	0.50	0.86	3.07
#45	1.50	0.36	0.90	3.97
#60	2.00	0.25	1.82	5.79
#80	2.50	0.18	11.70	17.49
#120	3.00	0.13	52.43	69.92
#170	3.50	0.09	25.68	95.60
#200	3.75	0.08	2.05	97.65
#230	4.00	0.06	0.06	97.71

SAND, poorly-graded, mostly fine to medium-grained sand-sized quartz, trace silt

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.49	3.27	3.10	2.81	2.57	2.44	1.78

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	2.71	0.15	2.81	0.14	0.69	-3.62	22.1

GRANULARMETRIC REPORT % TEST_2025_AND_2009.GPJ CESAJ 20171021.GDT 4/21/26

Granularmetric Report

US Army Corps of Engineers
Jacksonville District

Project Name:
St. Johns County Ebb Shoal Borrow Area

Sample Name: VB-SJES25-10 @ 19.5 ft

Analysis Date: 1/27/2026

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
572,834	2,026,699	State Plane, FLE (U.S. Ft.)	-39.3 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
	10YR 5/1	#200 - 9.02 #230 - 8.95			0

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
#10	-1.00	2.00	0.00	0.00
#14	-0.50	1.40	0.04	0.04
#18	0.00	1.00	0.03	0.07
#25	0.50	0.71	0.07	0.14
#35	1.00	0.50	0.08	0.22
#45	1.50	0.36	0.08	0.30
#60	2.00	0.25	0.14	0.44
#80	2.50	0.18	1.37	1.81
#120	3.00	0.13	29.56	31.37
#170	3.50	0.09	50.42	81.79
#200	3.75	0.08	9.19	90.98
#230	4.00	0.06	0.07	91.05

SAND, poorly-graded with clay, mostly fine to medium-grained sand-sized quartz, few clay

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
	3.56	3.43	3.18	2.89	2.74	2.55

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	3.10	0.12	3.18	0.11	0.34	-2.01	17.93

GRANULARMETRIC REPORT % TEST_2025_AND_2009.GPJ CESAJ 20171021.GDT 4/21/26

Granularmetric Report

Project Name:
St. Johns County Ebb Shoal Borrow Area

Sample Name: VB-SJES25-11 @ 1 ft

Analysis Date: 1/27/2026

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
573,426	2,026,815	State Plane, FLE (U.S. Ft.)	-24.4 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	10YR 6/1	#200 - 2.45 #230 - 2.25		1.60	0

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
#14	-0.50	1.40	0.00	0.00
#18	0.00	1.00	0.07	0.07
#25	0.50	0.71	0.03	0.10
#35	1.00	0.50	0.20	0.30
#45	1.50	0.36	0.53	0.83
#60	2.00	0.25	2.65	3.48
#80	2.50	0.18	18.64	22.12
#120	3.00	0.13	56.06	78.18
#170	3.50	0.09	18.51	96.69
#200	3.75	0.08	0.86	97.55
#230	4.00	0.06	0.20	97.75

SAND, poorly-graded, mostly fine to medium-grained sand-sized quartz, trace silt

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.45	3.16	2.97	2.75	2.53	2.34	2.04

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	2.72	0.15	2.75	0.15	0.4	-0.97	7.12

GRANULARMETRIC REPORT % TEST_2025_AND_2009.GPJ CESAJ 20171021.GDT 4/21/26

Granularmetric Report

US Army Corps of Engineers
Jacksonville District

Project Name:
St. Johns County Ebb Shoal Borrow Area

Sample Name: VB-SJES25-11 @ 1.1 ft

Analysis Date: 1/27/2026

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
573,426	2,026,815	State Plane, FLE (U.S. Ft.)	-24.5 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	10YR 6/1	#200 - 4.60 #230 - 4.43			0

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
#25	0.50	0.71	0.00	0.00
#35	1.00	0.50	0.07	0.07
#45	1.50	0.36	0.47	0.54
#60	2.00	0.25	2.78	3.32
#80	2.50	0.18	19.32	22.64
#120	3.00	0.13	54.48	77.12
#170	3.50	0.09	17.60	94.72
#200	3.75	0.08	0.68	95.40
#230	4.00	0.06	0.17	95.57

SAND, poorly-graded, mostly fine to medium-grained sand-sized quartz, trace silt

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.60	3.20	2.98	2.75	2.52	2.33	2.04

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	2.71	0.15	2.75	0.15	0.38	-0.53	4.28

GRANULARMETRIC REPORT % TEST_2025_AND_2009.GPJ CESAJ 20171021.GDT 4/21/26

Granularmetric Report

Project Name:
St. Johns County Ebb Shoal Borrow Area

Sample Name: VB-SJES25-11 @ 3 ft

Analysis Date: 1/27/2026

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
573,426	2,026,815	State Plane, FLE (U.S. Ft.)	-26.4 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	10YR 6/1	#200 - 2.02 #230 - 1.90			0

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
#5	-2.00	4.00	0.00	0.00
#7	-1.50	2.80	0.03	0.03
#10	-1.00	2.00	0.01	0.04
#14	-0.50	1.40	0.24	0.28
#18	0.00	1.00	0.16	0.44
#25	0.50	0.71	0.12	0.56
#35	1.00	0.50	0.31	0.87
#45	1.50	0.36	0.56	1.43
#60	2.00	0.25	2.34	3.77
#80	2.50	0.18	20.55	24.32
#120	3.00	0.13	57.81	82.13
#170	3.50	0.09	15.01	97.14
#200	3.75	0.08	0.84	97.98
#230	4.00	0.06	0.12	98.10

SAND, poorly-graded, mostly fine to medium-grained sand-sized quartz, trace silt

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.43	3.06	2.94	2.72	2.51	2.30	2.03

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	2.67	0.16	2.72	0.15	0.45	-2.46	18.47

GRANULARMETRIC REPORT % TEST_2025_AND_2009.GPJ CESAJ 20171021.GDT 4/21/26

Granularmetric Report

US Army Corps of Engineers
Jacksonville District

Project Name:
St. Johns County Ebb Shoal Borrow Area

Sample Name: VB-SJES25-11 @ 5 ft

Analysis Date: 1/27/2026

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
573,426	2,026,815	State Plane, FLE (U.S. Ft.)	-28.4 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	10YR 6/1	#200 - 1.33 #230 - 1.23			0

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
#14	-0.50	1.40	0.00	0.00
#18	0.00	1.00	0.03	0.03
#25	0.50	0.71	0.00	0.03
#35	1.00	0.50	0.16	0.19
#45	1.50	0.36	0.59	0.78
#60	2.00	0.25	3.17	3.95
#80	2.50	0.18	21.71	25.66
#120	3.00	0.13	57.05	82.71
#170	3.50	0.09	15.21	97.92
#200	3.75	0.08	0.75	98.67
#230	4.00	0.06	0.10	98.77

SAND, poorly-graded, mostly fine to medium-grained sand-sized quartz, trace silt

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.40	3.04	2.93	2.71	2.48	2.28	2.02

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	2.68	0.16	2.71	0.15	0.39	-0.74	5.56

GRANULARMETRIC REPORT % TEST_2025_AND_2009.GPJ CESAJ 20171021.GDT 4/21/26

Granularmetric Report

US Army Corps of Engineers
Jacksonville District

Project Name:
St. Johns County Ebb Shoal Borrow Area

Sample Name: VB-SJES25-11 @ 7.5 ft

Analysis Date: 1/27/2026

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
573,426	2,026,815	State Plane, FLE (U.S. Ft.)	-30.9 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	10YR 6/1	#200 - 3.67 #230 - 3.05			0

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	0.00	0.13
#5	-2.00	4.00	0.03	0.16
#7	-1.50	2.80	0.00	0.16
#10	-1.00	2.00	0.00	0.16
#14	-0.50	1.40	0.05	0.21
#18	0.00	1.00	0.06	0.27
#25	0.50	0.71	0.04	0.31
#35	1.00	0.50	0.06	0.37
#45	1.50	0.36	0.11	0.48
#60	2.00	0.25	0.44	0.92
#80	2.50	0.18	4.90	5.82
#120	3.00	0.13	51.19	57.01
#170	3.50	0.09	35.88	92.89
#200	3.75	0.08	3.44	96.33
#230	4.00	0.06	0.62	96.95

SAND, poorly-graded, mostly fine to medium-grained sand-sized quartz, trace silt

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.65	3.38	3.25	2.93	2.69	2.60	2.42

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	2.93	0.13	2.93	0.13	0.43	-4.64	58.53

GRANULARMETRIC REPORT % TEST_2025_AND_2009.GPJ CESAJ 20171021.GDT 4/21/26

Granularmetric Report

Project Name:
St. Johns County Ebb Shoal Borrow Area

Sample Name: VB-SJES25-11 @ 11.5 ft

Analysis Date: 1/27/2026

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
573,426	2,026,815	State Plane, FLE (U.S. Ft.)	-34.9 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
	10YR 5/1	#200 - 9.32 #230 - 7.55			0

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
#45	1.50	0.36	0.00	0.00
#60	2.00	0.25	0.19	0.19
#80	2.50	0.18	2.40	2.59
#120	3.00	0.13	36.47	39.06
#170	3.50	0.09	44.43	83.49
#200	3.75	0.08	7.19	90.68
#230	4.00	0.06	1.77	92.45

SAND, poorly-graded with clay, mostly fine to medium-grained sand-sized quartz, few clay

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
	3.52	3.40	3.12	2.81	2.68	2.53

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	3.06	0.12	3.12	0.12	0.34	-0.11	2.95

GRANULARMETRIC REPORT % TEST_2025_AND_2009.GPJ CESAJ 20171021.GDT 4/21/26

Granularmetric Report

US Army Corps of Engineers
Jacksonville District

Project Name:
St. Johns County Ebb Shoal Borrow Area

Sample Name: VB-SJES25-12 @ 1 ft

Analysis Date: 1/27/2026

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
572,088	2,025,803	State Plane, FLE (U.S. Ft.)	-16.8 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SW	10YR 6/1	#200 - 0.84 #230 - 0.77		5.70	5

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
#5	-2.00	4.00	0.00	0.00
#7	-1.50	2.80	0.11	0.11
#10	-1.00	2.00	0.44	0.55
#14	-0.50	1.40	1.64	2.19
#18	0.00	1.00	2.37	4.56
#25	0.50	0.71	2.62	7.18
#35	1.00	0.50	3.64	10.82
#45	1.50	0.36	4.52	15.34
#60	2.00	0.25	8.71	24.05
#80	2.50	0.18	31.31	55.36
#120	3.00	0.13	38.55	93.91
#170	3.50	0.09	5.03	98.94
#200	3.75	0.08	0.22	99.16
#230	4.00	0.06	0.07	99.23

SAND, poorly-graded, mostly fine to medium-grained sand-sized quartz, trace silt, few medium to coarse-grained sand-sized shell

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.11	2.87	2.75	2.41	2.02	1.54	0.08

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	2.17	0.22	2.41	0.19	0.88	-1.74	5.97

GRANULARMETRIC REPORT % TEST_2025_AND_2009.GPJ CESAJ 20171021.GDT 4/21/26

Granularmetric Report

US Army Corps of Engineers
Jacksonville District

Project Name:
St. Johns County Ebb Shoal Borrow Area

Sample Name: VB-SJES25-12 @ 1.1 ft

Analysis Date: 1/27/2026

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
572,088	2,025,803	State Plane, FLE (U.S. Ft.)	-16.9 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	10YR 6/1	#200 - 4.78 #230 - 4.70			0

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
#10	-1.00	2.00	0.00	0.00
#14	-0.50	1.40	0.33	0.33
#18	0.00	1.00	1.18	1.51
#25	0.50	0.71	1.65	3.16
#35	1.00	0.50	2.43	5.59
#45	1.50	0.36	3.74	9.33
#60	2.00	0.25	8.05	17.38
#80	2.50	0.18	30.91	48.29
#120	3.00	0.13	41.68	89.97
#170	3.50	0.09	5.03	95.00
#200	3.75	0.08	0.22	95.22
#230	4.00	0.06	0.08	95.30

SAND, poorly-graded, mostly fine to medium-grained sand-sized quartz, trace silt

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.50	2.93	2.82	2.52	2.12	1.91	0.88

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	2.33	0.20	2.52	0.17	0.68	-1.79	7.01

GRANULARMETRIC REPORT % TEST_2025_AND_2009.GPJ CESAJ 20171021.GDT 4/21/26

Granularmetric Report

US Army Corps of Engineers
Jacksonville District

Project Name:
St. Johns County Ebb Shoal Borrow Area

Sample Name: VB-SJES25-12 @ 4 ft

Analysis Date: 1/27/2026

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
572,088	2,025,803	State Plane, FLE (U.S. Ft.)	-19.8 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	10YR 6/1	#200 - 0.95 #230 - 0.91			5

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
#4	-2.25	4.75	0.00	0.00
#5	-2.00	4.00	0.29	0.29
#7	-1.50	2.80	0.26	0.55
#10	-1.00	2.00	0.38	0.93
#14	-0.50	1.40	0.75	1.68
#18	0.00	1.00	1.21	2.89
#25	0.50	0.71	3.68	6.57
#35	1.00	0.50	3.56	10.13
#45	1.50	0.36	6.63	16.76
#60	2.00	0.25	14.68	31.44
#80	2.50	0.18	34.59	66.03
#120	3.00	0.13	32.10	98.13
#170	3.50	0.09	0.78	98.91
#200	3.75	0.08	0.14	99.05
#230	4.00	0.06	0.04	99.09

SAND, poorly-graded, mostly fine to medium-grained sand-sized quartz, trace silt, few medium to coarse-grained sand-sized shell

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
2.95	2.78	2.64	2.27	1.78	1.44	0.29

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	2.06	0.24	2.27	0.21	0.82	-1.84	7.3

GRANULARMETRIC REPORT % TEST_2025_AND_2009.GPJ CESAJ 20171021.GDT 4/21/26

Granularmetric Report

US Army Corps of Engineers
Jacksonville District

Project Name:
St. Johns County Ebb Shoal Borrow Area

Sample Name: VB-SJES25-12 @ 6.5 ft

Analysis Date: 1/27/2026

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
572,088	2,025,803	State Plane, FLE (U.S. Ft.)	-22.3 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	10YR 6/1	#200 - 1.15 #230 - 1.01			5

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
#4	-2.25	4.75	0.00	0.00
#5	-2.00	4.00	0.07	0.07
#7	-1.50	2.80	0.11	0.18
#10	-1.00	2.00	0.34	0.52
#14	-0.50	1.40	0.76	1.28
#18	0.00	1.00	1.11	2.39
#25	0.50	0.71	1.11	3.50
#35	1.00	0.50	1.26	4.76
#45	1.50	0.36	1.71	6.47
#60	2.00	0.25	4.58	11.05
#80	2.50	0.18	25.72	36.77
#120	3.00	0.13	50.49	87.26
#170	3.50	0.09	10.69	97.95
#200	3.75	0.08	0.90	98.85
#230	4.00	0.06	0.14	98.99

SAND, poorly-graded, mostly fine to medium-grained sand-sized quartz, trace silt, few medium to coarse-grained sand-sized shell

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.36	2.97	2.88	2.63	2.27	2.10	1.07

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	2.48	0.18	2.63	0.16	0.72	-2.6	12.12

GRANULARMETRIC REPORT % TEST_2025_AND_2009.GPJ CESAJ 20171021.GDT 4/21/26

Granularmetric Report

US Army Corps of Engineers
Jacksonville District

Project Name:
St. Johns County Ebb Shoal Borrow Area

Sample Name: VB-SJES25-12 @ 8 ft

Analysis Date: 1/27/2026

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
572,088	2,025,803	State Plane, FLE (U.S. Ft.)	-23.8 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	10YR 6/1	#200 - 1.59 #230 - 1.41			0

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
#4	-2.25	4.75	0.00	0.00
#5	-2.00	4.00	0.14	0.14
#7	-1.50	2.80	0.00	0.14
#10	-1.00	2.00	0.03	0.17
#14	-0.50	1.40	0.16	0.33
#18	0.00	1.00	0.12	0.45
#25	0.50	0.71	0.09	0.54
#35	1.00	0.50	0.18	0.72
#45	1.50	0.36	0.31	1.03
#60	2.00	0.25	2.09	3.12
#80	2.50	0.18	18.63	21.75
#120	3.00	0.13	54.66	76.41
#170	3.50	0.09	20.75	97.16
#200	3.75	0.08	1.25	98.41
#230	4.00	0.06	0.18	98.59

SAND, poorly-graded, mostly fine to medium-grained sand-sized quartz, trace silt

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.45	3.18	2.99	2.76	2.53	2.35	2.05

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	2.72	0.15	2.76	0.15	0.47	-3.03	26.92

GRANULARMETRIC REPORT % TEST_2025_AND_2009.GPJ CESAJ 20171021.GDT 4/21/26

Granularmetric Report

US Army Corps of Engineers
Jacksonville District

Project Name:
St. Johns County Ebb Shoal Borrow Area

Sample Name: VB-SJES25-13 @ 1 ft

Analysis Date: 1/27/2026

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
572,943	2,026,109	State Plane, FLE (U.S. Ft.)	-21.6 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	10YR 6/1	#200 - 1.63 #230 - 1.53		3.60	0

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
#5	-2.00	4.00	0.00	0.00
#7	-1.50	2.80	0.17	0.17
#10	-1.00	2.00	0.04	0.21
#14	-0.50	1.40	0.35	0.56
#18	0.00	1.00	0.41	0.97
#25	0.50	0.71	0.38	1.35
#35	1.00	0.50	0.73	2.08
#45	1.50	0.36	1.05	3.13
#60	2.00	0.25	2.60	5.73
#80	2.50	0.18	16.47	22.20
#120	3.00	0.13	56.13	78.33
#170	3.50	0.09	19.38	97.71
#200	3.75	0.08	0.66	98.37
#230	4.00	0.06	0.10	98.47

SAND, poorly-graded, mostly fine to medium-grained sand-sized quartz, trace clay

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.43	3.15	2.97	2.75	2.52	2.31	1.86

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	2.67	0.16	2.75	0.15	0.56	-3.04	18.57

GRANULARMETRIC REPORT % TEST_2025_AND_2009.GPJ CESAJ 20171021.GDT 4/21/26

Granularmetric Report

Project Name:
St. Johns County Ebb Shoal Borrow Area

Sample Name: VB-SJES25-13 @ 1.1 ft

Analysis Date: 1/27/2026

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
572,943	2,026,109	State Plane, FLE (U.S. Ft.)	-21.7 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	10YR 6/1	#200 - 4.26 #230 - 4.16			0

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
#18	0.00	1.00	0.00	0.00
#25	0.50	0.71	0.18	0.18
#35	1.00	0.50	0.45	0.63
#45	1.50	0.36	0.81	1.44
#60	2.00	0.25	2.44	3.88
#80	2.50	0.18	16.24	20.12
#120	3.00	0.13	56.87	76.99
#170	3.50	0.09	18.22	95.21
#200	3.75	0.08	0.53	95.74
#230	4.00	0.06	0.10	95.84

SAND, poorly-graded, mostly fine to medium-grained sand-sized quartz, trace clay

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.49	3.19	2.98	2.76	2.54	2.37	2.03

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	2.71	0.15	2.76	0.15	0.41	-1.36	8.01

GRANULARMETRIC REPORT % TEST_2025_AND_2009.GPJ CESAJ 20171021.GDT 4/21/26

Granularmetric Report

US Army Corps of Engineers
Jacksonville District

Project Name:
St. Johns County Ebb Shoal Borrow Area

Sample Name: VB-SJES25-13 @ 5 ft

Analysis Date: 1/27/2026

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
572,943	2,026,109	State Plane, FLE (U.S. Ft.)	-25.6 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	10YR 6/1	#200 - 2.08 #230 - 1.64			0

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
#4	-2.25	4.75	0.00	0.00
#5	-2.00	4.00	0.04	0.04
#7	-1.50	2.80	0.03	0.07
#10	-1.00	2.00	0.02	0.09
#14	-0.50	1.40	0.09	0.18
#18	0.00	1.00	0.11	0.29
#25	0.50	0.71	0.16	0.45
#35	1.00	0.50	0.30	0.75
#45	1.50	0.36	0.62	1.37
#60	2.00	0.25	1.69	3.06
#80	2.50	0.18	10.84	13.90
#120	3.00	0.13	56.48	70.38
#170	3.50	0.09	25.25	95.63
#200	3.75	0.08	2.29	97.92
#230	4.00	0.06	0.44	98.36

SAND, poorly-graded, mostly fine to medium-grained sand-sized quartz, trace clay

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.49	3.27	3.09	2.82	2.60	2.52	2.09

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	2.80	0.14	2.82	0.14	0.45	-2.52	20.72

GRANULARMETRIC REPORT % TEST_2025_AND_2009.GPJ CESAJ 20171021.GDT 4/21/26

Granularmetric Report

US Army Corps of Engineers
Jacksonville District

Project Name:
St. Johns County Ebb Shoal Borrow Area

Sample Name: VB-SJES25-13 @ 10 ft

Analysis Date: 1/27/2026

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
572,943	2,026,109	State Plane, FLE (U.S. Ft.)	-30.6 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	10YR 6/1	#200 - 1.49 #230 - 1.25			0

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
#25	0.50	0.71	0.00	0.00
#35	1.00	0.50	0.08	0.08
#45	1.50	0.36	0.19	0.27
#60	2.00	0.25	1.07	1.34
#80	2.50	0.18	10.75	12.09
#120	3.00	0.13	58.96	71.05
#170	3.50	0.09	25.94	96.99
#200	3.75	0.08	1.52	98.51
#230	4.00	0.06	0.24	98.75

SAND, poorly-graded, mostly fine to medium-grained sand-sized quartz, trace clay

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.46	3.25	3.08	2.82	2.61	2.53	2.17

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	2.83	0.14	2.82	0.14	0.35	-0.46	4.94

GRANULARMETRIC REPORT % TEST_2025_AND_2009.GPJ CESAJ 20171021.GDT 4/21/26

Granularmetric Report

Project Name:
St. Johns County Ebb Shoal Borrow Area

Sample Name: VB-SJES25-13 @ 15 ft

Analysis Date: 1/27/2026

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
572,943	2,026,109	State Plane, FLE (U.S. Ft.)	-35.6 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	10YR 6/1	#200 - 2.58 #230 - 2.06			0

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
#35	1.00	0.50	0.00	0.00
#45	1.50	0.36	0.07	0.07
#60	2.00	0.25	0.94	1.01
#80	2.50	0.18	10.56	11.57
#120	3.00	0.13	54.25	65.82
#170	3.50	0.09	29.15	94.97
#200	3.75	0.08	2.45	97.42
#230	4.00	0.06	0.52	97.94

SAND, poorly-graded, mostly fine to medium-grained sand-sized quartz, trace clay

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.50	3.31	3.16	2.85	2.62	2.54	2.19

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	2.86	0.14	2.85	0.14	0.35	-0.17	3.5

GRANULARMETRIC REPORT % TEST_2025_AND_2009.GPJ CESAJ 20171021.GDT 4/21/26

Granularmetric Report

Project Name:
St. Johns County Ebb Shoal Borrow Area

Sample Name: VB-SJES25-13 @ 19 ft

Analysis Date: 1/27/2026

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
572,943	2,026,109	State Plane, FLE (U.S. Ft.)	-39.6 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	10YR 6/1	#200 - 1.76 #230 - 1.56			0

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
#5	-2.00	4.00	0.00	0.00
#7	-1.50	2.80	0.08	0.08
#10	-1.00	2.00	0.05	0.13
#14	-0.50	1.40	0.11	0.24
#18	0.00	1.00	0.18	0.42
#25	0.50	0.71	0.20	0.62
#35	1.00	0.50	0.38	1.00
#45	1.50	0.36	0.93	1.93
#60	2.00	0.25	2.96	4.89
#80	2.50	0.18	15.99	20.88
#120	3.00	0.13	58.30	79.18
#170	3.50	0.09	18.15	97.33
#200	3.75	0.08	0.91	98.24
#230	4.00	0.06	0.20	98.44

SAND, poorly-graded, mostly fine to medium-grained sand-sized quartz, trace clay

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.44	3.13	2.96	2.75	2.54	2.35	2.00

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	2.70	0.15	2.75	0.15	0.48	-2.59	18.62

GRANULARMETRIC REPORT % TEST_2025_AND_2009.GPJ CESAJ 20171021.GDT 4/21/26

Granularmetric Report

US Army Corps of Engineers
Jacksonville District

Project Name:
St. Johns County Ebb Shoal Borrow Area

Sample Name: VB-SJES25-13 @ 19.5 ft

Analysis Date: 1/27/2026

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
572,943	2,026,109	State Plane, FLE (U.S. Ft.)	-40.1 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
	10YR 5/1	#200 - 7.84 #230 - 6.66			0

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	0.10	0.10
#5	-2.00	4.00	0.00	0.10
#7	-1.50	2.80	0.11	0.21
#10	-1.00	2.00	0.22	0.43
#14	-0.50	1.40	0.24	0.67
#18	0.00	1.00	0.22	0.89
#25	0.50	0.71	0.15	1.04
#35	1.00	0.50	0.28	1.32
#45	1.50	0.36	0.51	1.83
#60	2.00	0.25	1.90	3.73
#80	2.50	0.18	11.04	14.77
#120	3.00	0.13	45.99	60.76
#170	3.50	0.09	27.88	88.64
#200	3.75	0.08	3.52	92.16
#230	4.00	0.06	1.18	93.34

SAND, poorly-graded with clay, mostly fine to medium-grained sand-sized quartz, few clay

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
	3.42	3.26	2.88	2.61	2.51	2.06

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	2.81	0.14	2.88	0.14	0.59	-3.31	23.79

GRANULARMETRIC REPORT % TEST_2025_AND_2009.GPJ CESAJ 20171021.GDT 4/21/26

Granularmetric Report

US Army Corps of Engineers
Jacksonville District

Project Name:
St. Johns County Ebb Shoal Borrow Area

Sample Name: VB-SJES25-14 @ 1 ft

Analysis Date: 1/27/2026

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
573,588	2,026,233	State Plane, FLE (U.S. Ft.)	-27.8 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	10YR 6/1	#200 - 2.15 #230 - 2.04		1.70	0

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
#10	-1.00	2.00	0.00	0.00
#14	-0.50	1.40	0.03	0.03
#18	0.00	1.00	0.07	0.10
#25	0.50	0.71	0.04	0.14
#35	1.00	0.50	0.10	0.24
#45	1.50	0.36	0.38	0.62
#60	2.00	0.25	2.60	3.22
#80	2.50	0.18	17.25	20.47
#120	3.00	0.13	57.57	78.04
#170	3.50	0.09	18.95	96.99
#200	3.75	0.08	0.86	97.85
#230	4.00	0.06	0.11	97.96

SAND, poorly-graded, mostly fine to medium-grained sand-sized quartz, trace clay

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.45	3.16	2.97	2.76	2.54	2.37	2.05

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	2.73	0.15	2.76	0.15	0.39	-1.13	8.91

GRANULARMETRIC REPORT % TEST_2025_AND_2009.GPJ CESAJ 20171021.GDT 4/21/26

Granularmetric Report

US Army Corps of Engineers
Jacksonville District

Project Name:
St. Johns County Ebb Shoal Borrow Area

Sample Name: VB-SJES25-14 @ 1.1 ft

Analysis Date: 1/27/2026

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
573,588	2,026,233	State Plane, FLE (U.S. Ft.)	-27.9 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	10YR 6/1	#200 - 4.87 #230 - 4.84			0

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
#35	1.00	0.50	0.00	0.00
#45	1.50	0.36	0.32	0.32
#60	2.00	0.25	1.94	2.26
#80	2.50	0.18	17.75	20.01
#120	3.00	0.13	56.52	76.53
#170	3.50	0.09	17.86	94.39
#200	3.75	0.08	0.74	95.13
#230	4.00	0.06	0.03	95.16

SAND, poorly-graded, mostly fine to medium-grained sand-sized quartz, trace clay

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.71	3.21	2.99	2.77	2.54	2.39	2.08

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	2.73	0.15	2.77	0.15	0.36	-0.42	3.95

GRANULARMETRIC REPORT % TEST_2025_AND_2009.GPJ CESAJ 20171021.GDT 4/21/26

Granularmetric Report

Project Name:
St. Johns County Ebb Shoal Borrow Area

Sample Name: VB-SJES25-14 @ 4 ft

Analysis Date: 1/27/2026

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
573,588	2,026,233	State Plane, FLE (U.S. Ft.)	-30.8 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	10YR 6/1	#200 - 3.96 #230 - 3.27			0

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	0.63	0.63
#4	-2.25	4.75	0.00	0.63
#5	-2.00	4.00	0.05	0.68
#7	-1.50	2.80	0.00	0.68
#10	-1.00	2.00	0.13	0.81
#14	-0.50	1.40	0.08	0.89
#18	0.00	1.00	0.08	0.97
#25	0.50	0.71	0.10	1.07
#35	1.00	0.50	0.17	1.24
#45	1.50	0.36	0.37	1.61
#60	2.00	0.25	1.10	2.71
#80	2.50	0.18	4.42	7.13
#120	3.00	0.13	39.92	47.05
#170	3.50	0.09	44.98	92.03
#200	3.75	0.08	4.01	96.04
#230	4.00	0.06	0.69	96.73

SAND, poorly-graded, mostly fine to medium-grained sand-sized quartz, trace clay

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.69	3.41	3.31	3.03	2.72	2.61	2.26

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	2.93	0.13	3.03	0.12	0.65	-5.61	47.03

GRANULARMETRIC REPORT % TEST_2025_AND_2009.GPJ CESAJ 20171021.GDT 4/21/26

Granularmetric Report

US Army Corps of Engineers
Jacksonville District

Project Name:
St. Johns County Ebb Shoal Borrow Area

Sample Name: VB-SJES25-14 @ 5 ft

Analysis Date: 1/27/2026

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
573,588	2,026,233	State Plane, FLE (U.S. Ft.)	-31.8 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
	10YR 5/1	#200 - 5.24 #230 - 4.50			0

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
#10	-1.00	2.00	0.00	0.00
#14	-0.50	1.40	0.05	0.05
#18	0.00	1.00	0.06	0.11
#25	0.50	0.71	0.06	0.17
#35	1.00	0.50	0.11	0.28
#45	1.50	0.36	0.21	0.49
#60	2.00	0.25	0.74	1.23
#80	2.50	0.18	5.22	6.45
#120	3.00	0.13	45.86	52.31
#170	3.50	0.09	38.65	90.96
#200	3.75	0.08	3.80	94.76
#230	4.00	0.06	0.74	95.50

SAND, poorly-graded with clay, mostly fine to medium-grained sand-sized quartz, few clay

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.83	3.41	3.29	2.97	2.70	2.60	2.36

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	2.95	0.13	2.97	0.13	0.39	-1.56	13.16

GRANULARMETRIC REPORT % TEST_2025_AND_2009.GPJ CESAJ 20171021.GDT 4/21/26

Granularmetric Report

US Army Corps of Engineers
Jacksonville District

Project Name:
St. Johns County Ebb Shoal Borrow Area

Sample Name: VB-SJES25-14 @ 7 ft

Analysis Date: 1/27/2026

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
573,588	2,026,233	State Plane, FLE (U.S. Ft.)	-33.8 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
	10YR 5/1	#200 - 5.26 #230 - 5.22			0

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
#18	0.00	1.00	0.00	0.00
#25	0.50	0.71	0.02	0.02
#35	1.00	0.50	0.00	0.02
#45	1.50	0.36	0.03	0.05
#60	2.00	0.25	0.20	0.25
#80	2.50	0.18	2.33	2.58
#120	3.00	0.13	35.44	38.02
#170	3.50	0.09	50.00	88.02
#200	3.75	0.08	6.72	94.74
#230	4.00	0.06	0.04	94.78

SAND, poorly-graded with clay, mostly fine to medium-grained sand-sized quartz, few clay

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
	3.46	3.37	3.12	2.82	2.69	2.53

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	3.06	0.12	3.12	0.12	0.32	-0.6	4.47

GRANULARMETRIC REPORT % TEST_2025_AND_2009.GPJ CESAJ 20171021.GDT 4/21/26

Granularmetric Report

Project Name:
St. Johns County Ebb Shoal Borrow Area

Sample Name: VB-SJES25-15 @ 1 ft

Analysis Date: 1/27/2026

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
572,567	2,025,223	State Plane, FLE (U.S. Ft.)	-29.3 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	10YR 5/1	#200 - 2.08 #230 - 2.01		2.50	0

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
#5	-2.00	4.00	0.00	0.00
#7	-1.50	2.80	0.04	0.04
#10	-1.00	2.00	0.07	0.11
#14	-0.50	1.40	0.04	0.15
#18	0.00	1.00	0.07	0.22
#25	0.50	0.71	0.07	0.29
#35	1.00	0.50	0.19	0.48
#45	1.50	0.36	0.29	0.77
#60	2.00	0.25	1.24	2.01
#80	2.50	0.18	13.20	15.21
#120	3.00	0.13	60.26	75.47
#170	3.50	0.09	21.53	97.00
#200	3.75	0.08	0.92	97.92
#230	4.00	0.06	0.07	97.99

SAND, poorly-graded, mostly fine to medium-grained sand-sized quartz, trace clay

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.45	3.20	3.00	2.79	2.58	2.51	2.11

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	2.77	0.15	2.79	0.14	0.4	-2.54	23.65

GRANULARMETRIC REPORT % TEST_2025_AND_2009.GPJ CESAJ 20171021.GDT 4/21/26

Granularmetric Report

Project Name:
St. Johns County Ebb Shoal Borrow Area

Sample Name: VB-SJES25-15 @ 1.1 ft

Analysis Date: 1/27/2026

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
572,567	2,025,223	State Plane, FLE (U.S. Ft.)	-29.4 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	10YR 5/1	#200 - 4.47 #230 - 4.36			0

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
#35	1.00	0.50	0.00	0.00
#45	1.50	0.36	0.19	0.19
#60	2.00	0.25	1.26	1.45
#80	2.50	0.18	13.45	14.90
#120	3.00	0.13	60.03	74.93
#170	3.50	0.09	19.89	94.82
#200	3.75	0.08	0.71	95.53
#230	4.00	0.06	0.11	95.64

SAND, poorly-graded, mostly fine to medium-grained sand-sized quartz, trace clay

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.56	3.23	3.00	2.79	2.58	2.51	2.13

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	2.78	0.15	2.79	0.14	0.33	-0.36	4.21

GRANULARMETRIC REPORT % TEST_2025_AND_2009.GPJ CESAJ 20171021.GDT 4/21/26

Granularmetric Report

Project Name:
St. Johns County Ebb Shoal Borrow Area

Sample Name: VB-SJES25-15 @ 3.5 ft

Analysis Date: 1/27/2026

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
572,567	2,025,223	State Plane, FLE (U.S. Ft.)	-31.8 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	10YR 5/1	#200 - 1.57 #230 - 1.24			0

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	0.15	0.15
#4	-2.25	4.75	0.11	0.26
#5	-2.00	4.00	0.00	0.26
#7	-1.50	2.80	0.07	0.33
#10	-1.00	2.00	0.07	0.40
#14	-0.50	1.40	0.10	0.50
#18	0.00	1.00	0.06	0.56
#25	0.50	0.71	0.08	0.64
#35	1.00	0.50	0.15	0.79
#45	1.50	0.36	0.37	1.16
#60	2.00	0.25	1.77	2.93
#80	2.50	0.18	15.19	18.12
#120	3.00	0.13	57.86	75.98
#170	3.50	0.09	20.56	96.54
#200	3.75	0.08	1.89	98.43
#230	4.00	0.06	0.33	98.76

SAND, poorly-graded, mostly fine to medium-grained sand-sized quartz, trace clay

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.46	3.20	2.99	2.78	2.56	2.43	2.07

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	2.74	0.15	2.78	0.15	0.52	-4.45	42.95

GRANULARMETRIC REPORT % TEST_2025_AND_2009.GPJ CESAJ 20171021.GDT 4/21/26

Granularmetric Report

Project Name:
St. Johns County Ebb Shoal Borrow Area

Sample Name: VB-SJES25-15 @ 5 ft

Analysis Date: 1/27/2026

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
572,567	2,025,223	State Plane, FLE (U.S. Ft.)	-33.3 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	10YR 5/1	#200 - 3.54 #230 - 2.83			0

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	0.19	0.19
#4	-2.25	4.75	0.00	0.19
#5	-2.00	4.00	0.14	0.33
#7	-1.50	2.80	0.19	0.52
#10	-1.00	2.00	0.21	0.73
#14	-0.50	1.40	0.12	0.85
#18	0.00	1.00	0.10	0.95
#25	0.50	0.71	0.09	1.04
#35	1.00	0.50	0.18	1.22
#45	1.50	0.36	0.26	1.48
#60	2.00	0.25	0.88	2.36
#80	2.50	0.18	10.80	13.16
#120	3.00	0.13	52.49	65.65
#170	3.50	0.09	27.35	93.00
#200	3.75	0.08	3.46	96.46
#230	4.00	0.06	0.71	97.17

SAND, poorly-graded, mostly fine to medium-grained sand-sized quartz, trace clay

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.64	3.34	3.17	2.85	2.61	2.53	2.12

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	2.81	0.14	2.85	0.14	0.59	-4.61	38.17

GRANULARMETRIC REPORT % TEST_2025_AND_2009.GPJ CESAJ 20171021.GDT 4/21/26

Granularmetric Report

Project Name:
St. Johns County Ebb Shoal Borrow Area

Sample Name: VB-SJES25-16 @ 1 ft

Analysis Date: 1/27/2026

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
573,413	2,025,385	State Plane, FLE (U.S. Ft.)	-26.6 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	10YR 6/1	#200 - 2.22 #230 - 1.95		2.20	0

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
#7	-1.50	2.80	0.00	0.00
#10	-1.00	2.00	0.04	0.04
#14	-0.50	1.40	0.04	0.08
#18	0.00	1.00	0.15	0.23
#25	0.50	0.71	0.16	0.39
#35	1.00	0.50	0.23	0.62
#45	1.50	0.36	0.39	1.01
#60	2.00	0.25	1.61	2.62
#80	2.50	0.18	11.24	13.86
#120	3.00	0.13	54.91	68.77
#170	3.50	0.09	26.94	95.71
#200	3.75	0.08	2.07	97.78
#230	4.00	0.06	0.27	98.05

SAND, poorly-graded, mostly fine to medium-grained sand-sized quartz, trace clay

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.49	3.28	3.12	2.83	2.60	2.52	2.11

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	2.81	0.14	2.83	0.14	0.43	-1.98	14.98

GRANULARMETRIC REPORT % TEST_2025_AND_2009.GPJ CESAJ 20171021.GDT 4/21/26

Granularmetric Report

Project Name:
St. Johns County Ebb Shoal Borrow Area

Sample Name: VB-SJES25-16 @ 1.1 ft

Analysis Date: 1/27/2026

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
573,413	2,025,385	State Plane, FLE (U.S. Ft.)	-26.7 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	10YR 6/1	#200 - 4.46 #230 - 4.38			0

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
#25	0.50	0.71	0.00	0.00
#35	1.00	0.50	0.12	0.12
#45	1.50	0.36	0.36	0.48
#60	2.00	0.25	1.63	2.11
#80	2.50	0.18	10.91	13.02
#120	3.00	0.13	55.57	68.59
#170	3.50	0.09	25.12	93.71
#200	3.75	0.08	1.83	95.54
#230	4.00	0.06	0.08	95.62

SAND, poorly-graded, mostly fine to medium-grained sand-sized quartz, trace clay

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.68	3.31	3.13	2.83	2.61	2.53	2.13

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	2.82	0.14	2.83	0.14	0.37	-0.69	5.29

GRANULARMETRIC REPORT % TEST_2025_AND_2009.GPJ CESAJ 20171021.GDT 4/21/26

Granularmetric Report

US Army Corps of Engineers
Jacksonville District

Project Name:
St. Johns County Ebb Shoal Borrow Area

Sample Name: VB-SJES25-16 @ 5 ft

Analysis Date: 1/27/2026

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
573,413	2,025,385	State Plane, FLE (U.S. Ft.)	-30.6 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	10YR 6/1	#200 - 1.58 #230 - 1.45			0

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
#25	0.50	0.71	0.00	0.00
#35	1.00	0.50	0.03	0.03
#45	1.50	0.36	0.09	0.12
#60	2.00	0.25	0.68	0.80
#80	2.50	0.18	8.35	9.15
#120	3.00	0.13	62.86	72.01
#170	3.50	0.09	25.13	97.14
#200	3.75	0.08	1.28	98.42
#230	4.00	0.06	0.13	98.55

SAND, poorly-graded, mostly fine to medium-grained sand-sized quartz, trace clay

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.46	3.24	3.06	2.82	2.63	2.55	2.25

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	2.84	0.14	2.82	0.14	0.31	-0.25	4.64

GRANULARMETRIC REPORT % TEST_2025_AND_2009.GPJ CESAJ 20171021.GDT 4/21/26

Granularmetric Report

US Army Corps of Engineers
Jacksonville District

Project Name:
St. Johns County Ebb Shoal Borrow Area

Sample Name: VB-SJES25-16 @ 10 ft

Analysis Date: 1/27/2026

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
573,413	2,025,385	State Plane, FLE (U.S. Ft.)	-35.6 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	10YR 6/1	#200 - 4.92 #230 - 3.68			0

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
#35	1.00	0.50	0.00	0.00
#45	1.50	0.36	0.04	0.04
#60	2.00	0.25	0.29	0.33
#80	2.50	0.18	2.56	2.89
#120	3.00	0.13	36.24	39.13
#170	3.50	0.09	48.77	87.90
#200	3.75	0.08	7.18	95.08
#230	4.00	0.06	1.24	96.32

SAND, poorly-graded, mostly fine to medium-grained sand-sized quartz, trace clay

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.75	3.46	3.37	3.11	2.81	2.68	2.53

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	3.07	0.12	3.11	0.12	0.33	-0.34	3.46

GRANULARMETRIC REPORT % TEST_2025_AND_2009.GPJ CESAJ 20171021.GDT 4/21/26

Granularmetric Report

Project Name:
St. Johns County Ebb Shoal Borrow Area

Sample Name: VB-SJES25-16 @ 15 ft

Analysis Date: 1/27/2026

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
573,413	2,025,385	State Plane, FLE (U.S. Ft.)	-40.6 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	10YR 6/1	#200 - 3.24 #230 - 2.63			0

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	0.27	0.27
#4	-2.25	4.75	0.00	0.27
#5	-2.00	4.00	0.00	0.27
#7	-1.50	2.80	0.05	0.32
#10	-1.00	2.00	0.20	0.52
#14	-0.50	1.40	0.15	0.67
#18	0.00	1.00	0.14	0.81
#25	0.50	0.71	0.05	0.86
#35	1.00	0.50	0.11	0.97
#45	1.50	0.36	0.25	1.22
#60	2.00	0.25	1.10	2.32
#80	2.50	0.18	7.76	10.08
#120	3.00	0.13	48.25	58.33
#170	3.50	0.09	34.84	93.17
#200	3.75	0.08	3.59	96.76
#230	4.00	0.06	0.61	97.37

SAND, poorly-graded, mostly fine to medium-grained sand-sized quartz, trace clay

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.63	3.37	3.24	2.91	2.65	2.56	2.17

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	2.87	0.14	2.91	0.13	0.56	-4.83	43.37

GRANULARMETRIC REPORT % TEST_2025_AND_2009.GPJ CESAJ 20171021.GDT 4/21/26

Granularmetric Report

Project Name:
St. Johns County Ebb Shoal Borrow Area

Sample Name: VB-SJES25-16 @ 16 ft

Analysis Date: 1/27/2026

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
573,413	2,025,385	State Plane, FLE (U.S. Ft.)	-41.6 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
	10YR 5/1	#200 - 13.30 #230 - 9.34			0

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
#4	-2.25	4.75	0.00	0.00
#5	-2.00	4.00	0.01	0.01
#7	-1.50	2.80	0.00	0.01
#10	-1.00	2.00	0.00	0.01
#14	-0.50	1.40	0.00	0.01
#18	0.00	1.00	0.03	0.04
#25	0.50	0.71	0.00	0.04
#35	1.00	0.50	0.00	0.04
#45	1.50	0.36	0.00	0.04
#60	2.00	0.25	0.07	0.11
#80	2.50	0.18	0.51	0.62
#120	3.00	0.13	22.80	23.42
#170	3.50	0.09	52.86	76.28
#200	3.75	0.08	10.42	86.70
#230	4.00	0.06	3.96	90.66

SAND, clayey, mostly fine to medium-grained sand-sized quartz, few clay

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
	3.69	3.49	3.25	3.01	2.84	2.60

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	3.19	0.11	3.25	0.11	0.33	-0.96	14.49

GRANULARMETRIC REPORT % TEST_2025_AND_2009.GPJ CESAJ 20171021.GDT 4/21/26