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| Granularmetric Report Depths and elevations based on measured values | | | |  Athena Technologies, Inc. 1293 Graham Farm Road McClellanville, SC 29458 ph (843) 887-3800 fax (843) 887-3801 | | | |
| Project Name: Sarasota County Public Works | | | | | | | |
| Sample Name: SK-Area1-V07 #A1-V7-1 | | | | | | | |
| Analysis Date: 02-06-14 | | | | | | | |
| Analyzed By: CRM Sr | | | | | | | |
| Easting (ft): | | Northing (ft): | | Coordinate System: | | Elevation (ft): | |
| 441,134 | | 1,027,418 | | Florida State Plane West | | -41.2 NAVD 88 | |
| USCS: | | Munsell: | | Comments: | | | |
| SP | | | | | | | |
| Dry Weight (g): | Wash Weight (g): | Pan Retained (g): | Sieve Loss (%): | Fines (%): | Organics (%): | Carbonates (%): | Shells (%): |
| 114.28 | 113.16 | | | #200 - 1.33 #230 - 0.98 | | 75.80 | |
| Sieve Number | Sieve Size (Phi) | Sieve Size (Millimeters) | Grams Retained | % Weight Retained | Cum. Grams Retained | % Passing Sieve | |
| 3/4" | -4.25 | 19.03 | | 0.00 | 0.00 | 100.00 | |
| 5/8" | -4.00 | 16.00 | | 0.00 | 0.00 | 100.00 | |
| #3.5 | -2.50 | 5.66 | | 0.30 | 0.34 | 99.70 | |
| #4 | -2.25 | 4.76 | | 0.19 | 0.56 | 99.51 | |
| #5 | -2.00 | 4.00 | | 0.55 | 1.19 | 98.96 | |
| #7 | -1.50 | 2.83 | | 1.21 | 2.57 | 97.75 | |
| #10 | -1.00 | 2.00 | | 2.62 | 5.56 | 95.13 | |
| #14 | -0.50 | 1.41 | | 3.82 | 9.92 | 91.31 | |
| #18 | 0.00 | 1.00 | | 5.68 | 16.41 | 85.63 | |
| #25 | 0.50 | 0.71 | | 8.04 | 25.60 | 77.59 | |
| #35 | 1.00 | 0.50 | | 13.99 | 41.59 | 63.60 | |
| #45 | 1.50 | 0.35 | | 16.92 | 60.93 | 46.68 | |
| #60 | 2.00 | 0.25 | | 20.21 | 84.03 | 26.47 | |
| #80 | 2.50 | 0.18 | | 11.74 | 97.45 | 14.73 | |
| #120 | 3.00 | 0.13 | | 10.04 | 108.92 | 4.69 | |
| #170 | 3.50 | 0.09 | | 3.09 | 112.45 | 1.60 | |
| #200 | 3.75 | 0.07 | | 0.27 | 112.76 | 1.33 | |
| #230 | 4.00 | 0.06 | | 0.35 | 113.16 | 0.98 | |
| | | | | | | | |
| Phi 5 | Phi 16 | Phi 25 | Phi 50 | Phi 75 | Phi 84 | Phi 95 | |
| 2.98 | 2.45 | 2.06 | 1.40 | 0.59 | 0.10 | -0.98 | |
| Moment | Mean Phi | Mean mm | Sorting | Skewness | Kurtosis | | |
| Statistics | 1.24 | 0.42 | 1.18 | -0.65 | 3.47 | | |

GRANULARMETRIC REPORT SIESTA KEY 2-27-14.GPJ FL DEP ROSS.GDT 2/27/14

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|--|------------------|--------------------------|-----------------|--|---------------------|-----------------|-------------|
| Granularmetric Report Depths and elevations based on measured values | | | |  Athena Technologies, Inc. 1293 Graham Farm Road McClellanville, SC 29458 ph (843) 887-3800 fax (843) 887-3801 | | | |
| Project Name: Sarasota County Public Works | | | | | | | |
| Sample Name: SK-Area1-V07 #A1-V7-2 | | | | | | | |
| Analysis Date: 02-06-14 | | | | | | | |
| Analyzed By: CRM Sr | | | | | | | |
| Easting (ft): | | Northing (ft): | | Coordinate System: | | Elevation (ft): | |
| 441,134 | | 1,027,418 | | Florida State Plane West | | -44.9 NAVD 88 | |
| USCS: | | Munsell: | | Comments: | | | |
| SP | | | | | | | |
| Dry Weight (g): | Wash Weight (g): | Pan Retained (g): | Sieve Loss (%): | Fines (%): | Organics (%): | Carbonates (%): | Shells (%): |
| 108.32 | 104.81 | | | #200 - 4.52 #230 - 3.25 | | 54.10 | 33.00 |
| Sieve Number | Sieve Size (Phi) | Sieve Size (Millimeters) | Grams Retained | % Weight Retained | Cum. Grams Retained | % Passing Sieve | |
| 3/4" | -4.25 | 19.03 | | 0.00 | 0.00 | 100.00 | |
| 5/8" | -4.00 | 16.00 | | 0.00 | 0.00 | 100.00 | |
| #3.5 | -2.50 | 5.66 | | 0.58 | 0.63 | 99.42 | |
| #4 | -2.25 | 4.76 | | 0.17 | 0.81 | 99.25 | |
| #5 | -2.00 | 4.00 | | 0.26 | 1.09 | 98.99 | |
| #7 | -1.50 | 2.83 | | 0.42 | 1.55 | 98.57 | |
| #10 | -1.00 | 2.00 | | 0.83 | 2.45 | 97.74 | |
| #14 | -0.50 | 1.41 | | 1.73 | 4.32 | 96.01 | |
| #18 | 0.00 | 1.00 | | 3.10 | 7.68 | 92.91 | |
| #25 | 0.50 | 0.71 | | 5.25 | 13.37 | 87.66 | |
| #35 | 1.00 | 0.50 | | 6.35 | 20.25 | 81.31 | |
| #45 | 1.50 | 0.35 | | 7.83 | 28.73 | 73.48 | |
| #60 | 2.00 | 0.25 | | 11.83 | 41.54 | 61.65 | |
| #80 | 2.50 | 0.18 | | 12.09 | 54.64 | 49.56 | |
| #120 | 3.00 | 0.13 | | 25.70 | 82.48 | 23.86 | |
| #170 | 3.50 | 0.09 | | 16.28 | 100.11 | 7.58 | |
| #200 | 3.75 | 0.07 | | 3.06 | 103.43 | 4.52 | |
| #230 | 4.00 | 0.06 | | 1.27 | 104.81 | 3.25 | |
| | | | | | | | |
| Phi 5 | Phi 16 | Phi 25 | Phi 50 | Phi 75 | Phi 84 | Phi 95 | |
| 3.71 | 3.24 | 2.98 | 2.48 | 1.40 | 0.79 | -0.34 | |
| Moment | Mean Phi | Mean mm | Sorting | Skewness | Kurtosis | | |
| Statistics | 2.03 | 0.24 | 1.25 | -1.23 | 4.71 | | |

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|--|------------------|--------------------------|----------------|--|---------------------|--|--|
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| Project Name: Sarasota County Public Works | | | | | | | |
| Sample Name: SK-Area1-V07 #A1-V7-2 Post | | | | | | | |
| Analysis Date: 02-13-14 | | | | | | | |
| Analyzed By: CRM Sr | | | | | | | |
| Easting (ft): | | Northing (ft): | | Coordinate System: | | Elevation (ft): | |
| 441,134 | | 1,027,418 | | Florida State Plane West | | -44.9 NAVD 88 | |
| USCS: | | Munsell: | | Comments: | | | |
| Dry Weight (g): | | Wash Weight (g): | | Pan Retained (g): | | Sieve Loss (%): | |
| 48.15 | | 47.78 | | | | Fines (%): #200 - 3.49 #230 - 0.77 | |
| | | | | | | Organics (%): | |
| | | | | | | Carbonates (%): | |
| | | | | | | Shells (%): | |
| Sieve Number | Sieve Size (Phi) | Sieve Size (Millimeters) | Grams Retained | % Weight Retained | Cum. Grams Retained | % Passing Sieve | |
| 3/4" | -4.25 | 19.03 | | 0.00 | 0.00 | 100.00 | |
| 5/8" | -4.00 | 16.00 | 0.00 | 0.00 | 0.00 | 100.00 | |
| #3.5 | -2.50 | 5.66 | 0.00 | 0.00 | 0.00 | 100.00 | |
| #4 | -2.25 | 4.76 | 0.00 | 0.00 | 0.00 | 100.00 | |
| #5 | -2.00 | 4.00 | 0.00 | 0.00 | 0.00 | 100.00 | |
| #7 | -1.50 | 2.83 | 0.00 | 0.00 | 0.00 | 100.00 | |
| #10 | -1.00 | 2.00 | 0.00 | 0.00 | 0.00 | 100.00 | |
| #14 | -0.50 | 1.41 | 0.00 | 0.00 | 0.00 | 100.00 | |
| #18 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 100.00 | |
| #25 | 0.50 | 0.71 | 0.01 | 0.02 | 0.01 | 99.98 | |
| #35 | 1.00 | 0.50 | 0.07 | 0.15 | 0.08 | 99.83 | |
| #45 | 1.50 | 0.35 | 0.30 | 0.62 | 0.38 | 99.21 | |
| #60 | 2.00 | 0.25 | 3.03 | 6.29 | 3.41 | 92.92 | |
| #80 | 2.50 | 0.18 | 4.07 | 8.45 | 7.48 | 84.47 | |
| #120 | 3.00 | 0.13 | 23.18 | 48.14 | 30.66 | 36.33 | |
| #170 | 3.50 | 0.09 | 14.13 | 29.35 | 44.79 | 6.98 | |
| #200 | 3.75 | 0.07 | 1.68 | 3.49 | 46.47 | 3.49 | |
| #230 | 4.00 | 0.06 | 1.31 | 2.72 | 47.78 | 0.77 | |
| | | | | | | | |
| Phi 5 | Phi 16 | Phi 25 | Phi 50 | Phi 75 | Phi 84 | Phi 95 | |
| 3.64 | 3.35 | 3.19 | 2.86 | 2.60 | 2.50 | 1.83 | |
| Moment | Mean Phi | Mean mm | Sorting | Skewness | Kurtosis | | |
| Statistics | 2.84 | 0.14 | 0.48 | -0.66 | 4.24 | | |

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|--|------------------|--------------------------|-----------------|--|---------------------|-----------------|-------------|
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| Project Name: Sarasota County Public Works | | | | | | | |
| Sample Name: SK-Area1-V07 #A1-V7-3 | | | | | | | |
| Analysis Date: 02-06-14 | | | | | | | |
| Analyzed By: CRM Sr | | | | | | | |
| Easting (ft): | | Northing (ft): | | Coordinate System: | | Elevation (ft): | |
| 441,134 | | 1,027,418 | | Florida State Plane West | | -47.1 NAVD 88 | |
| USCS: | | Munsell: | | Comments: | | | |
| SP-SM | | | | | | | |
| Dry Weight (g): | Wash Weight (g): | Pan Retained (g): | Sieve Loss (%): | Fines (%): | Organics (%): | Carbonates (%): | Shells (%): |
| 109.80 | 104.68 | | | #200 - 6.67 #230 - 4.66 | | | 30.00 |
| Sieve Number | Sieve Size (Phi) | Sieve Size (Millimeters) | Grams Retained | % Weight Retained | Cum. Grams Retained | % Passing Sieve | |
| 3/4" | -4.25 | 19.03 | | 0.00 | 0.00 | 100.00 | |
| 5/8" | -4.00 | 16.00 | | 0.00 | 0.00 | 100.00 | |
| #3.5 | -2.50 | 5.66 | | 2.86 | 3.14 | 97.14 | |
| #4 | -2.25 | 4.76 | | 0.29 | 3.46 | 96.85 | |
| #5 | -2.00 | 4.00 | | 0.03 | 3.49 | 96.82 | |
| #7 | -1.50 | 2.83 | | 0.74 | 4.30 | 96.08 | |
| #10 | -1.00 | 2.00 | | 1.07 | 5.47 | 95.01 | |
| #14 | -0.50 | 1.41 | | 2.05 | 7.72 | 92.96 | |
| #18 | 0.00 | 1.00 | | 3.48 | 11.54 | 89.48 | |
| #25 | 0.50 | 0.71 | | 5.26 | 17.31 | 84.22 | |
| #35 | 1.00 | 0.50 | | 8.24 | 26.36 | 75.98 | |
| #45 | 1.50 | 0.35 | | 8.86 | 36.09 | 67.12 | |
| #60 | 2.00 | 0.25 | | 11.48 | 48.69 | 55.64 | |
| #80 | 2.50 | 0.18 | | 9.75 | 59.40 | 45.89 | |
| #120 | 3.00 | 0.13 | | 20.67 | 82.10 | 25.22 | |
| #170 | 3.50 | 0.09 | | 15.59 | 99.22 | 9.63 | |
| #200 | 3.75 | 0.07 | | 2.96 | 102.47 | 6.67 | |
| #230 | 4.00 | 0.06 | | 2.01 | 104.68 | 4.66 | |
| | | | | | | | |
| Phi 5 | Phi 16 | Phi 25 | Phi 50 | Phi 75 | Phi 84 | Phi 95 | |
| 3.96 | 3.30 | 3.01 | 2.29 | 1.06 | 0.51 | -1.00 | |
| Moment | Mean Phi | Mean mm | Sorting | Skewness | Kurtosis | | |
| Statistics | 1.8 | 0.29 | 1.53 | -1.32 | 4.86 | | |