







| | | | | | | | |
|--|------------------|----------------------------------|-----------------|---|---------------------|----------------------|-------------|
| Granularmetric Report Depths and elevations based on measured values | | | |  COASTAL TECH Coastal Geology & Sediments Laboratory | | | |
| Project Name: 2011 SLC Geotech Investigation | | | | | | | |
| Sample Name: SLC-11-C102 #1 | | | | | | | |
| Analysis Date: | | | | | | | |
| Analyzed By: JB | | | | | | | |
| Easting (ft): | | Northing (ft): | | Coordinate System: | | Elevation (ft): | |
| 936,233 | | 1,106,557 | | Florida State Plane East | | -32.0 NAVD 88 | |
| USCS: | | Munsell: | | Comments: | | | |
| SP | | Wet - 2.5Y-5/2 Dry - 2.5Y-6/2 | | | | | |
| Dry Weight (g): | Wash Weight (g): | Pan Retained (g): | Sieve Loss (%): | Fines (%): | Organics (%): | Carbonates (%): | Shells (%): |
| 133.47 | 133.47 | 0.04 | 0.00 | #200 - 0.03 #230 - 0.02 | 2.20 | 65.10 | |
| Sieve Number | Sieve Size (Phi) | Sieve Size (Millimeters) | Grams Retained | % Weight Retained | Cum. Grams Retained | C. % Weight Retained | |
| 3/4" | -4.25 | 19.03 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 5/8" | -4.00 | 16.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 11/16" | -3.50 | 11.31 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 5/16" | -3.00 | 8.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 3.5 | -2.50 | 5.66 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 4 | -2.25 | 4.76 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 5 | -2.00 | 4.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 7 | -1.50 | 2.83 | 0.24 | 0.18 | 0.24 | 0.18 | |
| 10 | -1.00 | 2.00 | 0.61 | 0.46 | 0.85 | 0.64 | |
| 14 | -0.50 | 1.41 | 2.21 | 1.66 | 3.06 | 2.30 | |
| 18 | 0.00 | 1.00 | 5.36 | 4.02 | 8.42 | 6.32 | |
| 25 | 0.50 | 0.71 | 12.89 | 9.66 | 21.31 | 15.98 | |
| 35 | 1.00 | 0.50 | 29.70 | 22.25 | 51.01 | 38.23 | |
| 45 | 1.50 | 0.35 | 41.50 | 31.09 | 92.51 | 69.32 | |
| 60 | 2.00 | 0.25 | 30.74 | 23.03 | 123.25 | 92.35 | |
| 80 | 2.50 | 0.18 | 8.39 | 6.29 | 131.64 | 98.64 | |
| 120 | 3.00 | 0.13 | 1.51 | 1.13 | 133.15 | 99.77 | |
| 170 | 3.50 | 0.09 | 0.21 | 0.16 | 133.36 | 99.93 | |
| 200 | 3.75 | 0.07 | 0.05 | 0.04 | 133.41 | 99.97 | |
| 230 | 4.00 | 0.06 | 0.02 | 0.01 | 133.43 | 99.98 | |
| | | | | | | | |
| Phi 5 | Phi 16 | Phi 25 | Phi 50 | Phi 75 | Phi 84 | Phi 95 | |
| 2.21 | 1.82 | 1.62 | 1.19 | 0.70 | 0.50 | -0.16 | |
| Moment | Mean Phi | Mean mm | Sorting | Skewness | Kurtosis | | |
| Statistics | 1.13 | 0.46 | 0.7 | -0.53 | 3.89 | | |

| | | | | | | | |
|--|---|--|--|---|--|---|-------------|
| Granularmetric Report Depths and elevations based on measured values | | | |  COASTAL TECH Coastal Geology & Sediments Laboratory 715 North Drive Suite E Melbourne, FL 32934 Phone (321) 751-1135 Fax (321) 751-2343 | | | |
| Project Name: 2011 SLC Geotech Investigation | | | | | | | |
| Sample Name: SLC-11-C102 #2 | | | | | | | |
| Analysis Date: | | | | | | | |
| Analyzed By: JB | | | | | | | |
| Easting (ft): <div style="text-align: center;">936,233</div> | | Northing (ft): <div style="text-align: center;">1,106,557</div> | | Coordinate System: <div style="text-align: center;">Florida State Plane East</div> | | Elevation (ft): <div style="text-align: center;">-36.0 NAVD 88</div> | |
| USCS: <div style="text-align: center;">SP</div> | | Munsell: Wet - 2.5Y-5/3 Dry - 2.5Y-6/2 | | Comments: | | | |
| Dry Weight (g): <div style="text-align: center;">148.20</div> | Wash Weight (g): <div style="text-align: center;">148.20</div> | Pan Retained (g): <div style="text-align: center;">0.12</div> | Sieve Loss (%): <div style="text-align: center;">0.00</div> | Fines (%): #200 - 0.12 #230 - 0.08 | Organics (%): <div style="text-align: center;">2.50</div> | Carbonates (%): <div style="text-align: center;">65.60</div> | Shells (%): |
| Sieve Number | Sieve Size (Phi) | Sieve Size (Millimeters) | Grams Retained | % Weight Retained | Cum. Grams Retained | C. % Weight Retained | |
| 3/4" | -4.25 | 19.03 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 5/8" | -4.00 | 16.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 11/16" | -3.50 | 11.31 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 5/16" | -3.00 | 8.00 | 0.33 | 0.22 | 0.33 | 0.22 | |
| 3.5 | -2.50 | 5.66 | 0.00 | 0.00 | 0.33 | 0.22 | |
| 4 | -2.25 | 4.76 | 0.00 | 0.00 | 0.33 | 0.22 | |
| 5 | -2.00 | 4.00 | 0.03 | 0.02 | 0.36 | 0.24 | |
| 7 | -1.50 | 2.83 | 0.62 | 0.42 | 0.98 | 0.66 | |
| 10 | -1.00 | 2.00 | 1.54 | 1.04 | 2.52 | 1.70 | |
| 14 | -0.50 | 1.41 | 3.84 | 2.59 | 6.36 | 4.29 | |
| 18 | 0.00 | 1.00 | 8.68 | 5.86 | 15.04 | 10.15 | |
| 25 | 0.50 | 0.71 | 17.10 | 11.54 | 32.14 | 21.69 | |
| 35 | 1.00 | 0.50 | 30.04 | 20.27 | 62.18 | 41.96 | |
| 45 | 1.50 | 0.35 | 38.48 | 25.96 | 100.66 | 67.92 | |
| 60 | 2.00 | 0.25 | 31.55 | 21.29 | 132.21 | 89.21 | |
| 80 | 2.50 | 0.18 | 12.58 | 8.49 | 144.79 | 97.70 | |
| 120 | 3.00 | 0.13 | 2.77 | 1.87 | 147.56 | 99.57 | |
| 170 | 3.50 | 0.09 | 0.37 | 0.25 | 147.93 | 99.82 | |
| 200 | 3.75 | 0.07 | 0.09 | 0.06 | 148.02 | 99.88 | |
| 230 | 4.00 | 0.06 | 0.06 | 0.04 | 148.08 | 99.92 | |
| | | | | | | | |
| Phi 5 | Phi 16 | Phi 25 | Phi 50 | Phi 75 | Phi 84 | Phi 95 | |
| 2.34 | 1.88 | 1.67 | 1.15 | 0.58 | 0.25 | -0.44 | |
| Moment | Mean Phi | Mean mm | Sorting | Skewness | Kurtosis | | |
| Statistics | 1.07 | 0.48 | 0.85 | -0.71 | 4.58 | | |

| | | | | | | | |
|--|------------------|----------------------------------|-----------------|---|---------------------|----------------------|-------------|
| Granularmetric Report Depths and elevations based on measured values | | | |  COASTAL TECH Coastal Geology & Sediments Laboratory 715 North Drive Suite E Melbourne, FL 32934 Phone (321) 751-1135 Fax (321) 751-2343 | | | |
| Project Name: 2011 SLC Geotech Investigation | | | | | | | |
| Sample Name: SLC-11-C102 #3 | | | | | | | |
| Analysis Date: | | | | | | | |
| Analyzed By: JB | | | | | | | |
| Easting (ft): | | Northing (ft): | | Coordinate System: | | Elevation (ft): | |
| 936,233 | | 1,106,557 | | Florida State Plane East | | -38.5 NAVD 88 | |
| USCS: | | Munsell: | | Comments: | | | |
| SP | | Wet - 2.5Y-4/3 Dry - 2.5Y-6/2 | | | | | |
| Dry Weight (g): | Wash Weight (g): | Pan Retained (g): | Sieve Loss (%): | Fines (%): | Organics (%): | Carbonates (%): | Shells (%): |
| 106.32 | 106.32 | 0.13 | 0.00 | #200 - 0.15 #230 - 0.12 | 2.40 | 61.10 | |
| Sieve Number | Sieve Size (Phi) | Sieve Size (Millimeters) | Grams Retained | % Weight Retained | Cum. Grams Retained | C. % Weight Retained | |
| 3/4" | -4.25 | 19.03 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 5/8" | -4.00 | 16.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 11/16" | -3.50 | 11.31 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 5/16" | -3.00 | 8.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 3.5 | -2.50 | 5.66 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 4 | -2.25 | 4.76 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 5 | -2.00 | 4.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 7 | -1.50 | 2.83 | 0.15 | 0.14 | 0.15 | 0.14 | |
| 10 | -1.00 | 2.00 | 0.22 | 0.21 | 0.37 | 0.35 | |
| 14 | -0.50 | 1.41 | 0.63 | 0.59 | 1.00 | 0.94 | |
| 18 | 0.00 | 1.00 | 1.75 | 1.65 | 2.75 | 2.59 | |
| 25 | 0.50 | 0.71 | 5.38 | 5.06 | 8.13 | 7.65 | |
| 35 | 1.00 | 0.50 | 15.53 | 14.61 | 23.66 | 22.26 | |
| 45 | 1.50 | 0.35 | 28.08 | 26.41 | 51.74 | 48.67 | |
| 60 | 2.00 | 0.25 | 35.02 | 32.94 | 86.76 | 81.61 | |
| 80 | 2.50 | 0.18 | 16.24 | 15.27 | 103.00 | 96.88 | |
| 120 | 3.00 | 0.13 | 2.67 | 2.51 | 105.67 | 99.39 | |
| 170 | 3.50 | 0.09 | 0.38 | 0.36 | 106.05 | 99.75 | |
| 200 | 3.75 | 0.07 | 0.11 | 0.10 | 106.16 | 99.85 | |
| 230 | 4.00 | 0.06 | 0.03 | 0.03 | 106.19 | 99.88 | |
| | | | | | | | |
| Phi 5 | Phi 16 | Phi 25 | Phi 50 | Phi 75 | Phi 84 | Phi 95 | |
| 2.44 | 2.08 | 1.90 | 1.52 | 1.05 | 0.79 | 0.24 | |
| Moment | Mean Phi | Mean mm | Sorting | Skewness | Kurtosis | | |
| Statistics | 1.45 | 0.37 | 0.67 | -0.62 | 4.36 | | |

| | | | | | | | |
|--|---|--|--|---|--|---|-------------|
| Granularmetric Report Depths and elevations based on measured values | | | |  COASTAL TECH Coastal Geology & Sediments Laboratory 715 North Drive Suite E Melbourne, FL 32934 Phone (321) 751-1135 Fax (321) 751-2343 | | | |
| Project Name: 2011 SLC Geotech Investigation | | | | | | | |
| Sample Name: SLC-11-C102 #4 | | | | | | | |
| Analysis Date: | | | | | | | |
| Analyzed By: JB | | | | | | | |
| Easting (ft): <div style="text-align: center;">936,233</div> | | Northing (ft): <div style="text-align: center;">1,106,557</div> | | Coordinate System: <div style="text-align: center;">Florida State Plane East</div> | | Elevation (ft): <div style="text-align: center;">-42.5 NAVD 88</div> | |
| USCS: <div style="text-align: center;">SP</div> | | Munsell: Wet - 2.5Y-4/3 Dry - 2.5Y-6/2 | | Comments: | | | |
| Dry Weight (g): <div style="text-align: center;">145.98</div> | Wash Weight (g): <div style="text-align: center;">145.98</div> | Pan Retained (g): <div style="text-align: center;">0.32</div> | Sieve Loss (%): <div style="text-align: center;">0.00</div> | Fines (%): #200 - 0.30 #230 - 0.22 | Organics (%): <div style="text-align: center;">2.40</div> | Carbonates (%): <div style="text-align: center;">64.20</div> | Shells (%): |
| Sieve Number | Sieve Size (Phi) | Sieve Size (Millimeters) | Grams Retained | % Weight Retained | Cum. Grams Retained | C. % Weight Retained | |
| 3/4" | -4.25 | 19.03 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 5/8" | -4.00 | 16.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 11/16" | -3.50 | 11.31 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 5/16" | -3.00 | 8.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 3.5 | -2.50 | 5.66 | 0.05 | 0.03 | 0.05 | 0.03 | |
| 4 | -2.25 | 4.76 | 0.00 | 0.00 | 0.05 | 0.03 | |
| 5 | -2.00 | 4.00 | 0.02 | 0.01 | 0.07 | 0.04 | |
| 7 | -1.50 | 2.83 | 0.05 | 0.03 | 0.12 | 0.07 | |
| 10 | -1.00 | 2.00 | 0.12 | 0.08 | 0.24 | 0.15 | |
| 14 | -0.50 | 1.41 | 0.54 | 0.37 | 0.78 | 0.52 | |
| 18 | 0.00 | 1.00 | 1.19 | 0.82 | 1.97 | 1.34 | |
| 25 | 0.50 | 0.71 | 4.41 | 3.02 | 6.38 | 4.36 | |
| 35 | 1.00 | 0.50 | 15.97 | 10.94 | 22.35 | 15.30 | |
| 45 | 1.50 | 0.35 | 38.62 | 26.46 | 60.97 | 41.76 | |
| 60 | 2.00 | 0.25 | 51.64 | 35.37 | 112.61 | 77.13 | |
| 80 | 2.50 | 0.18 | 25.46 | 17.44 | 138.07 | 94.57 | |
| 120 | 3.00 | 0.13 | 6.42 | 4.40 | 144.49 | 98.97 | |
| 170 | 3.50 | 0.09 | 0.84 | 0.58 | 145.33 | 99.55 | |
| 200 | 3.75 | 0.07 | 0.22 | 0.15 | 145.55 | 99.70 | |
| 230 | 4.00 | 0.06 | 0.11 | 0.08 | 145.66 | 99.78 | |
| | | | | | | | |
| Phi 5 | Phi 16 | Phi 25 | Phi 50 | Phi 75 | Phi 84 | Phi 95 | |
| 2.55 | 2.20 | 1.97 | 1.62 | 1.18 | 1.01 | 0.53 | |
| Moment | Mean Phi | Mean mm | Sorting | Skewness | Kurtosis | | |
| Statistics | 1.58 | 0.33 | 0.63 | -0.5 | 5.01 | | |

| | | | | | | | |
|--|---|--|--|---|--|---|-------------|
| Granularmetric Report Depths and elevations based on measured values | | | |  COASTAL TECH Coastal Geology & Sediments Laboratory 715 North Drive Suite E Melbourne, FL 32934 Phone (321) 751-1135 Fax (321) 751-2343 | | | |
| Project Name: 2011 SLC Geotech Investigation | | | | | | | |
| Sample Name: SLC-11-C102 #5 | | | | | | | |
| Analysis Date: | | | | | | | |
| Analyzed By: JB | | | | | | | |
| Easting (ft): <div style="text-align: center;">936,233</div> | | Northing (ft): <div style="text-align: center;">1,106,557</div> | | Coordinate System: <div style="text-align: center;">Florida State Plane East</div> | | Elevation (ft): <div style="text-align: center;">-47.0 NAVD 88</div> | |
| USCS: <div style="text-align: center;">SP</div> | | Munsell: Wet - 2.5Y-5/2 Dry - 2.5Y-6/2 | | Comments: | | | |
| Dry Weight (g): <div style="text-align: center;">145.29</div> | Wash Weight (g): <div style="text-align: center;">145.29</div> | Pan Retained (g): <div style="text-align: center;">0.96</div> | Sieve Loss (%): <div style="text-align: center;">0.08</div> | Fines (%): #200 - 0.96 #230 - 0.74 | Organics (%): <div style="text-align: center;">2.30</div> | Carbonates (%): <div style="text-align: center;">60.60</div> | Shells (%): |
| Sieve Number | Sieve Size (Phi) | Sieve Size (Millimeters) | Grams Retained | % Weight Retained | Cum. Grams Retained | C. % Weight Retained | |
| 3/4" | -4.25 | 19.03 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 5/8" | -4.00 | 16.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 11/16" | -3.50 | 11.31 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 5/16" | -3.00 | 8.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 3.5 | -2.50 | 5.66 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 4 | -2.25 | 4.76 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 5 | -2.00 | 4.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 7 | -1.50 | 2.83 | 0.04 | 0.03 | 0.04 | 0.03 | |
| 10 | -1.00 | 2.00 | 0.11 | 0.08 | 0.15 | 0.11 | |
| 14 | -0.50 | 1.41 | 0.55 | 0.38 | 0.70 | 0.49 | |
| 18 | 0.00 | 1.00 | 1.32 | 0.91 | 2.02 | 1.40 | |
| 25 | 0.50 | 0.71 | 3.62 | 2.49 | 5.64 | 3.89 | |
| 35 | 1.00 | 0.50 | 12.01 | 8.27 | 17.65 | 12.16 | |
| 45 | 1.50 | 0.35 | 33.03 | 22.73 | 50.68 | 34.89 | |
| 60 | 2.00 | 0.25 | 55.29 | 38.05 | 105.97 | 72.94 | |
| 80 | 2.50 | 0.18 | 28.54 | 19.64 | 134.51 | 92.58 | |
| 120 | 3.00 | 0.13 | 6.80 | 4.68 | 141.31 | 97.26 | |
| 170 | 3.50 | 0.09 | 1.96 | 1.35 | 143.27 | 98.61 | |
| 200 | 3.75 | 0.07 | 0.62 | 0.43 | 143.89 | 99.04 | |
| 230 | 4.00 | 0.06 | 0.32 | 0.22 | 144.21 | 99.26 | |
| | | | | | | | |
| Phi 5 | Phi 16 | Phi 25 | Phi 50 | Phi 75 | Phi 84 | Phi 95 | |
| 2.76 | 2.28 | 2.05 | 1.70 | 1.28 | 1.08 | 0.57 | |
| Moment | Mean Phi | Mean mm | Sorting | Skewness | Kurtosis | | |
| Statistics | 1.66 | 0.32 | 0.64 | -0.32 | 4.71 | | |

| | | | | | | | |
|--|------------------|--------------------------------|-----------------|---|---------------------|----------------------|-------------|
| Granularmetric Report Depths and elevations based on measured values | | | |  COASTAL TECH Coastal Geology & Sediments Laboratory 715 North Drive Suite E Melbourne, FL 32934 Phone (321) 751-1135 Fax (321) 751-2343 | | | |
| Project Name: 2011 SLC Geotech Investigation | | | | | | | |
| Sample Name: SLC-11-C102 #6 | | | | | | | |
| Analysis Date: | | | | | | | |
| Analyzed By: JB | | | | | | | |
| Easting (ft): | | Northing (ft): | | Coordinate System: | | Elevation (ft): | |
| 936,233 | | 1,106,557 | | Florida State Plane East | | -50.5 NAVD 88 | |
| USCS: | | Munsell: | | Comments: | | | |
| SW-SM | | Wet - 2.5Y-4/2 Dry - 5Y-6/1 | | | | | |
| Dry Weight (g): | Wash Weight (g): | Pan Retained (g): | Sieve Loss (%): | Fines (%): | Organics (%): | Carbonates (%): | Shells (%): |
| 164.80 | 151.93 | 0.62 | 0.06 | #200 - 9.15 #230 - 8.25 | 2.20 | 68.40 | |
| Sieve Number | Sieve Size (Phi) | Sieve Size (Millimeters) | Grams Retained | % Weight Retained | Cum. Grams Retained | C. % Weight Retained | |
| 3/4" | -4.25 | 19.03 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 5/8" | -4.00 | 16.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 11/16" | -3.50 | 11.31 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 5/16" | -3.00 | 8.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 3.5 | -2.50 | 5.66 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 4 | -2.25 | 4.76 | 0.04 | 0.02 | 0.04 | 0.02 | |
| 5 | -2.00 | 4.00 | 0.10 | 0.06 | 0.14 | 0.08 | |
| 7 | -1.50 | 2.83 | 0.22 | 0.13 | 0.36 | 0.21 | |
| 10 | -1.00 | 2.00 | 0.86 | 0.52 | 1.22 | 0.73 | |
| 14 | -0.50 | 1.41 | 1.87 | 1.13 | 3.09 | 1.86 | |
| 18 | 0.00 | 1.00 | 3.39 | 2.06 | 6.48 | 3.92 | |
| 25 | 0.50 | 0.71 | 7.26 | 4.41 | 13.74 | 8.33 | |
| 35 | 1.00 | 0.50 | 16.79 | 10.19 | 30.53 | 18.52 | |
| 45 | 1.50 | 0.35 | 32.66 | 19.82 | 63.19 | 38.34 | |
| 60 | 2.00 | 0.25 | 42.45 | 25.76 | 105.64 | 64.10 | |
| 80 | 2.50 | 0.18 | 23.90 | 14.50 | 129.54 | 78.60 | |
| 120 | 3.00 | 0.13 | 12.55 | 7.62 | 142.09 | 86.22 | |
| 170 | 3.50 | 0.09 | 5.69 | 3.45 | 147.78 | 89.67 | |
| 200 | 3.75 | 0.07 | 1.94 | 1.18 | 149.72 | 90.85 | |
| 230 | 4.00 | 0.06 | 1.49 | 0.90 | 151.21 | 91.75 | |
| | | | | | | | |
| Phi 5 | Phi 16 | Phi 25 | Phi 50 | Phi 75 | Phi 84 | Phi 95 | |
| | 2.85 | 2.38 | 1.73 | 1.16 | 0.88 | 0.12 | |
| Moment | Mean Phi | Mean mm | Sorting | Skewness | Kurtosis | | |
| Statistics | 1.62 | 0.33 | 0.9 | -0.31 | 3.97 | | |