






|  |                  |                                  |                 |   |                     |                      |             |
|--|------------------|----------------------------------|-----------------|---|---------------------|----------------------|-------------|
| <b>Granularmetric Report</b><br>Depths and elevations based on measured values |                  |                                  |                 |  <b>COASTAL TECH</b><br>Coastal Geology & Sediments Laboratory |                     |                      |             |
| Project Name: 2011 SLC Geotech Investigation                                   |                  |                                  |                 |   |                     |                      |             |
| Sample Name: SLC-11-C84 #1   |                  |                                  |                 |   |                     |                      |             |
| Analysis Date:   |                  |                                  |                 |   |                     |                      |             |
| Analyzed By: JB  |                  |                                  |                 |   |                     |                      |             |
| Easting (ft):  |                  | Northing (ft):                   |                 | Coordinate System:  |                     | Elevation (ft):      |             |
| 934,237  |                  | 1,102,586                        |                 | Florida State Plane East  |                     | -40.4 NAVD 88        |             |
| USCS:  |                  | Munsell:                         |                 | Comments:   |                     |                      |             |
| SW   |                  | Wet - 2.5Y-5/3<br>Dry - 2.5Y-6/3 |                 |   |                     |                      |             |
| Dry Weight (g):  | Wash Weight (g): | Pan Retained (g):                | Sieve Loss (%): | Fines (%):  | Organics (%):       | Carbonates (%):      | Shells (%): |
| 155.51   | 155.51           | 0.17                             | 0.00            | #200 - 0.13<br>#230 - 0.10  | 2.00                | 82.40                |             |
| 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                             | 0.22            | 0.14  | 0.22                | 0.14                 |             |
| 3.5  | -2.50            | 5.66                             | 0.39            | 0.25  | 0.61                | 0.39                 |             |
| 4  | -2.25            | 4.76                             | 0.26            | 0.17  | 0.87                | 0.56                 |             |
| 5  | -2.00            | 4.00                             | 0.71            | 0.46  | 1.58                | 1.02                 |             |
| 7  | -1.50            | 2.83                             | 1.62            | 1.04  | 3.20                | 2.06                 |             |
| 10   | -1.00            | 2.00                             | 2.96            | 1.90  | 6.16                | 3.96                 |             |
| 14   | -0.50            | 1.41                             | 7.70            | 4.95  | 13.86               | 8.91                 |             |
| 18   | 0.00             | 1.00                             | 13.98           | 8.99  | 27.84               | 17.90                |             |
| 25   | 0.50             | 0.71                             | 24.04           | 15.46   | 51.88               | 33.36                |             |
| 35   | 1.00             | 0.50                             | 37.38           | 24.04   | 89.26               | 57.40                |             |
| 45   | 1.50             | 0.35                             | 38.75           | 24.92   | 128.01              | 82.32                |             |
| 60   | 2.00             | 0.25                             | 21.49           | 13.82   | 149.50              | 96.14                |             |
| 80   | 2.50             | 0.18                             | 5.00            | 3.22  | 154.50              | 99.36                |             |
| 120  | 3.00             | 0.13                             | 0.52            | 0.33  | 155.02              | 99.69                |             |
| 170  | 3.50             | 0.09                             | 0.20            | 0.13  | 155.22              | 99.82                |             |
| 200  | 3.75             | 0.07                             | 0.08            | 0.05  | 155.30              | 99.87                |             |
| 230  | 4.00             | 0.06                             | 0.04            | 0.03  | 155.34              | 99.90                |             |
|  |                  |                                  |                 |   |                     |                      |             |
| Phi 5  | Phi 16           | Phi 25                           | Phi 50          | Phi 75  | Phi 84              | Phi 95               |             |
| 1.96   | 1.56             | 1.35                             | 0.85            | 0.23  | -0.11               | -0.89                |             |
| Moment   | Mean Phi         | Mean mm                          | Sorting         | Skewness  | Kurtosis            |                      |             |
| Statistics   | 0.73             | 0.60                             | 0.89            | -0.81   | 4.35                |                      |             |

|  |   |  |  |   |  |   |             |
|--|---|--|--|---|--|---|-------------|
| <b>Granularmetric Report</b><br>Depths and elevations based on measured values |   |  |  |  <b>COASTAL TECH</b><br>Coastal Geology & Sediments Laboratory<br><br>715 North Drive Suite E<br>Melbourne, FL 32934<br>Phone (321) 751-1135<br>Fax (321) 751-2343 |  |   |             |
| Project Name: 2011 SLC Geotech Investigation                                   |   |  |  |   |  |   |             |
| Sample Name: SLC-11-C84 #2   |   |  |  |   |  |   |             |
| Analysis Date:   |   |  |  |   |  |   |             |
| Analyzed By: JB  |   |  |  |   |  |   |             |
| Easting (ft):<br><div style="text-align: center;">934,237</div>                |   | Northing (ft):<br><div style="text-align: center;">1,102,586</div> |  | Coordinate System:<br><div style="text-align: center;">Florida State Plane East</div>   |  | Elevation (ft):<br><div style="text-align: center;">-44.4 NAVD 88</div> |             |
| USCS:<br><div style="text-align: center;">SW</div>                             |   | Munsell:<br>Wet - 2.5Y-4/3<br>Dry - 2.5Y-6/2                       |  | Comments:   |  |   |             |
| Dry Weight (g):<br><div style="text-align: center;">149.84</div>               | Wash Weight (g):<br><div style="text-align: center;">149.84</div> | Pan Retained (g):<br><div style="text-align: center;">0.60</div>   | Sieve Loss (%):<br><div style="text-align: center;">0.01</div> | Fines (%):<br>#200 - 0.65<br>#230 - 0.42  | Organics (%):<br><div style="text-align: center;">2.00</div> | Carbonates (%):<br><div style="text-align: center;">85.40</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   | 0.16   | 0.11  | 0.16   | 0.11  |             |
| 4  | -2.25   | 4.76   | 0.16   | 0.11  | 0.32   | 0.22  |             |
| 5  | -2.00   | 4.00   | 0.35   | 0.23  | 0.67   | 0.45  |             |
| 7  | -1.50   | 2.83   | 1.28   | 0.85  | 1.95   | 1.30  |             |
| 10   | -1.00   | 2.00   | 2.57   | 1.72  | 4.52   | 3.02  |             |
| 14   | -0.50   | 1.41   | 6.52   | 4.35  | 11.04  | 7.37  |             |
| 18   | 0.00  | 1.00   | 13.52  | 9.02  | 24.56  | 16.39   |             |
| 25   | 0.50  | 0.71   | 22.96  | 15.32   | 47.52  | 31.71   |             |
| 35   | 1.00  | 0.50   | 33.78  | 22.54   | 81.30  | 54.25   |             |
| 45   | 1.50  | 0.35   | 28.92  | 19.30   | 110.22   | 73.55   |             |
| 60   | 2.00  | 0.25   | 21.67  | 14.46   | 131.89   | 88.01   |             |
| 80   | 2.50  | 0.18   | 11.21  | 7.48  | 143.10   | 95.49   |             |
| 120  | 3.00  | 0.13   | 4.17   | 2.78  | 147.27   | 98.27   |             |
| 170  | 3.50  | 0.09   | 1.28   | 0.85  | 148.55   | 99.12   |             |
| 200  | 3.75  | 0.07   | 0.34   | 0.23  | 148.89   | 99.35   |             |
| 230  | 4.00  | 0.06   | 0.34   | 0.23  | 149.23   | 99.58   |             |
|  |   |  |  |   |  |   |             |
| Phi 5  | Phi 16  | Phi 25   | Phi 50   | Phi 75  | Phi 84   | Phi 95  |             |
| 2.47   | 1.86  | 1.55   | 0.91   | 0.28  | -0.02  | -0.77   |             |
| Moment   | Mean Phi  | Mean mm  | Sorting  | Skewness  | Kurtosis   |   |             |
| Statistics   | 0.89  | 0.54   | 0.97   | -0.18   | 3.41   |   |             |

|  |                                   |  |                                |   |                              |   |             |
|--|-----------------------------------|--|--------------------------------|---|------------------------------|---|-------------|
| <b>Granularmetric Report</b><br>Depths and elevations based on measured values |                                   |  |                                |  <b>COASTAL TECH</b><br>Coastal Geology & Sediments Laboratory |                              |   |             |
| Project Name: 2011 SLC Geotech Investigation                                   |                                   |  |                                | 715 North Drive Suite E<br>Melbourne, FL 32934<br>Phone (321) 751-1135<br>Fax (321) 751-2343  |                              |   |             |
| Sample Name: SLC-11-C84 #3   |                                   |  |                                |   |                              |   |             |
| Analysis Date:   |                                   |  |                                |   |                              |   |             |
| Analyzed By: JB  |                                   |  |                                |   |                              |   |             |
| Easting (ft):<br><b>934,237</b>  |                                   | Northing (ft):<br><b>1,102,586</b>           |                                | Coordinate System:<br><b>Florida State Plane East</b>   |                              | Elevation (ft):<br><b>-46.9 NAVD 88</b> |             |
| USCS:<br><b>SW</b>   |                                   | Munsell:<br>Wet - 2.5Y-4/3<br>Dry - 2.5Y-6/2 |                                | Comments:   |                              |   |             |
| Dry Weight (g):<br><b>144.10</b>   | Wash Weight (g):<br><b>144.10</b> | Pan Retained (g):<br><b>1.66</b>             | Sieve Loss (%):<br><b>0.05</b> | Fines (%):<br>#200 - 1.59<br>#230 - 1.19  | Organics (%):<br><b>1.90</b> | Carbonates (%):<br><b>81.90</b>         | 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  | 0.92                           | 0.64  | 0.92                         | 0.64                                    |             |
| 5/16"  | -3.00                             | 8.00   | 0.46                           | 0.32  | 1.38                         | 0.96                                    |             |
| 3.5  | -2.50                             | 5.66   | 0.31                           | 0.22  | 1.69                         | 1.18                                    |             |
| 4  | -2.25                             | 4.76   | 0.11                           | 0.08  | 1.80                         | 1.26                                    |             |
| 5  | -2.00                             | 4.00   | 0.12                           | 0.08  | 1.92                         | 1.34                                    |             |
| 7  | -1.50                             | 2.83   | 1.21                           | 0.84  | 3.13                         | 2.18                                    |             |
| 10   | -1.00                             | 2.00   | 1.56                           | 1.08  | 4.69                         | 3.26                                    |             |
| 14   | -0.50                             | 1.41   | 4.09                           | 2.84  | 8.78                         | 6.10                                    |             |
| 18   | 0.00                              | 1.00   | 6.35                           | 4.41  | 15.13                        | 10.51                                   |             |
| 25   | 0.50                              | 0.71   | 11.84                          | 8.22  | 26.97                        | 18.73                                   |             |
| 35   | 1.00                              | 0.50   | 23.49                          | 16.30   | 50.46                        | 35.03                                   |             |
| 45   | 1.50                              | 0.35   | 30.92                          | 21.46   | 81.38                        | 56.49                                   |             |
| 60   | 2.00                              | 0.25   | 31.03                          | 21.53   | 112.41                       | 78.02                                   |             |
| 80   | 2.50                              | 0.18   | 19.33                          | 13.41   | 131.74                       | 91.43                                   |             |
| 120  | 3.00                              | 0.13   | 6.42                           | 4.46  | 138.16                       | 95.89                                   |             |
| 170  | 3.50                              | 0.09   | 2.64                           | 1.83  | 140.80                       | 97.72                                   |             |
| 200  | 3.75                              | 0.07   | 0.99                           | 0.69  | 141.79                       | 98.41                                   |             |
| 230  | 4.00                              | 0.06   | 0.58                           | 0.40  | 142.37                       | 98.81                                   |             |
|  |                                   |  |                                |   |                              |   |             |
| Phi 5  | Phi 16                            | Phi 25                                       | Phi 50                         | Phi 75  | Phi 84                       | Phi 95                                  |             |
| 2.90   | 2.22                              | 1.93   | 1.35                           | 0.69  | 0.33                         | -0.69                                   |             |
| Moment   | Mean Phi                          | Mean mm                                      | Sorting                        | Skewness  | Kurtosis                     |   |             |
| Statistics   | 1.22                              | 0.43   | 1.09                           | -1.12   | 6.25                         |   |             |

|  |                                   |  |                                |   |                              |   |             |
|--|-----------------------------------|--|--------------------------------|---|------------------------------|---|-------------|
| <b>Granularmetric Report</b><br>Depths and elevations based on measured values |                                   |  |                                |  <b>COASTAL TECH</b><br>Coastal Geology & Sediments Laboratory<br><br>715 North Drive Suite E<br>Melbourne, FL 32934<br>Phone (321) 751-1135<br>Fax (321) 751-2343 |                              |   |             |
| Project Name: 2011 SLC Geotech Investigation                                   |                                   |  |                                |   |                              |   |             |
| Sample Name: SLC-11-C84 #4   |                                   |  |                                |   |                              |   |             |
| Analysis Date:   |                                   |  |                                |   |                              |   |             |
| Analyzed By: JB  |                                   |  |                                |   |                              |   |             |
| Easting (ft):<br><b>934,237</b>  |                                   | Northing (ft):<br><b>1,102,586</b>                 |                                | Coordinate System:<br><b>Florida State Plane East</b>   |                              | Elevation (ft):<br><b>-49.9 NAVD 88</b> |             |
| USCS:<br><b>SW</b>   |                                   | Munsell:<br><b>Wet - 5Y-5/2<br/>Dry - 2.5Y-6/2</b> |                                | Comments:   |                              |   |             |
| Dry Weight (g):<br><b>148.13</b>   | Wash Weight (g):<br><b>148.13</b> | Pan Retained (g):<br><b>1.43</b>                   | Sieve Loss (%):<br><b>0.09</b> | Fines (%):<br><b>#200 - 1.42<br/>#230 - 1.06</b>  | Organics (%):<br><b>1.70</b> | Carbonates (%):<br><b>89.40</b>         | Shells (%): |
| <b>Sieve Number</b>  | <b>Sieve Size (Phi)</b>           | <b>Sieve Size (Millimeters)</b>                    | <b>Grams Retained</b>          | <b>% Weight Retained</b>  | <b>Cum. Grams Retained</b>   | <b>C. % Weight Retained</b>             |             |
| 3/4"   | -4.25                             | 19.03  | 0.00                           | 0.00  | 0.00                         | 0.00                                    |             |
| 5/8"   | -4.00                             | 16.00  | 0.00                           | 0.00  | 0.00                         | 0.00                                    |             |
| 11/16"   | -3.50                             | 11.31  | 7.17                           | 4.84  | 7.17                         | 4.84                                    |             |
| 5/16"  | -3.00                             | 8.00   | 0.27                           | 0.18  | 7.44                         | 5.02                                    |             |
| 3.5  | -2.50                             | 5.66   | 1.31                           | 0.88  | 8.75                         | 5.90                                    |             |
| 4  | -2.25                             | 4.76   | 0.70                           | 0.47  | 9.45                         | 6.37                                    |             |
| 5  | -2.00                             | 4.00   | 1.40                           | 0.95  | 10.85                        | 7.32                                    |             |
| 7  | -1.50                             | 2.83   | 3.23                           | 2.18  | 14.08                        | 9.50                                    |             |
| 10   | -1.00                             | 2.00   | 6.34                           | 4.28  | 20.42                        | 13.78                                   |             |
| 14   | -0.50                             | 1.41   | 9.80                           | 6.62  | 30.22                        | 20.40                                   |             |
| 18   | 0.00                              | 1.00   | 13.23                          | 8.93  | 43.45                        | 29.33                                   |             |
| 25   | 0.50                              | 0.71   | 16.36                          | 11.04   | 59.81                        | 40.37                                   |             |
| 35   | 1.00                              | 0.50   | 20.29                          | 13.70   | 80.10                        | 54.07                                   |             |
| 45   | 1.50                              | 0.35   | 21.41                          | 14.45   | 101.51                       | 68.52                                   |             |
| 60   | 2.00                              | 0.25   | 21.35                          | 14.41   | 122.86                       | 82.93                                   |             |
| 80   | 2.50                              | 0.18   | 13.69                          | 9.24  | 136.55                       | 92.17                                   |             |
| 120  | 3.00                              | 0.13   | 6.38                           | 4.31  | 142.93                       | 96.48                                   |             |
| 170  | 3.50                              | 0.09   | 2.36                           | 1.59  | 145.29                       | 98.07                                   |             |
| 200  | 3.75                              | 0.07   | 0.75                           | 0.51  | 146.04                       | 98.58                                   |             |
| 230  | 4.00                              | 0.06   | 0.53                           | 0.36  | 146.57                       | 98.94                                   |             |
|  |                                   |  |                                |   |                              |   |             |
| <b>Phi 5</b>   | <b>Phi 16</b>                     | <b>Phi 25</b>                                      | <b>Phi 50</b>                  | <b>Phi 75</b>   | <b>Phi 84</b>                | <b>Phi 95</b>                           |             |
| 2.83   | 2.06                              | 1.72   | 0.85                           | -0.24   | -0.83                        | -3.06                                   |             |
| <b>Moment</b>  | <b>Mean Phi</b>                   | <b>Mean mm</b>                                     | <b>Sorting</b>                 | <b>Skewness</b>   | <b>Kurtosis</b>              |   |             |
| <b>Statistics</b>  | 0.57                              | 0.67   | 1.6                            | -0.91   | 3.78                         |   |             |

|  |                  |                                |                 |   |                     |                      |             |
|--|------------------|--------------------------------|-----------------|---|---------------------|----------------------|-------------|
| <b>Granularmetric Report</b><br>Depths and elevations based on measured values |                  |                                |                 |  <b>COASTAL TECH</b><br>Coastal Geology & Sediments Laboratory<br><br>715 North Drive Suite E<br>Melbourne, FL 32934<br>Phone (321) 751-1135<br>Fax (321) 751-2343 |                     |                      |             |
| Project Name: 2011 SLC Geotech Investigation                                   |                  |                                |                 |   |                     |                      |             |
| Sample Name: SLC-11-C84 #5   |                  |                                |                 |   |                     |                      |             |
| Analysis Date:   |                  |                                |                 |   |                     |                      |             |
| Analyzed By: JB  |                  |                                |                 |   |                     |                      |             |
| Easting (ft):  |                  | Northing (ft):                 |                 | Coordinate System:  |                     | Elevation (ft):      |             |
| 934,237  |                  | 1,102,586                      |                 | Florida State Plane East  |                     | -51.9 NAVD 88        |             |
| USCS:  |                  | Munsell:                       |                 | Comments:   |                     |                      |             |
| SW   |                  | Wet - 5Y-5/2<br>Dry - 2.5Y-6/1 |                 |   |                     |                      |             |
| Dry Weight (g):  | Wash Weight (g): | Pan Retained (g):              | Sieve Loss (%): | Fines (%):  | Organics (%):       | Carbonates (%):      | Shells (%): |
| 154.44   | 154.44           | 3.99                           | 0.00            | #200 - 3.43<br>#230 - 2.58  | 1.90                | 79.00                |             |
| 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                          | 0.83            | 0.54  | 0.83                | 0.54                 |             |
| 5/16"  | -3.00            | 8.00                           | 0.00            | 0.00  | 0.83                | 0.54                 |             |
| 3.5  | -2.50            | 5.66                           | 0.01            | 0.01  | 0.84                | 0.55                 |             |
| 4  | -2.25            | 4.76                           | 0.00            | 0.00  | 0.84                | 0.55                 |             |
| 5  | -2.00            | 4.00                           | 0.23            | 0.15  | 1.07                | 0.70                 |             |
| 7  | -1.50            | 2.83                           | 0.26            | 0.17  | 1.33                | 0.87                 |             |
| 10   | -1.00            | 2.00                           | 0.81            | 0.52  | 2.14                | 1.39                 |             |
| 14   | -0.50            | 1.41                           | 2.84            | 1.84  | 4.98                | 3.23                 |             |
| 18   | 0.00             | 1.00                           | 4.10            | 2.65  | 9.08                | 5.88                 |             |
| 25   | 0.50             | 0.71                           | 6.82            | 4.42  | 15.90               | 10.30                |             |
| 35   | 1.00             | 0.50                           | 12.16           | 7.87  | 28.06               | 18.17                |             |
| 45   | 1.50             | 0.35                           | 20.28           | 13.13   | 48.34               | 31.30                |             |
| 60   | 2.00             | 0.25                           | 32.41           | 20.99   | 80.75               | 52.29                |             |
| 80   | 2.50             | 0.18                           | 34.94           | 22.62   | 115.69              | 74.91                |             |
| 120  | 3.00             | 0.13                           | 22.79           | 14.76   | 138.48              | 89.67                |             |
| 170  | 3.50             | 0.09                           | 8.14            | 5.27  | 146.62              | 94.94                |             |
| 200  | 3.75             | 0.07                           | 2.52            | 1.63  | 149.14              | 96.57                |             |
| 230  | 4.00             | 0.06                           | 1.31            | 0.85  | 150.45              | 97.42                |             |
|  |                  |                                |                 |   |                     |                      |             |
| Phi 5  | Phi 16           | Phi 25                         | Phi 50          | Phi 75  | Phi 84              | Phi 95               |             |
| 3.51   | 2.81             | 2.50                           | 1.95            | 1.26  | 0.86                | -0.17                |             |
| Moment   | Mean Phi         | Mean mm                        | Sorting         | Skewness  | Kurtosis            |                      |             |
| Statistics   | 1.77             | 0.29                           | 1.06            | -1.25   | 6.67                |                      |             |