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|--|-----------------------------------|--|--------------------------------|---|------------------------------|---|-------------|
| <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-C99 #1   |                                   |  |                                |   |                              |   |             |
| Analysis Date:   |                                   |  |                                |   |                              |   |             |
| Analyzed By: JB  |                                   |  |                                |   |                              |   |             |
| Easting (ft):<br><b>933,887</b>  |                                   | Northing (ft):<br><b>1,105,559</b>           |                                | Coordinate System:<br><b>Florida State Plane East</b>   |                              | Elevation (ft):<br><b>-42.8 NAVD 88</b> |             |
| USCS:<br><b>SW</b>   |                                   | Munsell:<br>Wet - 2.5Y-5/3<br>Dry - 2.5Y-6/2 |                                | Comments:   |                              |   |             |
| Dry Weight (g):<br><b>161.44</b>   | Wash Weight (g):<br><b>161.44</b> | Pan Retained (g):<br><b>0.19</b>             | Sieve Loss (%):<br><b>0.00</b> | Fines (%):<br>#200 - 0.17<br>#230 - 0.11  | Organics (%):<br><b>1.50</b> | Carbonates (%):<br><b>83.80</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  | 4.45                           | 2.76  | 4.45                         | 2.76                                    |             |
| 5/16"  | -3.00                             | 8.00   | 1.88                           | 1.16  | 6.33                         | 3.92                                    |             |
| 3.5  | -2.50                             | 5.66   | 2.54                           | 1.57  | 8.87                         | 5.49                                    |             |
| 4  | -2.25                             | 4.76   | 1.14                           | 0.71  | 10.01                        | 6.20                                    |             |
| 5  | -2.00                             | 4.00   | 0.87                           | 0.54  | 10.88                        | 6.74                                    |             |
| 7  | -1.50                             | 2.83   | 3.46                           | 2.14  | 14.34                        | 8.88                                    |             |
| 10   | -1.00                             | 2.00   | 4.32                           | 2.68  | 18.66                        | 11.56                                   |             |
| 14   | -0.50                             | 1.41   | 8.18                           | 5.07  | 26.84                        | 16.63                                   |             |
| 18   | 0.00                              | 1.00   | 13.68                          | 8.47  | 40.52                        | 25.10                                   |             |
| 25   | 0.50                              | 0.71   | 20.71                          | 12.83   | 61.23                        | 37.93                                   |             |
| 35   | 1.00                              | 0.50   | 30.20                          | 18.71   | 91.43                        | 56.64                                   |             |
| 45   | 1.50                              | 0.35   | 32.04                          | 19.85   | 123.47                       | 76.49                                   |             |
| 60   | 2.00                              | 0.25   | 24.90                          | 15.42   | 148.37                       | 91.91                                   |             |
| 80   | 2.50                              | 0.18   | 9.54                           | 5.91  | 157.91                       | 97.82                                   |             |
| 120  | 3.00                              | 0.13   | 2.60                           | 1.61  | 160.51                       | 99.43                                   |             |
| 170  | 3.50                              | 0.09   | 0.51                           | 0.32  | 161.02                       | 99.75                                   |             |
| 200  | 3.75                              | 0.07   | 0.13                           | 0.08  | 161.15                       | 99.83                                   |             |
| 230  | 4.00                              | 0.06   | 0.10                           | 0.06  | 161.25                       | 99.89                                   |             |
|  |                                   |  |                                |   |                              |   |             |
| <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>                           |             |
| 2.26   | 1.74                              | 1.46   | 0.82                           | -0.01   | -0.56                        | -2.66                                   |             |
| <b>Moment</b>  | <b>Mean Phi</b>                   | <b>Mean mm</b>                               | <b>Sorting</b>                 | <b>Skewness</b>   | <b>Kurtosis</b>              |   |             |
| <b>Statistics</b>  | 0.54                              | 0.69   | 1.38                           | -1.24   | 4.64                         |   |             |

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|--|---|--|--|---|--|---|-------------|
| <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-C99 #2   |   |  |  |   |  |   |             |
| Analysis Date:   |   |  |  |   |  |   |             |
| Analyzed By: JB  |   |  |  |   |  |   |             |
| Easting (ft):<br><div style="text-align: center;">933,887</div>                |   | Northing (ft):<br><div style="text-align: center;">1,105,559</div> |  | Coordinate System:<br><div style="text-align: center;">Florida State Plane East</div>   |  | Elevation (ft):<br><div style="text-align: center;">-45.8 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;">133.44</div>               | Wash Weight (g):<br><div style="text-align: center;">131.18</div> | Pan Retained (g):<br><div style="text-align: center;">0.07</div>   | Sieve Loss (%):<br><div style="text-align: center;">0.00</div> | Fines (%):<br>#200 - 1.98<br>#230 - 1.76  | Organics (%):<br><div style="text-align: center;">1.60</div> | Carbonates (%):<br><div style="text-align: center;">82.20</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  | 1.31   | 0.98  | 1.31   | 0.98  |             |
| 11/16"   | -3.50   | 11.31  | 0.00   | 0.00  | 1.31   | 0.98  |             |
| 5/16"  | -3.00   | 8.00   | 0.00   | 0.00  | 1.31   | 0.98  |             |
| 3.5  | -2.50   | 5.66   | 0.84   | 0.63  | 2.15   | 1.61  |             |
| 4  | -2.25   | 4.76   | 0.34   | 0.25  | 2.49   | 1.86  |             |
| 5  | -2.00   | 4.00   | 0.55   | 0.41  | 3.04   | 2.27  |             |
| 7  | -1.50   | 2.83   | 0.81   | 0.61  | 3.85   | 2.88  |             |
| 10   | -1.00   | 2.00   | 1.68   | 1.26  | 5.53   | 4.14  |             |
| 14   | -0.50   | 1.41   | 2.60   | 1.95  | 8.13   | 6.09  |             |
| 18   | 0.00  | 1.00   | 3.81   | 2.86  | 11.94  | 8.95  |             |
| 25   | 0.50  | 0.71   | 5.61   | 4.20  | 17.55  | 13.15   |             |
| 35   | 1.00  | 0.50   | 10.12  | 7.58  | 27.67  | 20.73   |             |
| 45   | 1.50  | 0.35   | 19.80  | 14.84   | 47.47  | 35.57   |             |
| 60   | 2.00  | 0.25   | 38.09  | 28.54   | 85.56  | 64.11   |             |
| 80   | 2.50  | 0.18   | 31.52  | 23.62   | 117.08   | 87.73   |             |
| 120  | 3.00  | 0.13   | 11.27  | 8.45  | 128.35   | 96.18   |             |
| 170  | 3.50  | 0.09   | 2.00   | 1.50  | 130.35   | 97.68   |             |
| 200  | 3.75  | 0.07   | 0.46   | 0.34  | 130.81   | 98.02   |             |
| 230  | 4.00  | 0.06   | 0.30   | 0.22  | 131.11   | 98.24   |             |
|  |   |  |  |   |  |   |             |
| Phi 5  | Phi 16  | Phi 25   | Phi 50   | Phi 75  | Phi 84   | Phi 95  |             |
| 2.93   | 2.42  | 2.23   | 1.75   | 1.14  | 0.69   | -0.78   |             |
| Moment   | Mean Phi  | Mean mm  | Sorting  | Skewness  | Kurtosis   |   |             |
| Statistics   | 1.49  | 0.36   | 1.17   | -1.98   | 8.75   |   |             |

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|--|---|--|--|---|--|---|-------------|
| <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-C99 #3   |   |  |  |   |  |   |             |
| Analysis Date:   |   |  |  |   |  |   |             |
| Analyzed By: JB  |   |  |  |   |  |   |             |
| Easting (ft):<br><div style="text-align: center;">933,887</div>                |   | Northing (ft):<br><div style="text-align: center;">1,105,559</div>                 |  | Coordinate System:<br><div style="text-align: center;">Florida State Plane East</div>   |  | Elevation (ft):<br><div style="text-align: center;">-48.3 NAVD 88</div> |             |
| USCS:<br><div style="text-align: center;">SP</div>                             |   | Munsell:<br><div style="text-align: center;">Wet - 5Y-5/2<br/>Dry - 2.5Y-6/2</div> |  | Comments:   |  |   |             |
| Dry Weight (g):<br><div style="text-align: center;">185.55</div>               | Wash Weight (g):<br><div style="text-align: center;">185.55</div> | Pan Retained (g):<br><div style="text-align: center;">0.85</div>                   | Sieve Loss (%):<br><div style="text-align: center;">0.00</div> | Fines (%):<br>#200 - 0.63<br>#230 - 0.46  | Organics (%):<br><div style="text-align: center;">1.70</div> | Carbonates (%):<br><div style="text-align: center;">84.40</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   | 0.00   | 0.00  | 0.00   | 0.00  |             |
| 4  | -2.25   | 4.76   | 0.11   | 0.06  | 0.11   | 0.06  |             |
| 5  | -2.00   | 4.00   | 0.01   | 0.01  | 0.12   | 0.07  |             |
| 7  | -1.50   | 2.83   | 0.32   | 0.17  | 0.44   | 0.24  |             |
| 10   | -1.00   | 2.00   | 0.60   | 0.32  | 1.04   | 0.56  |             |
| 14   | -0.50   | 1.41   | 2.47   | 1.33  | 3.51   | 1.89  |             |
| 18   | 0.00  | 1.00   | 6.95   | 3.75  | 10.46  | 5.64  |             |
| 25   | 0.50  | 0.71   | 17.62  | 9.50  | 28.08  | 15.14   |             |
| 35   | 1.00  | 0.50   | 38.25  | 20.61   | 66.33  | 35.75   |             |
| 45   | 1.50  | 0.35   | 48.99  | 26.40   | 115.32   | 62.15   |             |
| 60   | 2.00  | 0.25   | 39.44  | 21.26   | 154.76   | 83.41   |             |
| 80   | 2.50  | 0.18   | 20.25  | 10.91   | 175.01   | 94.32   |             |
| 120  | 3.00  | 0.13   | 6.54   | 3.52  | 181.55   | 97.84   |             |
| 170  | 3.50  | 0.09   | 2.19   | 1.18  | 183.74   | 99.02   |             |
| 200  | 3.75  | 0.07   | 0.65   | 0.35  | 184.39   | 99.37   |             |
| 230  | 4.00  | 0.06   | 0.31   | 0.17  | 184.70   | 99.54   |             |
|  |   |  |  |   |  |   |             |
| Phi 5  | Phi 16  | Phi 25   | Phi 50   | Phi 75  | Phi 84   | Phi 95  |             |
| 2.60   | 2.03  | 1.80   | 1.27   | 0.74  | 0.52   | -0.09   |             |
| Moment   | Mean Phi  | Mean mm  | Sorting  | Skewness  | Kurtosis   |   |             |
| Statistics   | 1.26  | 0.42   | 0.81   | -0.14   | 3.72   |   |             |

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|--|---|--|--|---|--|---|-------------|
| <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-C99 #4   |   |  |  |   |  |   |             |
| Analysis Date:   |   |  |  |   |  |   |             |
| Analyzed By: JB  |   |  |  |   |  |   |             |
| Easting (ft):<br><div style="text-align: center;">933,887</div>                |   | Northing (ft):<br><div style="text-align: center;">1,105,559</div> |  | Coordinate System:<br><div style="text-align: center;">Florida State Plane East</div>   |  | Elevation (ft):<br><div style="text-align: center;">-50.8 NAVD 88</div> |             |
| USCS:<br><div style="text-align: center;">SW</div>                             |   | Munsell:<br>Wet - 5Y-5/2<br>Dry - 5Y-6/1                           |  | Comments:   |  |   |             |
| Dry Weight (g):<br><div style="text-align: center;">143.63</div>               | Wash Weight (g):<br><div style="text-align: center;">143.63</div> | Pan Retained (g):<br><div style="text-align: center;">0.98</div>   | Sieve Loss (%):<br><div style="text-align: center;">0.00</div> | Fines (%):<br>#200 - 1.13<br>#230 - 0.70  | Organics (%):<br><div style="text-align: center;">1.60</div> | Carbonates (%):<br><div style="text-align: center;">81.00</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   | 0.04   | 0.03  | 0.04   | 0.03  |             |
| 5  | -2.00   | 4.00   | 0.09   | 0.06  | 0.13   | 0.09  |             |
| 7  | -1.50   | 2.83   | 0.53   | 0.37  | 0.66   | 0.46  |             |
| 10   | -1.00   | 2.00   | 1.33   | 0.93  | 1.99   | 1.39  |             |
| 14   | -0.50   | 1.41   | 2.98   | 2.07  | 4.97   | 3.46  |             |
| 18   | 0.00  | 1.00   | 5.69   | 3.96  | 10.66  | 7.42  |             |
| 25   | 0.50  | 0.71   | 9.17   | 6.38  | 19.83  | 13.80   |             |
| 35   | 1.00  | 0.50   | 16.27  | 11.33   | 36.10  | 25.13   |             |
| 45   | 1.50  | 0.35   | 23.57  | 16.41   | 59.67  | 41.54   |             |
| 60   | 2.00  | 0.25   | 32.12  | 22.36   | 91.79  | 63.90   |             |
| 80   | 2.50  | 0.18   | 26.09  | 18.16   | 117.88   | 82.06   |             |
| 120  | 3.00  | 0.13   | 18.48  | 12.87   | 136.36   | 94.93   |             |
| 170  | 3.50  | 0.09   | 4.76   | 3.31  | 141.12   | 98.24   |             |
| 200  | 3.75  | 0.07   | 0.91   | 0.63  | 142.03   | 98.87   |             |
| 230  | 4.00  | 0.06   | 0.62   | 0.43  | 142.65   | 99.30   |             |
|  |   |  |  |   |  |   |             |
| Phi 5  | Phi 16  | Phi 25   | Phi 50   | Phi 75  | Phi 84   | Phi 95  |             |
| 3.01   | 2.58  | 2.31   | 1.69   | 0.99  | 0.60   | -0.31   |             |
| Moment   | Mean Phi  | Mean mm  | Sorting  | Skewness  | Kurtosis   |   |             |
| Statistics   | 1.57  | 0.34   | 1  | -0.59   | 3.35   |   |             |

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|--|---|--|--|---|--|---|-------------|
| <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-C99 #5   |   |  |  |   |  |   |             |
| Analysis Date:   |   |  |  |   |  |   |             |
| Analyzed By: JB  |   |  |  |   |  |   |             |
| Easting (ft):<br><div style="text-align: center;">933,887</div>                |   | Northing (ft):<br><div style="text-align: center;">1,105,559</div> |  | Coordinate System:<br><div style="text-align: center;">Florida State Plane East</div>   |  | Elevation (ft):<br><div style="text-align: center;">-53.8 NAVD 88</div> |             |
| USCS:<br><div style="text-align: center;">SP-SM</div>                          |   | Munsell:<br>Wet - 2.5Y-4/1<br>Dry - 2.5Y-5/1                       |  | Comments:   |  |   |             |
| Dry Weight (g):<br><div style="text-align: center;">140.14</div>               | Wash Weight (g):<br><div style="text-align: center;">127.81</div> | Pan Retained (g):<br><div style="text-align: center;">1.41</div>   | Sieve Loss (%):<br><div style="text-align: center;">0.00</div> | Fines (%):<br>#200 - 11.07<br>#230 - 9.81   | Organics (%):<br><div style="text-align: center;">1.70</div> | Carbonates (%):<br><div style="text-align: center;">71.10</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   | 0.30   | 0.21  | 0.30   | 0.21  |             |
| 10   | -1.00   | 2.00   | 0.31   | 0.22  | 0.61   | 0.43  |             |
| 14   | -0.50   | 1.41   | 0.83   | 0.59  | 1.44   | 1.02  |             |
| 18   | 0.00  | 1.00   | 0.97   | 0.69  | 2.41   | 1.71  |             |
| 25   | 0.50  | 0.71   | 1.60   | 1.14  | 4.01   | 2.85  |             |
| 35   | 1.00  | 0.50   | 2.94   | 2.10  | 6.95   | 4.95  |             |
| 45   | 1.50  | 0.35   | 5.30   | 3.78  | 12.25  | 8.73  |             |
| 60   | 2.00  | 0.25   | 12.29  | 8.77  | 24.54  | 17.50   |             |
| 80   | 2.50  | 0.18   | 30.56  | 21.81   | 55.10  | 39.31   |             |
| 120  | 3.00  | 0.13   | 47.69  | 34.03   | 102.79   | 73.34   |             |
| 170  | 3.50  | 0.09   | 18.03  | 12.87   | 120.82   | 86.21   |             |
| 200  | 3.75  | 0.07   | 3.81   | 2.72  | 124.63   | 88.93   |             |
| 230  | 4.00  | 0.06   | 1.77   | 1.26  | 126.40   | 90.19   |             |
|  |   |  |  |   |  |   |             |
| Phi 5  | Phi 16  | Phi 25   | Phi 50   | Phi 75  | Phi 84   | Phi 95  |             |
|  | 3.41  | 3.06   | 2.66   | 2.17  | 1.91   | 1.01  |             |
| Moment   | Mean Phi  | Mean mm  | Sorting  | Skewness  | Kurtosis   |   |             |
| Statistics   | 2.44  | 0.18   | 0.8  | -1.62   | 7.4  |   |             |