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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>1333 Gateway Dr., Suite 1004<br>Melbourne, FL 32901<br>Phone (321) 751-1135<br>Fax (321) 751-2343 |                     |                      |             |
| Project Name: Charlotte Co   |                  |                              |                 |  |                     |                      |             |
| Sample Name: CH-12-VC-10 #1  |                  |                              |                 |  |                     |                      |             |
| Analysis Date: 02-28-13  |                  |                              |                 |  |                     |                      |             |
| Analyzed By: MB  |                  |                              |                 |  |                     |                      |             |
| Easting (ft):  |                  | Northing (ft):               |                 | Coordinate System:   |                     | Elevation (ft):      |             |
| 527,704.2  |                  | 908,496.3                    |                 | Florida State Plane West   |                     | -36.1 NAVD 88        |             |
| USCS:  |                  | Munsell:                     |                 | Comments:  |                     |                      |             |
| SW   |                  | Wet - 5Y-6/1<br>Dry - 5Y-7/1 |                 |  |                     |                      |             |
| Dry Weight (g):  | Wash Weight (g): | Pan Retained (g):            | Sieve Loss (%): | Fines (%):   | Organics (%):       | Carbonates (%):      | Shells (%): |
| 166.14   | 159.59           | 0.25                         | 0.00            | #200 - 4.49<br>#230 - 4.10   | 0.92                | 29.56                |             |
| 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                         | 0.04            | 0.02   | 0.04                | 0.02                 |             |
| 7  | -1.50            | 2.83                         | 0.53            | 0.32   | 0.57                | 0.34                 |             |
| 10   | -1.00            | 2.00                         | 1.19            | 0.72   | 1.76                | 1.06                 |             |
| 14   | -0.50            | 1.41                         | 3.43            | 2.06   | 5.19                | 3.12                 |             |
| 18   | 0.00             | 1.00                         | 6.76            | 4.07   | 11.95               | 7.19                 |             |
| 25   | 0.50             | 0.71                         | 9.67            | 5.82   | 21.62               | 13.01                |             |
| 35   | 1.00             | 0.50                         | 13.59           | 8.18   | 35.21               | 21.19                |             |
| 45   | 1.50             | 0.35                         | 25.42           | 15.30  | 60.63               | 36.49                |             |
| 60   | 2.00             | 0.25                         | 35.35           | 21.28  | 95.98               | 57.77                |             |
| 80   | 2.50             | 0.18                         | 35.56           | 21.40  | 131.54              | 79.17                |             |
| 120  | 3.00             | 0.13                         | 17.27           | 10.39  | 148.81              | 89.56                |             |
| 170  | 3.50             | 0.09                         | 8.16            | 4.91   | 156.97              | 94.47                |             |
| 200  | 3.75             | 0.07                         | 1.73            | 1.04   | 158.70              | 95.51                |             |
| 230  | 4.00             | 0.06                         | 0.64            | 0.39   | 159.34              | 95.90                |             |
|  |                  |                              |                 |  |                     |                      |             |
| Phi 5  | Phi 16           | Phi 25                       | Phi 50          | Phi 75   | Phi 84              | Phi 95               |             |
| 3.63   | 2.73             | 2.40                         | 1.82            | 1.12   | 0.68                | -0.27                |             |
| Moment   | Mean Phi         | Mean mm                      | Sorting         | Skewness   | Kurtosis            |                      |             |
| Statistics   | 1.65             | 0.32                         | 1               | -0.61  | 3.34                |                      |             |

|  |                  |                              |                 |  |                     |                      |             |
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| Project Name: Charlotte Co   |                  |                              |                 |  |                     |                      |             |
| Sample Name: CH-12-VC-10 #2  |                  |                              |                 |  |                     |                      |             |
| Analysis Date: 02-28-13  |                  |                              |                 |  |                     |                      |             |
| Analyzed By: MB  |                  |                              |                 |  |                     |                      |             |
| Easting (ft):  |                  | Northing (ft):               |                 | Coordinate System:   |                     | Elevation (ft):      |             |
| 527,704.2  |                  | 908,496.3                    |                 | Florida State Plane West   |                     | -39.6 NAVD 88        |             |
| USCS:  |                  | Munsell:                     |                 | Comments:  |                     |                      |             |
| SW-SM  |                  | Wet - 5Y-6/1<br>Dry - 5Y-7/1 |                 |  |                     |                      |             |
| Dry Weight (g):  | Wash Weight (g): | Pan Retained (g):            | Sieve Loss (%): | Fines (%):   | Organics (%):       | Carbonates (%):      | Shells (%): |
| 165.28   | 154.26           | 0.75                         | 0.00            | #200 - 8.18<br>#230 - 7.12   | 0.99                | 19.45                |             |
| 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                         | 0.94            | 0.57   | 0.94                | 0.57                 |             |
| 3.5  | -2.50            | 5.66                         | 0.54            | 0.33   | 1.48                | 0.90                 |             |
| 4  | -2.25            | 4.76                         | 0.13            | 0.08   | 1.61                | 0.98                 |             |
| 5  | -2.00            | 4.00                         | 0.17            | 0.10   | 1.78                | 1.08                 |             |
| 7  | -1.50            | 2.83                         | 0.63            | 0.38   | 2.41                | 1.46                 |             |
| 10   | -1.00            | 2.00                         | 1.33            | 0.80   | 3.74                | 2.26                 |             |
| 14   | -0.50            | 1.41                         | 2.29            | 1.39   | 6.03                | 3.65                 |             |
| 18   | 0.00             | 1.00                         | 2.65            | 1.60   | 8.68                | 5.25                 |             |
| 25   | 0.50             | 0.71                         | 2.92            | 1.77   | 11.60               | 7.02                 |             |
| 35   | 1.00             | 0.50                         | 3.22            | 1.95   | 14.82               | 8.97                 |             |
| 45   | 1.50             | 0.35                         | 6.01            | 3.64   | 20.83               | 12.61                |             |
| 60   | 2.00             | 0.25                         | 13.13           | 7.94   | 33.96               | 20.55                |             |
| 80   | 2.50             | 0.18                         | 32.47           | 19.65  | 66.43               | 40.20                |             |
| 120  | 3.00             | 0.13                         | 59.67           | 36.10  | 126.10              | 76.30                |             |
| 170  | 3.50             | 0.09                         | 22.26           | 13.47  | 148.36              | 89.77                |             |
| 200  | 3.75             | 0.07                         | 3.39            | 2.05   | 151.75              | 91.82                |             |
| 230  | 4.00             | 0.06                         | 1.76            | 1.06   | 153.51              | 92.88                |             |
|  |                  |                              |                 |  |                     |                      |             |
| Phi 5  | Phi 16           | Phi 25                       | Phi 50          | Phi 75   | Phi 84              | Phi 95               |             |
|  | 3.29             | 2.98                         | 2.64            | 2.11   | 1.71                | -0.08                |             |
| Moment   | Mean Phi         | Mean mm                      | Sorting         | Skewness   | Kurtosis            |                      |             |
| Statistics   | 2.29             | 0.20                         | 1.11            | -2.27  | 9.44                |                      |             |