
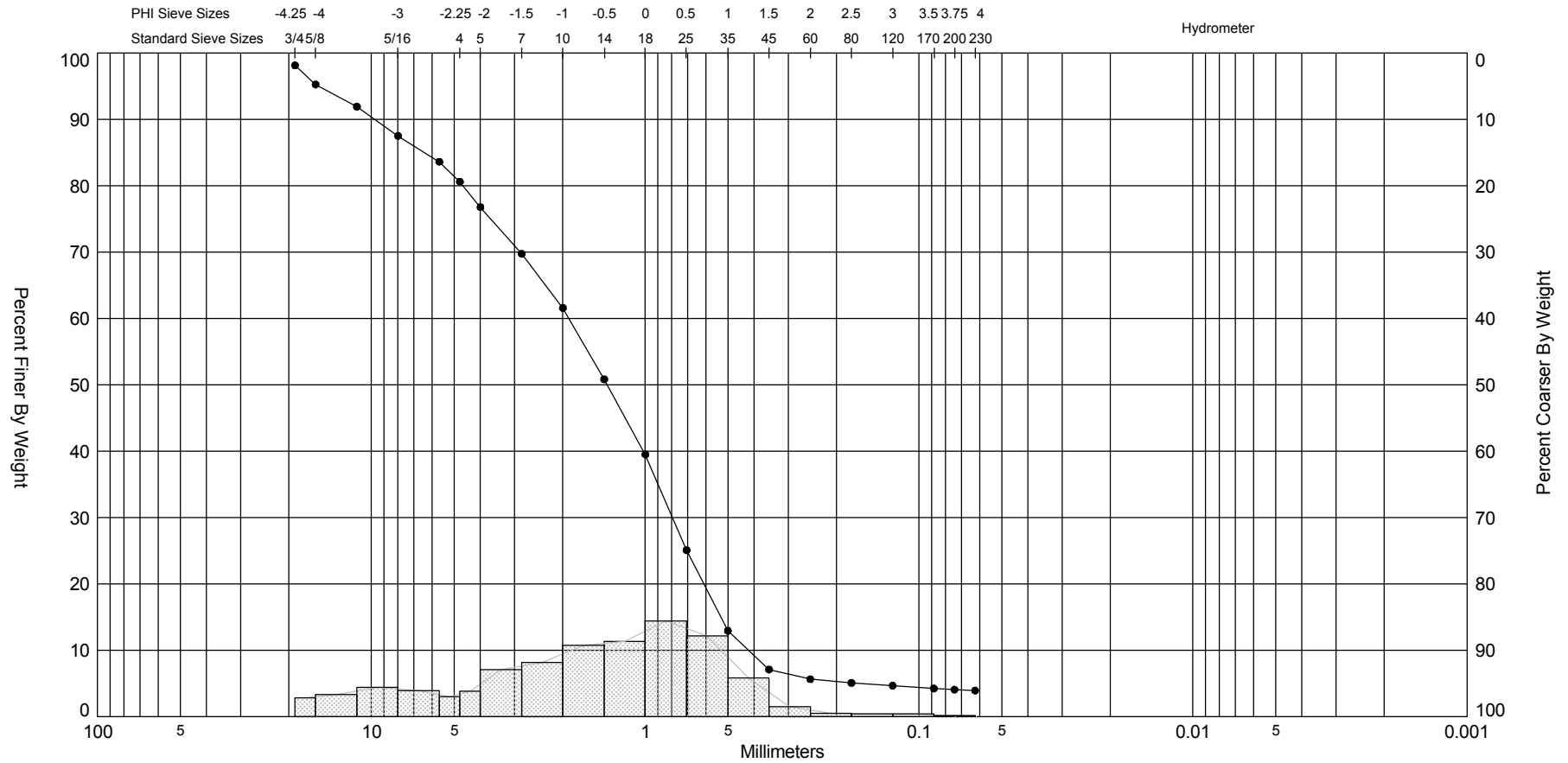



|  |                                   |  |                                |  |                            |                             |                          |
|--|-----------------------------------|--|--------------------------------|--|----------------------------|-----------------------------|--------------------------|
| <b>Granularmetric Report</b><br>Depths and elevations based on measured values |                                   |  |                                | <br><b>Coastal Planning &amp; Engineering</b><br>2481 NW Boca Raton Blvd, Boca Raton<br>FL 33431<br>ph (561) 391-8102<br>fax (561) 391-9116 |                            |                             |                          |
| Project Name: St. Lucie Sand Search  |                                   |  |                                |  |                            |                             |                          |
| Sample Name: SLJP-06-20 #BOT   |                                   |  |                                |  |                            |                             |                          |
| Analysis Date: 03-09-06  |                                   |  |                                |  |                            |                             |                          |
| Analyzed By: AMS   |                                   |  |                                |  |                            |                             |                          |
| Easting (ft):<br><b>928,988</b>  |                                   | Northing (ft):<br><b>1,073,038</b>                           |                                | Coordinate System:<br><b>Florida State Plane East</b>  |                            | Elevation (ft):             |                          |
| USCS:<br><b>SW</b>   |                                   | Munsell: Wet - 2.5Y-5/1<br>Dry - 2.5Y-6/1<br>Washed - 5Y-6/1 |                                | Comments:<br><b>SAND DOLLAR 1.5"X1.2"</b>  |                            |                             |                          |
| Dry Weight (g):<br><b>115.65</b>   | Wash Weight (g):<br><b>111.16</b> | Pan Retained (g):<br><b>0.03</b>                             | Sieve Loss (%):<br><b>0.02</b> | Fines (%):<br><b>#200 - 4.07</b><br><b>#230 - 3.93</b>   | Organics (%):              | Carbonates (%):             | Shells (%):<br><b>30</b> |
| <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  | 2.15                           | 1.86   | 2.15                       | 1.86                        |                          |
| 5/8"   | -4.00                             | 16.00  | 3.32                           | 2.87   | 5.47                       | 4.73                        |                          |
| 7/16"  | -3.50                             | 11.31  | 3.87                           | 3.35   | 9.34                       | 8.08                        |                          |
| 5/16"  | -3.00                             | 8.00   | 5.09                           | 4.40   | 14.43                      | 12.48                       |                          |
| 3.5  | -2.50                             | 5.66   | 4.51                           | 3.90   | 18.94                      | 16.38                       |                          |
| 4  | -2.25                             | 4.76   | 3.47                           | 3.00   | 22.41                      | 19.38                       |                          |
| 5  | -2.00                             | 4.00   | 4.43                           | 3.83   | 26.84                      | 23.21                       |                          |
| 7  | -1.50                             | 2.83   | 8.16                           | 7.06   | 35.00                      | 30.26                       |                          |
| 10   | -1.00                             | 2.00   | 9.42                           | 8.15   | 44.42                      | 38.41                       |                          |
| 14   | -0.50                             | 1.41   | 12.44                          | 10.76  | 56.86                      | 49.17                       |                          |
| 18   | 0.00                              | 1.00   | 13.08                          | 11.31  | 69.94                      | 60.48                       |                          |
| 25   | 0.50                              | 0.71   | 16.69                          | 14.43  | 86.63                      | 74.91                       |                          |
| 35   | 1.00                              | 0.50   | 14.04                          | 12.14  | 100.67                     | 87.05                       |                          |
| 45   | 1.50                              | 0.35   | 6.76                           | 5.85   | 107.43                     | 92.89                       |                          |
| 60   | 2.00                              | 0.25   | 1.71                           | 1.48   | 109.14                     | 94.37                       |                          |
| 80   | 2.50                              | 0.18   | 0.62                           | 0.54   | 109.76                     | 94.91                       |                          |
| 120  | 3.00                              | 0.13   | 0.49                           | 0.42   | 110.25                     | 95.33                       |                          |
| 170  | 3.50                              | 0.09   | 0.50                           | 0.43   | 110.75                     | 95.76                       |                          |
| 200  | 3.75                              | 0.07   | 0.19                           | 0.16   | 110.94                     | 95.93                       |                          |
| 230  | 4.00                              | 0.06   | 0.17                           | 0.15   | 111.11                     | 96.07                       |                          |
|  |                                   |  |                                |  |                            |                             |                          |
| <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>               |                          |
| 2.61   | 0.87                              | 0.50   | -0.46                          | -1.87  | -2.55                      | -3.96                       |                          |
| <b>Moment</b>  | <b>Mean Phi</b>                   | <b>Mean mm</b>   | <b>Sorting</b>                 | <b>Skewness</b>  | <b>Kurtosis</b>            |                             |                          |
| <b>Statistics</b>  | -0.75                             | 1.68   | 1.56                           | -0.32  | 2.65                       |                             |                          |

SIEVE ANALYSIS ST. LUCIE JP.GPJ FL DEP ROSS.GDT 8/8/06



| Gravel |      | Sand   |        |      | Silt and Clay |
|--------|------|--------|--------|------|---------------|
| Coarse | Fine | Coarse | Medium | Fine |               |

| Sample  | Symbol | Elev. (ft) | USCS | % Fines                    | % Organics | % Carbonates   | Median | Mean  | Skew  | Kurt | Sort | Sample Information |                       |
|---|--------|------------|------|----------------------------|------------|--|--------|-------|-------|------|------|--------------------|-----------------------|
| SLJP-06-20 #BOT   | —●—    |            | SW   | #200 - 4.07<br>#230 - 3.93 |            |  |        | -0.75 | -0.32 | 2.65 | 1.56 | Project Name:      | St. Lucie Sand Search |
| Comments: SAND DOLLAR 1.5"X1.2"   |        |            |      |                            |            |  |        |       |       |      |      | Analysis Date:     | 03-09-06              |
| Depths and elevations based on measured values                                      |        |            |      |                            |            |  |        |       |       |      |      | Analyzed By:       | AMS                   |
|  |        |            |      |                            |            | Coastal Planning & Engineering<br>2481 NW Boca Raton Blvd, Boca Raton<br>FL 33431<br>ph (561) 391-8102<br>fax (561) 391-9116 |        |       |       |      |      | Easting (X, ft):   | 928,988               |
|   |        |            |      |                            |            |  |        |       |       |      |      | Northing (Y, ft):  | 1,073,038             |
|   |        |            |      |                            |            |  |        |       |       |      |      | Horizontal System: | NAD 1983              |
|   |        |            |      |                            |            |  |        |       |       |      |      | Vertical System:   | NAVD 88               |