

# Granularmetric Report

Depths and elevations based on measured values



Coastal Planning & Engineering  
2481 NW Boca Raton Blvd, Boca Raton  
FL 33431  
ph (561) 391-8102  
fax (561) 391-9116

Project Name: St. Lucie Vibracores

Sample Name: SLVC-06-31 #1

Analysis Date: 06-15-06

Analyzed By: JG

Easting (ft):

913,199

Northing (ft):

1,085,394

Coordinate System:

Florida State Plane East

Elevation (ft):

-36.9 NAVD 88

USCS:

SW

Munsell:

Wet - 2.5Y-4/1  
Dry - 5Y-6/1  
Washed - 5Y-6/1

Comments:

Dry Weight (g):

86.56

Wash Weight (g):

84.11

Pan Retained (g):

0.14

Sieve Loss (%):

0.09

Fines (%):

#200 - 3.60  
#230 - 3.06

Organics (%):

Carbonates (%):

Shell Hash (%):

21

| 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                 |
| 7/16"        | -3.50            | 11.31                    | 6.97           | 8.05              | 6.97                | 8.05                 |
| 5/16"        | -3.00            | 8.00                     | 2.03           | 2.35              | 9.00                | 10.40                |
| 3.5          | -2.50            | 5.66                     | 3.97           | 4.59              | 12.97               | 14.99                |
| 4            | -2.25            | 4.76                     | 1.58           | 1.83              | 14.55               | 16.82                |
| 5            | -2.00            | 4.00                     | 0.88           | 1.02              | 15.43               | 17.84                |
| 7            | -1.50            | 2.83                     | 3.00           | 3.47              | 18.43               | 21.31                |
| 10           | -1.00            | 2.00                     | 4.34           | 5.01              | 22.77               | 26.32                |
| 14           | -0.50            | 1.41                     | 6.74           | 7.79              | 29.51               | 34.11                |
| 18           | 0.00             | 1.00                     | 8.16           | 9.43              | 37.67               | 43.54                |
| 25           | 0.50             | 0.71                     | 10.10          | 11.67             | 47.77               | 55.21                |
| 35           | 1.00             | 0.50                     | 11.61          | 13.41             | 59.38               | 68.62                |
| 45           | 1.50             | 0.35                     | 9.63           | 11.13             | 69.01               | 79.75                |
| 60           | 2.00             | 0.25                     | 8.32           | 9.61              | 77.33               | 89.36                |
| 80           | 2.50             | 0.18                     | 2.37           | 2.74              | 79.70               | 92.10                |
| 120          | 3.00             | 0.13                     | 1.08           | 1.25              | 80.78               | 93.35                |
| 170          | 3.50             | 0.09                     | 1.52           | 1.76              | 82.30               | 95.11                |
| 200          | 3.75             | 0.07                     | 1.12           | 1.29              | 83.42               | 96.40                |
| 230          | 4.00             | 0.06                     | 0.47           | 0.54              | 83.89               | 96.94                |

Phi 5

Phi 16

Phi 25

Phi 50

Phi 75

Phi 84

Phi 95

3.47

1.72

1.29

0.28

-1.13

-2.36

-3.78

Moment

Mean Phi

Mean mm

Sorting

Skewness

Kurtosis

Statistics

-0.12

1.09

1.85

-0.42

2.55

GRANULARMETRIC REPORT ST LUCIE VC.GPJ FL DEP ROSS.GDT 6/28/06

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fax (561) 391-9116

Project Name: St. Lucie Vibracores

Sample Name: SLVC-06-31 #2

Analysis Date: 06-15-06

Analyzed By: JG

Easting (ft):

913,199

Northing (ft):

1,085,394

Coordinate System:

Florida State Plane East

Elevation (ft):

-40.9 NAVD 88

USCS:

SW-SM

Munsell:

Wet - 2.5Y-4/1  
Dry - 5Y-5/2  
Washed - 5Y-6/1

Comments:

Dry Weight (g):

121.47

Wash Weight (g):

113.37

Pan Retained (g):

0.56

Sieve Loss (%):

0.00

Fines (%):

#200 - 7.61  
#230 - 7.12

Organics (%):

Carbonates (%):

Shell Hash (%):

36

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

7/16"

-3.50

11.31

9.82

8.08

9.82

8.08

5/16"

-3.00

8.00

9.66

7.95

19.48

16.03

3.5

-2.50

5.66

9.40

7.74

28.88

23.77

4

-2.25

4.76

2.89

2.38

31.77

26.15

5

-2.00

4.00

3.28

2.70

35.05

28.85

7

-1.50

2.83

8.45

6.96

43.50

35.81

10

-1.00

2.00

11.73

9.66

55.23

45.47

14

-0.50

1.41

11.85

9.76

67.08

55.23

18

0.00

1.00

9.08

7.48

76.16

62.71

25

0.50

0.71

7.01

5.77

83.17

68.48

35

1.00

0.50

6.03

4.96

89.20

73.44

45

1.50

0.35

4.89

4.03

94.09

77.47

60

2.00

0.25

3.90

3.21

97.99

80.68

80

2.50

0.18

2.13

1.75

100.12

82.43

120

3.00

0.13

1.53

1.26

101.65

83.69

170

3.50

0.09

6.24

5.14

107.89

88.83

200

3.75

0.07

4.33

3.56

112.22

92.39

230

4.00

0.06

0.59

0.49

112.81

92.88

Phi 5

Phi 16

Phi 25

Phi 50

Phi 75

Phi 84

Phi 95

3.03

1.19

-0.77

-2.37

-3.00

-3.79

Moment

Mean Phi

Mean mm

Sorting

Skewness

Kurtosis

Statistics

-0.73

1.66

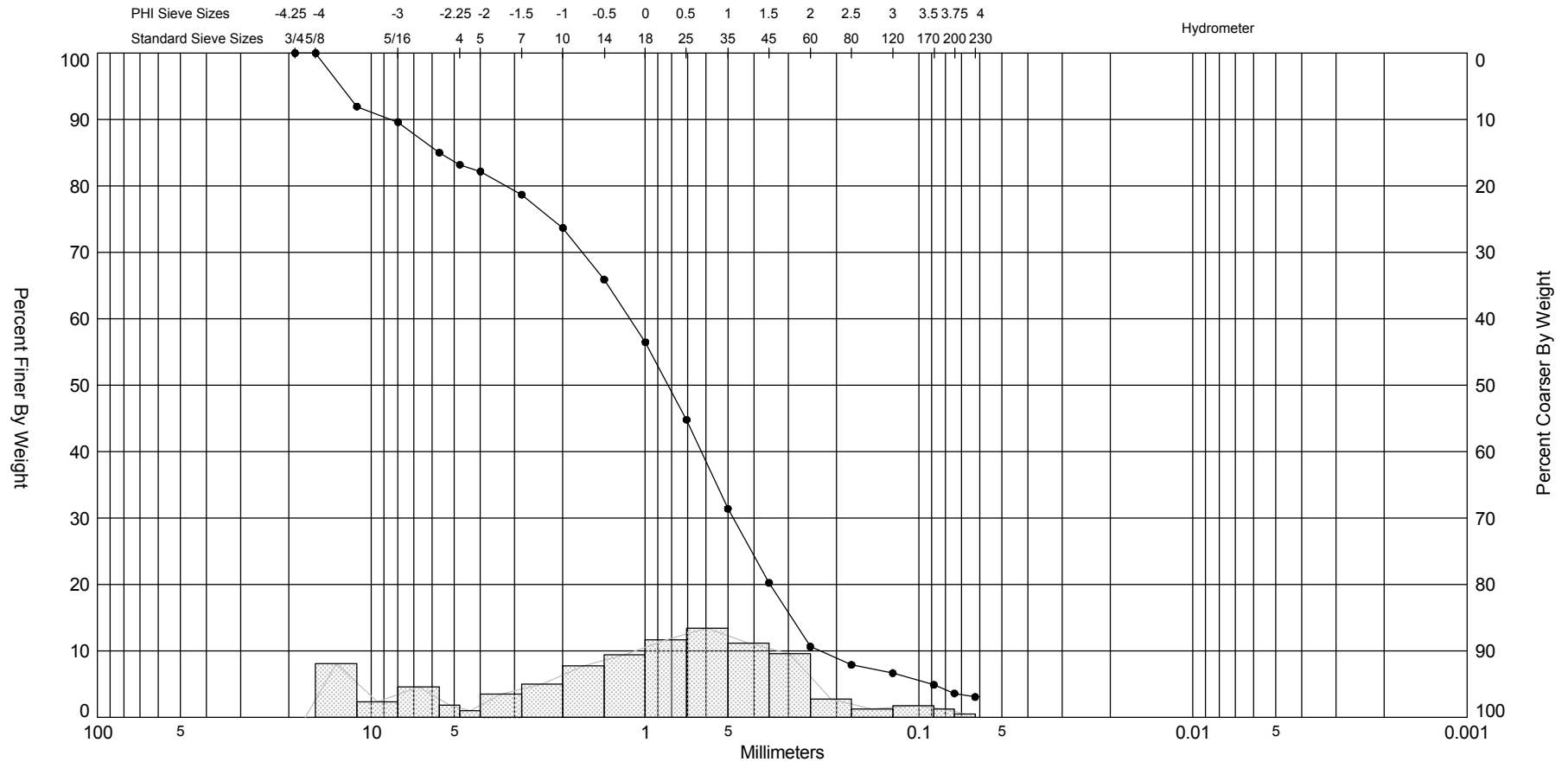
2.13

0.47


2.35

GRANULARMETRIC REPORT ST LUCIE VC.GPJ FL DEP ROSS.GDT 6/28/06

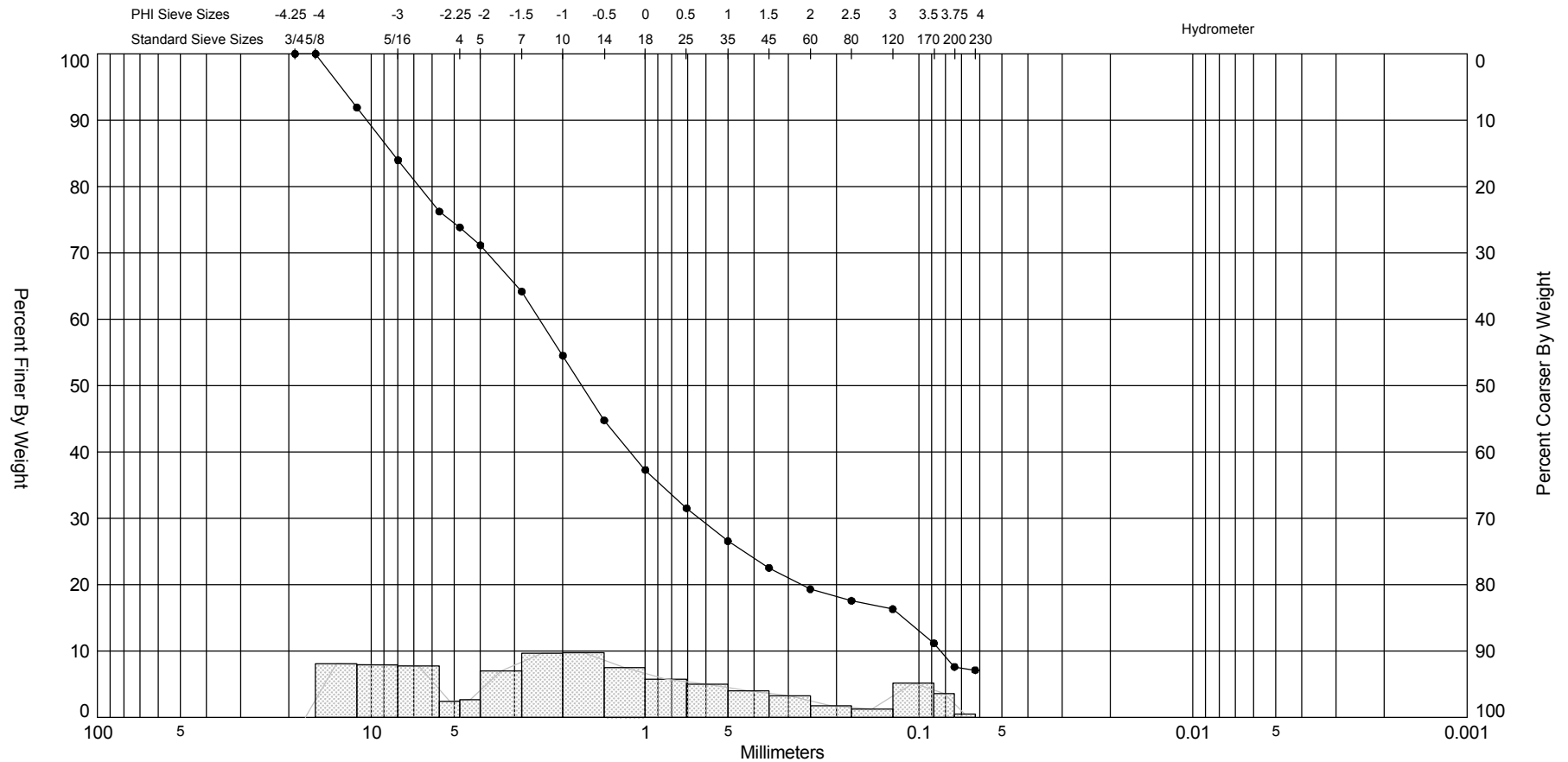
SIEVE ANALYSIS ST LUCIE VC.GPJ FL DEP ROSS.GDT 6/28/06




| 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 |                      |
|---|--------|------------|------|----------------------------|------------|--|--------|-------|-------|------|------|--------------------|----------------------|
| SLVC-06-31 #1   | —●—    | -36.9      | SW   | #200 - 3.60<br>#230 - 3.06 |            |  | 0.28   | -0.12 | -0.42 | 2.55 | 1.85 | Project Name:      | St. Lucie Vibracores |
| Comments:   |        |            |      |                            |            |  |        |       |       |      |      | Analysis Date:     | 06-15-06             |
| Depths and elevations based on measured values                                      |        |            |      |                            |            |  |        |       |       |      |      | Analyzed By:       | JG                   |
|  |        |            |      |                            |            | 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):   | 913,199              |
|   |        |            |      |                            |            |  |        |       |       |      |      | Northing (Y, ft):  | 1,085,394            |
|   |        |            |      |                            |            |  |        |       |       |      |      | Horizontal System: | NAD 1983             |
|   |        |            |      |                            |            |  |        |       |       |      |      | Vertical System:   | NAVD 88              |

SIEVE ANALYSIS ST LUCIE VC.GPJ FL DEP ROSS.GDT 6/28/06



| Sample  | Symbol | Elev. (ft) | USCS  | % Fines                    | % Organics | % Carbonates   | Median | Mean  | Skew | Kurt | Sort | Sample Information |                      |
|---|--------|------------|-------|----------------------------|------------|--|--------|-------|------|------|------|--------------------|----------------------|
| SLVC-06-31 #2   | —●—    | -40.9      | SW-SM | #200 - 7.61<br>#230 - 7.12 |            |  |        | -0.73 | 0.47 | 2.35 | 2.13 | Project Name:      | St. Lucie Vibracores |
| Comments:   |        |            |       |                            |            |  |        |       |      |      |      | Analysis Date:     | 06-15-06             |
| Depths and elevations based on measured values                                      |        |            |       |                            |            |  |        |       |      |      |      | Analyzed By:       | JG                   |
|  |        |            |       |                            |            | 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):   | 913,199              |
|   |        |            |       |                            |            |  |        |       |      |      |      | Northing (Y, ft):  | 1,085,394            |
|   |        |            |       |                            |            |  |        |       |      |      |      | Horizontal System: | NAD 1983             |
|   |        |            |       |                            |            |  |        |       |      |      |      | Vertical System:   | NAVD 88              |