

| JET PROBE LOG                                                                                                                                               |                                                      |       |                                                                                       |                                       |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------|-------|---------------------------------------------------------------------------------------|---------------------------------------|
| PROJECT: Galveston County                                                                                                                                   |                                                      |       | JET PROBE: GCJP-04-24                                                                 |                                       |
| COORDINATES:<br>N = 13597829<br>E = 3216060                                                                                                                 | DATE: 05/05/04<br>START TIME: 1652<br>END TIME: 1700 |       | WATER DEPTH: 23.9 FT<br>TOP DIVER: JC<br>BOTTOM DIVER: KW                             |                                       |
| NOTES                                                                                                                                                       | ELEV.                                                | DEPTH | SYMBOL                                                                                | DESCRIPTION                           |
| LENGTH OF PVC PIPE: 20.0'<br>PENETRATION DEPTH: 14.5'<br>JET PUMP TYPE: BRIGGS & STRATON 3.0 HP<br>GAL/HR: 8460<br>DIAMETER OF PIPE: 1.5"                   | -23.9                                                | 0     |   | SEA FLOOR                             |
| SUPPORT VESSEL: Aqua Quest<br>POSITIONING: DIFFERENTIAL GPS USCG BEACON<br>NAVIGATION SYSTEM: "HYPACK"                                                      |                                                      | 1     |                                                                                       | SAND                                  |
| WEATHER:<br><br>WIND:<br>DIR: SOUTHEAST<br>SPEED: 10 Kt<br><br>WAVES:<br>DIR: SOUTHEAST<br>HEIGHT: 1 to 2 Ft.<br><br>CURRENT:<br>DIR: EAST<br>SPEED: SLIGHT |                                                      | 2     |                                                                                       |                                       |
|                                                                                                                                                             |                                                      | 3     |                                                                                       |                                       |
|                                                                                                                                                             |                                                      | 4     |                                                                                       |                                       |
| SAND SAMPLES<br><br>BOTTOM:<br>Mean (mm): 0.12, 2.23% Silt, Phi Sorting: 0.45<br>Munsell Color: Wet 5Y-5/1, Dry 5Y-6/1                                      |                                                      | 5     |                                                                                       |                                       |
|                                                                                                                                                             |                                                      | 6     |                                                                                       |                                       |
|                                                                                                                                                             |                                                      | 7     |                                                                                       |                                       |
|                                                                                                                                                             |                                                      | 8     |                                                                                       |                                       |
|                                                                                                                                                             |                                                      | 9     |                                                                                       |                                       |
|                                                                                                                                                             |                                                      | 10    |                                                                                       |                                       |
| TURBIDITY:<br>TOP (0.0' - 7.3'): Low<br>BOTTOM: (7.3' - 14.5'): Low                                                                                         |                                                      | 11    |                                                                                       |                                       |
|                                                                                                                                                             |                                                      | 12    |                                                                                       |                                       |
|                                                                                                                                                             |                                                      | 13    |                                                                                       |                                       |
|                                                                                                                                                             | 14                                                   |       |                                                                                       |                                       |
| DRAWN BY: KW      CHECKED BY: MDA / JLA<br>JOB NO: 2600.02                                                                                                  | -38.4                                                | 15    |  | Refusal @ 14.5'<br>Compact Sand Layer |
|                                                                                                                                                             | 16                                                   |       |                                                                                       |                                       |
|                                                                                                                                                             | 17                                                   |       |                                                                                       |                                       |
|                                                                                                                                                             | 18                                                   |       |                                                                                       |                                       |
|                                                                                                                                                             | 19                                                   |       |                                                                                       |                                       |
|                                                                                                                                                             | 20                                                   |       |                                                                                       |                                       |
|                                                                                                                                                             | 21                                                   |       |                                                                                       |                                       |
|                                                                                                                                                             | 22                                                   |       |                                                                                       |                                       |
|                                                                                                                                                             | 23                                                   |       |                                                                                       |                                       |
|                                                                                                                                                             | 24                                                   |       |                                                                                       |                                       |

# Gradation Analysis Report

Project Name: Galveston Jet Probes

Sample Name: GCJP-04-24 Bot

Sample Date: 5/5/2004

Analyzed By: ID



**Coastal Planning & Engineering, Inc.**

2481 N.W. Boca Raton Blvd.  
Boca Raton, FL 33431

|                     |                       |                                                   |                   |
|---------------------|-----------------------|---------------------------------------------------|-------------------|
| Easting:<br>3216060 | Northing:<br>13597829 | Coordinate System:<br>State Plane 1983 TX SC Feet | Elevation:<br>N/A |
|---------------------|-----------------------|---------------------------------------------------|-------------------|

|             |                       |                       |           |
|-------------|-----------------------|-----------------------|-----------|
| USCS:<br>SP | Dry Munsel:<br>5Y-6/1 | Wet Munsel:<br>5Y-5/1 | Comments: |
|-------------|-----------------------|-----------------------|-----------|

|                      |                       |                     |                       |                                          |
|----------------------|-----------------------|---------------------|-----------------------|------------------------------------------|
| Dry Weight:<br>71.71 | Wash Weight:<br>70.25 | Sieve Loss:<br>0.02 | Percent Silt:<br>2.23 | Estimated Percent Shell Content:<br>0.46 |
|----------------------|-----------------------|---------------------|-----------------------|------------------------------------------|

| Sieve Number | Sieve Size (Phi) | Sieve Size (Millimeters) | Grams Retained | % Weight Retained | Cum. Grams Retained | C. % Weight Retained |
|--------------|------------------|--------------------------|----------------|-------------------|---------------------|----------------------|
| 3/4          | -4.25            | 19.02                    | 0.00           | 0.00              | 0.00                | 0.00                 |
| 5/8          | -4.00            | 16.00                    | 0.00           | 0.00              | 0.00                | 0.00                 |
| 5/16         | -3.25            | 9.51                     | 0.00           | 0.00              | 0.00                | 0.00                 |
| 4            | -3.00            | 8.00                     | 0.00           | 0.00              | 0.00                | 0.00                 |
| 5            | -2.00            | 4.00                     | 0.00           | 0.00              | 0.00                | 0.00                 |
| 7            | -1.50            | 2.82                     | 0.00           | 0.00              | 0.00                | 0.00                 |
| 10           | -1.00            | 2.00                     | 0.00           | 0.00              | 0.00                | 0.00                 |
| 14           | -0.50            | 1.41                     | 0.00           | 0.00              | 0.00                | 0.00                 |
| 18           | 0.00             | 1.00                     | 0.03           | 0.04              | 0.03                | 0.04                 |
| 25           | 0.50             | 0.70                     | 0.06           | 0.08              | 0.09                | 0.13                 |
| 35           | 1.00             | 0.50                     | 0.07           | 0.10              | 0.16                | 0.22                 |
| 45           | 1.50             | 0.35                     | 0.14           | 0.20              | 0.30                | 0.42                 |
| 60           | 2.00             | 0.25                     | 0.33           | 0.46              | 0.63                | 0.88                 |
| 80           | 2.50             | 0.17                     | 2.10           | 2.93              | 2.73                | 3.81                 |
| 120          | 3.00             | 0.12                     | 36.85          | 51.39             | 39.58               | 55.19                |
| 170          | 3.50             | 0.08                     | 24.67          | 34.40             | 64.25               | 89.60                |
| 200          | 3.75             | 0.07                     | 4.80           | 6.69              | 69.05               | 96.29                |
| 230          | 4.00             | 0.06                     | 1.06           | 1.48              | 70.11               | 97.77                |
| Pan          | Pan              | Pan                      | 1.58           | 2.20              | 71.69               | 99.97                |
| Phi 5        | Phi 16           | Phi 25                   | Phi 50         | Phi 75            | Phi 84              | Phi 95               |
| 2.51         | 2.62             | 2.71                     | 2.95           | 3.29              | 3.42                | 3.7                  |
| Statistics   | Mean Phi         | Mean mm                  | Sorting        | Skewness          | Kurtosis            |                      |
| Graphic      | 3.04             | 0.12                     | 0.38           | 0.31              | 0.84                |                      |
| Moment       | 3.03             | 0.12                     | 0.45           | 0.26              | 1.39                |                      |

