

# U.S. ARMY CORPS OF ENGINEERS

|             |  |            |                                 |                                                                      |               |                                                                    |                                  |
|-------------|--|------------|---------------------------------|----------------------------------------------------------------------|---------------|--------------------------------------------------------------------|----------------------------------|
| DEPTH, FEET |  | SAMPLE NO. | PEN./TORVANE<br>SPT.-BLOW COUNT | BORING NO. <u>91712</u>                                              |               | DATE: BEGIN <u>07-14-91</u> PAGE <u>111</u>                        |                                  |
|             |  |            |                                 | JOB NO. <u>14G49J</u>                                                |               | COMPLETE <u>07-15-91</u> Thin Walled Tube                          |                                  |
|             |  |            |                                 | PROJECT <u>G.I.W.W.</u>                                              |               | <input type="checkbox"/> 3" <input checked="" type="checkbox"/> 6" |                                  |
|             |  |            |                                 | LOCATION <u>SARGENT BEACH</u>                                        |               |                                                                    |                                  |
|             |  |            |                                 | ELEVATION OF HOLE _____                                              |               |                                                                    |                                  |
|             |  |            |                                 | MANUFACTURER'S DESIGNATION OF DRILL RIG <u>F-36</u>                  |               |                                                                    |                                  |
|             |  |            |                                 | GROUNDWATER: DEPTH <u>3</u> ft., ELEV. _____ ft., at end of Drilling |               |                                                                    |                                  |
|             |  |            |                                 | WEATHER <u>PARTLY CLOUDY</u>                                         |               |                                                                    |                                  |
|             |  |            |                                 | DRILLER <u>Robert J. Jurek</u> LOGGER <u>John A. Jurek</u>           |               |                                                                    |                                  |
|             |  |            |                                 | COLOR                                                                | MATERIAL TYPE | CONSISTENCY                                                        | SECONDARY CONSTITUENTS           |
|             |  |            |                                 | STRUCTURAL FEATURES AND COMMENTS                                     |               |                                                                    |                                  |
|             |  | 1          | 1.0                             | GRAY                                                                 | CLAY          | STIFF                                                              | -w/ SILT POSE 0-6'               |
|             |  | 2          | 0.75                            | BROWN                                                                | CLAY          | MEDIUM STIFF                                                       |                                  |
|             |  | 3          | 1.25                            | BROWN                                                                | CLAY          | STIFF                                                              | *+GRAY -w/ CRAWFISH HOLE 4:6'    |
|             |  | 4          | 1.0                             | BROWN                                                                | "             | "                                                                  |                                  |
|             |  | 5          | 1.0                             | "                                                                    | "             | "                                                                  |                                  |
|             |  | 6          | 1.0                             | "                                                                    | "             | "                                                                  |                                  |
|             |  | 7          | 0.75                            | "                                                                    | "             | "                                                                  |                                  |
|             |  | 8          | N/R                             |                                                                      |               |                                                                    | -NRW 6" Tube 14-16'              |
|             |  | 9          | 0.75                            | "                                                                    |               | "                                                                  | -w/ SILT LAYERS                  |
|             |  | 10         | N/C                             |                                                                      |               |                                                                    | -NRW 6" Tube 18-20               |
|             |  | 11         | 1.5                             | GRAY                                                                 |               |                                                                    | -w/ SILT SEAMS                   |
|             |  | 12         | N/C                             |                                                                      |               |                                                                    | -NRW 6" Tube 22-24'              |
|             |  | 13         | 1.5                             |                                                                      |               |                                                                    | -w/ FERROUS & CALC. NOD. 24'-26' |
|             |  | 14         | N/C                             |                                                                      |               |                                                                    | -NRW 6" Tube 26-28'              |
|             |  | 15         | 3.0                             | BROWN LIGHT CLAY                                                     | CLAY          | VERY STIFF                                                         | -NRW 6" Tube 30-32'              |
|             |  | 16         | N/C                             |                                                                      |               |                                                                    | -NRW 6" Tube 34-36'              |
|             |  | 17         | 3.25                            | "                                                                    | "             | "                                                                  |                                  |
|             |  | 18         | N/C                             |                                                                      |               |                                                                    |                                  |

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|----------------------------------------------------------------------|--|--------------------------------------------------------------------|--|
| BORING NO. <u>9142</u>                                               |  | DATE: BEGIN <u>07-14-91</u> PAGE <u>211</u>                        |  |
| JOB NO. <u>146490</u>                                                |  | COMPLETE <u>07-15-91</u> Thin Walled Tube                          |  |
| PROJECT <u>SEW</u>                                                   |  | <input type="checkbox"/> 3" <input checked="" type="checkbox"/> 6" |  |
| LOCATION <u>SARGENT BARR</u>                                         |  |                                                                    |  |
| ELEVATION OF HOLE _____                                              |  |                                                                    |  |
| MANUFACTURER'S DESIGNATION OF DRILL RIG <u>F-36</u>                  |  |                                                                    |  |
| GROUNDWATER: DEPTH <u>3</u> ft., ELEV. _____ ft., at end of Drilling |  |                                                                    |  |
| WEATHER <u>PARTLY CLOUDY</u>                                         |  |                                                                    |  |
| DRILLER <u>Robert Fairley</u>                                        |  | LOGGER <u>John D. H. [Signature]</u>                               |  |

  

| DEPTH, FEET | SAMPLE NO. | PEN./TORVANE<br>SPT.-BLOW COUNT | COLOR | MATERIAL TYPE | CONSISTENCY  | SECONDARY CONSTITUENTS | STRUCTURAL FEATURES AND COMMENTS |
|-------------|------------|---------------------------------|-------|---------------|--------------|------------------------|----------------------------------|
| 35          | 13         |                                 | BROWN | SAND          | MEDIUM DENSE | SILTY                  | X FINE                           |
| 40          | 14         | 349                             | "     | "             | "            | "                      | "                                |
| 45          | 15         | 13 1/2                          | TAN   | SAND          | DENSE        |                        |                                  |
| 50          | 16         | 19 1/3                          | "     | "             | MEDIUM DENSE |                        |                                  |
| 55          | 17         | 9 9/12                          | "     | "             | "            |                        |                                  |
| 60          | 18         | 10 BH                           | "     | "             | "            |                        |                                  |

Project : Gulf Intracoastal Waterway near Sargeant Beach, Texas  
 Contract No. DACW64-91-D-001, Delivery Order No. 0022

# SUMMARY OF LABORATORY TEST RESULTS

Boring No. 91-212

| S # | Depth (ft) | P P (tsf)           | SPT Blows per Foot | Visual Classification                             | U S C    | M c (%) | Dry Unit Wt (pcf) | Wet Unit Wt (pcf) | LL (%) | P L (%) | Mechanical Analysis % Passing |      |      |      |      | Torvane Shear Strength (tsf) | q u (tsf) |
|-----|------------|---------------------|--------------------|---------------------------------------------------|----------|---------|-------------------|-------------------|--------|---------|-------------------------------|------|------|------|------|------------------------------|-----------|
|     |            |                     |                    |                                                   |          |         |                   |                   |        |         | #4                            | #10  | #40  | #100 | #200 |                              |           |
| 1   | 0-2        | 1.25                |                    | Dark gray, Clay, Stiff, w/Roots                   | CH       | 26.7    |                   |                   |        |         |                               |      |      |      |      |                              |           |
| 2   | 2-4        | 0.50                |                    | Brown, Clay, Medium stiff, w/Roots<br><i>Soft</i> | CH       | 38.1    |                   |                   |        |         |                               |      |      |      |      |                              |           |
| 3   | 4-6        | 1.25                |                    | Brown, Clay, Stiff, Slickensided                  | CH       | 31.1    |                   |                   |        |         |                               |      |      |      |      |                              |           |
| 4   | 6-8        | 0.75                |                    | Brown, Clay, Medium stiff, w/Blocky structure     | CH       | 36.4    | 83.4              | 113.8             | 68     | 26      | 100.0                         | 99.8 | 98.9 |      | 97.0 |                              | 0.55      |
| 5   | 8-10       | 1.00<br><i>1.25</i> |                    | Brown, Clay, Stiff<br><i>SWD</i>                  | CH       | 37      | 84                |                   | 79     | 23      |                               |      |      |      | 95   |                              |           |
| 6   | 10-12      | 1.25                |                    | Brown & gray, Clay, Stiff                         | CH       | 42.3    |                   |                   |        |         |                               |      |      |      |      |                              |           |
| 7   | 12-14      | 0.75<br><i>1.25</i> |                    | Brown, Clay, Medium stiff<br><i>SWD</i>           | CH       | 39.5    | 82                |                   | 83     | 26      |                               |      |      |      | 98   |                              |           |
|     | 14-16      |                     |                    | No recovery                                       |          |         |                   |                   |        |         |                               |      |      |      |      |                              |           |
| 8   | 16-18      | 0.75<br><i>1.0</i>  |                    | Brown, Clay, Medium stiff<br><i>SWD</i>           | CH<br>CL | 34      | 87                |                   | 48     | 16      |                               |      |      |      | 99   |                              |           |
|     | 18-20      |                     |                    | No recovery                                       |          |         |                   |                   |        |         |                               |      |      |      |      |                              |           |
| 9   | 20-22      | 1.00                |                    | Olive gray, Clay, Stiff, w/Ferrous nodules        | CH       | 27.4    | 94.5              | 120.4             | 51     | 20      | 99.2                          | 98.5 | 98.1 |      | 89.8 |                              | 0.90      |
|     | 22-24      |                     |                    | No recovery                                       |          |         |                   |                   |        |         |                               |      |      |      |      |                              |           |
| 10  | 24-26      | 1.50                |                    | Brown, Clay, Stiff<br><i>SWD</i>                  | CH       | 26.5    | 98                |                   | 68     | 16      |                               |      |      |      | 85   |                              |           |
|     | 26-28      |                     |                    | No recovery                                       |          |         |                   |                   |        |         |                               |      |      |      |      |                              |           |
| 11  | 28-30      | 1.75                |                    | Brown & gray, Clay, Stiff                         | CH       | 36.7    |                   |                   |        |         |                               |      |      |      |      |                              |           |
|     | 30-32      |                     |                    | No recovery                                       |          |         |                   |                   |        |         |                               |      |      |      |      |                              |           |
| 12  | 32-34      | 2.75                |                    | Brown & gray, Clay, Very stiff                    | CH       | 32.5    | 89.5              | 118.6             | 67     | 27      | 100.0                         | 99.8 | 99.8 |      | 94.8 |                              | 1.84      |

S # : Sample Number, P P : Pocket Penetrometer Reading, U S C : Unified Soil Classification, M c : Moisture Content  
 q u : Unconfined Compressive Strength, W O H : Weight of hammer, W O P : Weight of pipe

## SUMMARY OF LABORATORY TEST RESULTS

91-212

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q u : Unconfined Compressive Strength, W O H : Weight of hammer, W O P : Weight of pipe