

# PRELIMINARY INVESTIGATIONS OF SUBMERGED AREAS

Delivery Order Number 023  
Project ANW

Date 10/21/04

Location ID Number J-15

Coordinates: X 2655714

Y 13232637

Water Depth 2.4

Pipe Length 16 1375

Tide Staff Readings:

Time Reading

Morning

Mid-Day

Evening

Push No. 1 Time 4:49

Weight of Pipe Penetration (WOP) 3.1

Comment SA

One-Hand Push (40-lb) Depth 3.6

Comments SA

One-Hand Push (70-lb) Depth 6.0

Comments SA CL

Two-Hand Push to Refusal - Depth 6.0

Comments SA

Fig 8.0

6.0 to 6.8 SA & shell

6.8 to 8.0 CL w/shell

Push No. 2 Time 4:58

Weight of Pipe Penetration (WOP) 3.0

Comment SA CL

One-Hand Push (40-lb) Depth 4.0

Comments 1. " SA on Bottom

4.0 to 4.2 SA Layer

One-Hand Push (70-lb) Depth 4.8

Comments SA CL

Two-Hand Push to Refusal - Depth 5.5

Comments Shell & CL mix

Fig 8.0 SA & Shell

Hand Proving Ring Penetrometer Test? yes

Hand Vane Shear Test?

① Top of vane 1' Below BUD Line  
Shear 12 LBS

② Top of vane 2' Below mud line  
Shear 33 LBS

Technician (Probe Handler) Mike A

Recorder Gary L.

### HAND CONE PENETRATION TEST (CPT)

Delivery Order Number 023  
Project ANW Refuge

Date 10/21/04

Location ID Number J-15  
Time 5:06

Weight of Proving Ring \_\_\_\_\_  
Weight of Rod Section 13/65

Weight of Rod Penetration 4.0  
Comments \_\_\_\_\_

Number of Rods 3[illegible]

Comments \_\_\_\_\_

### Hand Cone Penetrometer Test and Analysis:

RTB 11/8/4

**Project:** Aransas National Wildlife Ref. - BUS Site "J"  
**Location:** Dunham Bay located outside of Rockport, TX  
**Delivery Order #:** 0023  
**Date of Testing:** 10/20/04 to 10/22/04

## Probing Results

| Resistance     | Depth1' | Depth2' | MLT1' | MLT2' | Average |
|----------------|---------|---------|-------|-------|---------|
| Weight of Pipe | 3.1     | 3.0     | -0.9  | -0.8  | -0.9    |
| 1 HP (40lbs)   | 3.6     | 4.0     | -1.4  | -1.8  | -1.6    |
| 1 HP (70lbs)   | 6       | 4.8     | -3.8  | -2.6  | -3.2    |
| 2 Hand Refusal | 6       | 5.5     | -3.8  | -3.3  | -3.6    |

[illegible]

# Depth Vs. Shear Strength

◆ J15

