

**PRELIMINARY INVESTIGATIONS OF SUBMERGED AREAS**

Delivery Order Number 023 Date 10/21/04  
Project ANW Refuge

Location ID Number J-24 Tide Staff Readings:  
Coordinates: X 2635737 Time Reading  
Y 1323482  
Water Depth 3.9 Morning \_\_\_\_\_  
Pipe Length 15 13 lbs Mid-Day \_\_\_\_\_  
Evening \_\_\_\_\_

**Push No. 1** Time 5:16  
Weight of Pipe Penetration (WOP) 6.1 Comment soft & LL  
One-Hand Push (40-lb) Depth 7.1 Comments in n

One-Hand Push (70-lb) Depth 7.5 Comments soft SA @ Bottom

Two-Hand Push to Refusal - Depth 7.5 Comments SA  
Fig 9.7 SA

**Push No. 2** Time 5:22  
Weight of Pipe Penetration (WOP) 5.2 Comment \_\_\_\_\_  
One-Hand Push (40-lb) Depth 5.4 Comments \_\_\_\_\_  
5.4 to 5.6 SA Layer

One-Hand Push (70-lb) Depth 7.0 Comments \_\_\_\_\_

Two-Hand Push to Refusal - Depth 8.5 Comments SA & shell frag.  
Fig 9.0 SA

Hand Proving Ring Penetrometer Test? yes  
Hand Vane Shear Test? yes

Technician (Probe Handler) Mike A.

① Top of vane 3' Below mud line  
13 LBS shear  
① Top of vane 3' Below mud line  
18 LBS shear  
Recorder GARY L.





### Depth Vs. Shear Strength

◆ J24

