

ALEXANDER ISLAND BORING SUMMARY SHEET

| | |
|--------------------------|------------------------|
| BORING ID: | <u>13-P05</u> |
| BORING TYPE: | <u>Perimeter Levee</u> |
| DEPTH: | <u>60'</u> |
| ELEVATION: | <u>27.81'</u> |
| X (US SURVEY FT): | <u>3225186.78</u> |
| Y (US SURVEY FT): | <u>13830885.15</u> |
| DEPTH TO WATER: | <u>8.2'</u> |

Client: USACE-Galveston District Boring: 13-P05 Page 1 of 3
 Date/Time Drilling Begun: 12.27.13/1255 Date/Time Drilling Ended: 12.28.13/1400
 Driller: Jason ~~North~~ Logger: Eddie ~~Fricker~~ Designated X (Easting): 3225187
 Drill Rig: Mobile ~~B57~~ Designated Y (Northing): 13830885 Z (Elevation): 27.8145'
 Total depth: 60.0 Initial Water Encounter (Depth, date/time): 8.5 FT / 12.27.13/1347 Water Depth (15 min.): 8.2 FT

1255
Drudge Spoil

| Feet | USCS Log | Sample Interval (ft) | Amount Material Obtained (in) | Sample Type Blow Counts | Number of Tubes | Pocket Pene. (tsf) | Shear Strength (tsf) | Description (SOIL TYPE, color, moisture, plasticity, consistency, density, inclusions, etc.) |
|--------------|----------|----------------------|-------------------------------|-------------------------|-----------------|--------------------|----------------------|--|
| 0 | CL | 0-2 | 8 | ST | 1 _T | 1.5 | - | Sandy, Silty, <u>CLAY</u> , Yellowish orange, Moist, Low Plast., Common shell |
| | CH | 2-4 | 13 | ST | 1 _T | 1.25 to 2.0 | - | Sandy <u>CLAY</u> , Yellowish to Reddish Brown to Light Gray, Moist, High Plast., Frag. |
| 5' 5 5/8" | CH SM | 4-6 | 15 | ST | 1 _T | 0.5 to 2.0 | - | S.A.A.; Includes Brownish Gray carbonaceous clay as well |
| | | 6-8 8.5-10 | 10 | SS 2-2-8 | 1 _B | - | - | Brownish Gray silty <u>SAND</u> (F-C), Moist |
| | SC | 8-10 | | | | | | S.A.A. Turny Gray to Dark Gray and clayey! |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| 15 | CH/OH | 13.5-15.0 | 18 | SS 1-1-1 | 1 _B | ∅ | 0.3 | Silty <u>CLAY</u> , Moist, Gray to Black (off), High Plast., V. soft, Carbo. Frag. |
| | SC/CL | 15-17 | 12 | ST | 1 _T | ∅ | - | S.A.A.; Mixed with light brown Fine SA (SC) + Black Carbonaceous SA (F-C) |
| | SC/CL | 17-19 | 18 | ST | 1 _B | - | - | Alternating + Mixed Silty, Clayey, SAND, Light Brownish Gray, Wet SA is F-C w/ shell Frag. |
| | SC/CL | 19-21 | 18 | ST | 1 _B | - | - | S.A.A. |

5' 5"

14' 9" to 15

End of Tube in Sandy clay (CL)

Weather: Overcast, slight breeze, 25°F
 Comments: Med. = medium F-C = fine to coarse grained SAA = same as above

USCS Log Legend: Med. = medium F-C = fine to coarse grained SA = SAND Frags = fragments Plast = Plasticity

| | | | | | | | | | | | | | | |
|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| GW | GP | GM | GC | SW | SP | SM | SC | ML | CL | OL | MH | CH | OH | PT |
|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|

US Army Corps of Engineers, Southwestern Division
 Galveston District
 2000 Fort Point Road/P.O. Box 1229
 Galveston, TX 77553-1229

Alexander Island
 Houston Ship Channel
 Baytown, TX

ORI Quaternary Resource Investigations, L.L.C.
 Government & Industry in Harmony with the Environment
 13588 Florida Boulevard, Baton Rouge, Louisiana 70819

Client: USACE-Galveston District

Boring: 13-P05

Page 2 of 3

| Feet | USCS Log | Sample Interval (ft) | Amount Material Obtained (in) | Sample Type Blow Counts | Number of Tubes | Pocket Pene. (tsf) | Shear Strength (tsf) | Description (SOIL TYPE, color, moisture, plasticity, consistency, density, inclusions, etc.) |
|------|----------|----------------------|-------------------------------|-------------------------|-----------------|--------------------|----------------------|--|
| 20 | | | | | | | | |
| | | Base of Spoil 21.6' | | | | | | |
| | CH/OH | 23.5-25 | 18 | SS 1-1-1 | 1 _B | ∅ | 0.3 | Silty CLAY, Gray + Blk(OH), Moist, High Plast., V. Soft |
| 25 | CH | 25-27 | 9 | ST | 1 _T | ∅ | 0.45 | SAA, Carbonaceous debris, Soft |
| | CH | 27-29 | 16 | ST | 1 _T | ∅ | 0.3 | S.A.A. |
| | CH | 29-31 | 10 | ST | 1 _T | ∅ | 0.25 | SAA; Mixed w/ Light Brown Silty CLAY; Trace of fine SA. |
| 30 | CH/OH | 31-33 | 19 | ST | 1 _T | ∅ | 0.30 | S.A.A. Gray + Blk |
| | OH | 33-35 | 20 | ST | 1 _T | ∅ | 0.35 | S.A.A.; Blk w/ less Gray; Trace of Fine SA. |
| 35 | OH | 35-37 | 18 | ST | 2 _T | ∅ | 0.2 | SAA to 36'6" ^{36'-6" to 40'} SA is F-C. |
| | SM/SC | | | | | | | 36'6" to 38'6" = Silty clayey SAND (F-M) Black to Gray, Carbonaceous |
| 40 | OH/CH | 38.5-40 | 19 | SS WB-32 | 1 _B | ∅ | 0.4 | 38'6" Silty CLAY, Black to Gray, Moist, High Plast., V. Soft, Common Fine SA. |

Weather: 12-27-13 overcast, Slight Breeze, 55°F; 12-28-13 Overcast, calm, ~50°F

Comments: Blk = Black

SAA = same as above Plast. = Plasticity SA = SAND

USCS Log Legend:



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Flowing Heavy SA!

Laminations

END
START
0-145
(12.28.13)

Client: USACE-Galveston District

Boring: 13-P05

of 3

Total depth: 60.0

Date/Time Drilling Ended: 12.28.13 / 1400

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|------|----------|----------------------|-------------------------------|-------------------------|-----------------|--------------------|----------------------|--|
| 40 | | 40-42 | 14 | ST | 1T | 0 | 0.3 | S.A.A. |
| | SM | 42-44 | 15 | ST | 1B | - | - | Clayey, Silty, SAND ^(FC) , Gray, Wet; Flowing/Heaving SA! |
| 45 | SM | 44-45.5 | 12 | SS 6-7-4 | 1B | - | - | S.A.A. common shell frags, slightly carbonaceous, V. Silty |
| | SM | 48.5-50 | 12 | SS WOR-1-2 | 1B | - | - | S.A.A.; V. Silty; SA is F-M. |
| 55 | SM | 53.5-55 | 14 | SS WOR-2-2 | 1B | - | - | S.A.A.; SA is F-M, V. silty. |
| 60 | SC | 58.5-60 | 18 | SS WOR-WOR-WOR | 1B | - | - | Silty, Clayey, SAND (F-M), Gray, Wet, V. Loose, Common shell frags. |

1400

Weather: Overcast, Calm, ~50°F
 Comments: S.A.A = same as above

SA = SAND V = Very
 (F-C) = fine to coarse grained (F-M) = fine to medium grained
 frags = fragments

USCS Log Legend:

| | | | | | | | | | | | | | | |
|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
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