# BORING LOG NO. A-19

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| CLIENT: | **United States Army Corps of Engineers<br>Galveston, Texas** | PROJECT: | **Contract W912HY-09-D-0021<br>Addicks and Barker Dams, TO-14** |
| BORING LOCATION: | **N: 13857696.479<br>E: 3033034.596** | SITE: | **Addicks and Barker Reservoirs<br>Houston, Texas** |

**Approx. Surface Elevation: 89.6 feet**

| DEPTH, FEET | USCS SYMBOL | TYPE | RECOVERY, IN | SPT, BLOWS/FT | CALIBRATED HAND PENETROM., TSF | TORVANE, TSF | MOISTURE CONTENT, % | DRY DENSITY, PCF | LIQUID LIMIT, % | PLASTIC LIMIT, % | PLASTICITY INDEX | MINUS #200 SIEVE, % | COMPRESSIVE STRENGTH, TSF | FAILURE STRAIN, % | CONFINING PRESSURE, PSI |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | CL | ST | 7 | | 4.5 | | 12 | | | | | | | | |
| 2 | | | | | | | | | | | | | | | |
| 3 | | ST | 16 | | 4.5 | | 11 | 127 | 46 | 14 | 32 | 82 | | | |
| 4 | | | | | | | | | | | | | | | |
| 5 | | ST | 6 | | 2.5 | | 15 | | | | | | | | |
| 6 | | | | | | | | | | | | | | | |
| 7 | | ST | 17 | | 2.75 | | 18 | | 47 | 16 | 31 | 82 | | | |
| 8 | CH | | | | | | | | | | | | | | |
| 9 | | ST | 12 | | 4.0 | | 16 | | | | | | | | |
| 10 | | | | | | | | | | | | | | | |

81.6 — 8.0

**LEAN CLAY w/ SAND**
gray, light gray, and tan, very stiff, high plasticity, dry, with ferrous stains and calcareous nodules

79.6 — 10.0

**FAT CLAY**
tan, brown, and gray, very stiff, high plasticity, dry, with calcareous nodules

Boring terminated at 10 feet.

STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARIES BETWEEN SOIL TYPES. IN SITU, THE TRANSITION BETWEEN STRATA MAY BE MORE GRADUAL.

REMARKS: **Dry augered to 10 feet.**

WATER LEVEL OBSERVATIONS

FREE WATER WAS NOT OBSERVED DURING DRY DRILLING OPERATIONS

Terracon

DATE DRILLED
6/13/2012

PROJECT NUMBER
92125125



A-19

EXHIBIT A-22