JOB NO. 55016 THINK SAFETY FIRST

BORING NO. 85-33

TYPE BORING: DISTURBED

LOCATION: CORPS OF ENGINEERS GALVESTON FACILITY

| CONDITION | CONSISTENCY | COLOR | MATERIALS | CHARACTERISTICS |
|---|---|---|---|---|
| Lo - LOOSE<br>M-De - MEDIUM DENSE<br>De - DENSE | VSo - VERY SOFT<br>So - SOFT<br>Fm - FIRM<br>St - STIFF<br>VSt - VERY STIFF<br>H - HARD | L - LIGHT<br>D - DARK<br>G - GRAY<br>T - TAN<br>R - RED<br>Y - YELLOW<br>Br - BROWN<br>Bk - BLACK<br>Bl - BLUE<br>Gr - GREEN | Cl - CLAY, CLAYEY<br>Si - SILTY, SILT<br>Sa - SANDY, SAND<br>Gv - GRAVELLY, GRAVEL<br>Ls - LIMESTONE<br>Sts - SILTSTONE<br>Ss - SANDSTONE<br>Lig - LIGNITE<br>Sh - SHALE<br>SAND ADJECTIVES - F - FINE, M - MEDIUM, Co - COARSE | Calc - CALCAREOUS<br>Sh - SHALEY<br>Lig - LIGNITIC<br>Ch - CALICHE<br>Org - ORGANIC<br>Lam - LAMINATED<br>Sls - SLICKENSIDED<br>Sl - SLIGHTLY<br>Sm(s) - SEAM(S)<br>Fe - FERROUS |

SOIL DESCRIPTION
TOP SOIL THICKNESS _____
SUR ELEV

| TEST ASSIGNMENT | SAMPLE NO. | PEN. RDG. | DEPTH, FT. | SAMPLES | CONSISTENCY OR CONDITION | COLOR | MINOR MATERIAL OR ADJECTIVE | PREDOMINANT MATERIAL | CHARACTERISTICS OR MODIFICATIONS | BLOWS PER FT. | LIQUID LIMIT | PLASTIC LIMIT | MOISTURE CONTENT, % | SHEAR STRENGTH, TSF PEN - SHEAR | PEN - SHEAR | UNIT DRY WT. LB./CU. FT. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | J-1 | | | | MDE | T | CL | Sa | | | | | | 0.25 - .07 VSO<br>0.50 - .15 SO<br>0.75 - .23 SO<br>1.00 - .31 FM<br>1.25 - .39 FM<br>1.50 - .46 FM<br>1.75 - .56 ST<br>2.00 - .62 ST<br>2.25 - .69 ST<br>2.50 - .78 ST | 2.75 - .85 ST<br>3.00 - .93 ST<br>3.25 - 1.01 VST<br>3.50 - 1.08 VST<br>3.75 - 1.16 VST<br>4.00 - 1.24 VST<br>4.25 - 1.32 VST<br>4.5 - 1.40 VST<br>4.5+ - 1.5 H | |
| | | | | | | | | | -w/ SHELL FRAGS<br>FREE WATER AT 3.5' | | | | | | | |
| | J-2 | | 5 | | | | | | -w/ CLAY SEAMS AT 5' | | | | | | | |
| | J-3 | | 10 | | | | | | -w/ SHELL FRAGS | | | | | | | |
| | | | | | DE | LG | | SA | | | | | | | | |
| | J-4 | | 15 | | | | | | | 16/28/25 | | | | | | |
| | J-5 | | 20 | | | | | | -w/ SHELL FRAGS<br>SPT = 42 | 14/22/23 | | | | | | |
| | J6 | | 25 | | | | | | w/ CL SMS | 8/12/20 | | | | | | |
| | J7 | | 30 | | | | | | -w/ SHELL FRAGS | 9/14/24 | | | | | | |
| | | | | | VDE | | | | | | | | | | | |
| | J8 | | 35 | | | | | | | 19/30/41 | | | | | | |
| | | | | | | | | | -w/ CL SMS<br>SPT = 67 | | | | | | | |
| | J9 | | 40 | | | | | | | 17/29/35 | | | | | | |
| | | | | | | | | | | (SP) | | | | | | |
| | | | | | FM | DG | SA | CL | w/ SHELL FRAGS | 5/11/21 | | | | | | |
| | J10 | | 45 | | | | | | | | | | | | | |
| | | | | | | | | | | (CL) | | | | | | |
| | J11 | 0.5 | 50 | | | | | | | | | | | | | |

COMPLETION DEPTH: DATE:

DEPTH TO WATER: DATE:

JOB NO. 55016

BORING NO. 85-33

CREW: _____

PLATE

JOB NO. 55016 THINK SAFETY FIRST

BORING NO. CB-85-33

TYPE BORING: DISTURBED

LOCATION: CORPS OF ENGINEERS GALVESTON FACILITY

| CONDITION | CONSISTENCY | COLOR | MATERIALS | CHARACTERISTICS |
|---|---|---|---|---|
| Lo - LOOSE | VSo - VERY SOFT | L - LIGHT | Cl - CLAY, CLAYEY | Calc - CALCAREOUS |
| M-De - MEDIUM DENSE | So - SOFT | D - DARK | Si - SILTY, SILT | Sh - SHALEY |
| De - DENSE | Fm - FIRM | G - GRAY | So - SANDY, SAND | Lig - LIGNITIC |
| | St - STIFF | T - TAN | Gv - GRAVELLY, GRAVEL | Ch - CALICHE |
| | VSt - VERY STIFF | R - RED | Ls - LIMESTONE | Org - ORGANIC |
| | H - HARD | Y - YELLOW | | |

Br - BROWN, Bk - BLACK, Bl - BLUE, Gr - GREEN

Sis - SILTSTONE, Ss - SANDSTONE, Lig - LIGNITE, Sh - SHALE

SAND ADJECTIVES: F - FINE, M - MEDIUM, Co - COARSE

Lam - LAMINATED, Sls - SLICKENSIDED, Sl - SLIGHTLY, Sm(s) - SEAM(S), Fe - FERROUS

SOIL DESCRIPTION — TOP SOIL THICKNESS _____ — SUR. ELEV

| TEST ASSIGNMENT | SAMPLE NO. | PEN. RDG. | DEPTH, FT. | SAMPLES | CONSISTENCY OR CONDITION | COLOR | MINOR MATERIAL OR ADJECTIVE | PREDOMINANT MATERIAL | CHARACTERISTICS OR MODIFICATIONS | BLOWS PER FT. | LIQUID LIMIT | PLASTIC LIMIT | MOISTURE CONTENT, % | SHEAR STRENGTH, TSF (PEN - SHEAR) | UNIT DRY WT. LB./CU. FT. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | FM | DG | SA | CL | (CL) | | | | | | |
| | J-12 | 0.75 | 55 | | FM | DG | | CL | w/SHELL FRAGMENTS | | | | | | |
| | J-13 | 0.75 | 60 | | | | | | (CH) | | | | | | |
| | J-14 | 2.5 | 65 | | ST | BLG+ RBR | Si | CL | w/FERROUS NODULES | | | | | | |
| ? | J-14 | 2.5 | 70 | | | | | | (CH) | | | | | | |
| | | | | | FM | LG+T | Sa | CL | | | | | | | |
| | J-15 | 1.25 | 75 | | | | | | (CL) | | | | | | |
| | J-16 | 1.5 | 80 | | FM | DG | Si | CL | | | | | | | |
| | J-17 | 1.0 | 85 | | | | | | | | | | | | |
| | J-18 | 1.0 | 90 | | | | | | (CH) | | | | | | |
| | | | 95 | | | | | | | | | | | | |
| | | | 100 | | | | | | | | | | | | |

SHEAR STRENGTH, TSF: PEN - SHEAR: 0.25 - .07 VSO; 0.50 - .15 SO; 0.75 - .23 SO; 1.00 - .31 FM; 1.25 - .39 FM; 1.50 - .46 FM; 1.75 - .56 ST; 2.00 - .62 ST; 2.25 - .69 ST; 2.50 - .78 ST; 2.75 - .85 ST; 3.00 - .93 ST; 3.25 - 1.01 VST; 3.50 - 1.08 VST; 3.75 - 1.16 VST; 4.00 - 1.24 VST; 4.25 - 1.32 VST; 4.5 - 1.40 VST; 4.5+ - 1.5 H; 0.5 1.0 1.5

COMPLETION DEPTH: 90'
DATE: 2-22-85

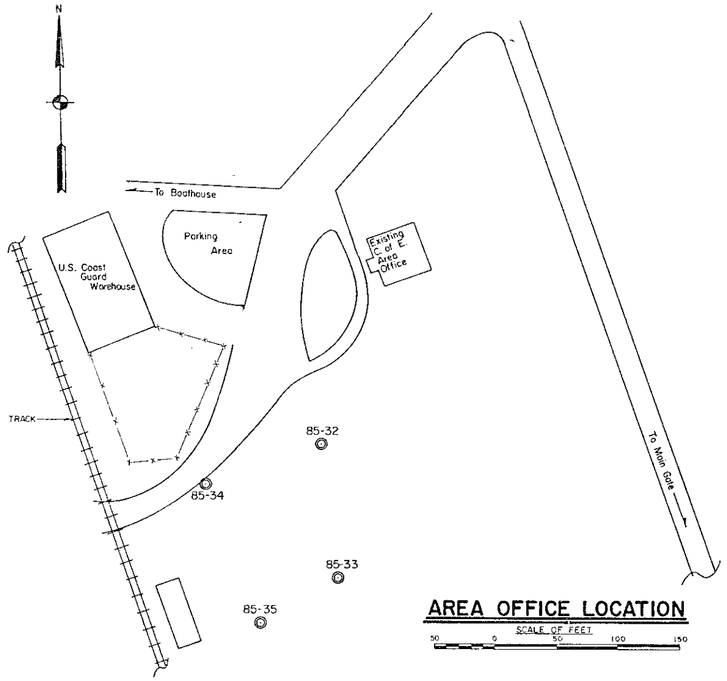
DEPTH TO WATER: 3.5'
DATE: 2-22-85

JOB NO. 55016

BORING NO. 85-33

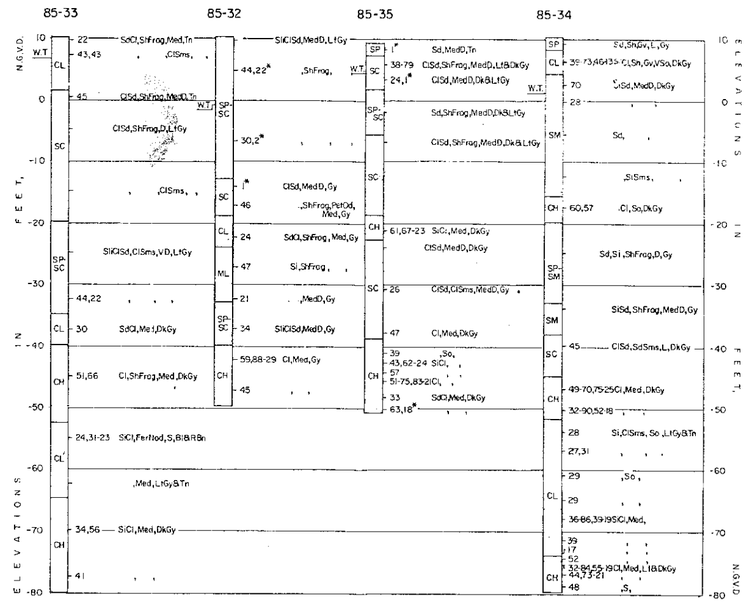
CREW: R. HACKER; M.A. SMITH; F. SMITH
DRILLER GEOTECH HELPER

PLATE

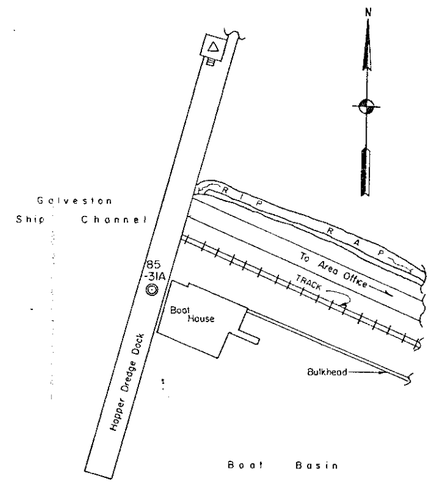



## AREA OFFICE LOCATION

SCALE OF FEET
50 0 50 100 150

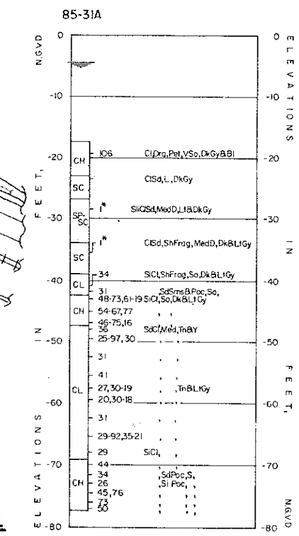



## LOGS OF BORINGS

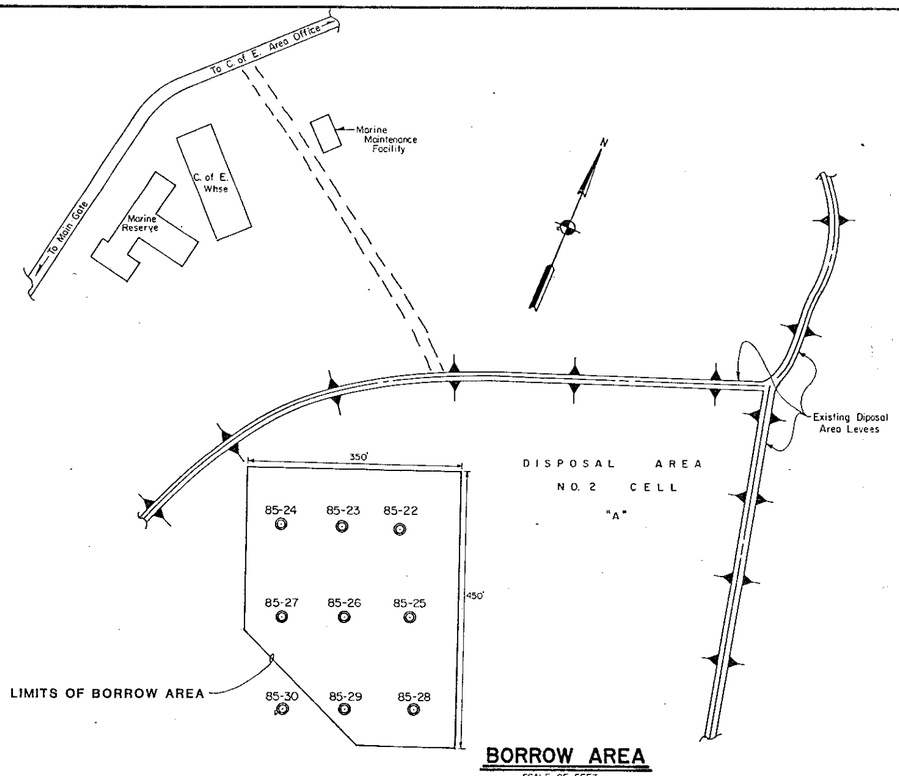



## BOAT HOUSE LOCATION

SCALE OF FEET
50 0 50 100 150

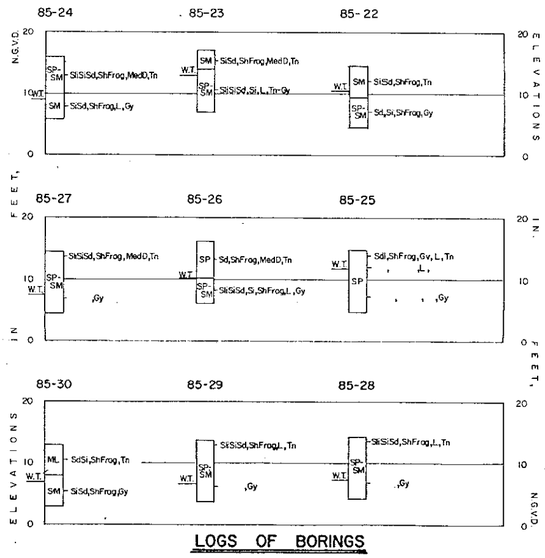



## LOG OF BORING




## BORROW AREA

SCALE OF FEET
100 0 100 200




## LOGS OF BORINGS

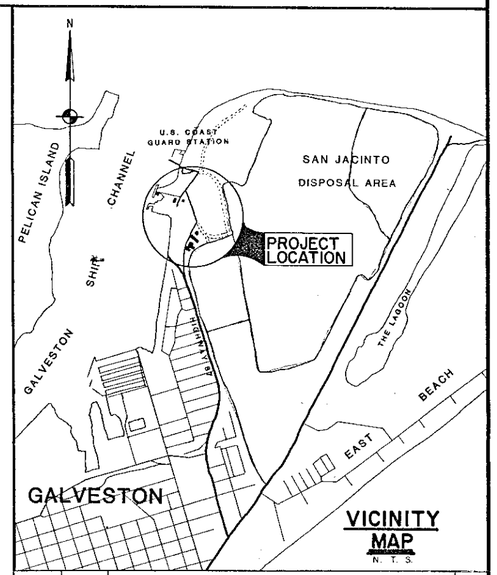
### LABORATORY CLASSIFICATION

SP Poorly Graded Sands Or Gravelly Sands, Little Or No Fines.
SC Clayey Sands, Sand-Clay Mixtures.
ML Inorganic Silts And Very Fine Sands, With Slight Plasticity.
CL Inorganic Clays Of Low To Medium Plasticity, Lean Clays.
CH Inorganic Clays Of High Plasticity, Fat Clays.
SM Silty Sands, Sand-Silt Mixtures

NOTES:
1. SOILS HAVE BEEN CLASSIFIED IN ACCORDANCE WITH MILITARY STANDARD 619B "UNIFIED SOIL CLASSIFICATION SYSTEM FOR ROADS, AIRFIELDS, EMBANKMENTS AND FOUNDATIONS." CONSISTENCY OF SOILS SUCH AS SOFT, MEDIUM, HARD, LOOSE, DENSE, ETC., ARE RELATIVE TERMS BASED ON ESTIMATED UNDISTURBED SHEAR STRENGTH OF THE MATERIAL AS DETERMINED BY VISUAL CLASSIFICATION, POCKET PENETROMETER TESTS AND PENETRATION RESISTANCE DURING SAMPLING.
2. FIGURE TO THE RIGHT OF BORING LOGS ARE WATER CONTENTS IN PERCENT OF THE DRY WEIGHT, DRY DENSITY, LIQUID LIMIT, PLASTIC LIMIT, AND BAR LINEAR SHRINKAGE. (MC-UDW),(LL-PL),(B.L.S)*

### VISUAL CLASSIFICATION

| | | | | | |
|---|---|---|---|---|---|
| Bl | Black | Gv | Gravel or Gravelly | S | Stiff |
| Bn | Brown or Brownish | | | Sd | Sand or Sandy |
| | | L | Loose | Sh | Shell or Shelly |
| Cl | Clay or Clayey | Lt | Light | Si | Silt or Silty |
| | | | | Sm | Seam or Seams |
| D | Dense | Med | Medium | Sp | Soft |
| Dk | Dark | | | | |
| | | Nod | Nodules | Tn | Tan |
| Frag | Fragments | Od | Odor | | |
| Fer | Ferrous | Poc | Pocket or Pockets | V | Very |
| | | Pet | Petrochemical | W.T. | Water Table |
| | | R | Red | Y | Yellow or Yellowish |




## VICINITY MAP

N. T. S.

| REVISION | DATE | BY |
|---|---|---|
| | | |

OFFICE OF THE DISTRICT ENGINEER
U. S. ARMY ENGINEER DISTRICT, GALVESTON
CORPS OF ENGINEERS
GALVESTON, TEXAS

DRAWN BY:
TRACED BY:
CHECKED BY:
SUBMITTED BY:
CHIEF
APPROVED:
CHIEF DESIGN BRANCH

FT. POINT RESERVATION
GALVESTON, TEXAS

AREA OFFICE, BOATHOUSE AND BORROW AREA

# BORING LOCATIONS AND LOGS

APPROVED:
CHIEF, ENGINEERING DIVISION
DATE:

SCALE:
DRAWING NUMBER
SHEET
FILE NO.

PLATE 1