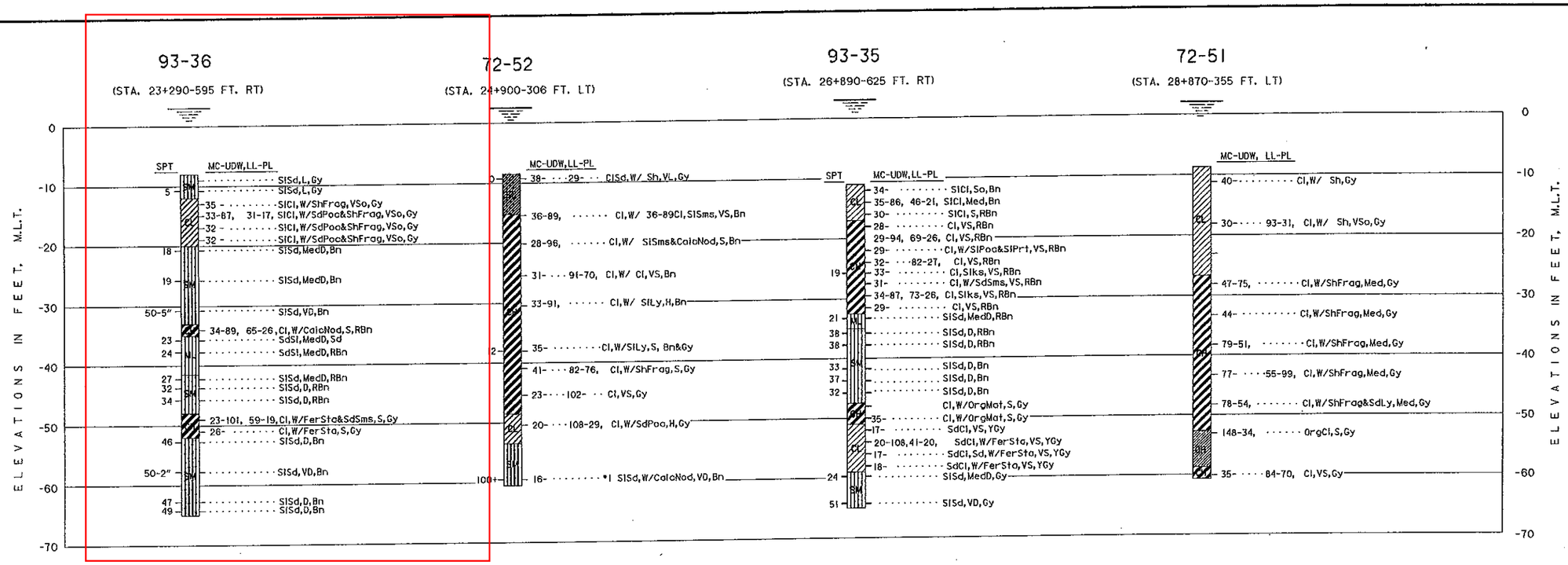


## NOTES;

1. SOILS HAVE BEEN CLASSIFIED IN ACCORDANCE WITH ASTM 2487-93 "CLASSIFICATION OF SOILS FOR ENGINEERING PURPOSES (UNIFIED SOILS CLASSIFICATION SYSTEM)". 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. FIGURES 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.)* FIGURES TO THE LEFT OF BORING LOGS ARE BLOWS PER FOOT OF PENETRATION FROM STANDARD PENETRATION TESTING.
3. BORINGS WERE DRILLED USING WET ROTARY DRILLING TECHNIQUES AND UNDISTURBED SAMPLES WERE RECOVERED WITH A 3-INCH DIAMETER THIN WALL SAMPLER WHERE COHESIVE MATERIALS WERE ENCOUNTERED.WHERE COHESIONLESS MATERIALS WERE ENCOUNTERED, DISTURBED SAMPLES WERE TAKEN WITH A SPLIT SPOON SAMPLER DURING PERFORMANCE OF STANDARD PENETRATION TESTING.

## VISUAL CLASSIFICATIONS

Bl Black
Blk Blockey
Bn Brown
Calc Calcereous
Cem Cement(ed)
Cl Clay(ey)
D Dense
D.C. Driller's Classification
Dec Decay(ed)
Dk Dark
Fer Ferrous
Frag Fragment(s)
Gy Gray(ish)
Hdbn Hydrocarbon
H Hard
L Loose
Lt Light
Ly Layer(s)
Mat Material
Med Medium
Mu Muck
Nod Nodules
NO TEST No test made
Odr Odor
Ol Olive
Org Organic
Poc Pocket(s)
Prt Parting
Ru Rust
R Red
S Stiff
Sd Sand(y)
Sh Shell(y)
Sl Silt(y)
Slks Slicken Sides
Sms Seams
Str Structure
So Soft
St Stones
Sta Stains
Tn Tan(nish)
Tr Trace(s)
V Very
Veg Vegetation
W/ With
WASHED Washed
W.O.H. Weight of hammer
W.O.P. Weight Of Pipe
Wd Wood(en)
Y Yellow(ish)

## LABORATORY CLASSIFICATION

CL INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, LEAN CLAYS.

CH INORGANIC CLAYS OF HIGH PLASTICITY, FAT CLAYS.

ML INORGANIC SILTS AND VERY FINE SANDS, WITH SLIGHT PLASTICITY.

OH ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY, ORGANIC SILTS

SC CLAYEY SANDS, SAND-CLAY MIXTURES.

SM SILTY SANDS, SAND-SILT MIXTURES.

SP POORLY GRADED SANDS OR GRAVELLY SANDS, LITTLE OR NO FINES.

INVITATION NO. W912HY-04-B-0014

US Army Corps of Engineers
Galveston District

| Rev. | Description | Date | By |
|---|---|---|---|

Drawn by RTA
Designed by RTA
Checked by MEM
Submitted by MAR, E. MAZOUN, P.E. Architect - Engineer
Approved by Chief, Engineering and Construction Division
Date MAY 2004
Scale: AS SHOWN
Approval Recommended: Chief, Engineering Branch
Rev. X

URS
URS GROUP, INC.
HOUSTON, TEXAS

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

PREPARED UNDER THE DIRECTION OF
LEONARD D. WATERWORTH, Col., C.E.,
DISTRICT ENGINEER

HOUSTON-GALVESTON NAVIGATION CHANNELS, TEXAS
(45-FOOT PROJECT)
UPPER BAY AND BARGE LANES
PIPELINE DREDGING

LOGS OF BORINGS
STA. 23+290 TO STA. 28+870

Drawing No.:
F-3
Sheet 48 of 55
File No. HSC 401-497

...\Hsc\401-497\URS\F03.dgn 5/5/2004 9:44:03 AM