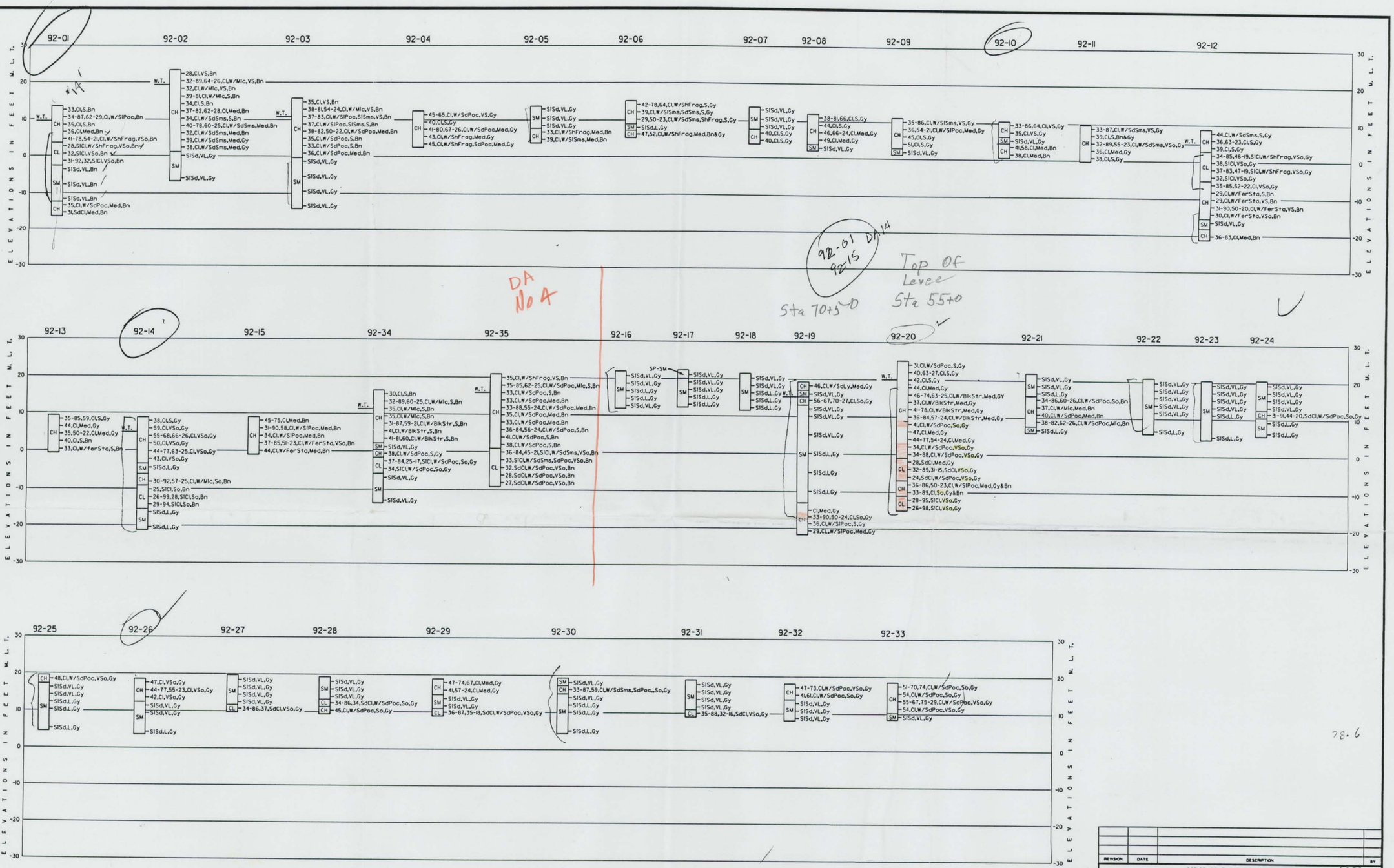


NOTE: SEE DRAWING NUMBER F-6 FOR SOILS NOTES .

REVISION	DATE	DESCRIPTION	BY

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

DRAWN BY: P.B.S.
TRACED BY:
CHECKED BY: J.T.F.
SUBMITTED BY: David P. Campbell, CHIEF, SOILS DESIGN SECTION
APPROVED: David P. Campbell, CHIEF, GEOTECH. & SURVEYS BRANCH
APPROVED: for CHIEF ENGINEERING DIVISION
DATE: MAY 1992

BRAZOS ISLAND HARBOR, TEXAS
BROWNSVILLE CHANNEL
DREDGING INSHORE REACH No. 1
DISPOSAL AREAS Nos. 2 & 4
BORING LOGS

Prepared under the direction of
Brink P. Miller, Col., C.E.,
District Engineer

SCALE: AS SHOWN | SPEC. DATE:
DRAWING NUMBER: F-7
SHEET 14 OF 17 FILE NO. RIO 901-240

78.6

U.S. ARMY CORPS OF ENGINEERS

BORING NO. 92-24 DATE: BEGIN 3-18-92 PAGE 1 / 1
JOB NO. 146535 COMPLETE 3-18-92 Thin Walled Tube
PROJECT Brownsville Disp. Area #2 ☑ 3" ☐ 6"
LOCATION " Ship Channel
ELEVATION OF HOLE
MANUFACTURER'S DESIGNATION OF DRILL RIG ARDCO-C-1000
GROUNDWATER: DEPTH Dry ft., ELEV. ____ ft., at end of Drilling
WEATHER Cloudy - Warm - Showers
DRILLER D. Mitchell LOGGER T. Berg

DEPTH, FEET	SAMPLE	SAMPLE NO.	PEN./TORVANE SPT.-BLOW COUNT	COLOR	MATERIAL TYPE	CONSISTENCY	SECONDARY CONSTITUENTS	STRUCTURAL FEATURES AND COMMENTS
0	X	1	1-12"/1	Tan	Sand	Very Loose		Sm at Surface
	X	2	1/1/1	Tan & Gray	"	"		
5	X	3	1/1/2	Tan	"	"		
	X	4	1/1/2	Tan	"	"	w/cl. Balls	
		5	.25	Gray	Clay	Soft	Sand	Sm Cl. at 8'
10	X	6	1/2/3	Gray	Sand	Loose		Sm at 10'
15	X	7	1/2/3	Tan	Sand	Loose	~	w/Shell Frag

B. Hand of 92-24 15'

20
25
30
35

Project : Disposal Areas Nos.2 and 4 for Brownsville Ship Channel
Brownsville, Texas
Contract No. DACW64-92-D-0001 Delivery order No. 0008

SUMMARY OF LABORATORY TEST RESULTS

Boring No. 92-24

El. 20.5

S #	Depth (ft)	P P (tsf)	SPT Blows per Foot	Visual Classification	U S C	M c (%)	Dry Unit Wt (pcf)	Wet Unit Wt (pcf)	LL (%)	P L (%)	Mechanical Analysis % Passing					Torvane Shear Strength (tsf)	q u (tsf)
											#4	#10	#40	#100	#200		
1	0.5-2		1-12"/1	Gray,Sand,Very loose,Silty	S M												
2	2.5-4		2	Gray,Sand,Very loose,Silty	S M						100.0	100.0	99.7	94.6	41.0		
3	4.5-6		3	Gray,Sand,Very loose,Silty	S M												
4	6.5-8		3	Gray,Sand,Very loose,Silty	S M												
5	8-10	0.25		Gray,Clay,soft,Sandy,w/sand pockets	C L	30.5	90.9	118.6	44	20	100.0	100.0	99.7	97.5	76.1	0.12	0.14
6	10.5-12		5	Gray,Sand,Loose,Silty	S M												
7	13.5-15		5	Gray,Sand,Loose,Silty	S M												

S # : Sample Number, P P : Pocket Penetrometer Reading, U S C : Unified Soil Classification, M c : Moisture Content
q u : Unconfined Compressive Strength, W O H : Weight of hammer, W O P : Weight of pipe

Geotest Engineering, Inc.

JOB NO. 14G538 DATE 4/9/92

PROJECT Disposal Areas Nos.2 and 4 for Brownsvill Ship Channel,Brown

BORING NO. 92-24 SAMPLE NO. 5 DEPTH 8-10 ft

SPECIMEN NO. 1

CLASSIFICATION
Gray,Clay,Soft,Sandy,w/sand pockets

Tare No.	P10	Height	5.595 in.
Tare plus Wet Specimen	449.30 gm	Average Diameter	2.830 in.
Tare plus Dry Specimen	354.30 gm	Initial Area	6.290 sq in.
Water Weight	95.00 gm	Volume	35.194 cu in.
Tare Weight	42.64 gm	Volume of Solids	cu in.
Wet Specimen	1096.07 gm	Void Ratio	
Dry Specimen	840.02 gm	Saturation	%
Water Content	30.48 %	Dry Density	90.9 lb/cu ft

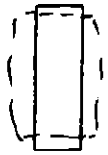
Specific Gravity of Solids
LL = 44 PL = 20 PI = 24

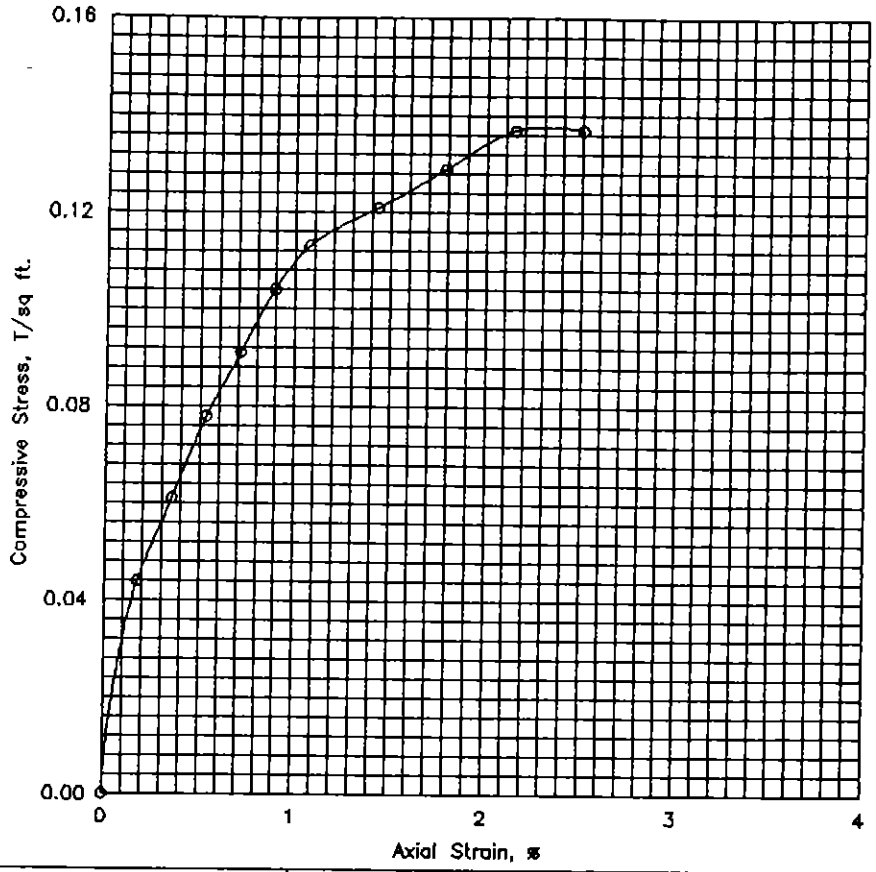
Proving Ring No. 10170
Proving Ring Constant, K = .766 lbs/div.

Elapsed Time min.	Dial Reading 0.001"	Cumulative Change in.	Proving Ring Dial Reading	Axial Load lb	Axial Strain	Area Corr. sq in.	Compr. Stress tsf
.0	0.	.000	.0	.0	.000	6.29	.000
.2	10.	.010	5.0	3.8	.002	6.30	.044
.3	20.	.020	7.0	5.4	.004	6.31	.061
.5	30.	.030	9.0	6.9	.005	6.32	.078
.7	40.	.040	10.5	8.0	.007	6.34	.091
.9	50.	.050	12.0	9.2	.009	6.35	.104
1.0	60.	.060	13.0	10.0	.011	6.36	.113
1.3	80.	.080	14.0	10.7	.014	6.38	.121
1.6	100.	.100	15.0	11.5	.018	6.40	.129
1.9	120.	.120	16.0	12.3	.021	6.43	.137
2.2	140.	.140	16.0	12.3	.025	6.45	.137

Job No. 14G538

Failure Sketches





☐ Controlled stress
☒ Controlled strain

Test No.			1			
Type of Specimen			Undisturbed			
Initial	Water content	w_0	30.5 %	%	%	%
	Void ratio	e_0				
	Saturation	S_0	%	%	%	%
	Dry density, lb/cu ft	γ_d	90.9			
Time to failure, min		t_f	1.90			
Unconfined compressive strength, T/sq ft		q_u	.14			
Undrained shear strength, T/sq ft		S_u	.07			
Sensitivity ratio		S_t				
Initial specimen diameter, in.		D_0	2.830			
Initial specimen height, in.		H_0	5.595			

Classification Gray,Clay,Soft,Sandy,w/sand pockets

LL	PL	PI	G_s
44	20	24	

Remarks

Project Disposal Areas Nos. 2 and 4 for Brownsville

Area Ship Channel, Brownsville, Texas

Boring No. 92-24 | Sample No. 5

Depth El 8-10 ft | Date 4/9/92

UNCONFINED COMPRESSION TEST REPORT

ENG FORM 3659
1 JUN 65

PLATE XI-2

DATE 4/28/92 INITIALS

SUMMARY OF QUESTIONABLE
ERRONEOUS OR MISSING DATA
FOR
CONTRACT NO. DACW64-92-D-0001

PROJECT: LABORATORY TESTING OF SOIL SAMPLES, DISPOSAL AREA NOS. 2 & 4 BROWNSVILLE SHIP CHANNEL, DELIVERY ORDER 0008

BORING NO.	SAMPLE NO.	COMMENTS ON TEST RESULTS
92-08	3	Pocket penetrometer results (0.75) indicate soil is medium torvane results (.75 doubled) indicates stiff.
92-12	1	Torvane performed not ordered
	2, 3	Pocket penetrometer results (1.00) indicate soil is stiff torvane results (.45 doubled) indicate medium
	14	Unit dry weight performed, not ordered
92-20	5 & 8	Pocket penetrometer results (0.50) indicate soil is medium torvane results (.25 doubled) indicate medium, unconfined results indicate soft.
	7	Pocket penetrometer results (0.50) indicate soil is medium torvane results (.25 doubled) indicate medium, unconfined results indicate very soft.
	18-20	Unit dry weight performed, not ordered
92-21	4	Pocket penetrometer results (.25) indicate soil is soft, unconfined results (.21) torvane results (.12 doubled) indicate very soft
92-24	5	Pocket penetrometer results (.25) indicate soil is soft, torvane results (0.24), unconfined results (.14) indicates very soft.