Project : BROWNSVILLE SHIP CHANNEL, TEXAS

SUMMARY OF LABORATORY TEST RESULTS

Boring No. 89-58

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 #4	#10	#40	#100	#200	Torvane Shear Strength (tsf)	q u (tsf)
1	0 - 2	0.25		Gray and tan, SANDY CLAY, soft	CL	29.9											
2	2 - 4	1.50		Gray and tan, SANDY CLAY, stiff	CL	23.2											
3	4 - 6	0.75		Gray and tan, SILTY SAND, slightly clayey	S M	20.4	107.3	129.2	NP	NP	100.0	100.0	100.0	64.2	39.4	0.40	0.60
4	6 - 8	1.50		Gray and tan, CLAYEY SAND	SC	17.9											
5	8 - 10	3.00		Gray and tan, SANDY CLAY, very stiff	CL	19.9			30	16							
6	10 - 11.5		28	Gray and tan, SANDY CLAY, very stiff	CL	17.8											
7	15 - 16.5		39	Gray and tan, SANDY CLAY, hard, with calcareous nodules	CL	19.8											
8	17 - 18.5		50	Gray and tan, SANDY CLAY, hard, with calcareous nodules	CL	23.7											
9	19 - 20.5		50	Gray and tan, CLAY, hard	CH	23.0			51	27							
10	21- 22.5		50/8"	Gray and tan, CLAY, hard	CH	17.9											
11	25 - 26.5		37	Gray and tan, CLAY, hard	CH	18.0											
12	27 - 28.5		49	Gray and tan, CLAY, hard	CH	21.3											
13	29 - 30.5		38	Gray and tan, LEAN CLAY, hard	CL	20.3			45	19							
14	31 - 32.5		42	Gray and tan, LEAN CLAY, hard	CL	18.2											
15	33 - 34.5		47	Gray and tan, LEAN CLAY, hard	CL	17.5											
16	35 - 36.5		45	Gray and tan, LEAN CLAY, hard	CL	19.2											
17	37 - 38.5		25	Gray and tan, SANDY CLAY, very stiff	CL	20.1			29	12							
18	39 - 40.5		59	Gray and tan, SANDY CLAY, very hard, with calcareous nodules	CL	20.1											

S # : Sample Number, P P : Pocket Penetrometer Reading, U S C : Unified Soil Classification, M c : Moisture Content, q u : Unconfined Compressive Strength

Project : BROWNSVILLE SHIP CHANNEL, TEXAS

SUMMARY OF LABORATORY TEST RESULTS

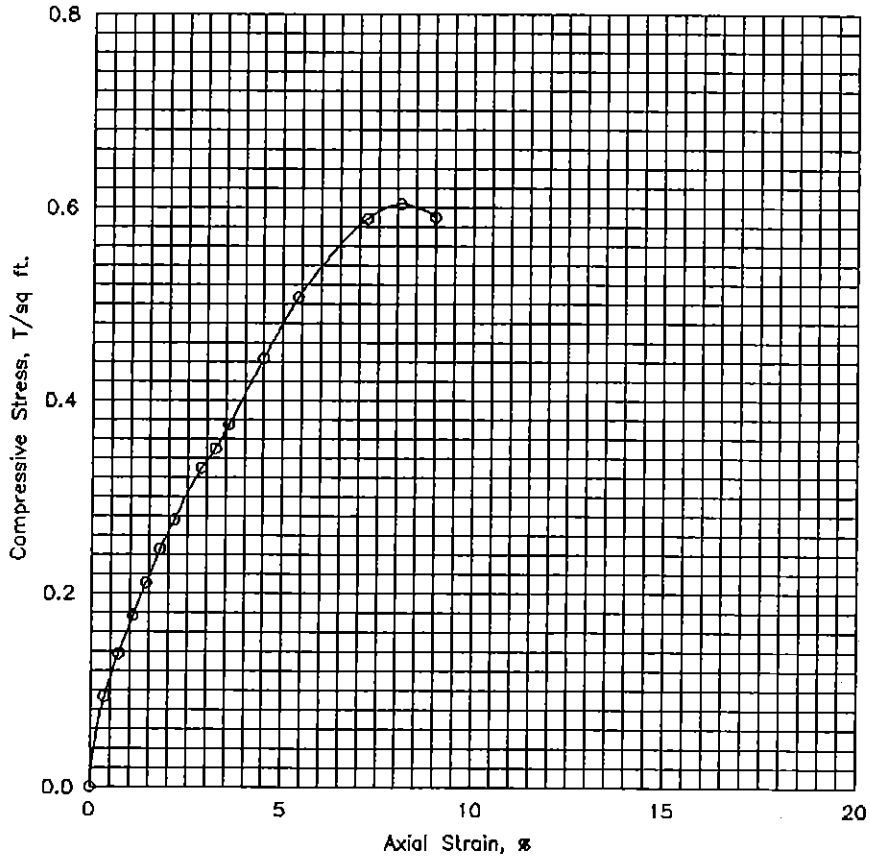
Boring No. 89-58

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)	L L (%)	P L (%)	Mechanical Analysis % Passing #4	#10	#40	#100	#200	Torvane Shear Strength (tsf)	q u (tsf)
19	41 - 42.5		35	Gray and tan, SILTY SAND, dense	S M												
20	44 - 45.5		55	Gray and tan, SILTY SAND, very dense	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

Job No. 14G403

Failure Sketches



☐ Controlled stress
☒ Controlled strain

Test No.			1			
Type of Specimen			Undisturbed			
Initial	Water content	w_0	20.4 %	%	%	%
	Void ratio	e_0				
	Saturation	S_0	%	%	%	%
	Dry density, lb/cu ft	γ_d	107.3			
Time to failure, min		t_f	8.55			
Unconfined compressive strength, T/sq ft		q_u	.60			
Undrained shear strength, T/sq ft		S_u	.30			
Sensitivity ratio		S_t				
Initial specimen diameter, in.		D_0	2.810			
Initial specimen height, in.		H_0	5.565			

Classification Gray and Tan, Clayey SAND

LL	NP	PL	NP	PI	NP	G_s

Remarks

Project BROWNSVILLE SHIP CHANNEL, TEXAS

Area Between Port Isabel and Brownsville, Texas

Boring No. 89-58 | Sample No. 3

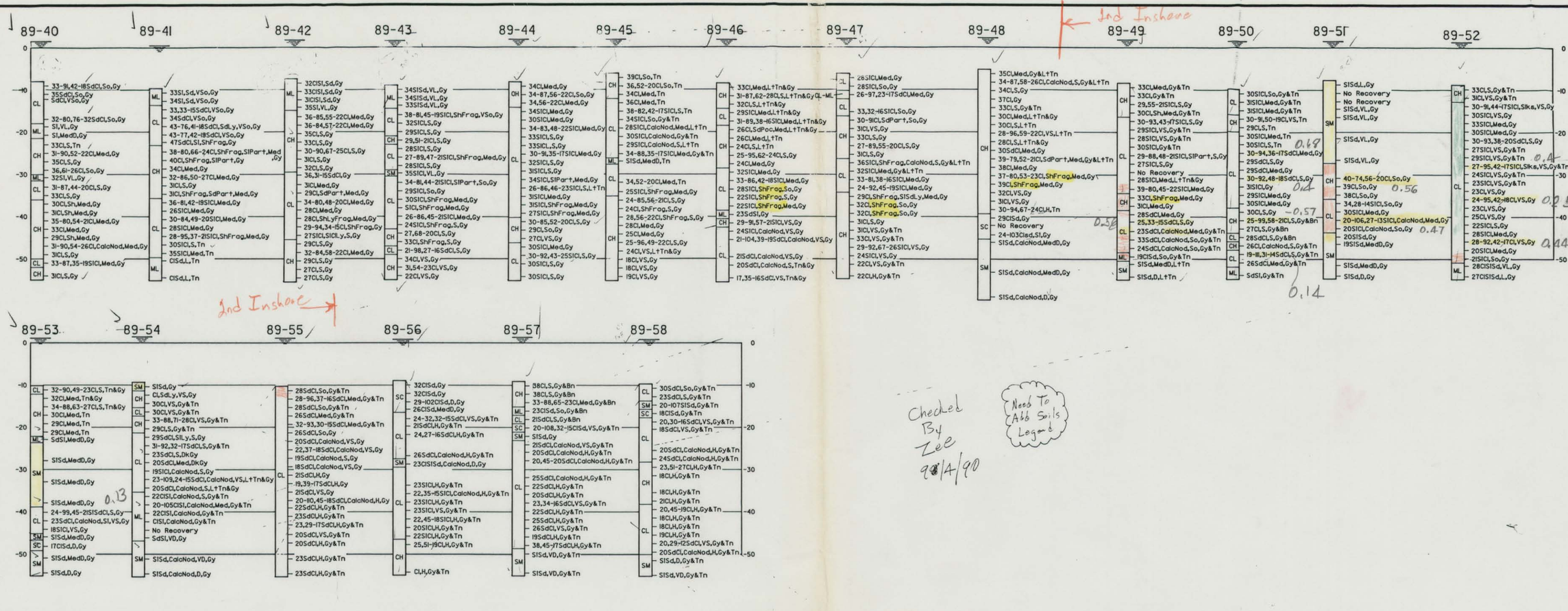
Depth El 4-6 ft | Date 7/2/90

UNCONFINED COMPRESSION TEST REPORT

ENG FORM 1 JUN 65 3659

Geotest Engineering, Inc.

PLATE



REVISION	DATE	DESCRIPTION	BY

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

CADD

DRAWN BY: X
TRACED BY: X
CHECKED BY: X
SUBMITTED BY:
CHIEF, SOILS DESIGN SECTION
APPROVED:
CHIEF, GEOTECH. & SURVEY BRANCH

BIH
Brownsville Channel Borings

APPROVED:
CHIEF ENGINEERING DIVISION
DATE:

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

SCALE: AS SHOWN
SPEC. DATE:
DRAWING NUMBER X
SHEET X OF X
FILE NO. X

DESIGN FILE: ZF1:(28,2573)RONALDON1
CREATED BY: GRANDPA
ON: 30-AUG-1990
AT: 08:41