BKM

U.S. ARMY CORPS OF ENGINEERS
GEOTECHNICAL BORING DATA

PROJECT NAME Victoria Ship Channel

LOG OF BORING NO. 90-35

LOCATION / STATION 85+00

DATE / TIME STARTED 06/14/90 @ 6:00 pm
DATE / TIME COMPLETED " 7:00 "

TIDE ELEVATION +2.00' MLT DATUM

WATER DEPTH 2.50' -1.50

DEPTH FROM WATER SURFACE
TO BOTTOM OF BORING 27.00'

WEATHER Clear & Sunny

DRILL RIG MANUFACTURE
MODEL NO. CF-5

DRILLER Dempsey Gearen
LOGGER Ass't Lazaridis

DRILLER'S / LOGGER'S COMMENTS —

BORING NO. 90-35 DATE: BEGIN 06/14/90 COMPLETE 06/14/90
JOB NO. 146404 LOGGER Avis PAGE 2 / 3
PROJECT Victoria Ship Channel
LOCATION/STATION/ELEVATION: Sta. 85+00 / El. +2.0' MLT

DEPTH: AUGERED ____ WASHED 24.5' CORED ____

GROUNDWATER READINGS

TIME	DEPTH	TIME	DEPTH	TIME	DEPTH
FIRST					

DEPTH, FEET	SAMPLE	SAMPLE NO.	PEN./TORVANE SPT.-BLOW COUNT	CONSISTENCY	COLOR	MINOR	MAJOR	MODIFICATION
0		1	0.25	v/Soft	Gray	Silty	CLAY	-w/shells
		2	1.50	Stiff	"		"	"
5		3	2.75	v/Stiff	"		"	-w/calcareous nodules & shell layer
		4	3.50	"	"		"	"
		5	2.50	"	Gray & Tan		"	-w/calcareous nodules
10		6	2.25	"	Tan		"	-w/calcareous nodules; 9" sample
		7	1.75	Stiff	"		"	-w/calcareous nodules & shell layer
15		8	1.75	"	"		"	-w/calcareous nodules
		9	2.25	v/Stiff	"		"	-w/calcareous nodules; 8.5" sample
		10	0.75	Firm	Gray & Tan	Clayey	SAND	-w/calcareous nodules
20		11	1.25	Stiff	"	v/sandy	CLAY	"
		12	0.75	Firm	Tan	Clayey	SAND	"
25								Bottom of Boring

CONTINUED: ☐ YES ☒ NO

Project : VICTORIA SHIP CHANNEL, TEXAS

SUMMARY OF LABORATORY TEST RESULTS

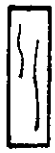
Boring No. 90-35

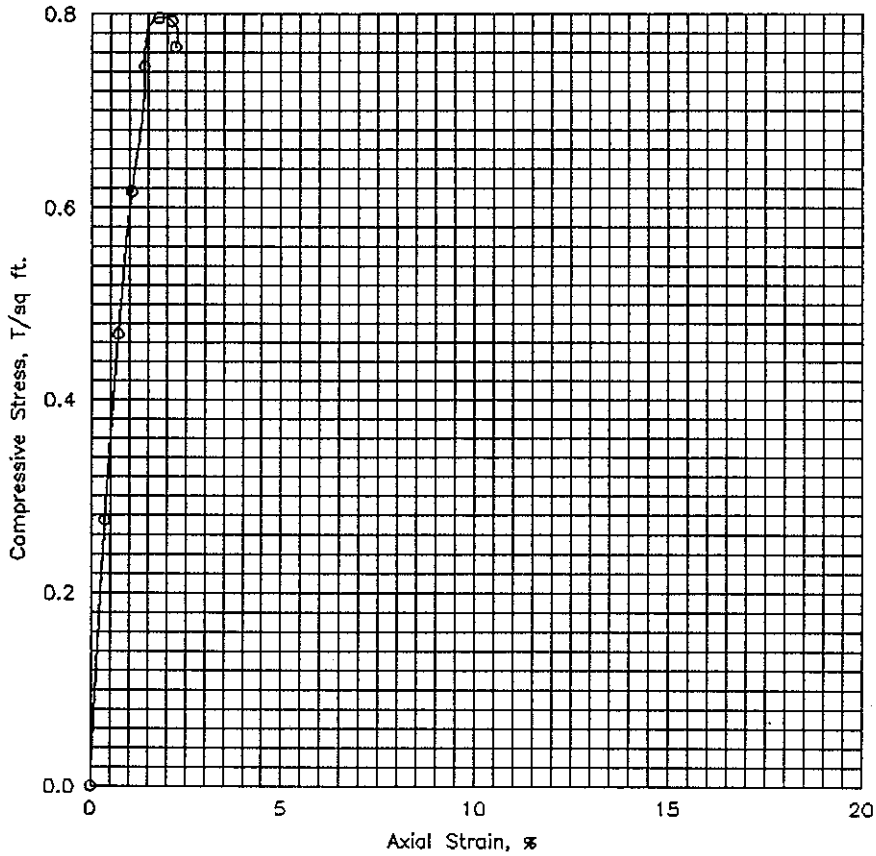
S #	Depth (ft)	P P (tsf)	SPT Blows per Foot	Visual Classification	U S C	M c (%)	Dry Unit Wt (pcf)	Wet Unit Wt (pcf)	L L (%)	P L (%)	Mechanical Analysis % Passing					Torvane Shear Strength (tsf)	q u (tsf)
											#4	#10	#40	#100	#200		
1	0 - 2	0.00		Dark gray, CLAY, very soft, with shell fragments and organic material (odor)	CH	47.7											
2	2 - 4	1.25		Dark gray, CLAY, stiff, with sand, calcareous nodules and shell seams	CH	38.7	81.6	113.2	66		99.7	98.7	97.8	96.8	86.3		
3	4 - 6	1.75		Gray, CLAY, stiff, with calcareous nodules	CL	22.8											
4	6 - 8	3.50		Gray and ligth tan, SILTY CLAY, very stiff, with sand and calcareous nodules	CL	18.0	112.6	132.9	37	18	99.1	97.9	96.1	94.8	81.9	0.60	0.80
5	8 - 10	2.50		Gray and light tan, SILTY CLAY, very stiff, with calcareous nodules	CL	18.3											
6	10 - 12	2.25		Gray and light tan, SILTY CLAY, very stiff, with calcareous nodules	CL	17.5											
7	12 - 14	1.50		Gray, SILTY CLAY, stiff, with sand and calcareous nodules	CL	19.4	110.6	132.1	34	18	99.2	98.9	98.6	97.9	80.7	0.30	0.78
8	14 - 16	1.50		Gray, SILTY CLAY, stiff, with sand and calcareous nodules	CL	22.3											
9	16 - 18		WOP	Gray, CLAYEY SAND, very loose, with calcareous nodules	SC	23.7											
10	18 - 20		WOP	Gray, CLAYEY SAND, very loose, with silt and sand stone	SC						98.9	98.6	98.3	95.4	47.6		
11	20 - 22	0.50		Gray, SANDY CLAY, firm, with silt and sand stone	CL												
12	22.5-24.5	0.75		Gray, SANDY CLAY, firm, with silt and sand stone	CL						98.4	98.3	98.1	97.7	59.4		

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

Job No. 14G404

Failure Sketches





☐ Controlled stress
☒ Controlled strain

Test No.			1			
Type of Specimen			Undisturbed			
Initial	Water content	w_o	18.0 %	%	%	%
	Void ratio	e_o				
	Saturation	S_o	%	%	%	%
	Dry density, lb/cu ft	γ_d	112.6			
Time to failure, min		t_f	1.68			
Unconfined compressive strength, T/sq ft		q_u	.80			
Undrained shear strength, T/sq ft		S_u	.40			
Sensitivity ratio		S_t				
Initial specimen diameter, in.		D_o	2.815			
Initial specimen height, in.		H_o	5.590			

Classification Gray and light tan, Silty CLAY, very stiff, w/sand & calcareous nodules

LL	PL	PI	G_s
37	18	19	

Remarks

Project CHANNEL TO VICTORIA, TEXAS

Area Channel to Victoria in San Antonio Bay, Texas

Boring No. 90-35 | Sample No. 4

Depth El 6-8 ft | Date 7/24/90

UNCONFINED COMPRESSION TEST REPORT

ENG FORM 3659
1 JUN 65

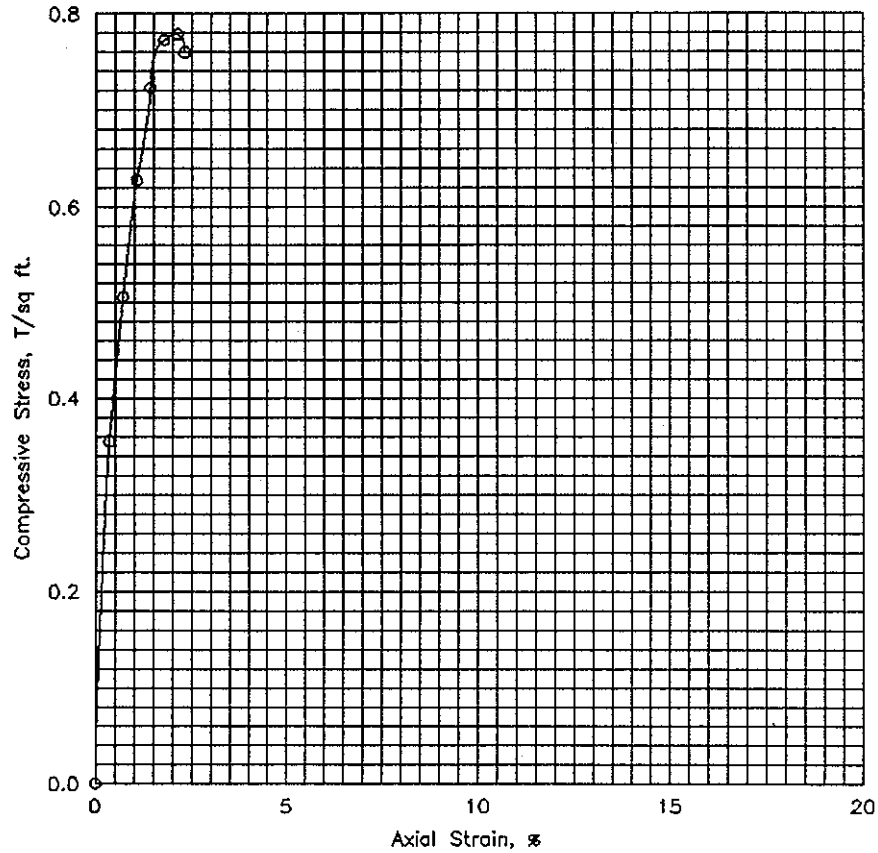
PLATE XI-2

Geotest Engineering, Inc.

PLATE

Job No. 14G404

Failure Sketches



☐ Controlled stress
☒ Controlled strain

Test No.			1			
Type of Specimen			Undisturbed			
Initial	Water content	w_0	19.4 %	%	%	%
	Void ratio	e_0				
	Saturation	S_0	%	%	%	%
	Dry density, lb/cu ft	γ_d	110.6			
Time to failure, min		t_f	2.05			
Unconfined compressive strength, T/sq ft		q_u	.78			
Undrained shear strength, T/sq ft		S_u	.39			
Sensitivity ratio		S_t				
Initial specimen diameter, in.		D_0	2.810			
Initial specimen height, in.		H_0	5.590			

Classification Gray, Silty CLAY, stiff, with sand & calcareous nodules

LL	PL	PI	G_s
34	18	16	

Remarks

Project CHANNEL TO VICTORIA, TEXAS

Area Channel to Victoria in San Antonio Bay, Texas

Boring No.	Sample No.
90-35	7
Depth El 12-14 ft	Date 7/25/90

UNCONFINED COMPRESSION TEST REPORT

ENG FORM 3659
1 JUN 65

PLATE XI-2