U.S. ARMY CORPS OF ENGINEERS

BORING NO. 90-197 DATE: BEGIN 4-23-91 PAGE 1 / 1
JOB NO. 146437 COMPLETE 4-23-91 Thin Walled Tube ☑ 3" ☐ 6"
PROJECT Victoria Channel
LOCATION Sea Drift
ELEVATION OF HOLE
MANUFACTURER'S DESIGNATION OF DRILL RIG Failing-36
GROUNDWATER: DEPTH 5'8" ft., ELEV. ft., at end of Drilling
WEATHER Cloudy, Cool
DRILLER D. Mitchell LOGGER J. Berg

DEPTH, FEET	SAMPLE	SAMPLE NO.	PEN./TORVANE SPT.-BLOW COUNT	COLOR	MATERIAL TYPE	CONSISTENCY	SECONDARY CONSTITUENTS	STRUCTURAL FEATURES AND COMMENTS
0		1	1.25	Gray	Clay	Stiff		w/Roots
		2	4.5+	"	"	hard		
5		3	4.5+	"	"	"		w/Calc.
		4	4.5+	Tan & Gray	"	"		w/Calc
		5	4.5+	"	"	"		w/Calc
10		6	4.5+	"	"	"		w/Calc
		7	3.5	Tan & Gray	Clay	Very Stiff	Sand	Sand at 16½'
15	JAR	8	6/7/9	Tan	Sand	medium Dense		
20	JAR	9	5/9/8	Tan	"	"		
25	JAR	10	4/4/8	Tan & Gray	"	"		Bottom of 90-197 (25')
30								
35								

GEOTEST ENGINEERING, INC.

Project : Disposal Area B, Channel to Victoria near Seadrift, Texas

SUMMARY OF LABORATORY TEST RESULTS

Boring No. 90-197

Contract No. DACW64-91-D-0001 Delivery Order No. 0013

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	2.25		Dark gray,Clay,Very stiff	CH	27.6											
2	2-4	4.5+		Dark gray,Clay,Hard,w/calcareous nodules	CH	25.7			78	28							
3	4-6	4.5+		Gray,Clay,Hard,w/calcareous nodules	CH	31.6											
4	6-8	4.5+		Yellowish brown,Clay,Hard,w/calcareous nodules and ferrous stains	CH	18.1	112.2	132.5	55	24	100.0	99.1	97.6		94.6		5.15
5	8-10	4.25		Yellowish brown,Clay,Hard,w/calcareous nodules	CH	20.0											
6	10-12	2.25		Yellowish brown,Clay,Very stiff,w/calcareous nodules and sand seams	CH	18.2											
7	12-14	2.50		Yellowish brown,Clay,Very stiff,w/calcareous nodules and sand seams	CH	20.9			64	25							
8	14.5-16		16	Tan,Sand,Medium dense,Silty	S M						100.0	100.0	100.0		38.4		
9	18.5-20		15	Tan,Sand,Medium dense,Silty	S M												
10	23.5-25		14	Gray & yellowish brown,Sand,Medium 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, W O H : Weight of hammer, W O P : Weight of pipe

JOB NO. 14G475 DATE 5/27/91

PROJECT DISPOSAL AREA B, CHANNEL TO VICTORIA, NEAR SEADRIFT, TX

BORING NO. 90-197 SAMPLE NO. 4 DEPTH 6-8 ft

SPECIMEN NO. 1

CLASSIFICATION
Yellowish brown, clay, hard, w/ calcareous nodules & ferrous stains

Tare No.	P-14	Height	5.595 in.
Tare plus Wet Specimen	518.15 gm	Average Diameter	2.830 in.
Tare plus Dry Specimen	445.22 gm	Initial Area	6.290 sq in.
Water Weight	72.93 gm	Volume	35.194 cu in.
Tare Weight	42.24 gm	Volume of Solids	cu in.
Wet Specimen	1223.80 gm	Void Ratio	
Dry Specimen	1036.26 gm	Saturation	%
Water Content	18.10 %	Dry Density	112.2 lb/cu ft

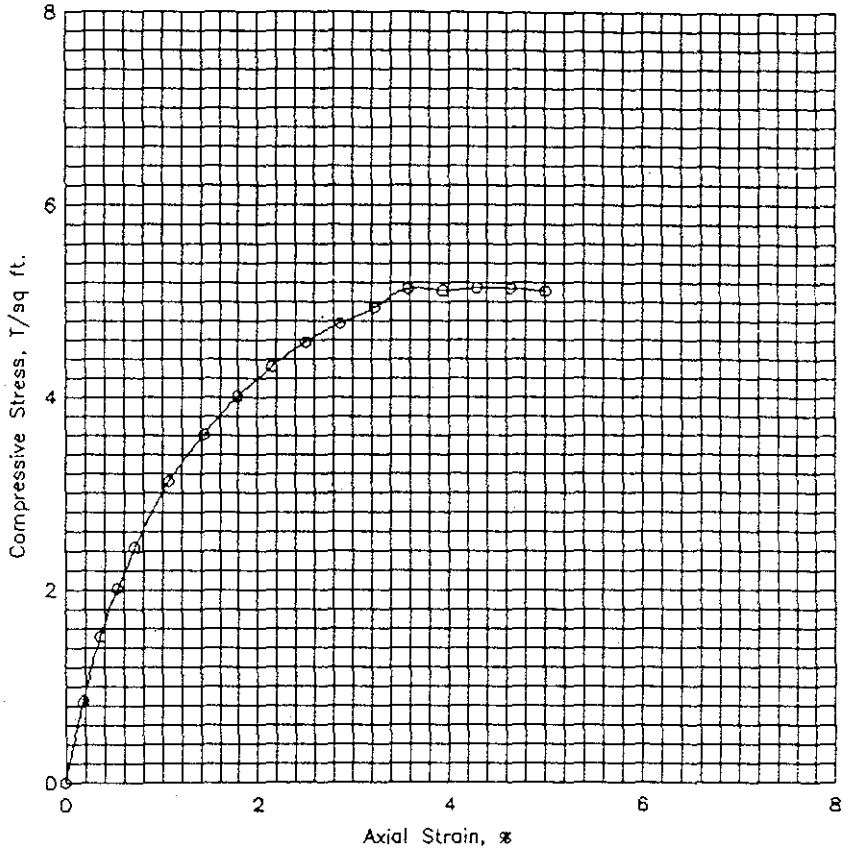
Specific Gravity of Solids
LL = 55 PL = 24 PI = 31

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
.4	10.	.010	97.0	74.3	.002	6.30	.849
.7	20.	.020	174.0	133.3	.004	6.31	1.520
.9	30.	.030	231.0	176.9	.005	6.32	2.015
1.1	40.	.040	280.0	214.5	.007	6.34	2.437
1.6	60.	.060	360.0	275.8	.011	6.36	3.123
2.0	80.	.080	418.0	320.2	.014	6.38	3.613
2.4	100.	.100	466.0	357.0	.018	6.40	4.013
2.8	120.	.120	504.0	386.1	.021	6.43	4.324
3.1	140.	.140	536.0	410.6	.025	6.45	4.582
3.5	160.	.160	561.0	429.7	.029	6.48	4.778
3.8	180.	.180	582.0	445.8	.032	6.50	4.939
4.2	200.	.200	608.0	465.7	.036	6.52	5.140
4.5	220.	.220	608.0	465.7	.039	6.55	5.121
4.8	240.	.240	613.5	469.9	.043	6.57	5.148
5.1	260.	.260	615.0	471.1	.046	6.60	5.142
5.4	280.	.280	614.0	470.3	.050	6.62	5.114

Job No. 14G475

Failure Sketches



☐ Controlled stress
☒ Controlled strain

Test No.			1			
Type of Specimen			Undisturbed			
Initial	Water content	w_o	18.1 %	%	%	%
	Void ratio	e_o				
	Saturation	S_o	%	%	%	%
	Dry density, lb/cu ft	γ_d	112.2			
Time to failure, min		t_f	4.83			
Unconfined compressive strength, T/sq ft		q_u	5.15			
Undrained shear strength, T/sq ft		S_u	2.57			
Sensitivity ratio		S_t				
Initial specimen diameter, in.		D_o	2.830			
Initial specimen height, in.		H_o	5.595			

Classification Yellowish brown, clay, hard, w/ calcareous nodules & ferrous stains

LL	55	PL	24	PI	31	G_s	

Remarks

Project DISPOSAL AREA B, CHANNEL TO VICTORIA

Area Near Seadrift, Texas

Boring No. 90-197 | Sample No. 4

Depth El 6-8 ft | Date 5/27/91

UNCONFINED COMPRESSION TEST REPORT

ENG FORM 3659
1 JUN 65

PLATE XI-2