

U.S. ARMY CORPS OF ENGINEERS

DEPTH, FEET		SAMPLE NO.	PEN./TORVANE	SPT.-BLOW COUNT	COLOR	MATERIAL TYPE	CONSISTENCY	SECONDARY CONSTITUENTS	STRUCTURAL FEATURES AND COMMENTS
BORING NO. <u>90-195</u> DATE: BEGIN <u>4/25/81</u> PAGE <u>1 / 1</u> JOB NO. <u>146437</u> COMPLETE <u>4-25-81</u> Thin Walled Tube PROJECT <u>VICTORIA CHANNEL</u> ☒ 3" ☐ 6" LOCATION <u>Sea Drift</u> ELEVATION OF HOLE _____ MANUFACTURER'S DESIGNATION OF DRILL RIG <u>Fahlg-36</u> GROUNDWATER: DEPTH <u>8'</u> ft., ELEV. _____ ft., at end of Drilling WEATHER <u>Cloudy, Warm</u> DRILLER <u>D. Mitchell</u> LOGGER <u>J. Berg</u>									
JAR	0	X 1	2 2/3		Gray	SAND	Loose		w/roots
JAR	5	X 2	2 2/3		"	"	"		w/roots clay at 6'
		3	4.5+		TAN	clay	hard		
		4	4.5+		"	"	"		w/cake SAND at 10'
	10	X 5	3 3/4		TAN	SAND	Loose		
JAR	15	X 6	4 1/2		"	"	medium DENSE		
		7	3.5		Gray	clay	very stiff		w/cake, clay at 18'
	20	8	4.5+		"	"	HARD		
		9	4.5+		"	"	"		
	25	10	4.5+		"	"	"		w/cake, voids.
									Bottom of 90-195 (26')
	30								
	35								

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

SUMMARY OF LABORATORY TEST RESULTS

Boring No. 90-195

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)	LL (%)	P L (%)	Mechanical Analysis % Passing					Torvane Shear Strength (tsf)	q u (tsf)
											#4	#10	#40	#100	#200		
1	0-1.5		5	Gray,Sand,Loose,Silty,w/roots	S M	13.2					100.0	100.0	100.0		49.1		
2	4.5-6		6	Gray,Sand,Loose,Silty,w/roots	S M	12.8					100.0	100.0	100.0		49.4		
3	6-8	4.50		Yellowish brown,Clay,Hard,Sandy	CL	18.1	111.8	132.0	43	20	100.0	100.0	99.9		73.5		3.20
4	8-10	3.75		Yellowish brown,Clay,Very stiff,Sandy,w/calcareous nodules	CL	18.0											
5	10.5-12		8	Yellowish brown,Sand,Loose,Silty	S M						100.0	100.0	99.9		45.0		
6	13.5-15		12	Yellowish brown,Sand,Medium dense,Silty	S M												
7	18-20	3.00		Yellowish brown&gray,Clay,Very stiff,Sandy,w/calcareous nodules	CL	20.3			42								
8	20-22	3.00		Yellowish brown&gray,Clay,Very stiff,Sandy,w/calcareous nodules	CL	19.6											
9	22-24	2.25		Yellowish brown&gray,Clay,Very stiff,Sandy,w/calcareous nodules	CL	20.0											
10	24-26	4.5+		Yellowish brown&gray,Clay,Hard,Sandy,w/calcareous nodules	CL	15.6											

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 5/29/91

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

RING NO. 90-195

SAMPLE NO. 3

DEPTH 6-8 ft

SPECIMEN NO. 1

CLASSIFICATION

Yellowish brown, clay, hard, sandy

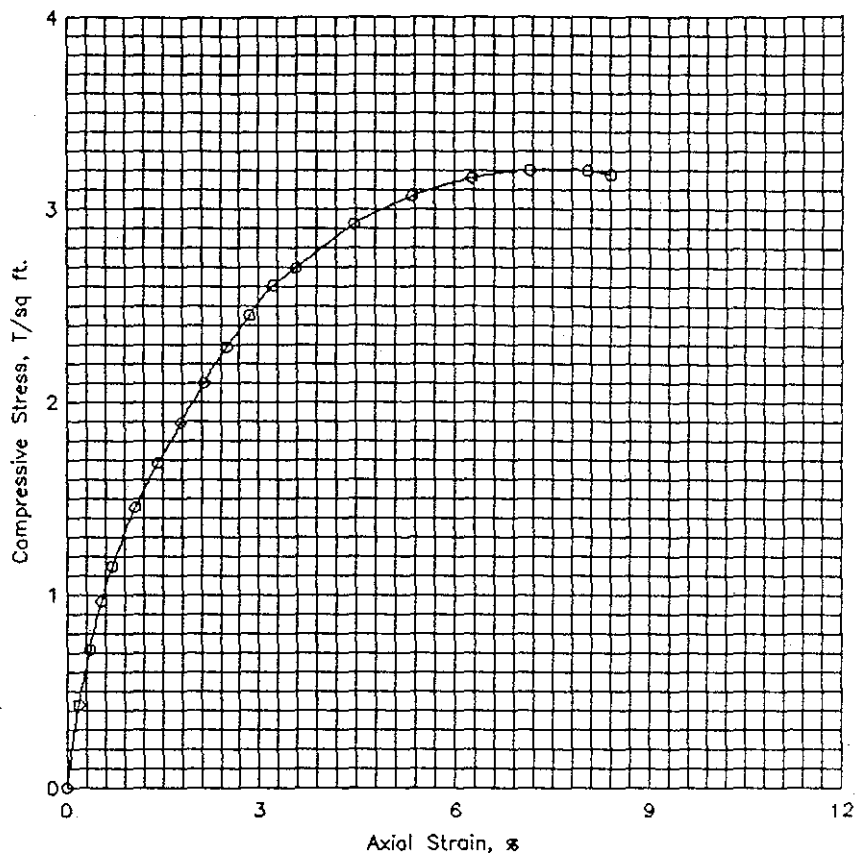
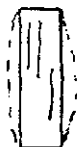
Tare No.	GE-2	Height	5.595 in.
Tare plus Wet Specimen	737.70 gm	Average Diameter	2.830 in.
Tare plus Dry Specimen	631.25 gm	Initial Area	6.290 sq in.
Water Weight	106.45 gm	Volume	35.194 cu in.
Tare Weight	42.48 gm	Volume of Solids	cu in.
Wet Specimen	1219.42 gm	Void Ratio	
Dry Specimen	1032.71 gm	Saturation	%
Water Content	18.08 %	Dry Density	111.8 lb/cu ft
Specific Gravity of Solids			
LL = 43	PL = 20	PI = 23	

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	49.0	37.5	.002	6.30	.429
.6	20.	.020	82.0	62.8	.004	6.31	.716
.8	30.	.030	111.0	85.0	.005	6.32	.968
1.0	40.	.040	132.0	101.1	.007	6.34	1.149
1.4	60.	.060	168.0	128.7	.011	6.36	1.457
1.8	80.	.080	195.0	149.4	.014	6.38	1.685
2.1	100.	.100	220.0	168.5	.018	6.40	1.894
2.5	120.	.120	245.0	187.7	.021	6.43	2.102
2.8	140.	.140	268.0	205.3	.025	6.45	2.291
3.2	160.	.160	288.0	220.6	.029	6.48	2.453
3.6	180.	.180	307.0	235.2	.032	6.50	2.605
3.9	200.	.200	319.0	244.4	.036	6.52	2.697
4.7	250.	.250	349.0	267.3	.045	6.58	2.923
5.5	300.	.300	370.0	283.4	.054	6.65	3.070
6.4	350.	.350	385.0	294.9	.063	6.71	3.164
7.2	400.	.400	393.5	301.4	.071	6.77	3.204
8.0	450.	.450	397.0	304.1	.080	6.84	3.201
8.3	470.	.470	396.0	303.3	.084	6.87	3.180

Failure Sketches



☐ Controlled stress
☒ Controlled strain

Test No.		1			
Type of Specimen		Undisturbed			
Initial	Water content	w_0	18.1 %	%	%
	Void ratio	e_0			
	Saturation	S_0	%	%	%
	Dry density, lb/cu ft	γ_d	111.8		
Time to failure, min		t_f	7.20		
Unconfined compressive strength, T/sq ft		q_u	3.20		
Undrained shear strength, T/sq ft		S_u	1.60		
Sensitivity ratio		S_t			
Initial specimen diameter, in.		D_0	2.830		
Initial specimen height, in.		H_0	5.595		
Classification Yellowish brown, clay, hard, sandy					
LL	43	PL	20	PI	23
				G _s	
Remarks		Project DISPOSAL AREA B, CHANNEL TO VICTORIA			
		Area Near Seadrift, Texas			
		Boring No. 90-195		Sample No. 3	
		Depth 6-8 ft		Date 5/29/91	
		UNCONFINED COMPRESSION TEST REPORT			