

U.S. ARMY CORPS OF ENGINEERS

DEPTH, FEET		SAMPLE NO.	PEN./TORVANE	SPT.-BLOW COUNT	BORING NO. <u>91-286</u>	DATE: BEGIN <u>12/30/91</u>	PAGE <u>11</u>
					JOB NO. <u>531</u>	COMPLETE <u>12/30/91</u>	Thin Walled Tube
					PROJECT <u>CFAW</u>	☒ 3"	☐ 6"
					LOCATION <u>Sargent Beach</u>	Sta <u>171+00</u>	
					ELEVATION OF HOLE		
					MANUFACTURER'S DESIGNATION OF DRILL RIG <u>Bo. Inc. CFD2</u>		
					GROUNDWATER: DEPTH <u>0</u> ft., ELEV. _____	ft., at end of Drilling	
					WEATHER <u>cool cloudy</u>		
					DRILLER <u>D. Coarano</u>	LOGGER <u>D. Coarano</u>	
		COLOR	MATERIAL TYPE	CONSISTENCY	SECONDARY CONSTITUENTS	STRUCTURAL FEATURES AND COMMENTS	
0							
1	1.00	Tan	Clay	Very soft	Silt	w/Roots	
2	1.5	Gray	Clay	stiff	silt	w/Roots	
5	2.50	Gray	Clay	Medium stiff	Silt	w/Roots	
4	0.25	Gray	Clay	soft	Silt	Tan	
10	5.0	Tan	Clay	"	silt	Gray	
	6.0	Tan	Clay	"	silt	Gray	
	7.0	Tan	Clay	stiff	silt	Gray	
15	8.0	Tan	Clay	Very stiff	silt	w/calc nod	
	9.0	Tan	Clay	Very stiff	silt		
	10.0	Tan	Clay	stiff	silt	w/calc nod	
20	11.0	Tan	Clay	Medium stiff	silt		
	12.0	Tan	Clay	stiff	silt		
25	13.0	Tan	Clay	Medium stiff	silt	gray	
						Bottom of 91-286 @ 26	
30							
35							

Project : Gulf Intracoastal Waterway, near Sargent Beach, Texas
Contract No. DACW64-92-D-0001 Delivery No. 0005

SUMMARY OF LABORATORY TEST RESULTS

Boring No. 91-286

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 (%)	PL (%)	Mechanical Analysis % Passing					Torvane Shear Strength (tsf)	q u (tsf)
											#4	#10	#40	#100	#200		
1	0-2	0.50		Brown, Clay, Medium stiff, w/silt pockets and roots	CH	30.2											
2	2-4	0.50		Gray & yellowish gray, Clay, Medium stiff, w/silt pockets and roots	CH	34.4											
3	4-6	0.50		Gray & yellowish gray, Clay, Medium stiff, w/silt pockets and roots	CH	28.9										0.25	
4	6-8	0.50		Gray & yellowish gray, Clay, Medium stiff, w/silt pockets	CH	45.7	76.5	111.5	55	22	100.0	99.8	99.6	99.3	98.0	0.25	0.36
5	8-10	0.50 0.5-0.75		Gray & tan, Clay, Medium stiff, Silty	CH CH	48.4	73		78	25					93		
6	10-12	0.75		Brown & gray, Clay, Medium stiff, w/ferrous stains	CH	44.6										0.35	
7	12-14	1.50		Brown, Clay, Stiff, w/blocky structure, slickensided	CH	34.9											
8	14-16	2.25		Brown, Clay, Very stiff, w/silt seams and blocky structure	CH	35.0			70								
9	16-18	2.50		Brown, Clay, Very stiff, w/silt seams, slickensided	CH	34.0											
10	18-20	0.75		Brown & gray, Clay, Medium stiff, w/ferrous stains	CH	44.5											
11	20-22	0.50		Brown, Clay, Medium stiff, w/ferrous stain and silt pockets	CH	33.7											
12	22-24	0.75		Brown, Clay, Medium stiff, w/silt seams, slickensided	CH	31.5											
13	24-26	0.75		Brown, Clay, Medium stiff, w/silt seams, slickensided	CH	42.4			80								

cc 300

79
cc 410

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. 14G533

DATE 1/29/92

PROJECT Gulf Intracoastal Waterway near Sargen Beach, Texas

BORING NO. 91-286

SAMPLE NO. 4

DEPTH 6-8 ft

SPECIMEN NO. 1

CLASSIFICATION

Gray&yellowish gray,Clay,Medium stiff,w/silt pockets

Tare No.	P-230	Height	5.595 in.
Tare plus Wet Specimen	377.04 gm	Average Diameter	2.830 in.
Tare plus Dry Specimen	272.20 gm	Initial Area	6.290 sq in.
Water Weight	104.84 gm	Volume	35.194 cu in.
Tare Weight	42.66 gm	Volume of Solids	cu in.
Wet Specimen	1029.95 gm	Void Ratio	
Dry Specimen	707.02 gm	Saturation	%
Water Content	45.67 %	Dry Density	76.5 lb/cu ft
Specific Gravity of Solids			
LL = 55	PL = 22	PI = 33	

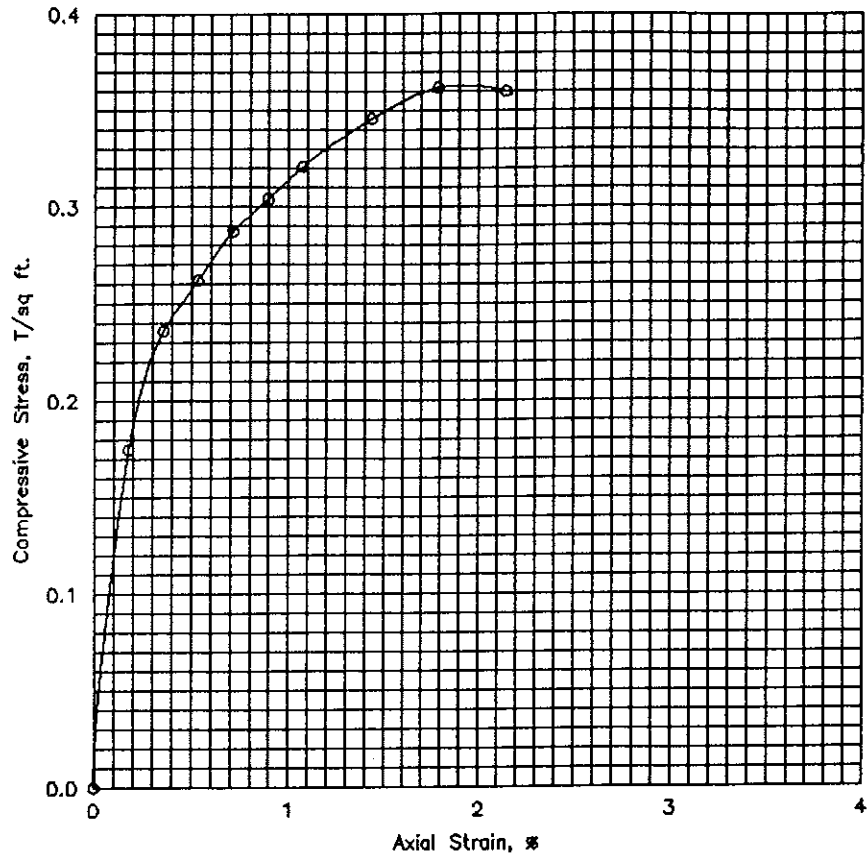
Proving Ring No. 10170

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	20.0	15.3	.002	6.30	.175
.3	20.	.020	27.0	20.7	.004	6.31	.236
.5	30.	.030	30.0	23.0	.005	6.32	.262
.6	40.	.040	33.0	25.3	.007	6.34	.287
.9	50.	.050	35.0	26.8	.009	6.35	.304
1.0	60.	.060	37.0	28.3	.011	6.36	.321
1.4	80.	.080	40.0	30.6	.014	6.38	.346
1.6	100.	.100	42.0	32.2	.018	6.40	.362
1.9	120.	.120	42.0	32.2	.021	6.43	.360

Job No. 146533

Failure Sketches



- ☐ Controlled stress
☒ Controlled strain

Test No.		1			
Type of Specimen		Undisturbed			
Initial	Water content	w_0	45.7 %	%	%
	Void ratio	e_0			
	Saturation	S_0	%	%	%
	Dry density, lb/cu ft	γ_d	76.5		
Time to failure, min		t_f	1.63		
Unconfined compressive strength, T/sq ft		q_u	.36		
Undrained shear strength, T/sq ft		S_u	.18		
Sensitivity ratio		S_t			
Initial specimen diameter, in.		D_0	2.830		
Initial specimen height, in.		H_0	5.595		
Classification Gray&yellowish gray,Clay,Medium stiff,w/silt pockets					
LL	55	PL	22	PI	33
Remarks		G _s			
		Project Gulf Intracoastal Waterway			
		Area Near Sargent Beach, Texas			
		Boring No. 91-286		Sample No. 4	
		Depth 6-8 ft		Date 1/29/92	
		El			
UNCONFINED COMPRESSION TEST REPORT					