

U.S. ARMY CORPS OF ENGINEERS

DEPTH, FEET		SAMPLE NO.		PEN./TORVANE		SPT.-BLOW COUNT		BORING NO. <u>41-217</u> DATE: BEGIN <u>8-6-91</u> PAGE <u>1 1 2</u>				
								JOB NO. <u>144490</u> COMPLETE <u>8-6-91</u> Thin Walled Tube ☒ 3" ☐ 6"				
								PROJECT <u>G. I. W. W.</u>				
								LOCATION <u>SARGENT Beach</u>				
								ELEVATION OF HOLE _____				
								MANUFACTURER'S DESIGNATION OF DRILL RIG <u>Buggy</u>				
								GROUNDWATER: DEPTH <u>3</u> ft., ELEV. _____ ft., at end of Drilling				
								WEATHER <u>P.C. - L.C.</u>				
								DRILLER <u>R. Tankersley</u> LOGGER <u>J. Berg</u>				
								COLOR MATERIAL TYPE CONSISTENCY SECONDARY CONSTITUENTS STRUCTURAL FEATURES AND COMMENTS				
0	1	2.75	TAN	Clay	Very stiff	Sand						
	2	.5	"	"	Medium stiff	"						
5	3	.5	"	"	"	"						
	4	.5	"	"	"	"						
	5	.5	"	"	"	"						
10	6	.5	TAN & GRAY	"	"	"						
	7	.5	GRAY	"	"	"						
15	8	.5	"	"	"	"						
	9	1.0	"	"	stiff	"						
20	10	1.5	GRAY & TAN	"	stiff							
	11	1.75	"	"	"							
	12	2.75	TAN & GRAY	"	very stiff						w/cake nod	
25	13	2.75	"	"	"							
	14	3.5	"	"	"							
	15	3.5	"	"	"						w/cake nod	
30	16	4.54	"	"	hard						w/cake nod	
	17	2.0	"	"	very stiff							
35	18	2.75	"	"	"							

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BORING NO. <u>91-217</u>		DATE: BEGIN <u>8-6-91</u>		PAGE <u>212</u>	
JOB NO. <u>146490</u>		COMPLETE <u>8-6-91</u>		Thin Walled Tube ☒ 3" ☐ 6"	
PROJECT <u>G.I.W.W.</u>					
LOCATION <u>Sargent Bench</u>					
ELEVATION OF HOLE _____					
MANUFACTURER'S DESIGNATION OF DRILL RIG <u>Bugby</u>					
GROUNDWATER: DEPTH <u>3</u> ft., ELEV. _____ ft., at end of Drilling					
WEATHER <u>P.C. - Ho</u>					
DRILLER <u>R. Tankersley</u> LOGGER <u>J. Boag</u>					

DEPTH, FEET	SAMPLE NO.	PEN./TORVANE SPT. - BLOW COUNT	COLOR	MATERIAL TYPE	CONSISTENCY	SECONDARY CONSTITUENTS	STRUCTURAL FEATURES AND COMMENTS
35	19	3.0	Tan	clay	very stiff	silt	w/ calc. Nod
	20	2.75	"	"	"	"	w/ " "
40	21	1.5	"	"	stiff	"	
	22	1.25	"	"	"	"	
45	23	4.5+	"	"	hard	"	
	24	4.0	"	"	very stiff	"	
	25	4.5+	"	"	hard	"	
50	26	4.0	"	"	very stiff	"	
	27	4.0	"	"	"	"	silt layers
55	28	4.5+	"	"	hard	silt	
	29	4.5+	"	"	"	"	
	30	1.0	"	"	stiff	"	w/ silt sms
							Bottom of 91-217 60' "

SUMMARY OF LABORATORY TEST RESULTS

Boring No. 91-217

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	0-2	1.50		Brown, Clay, Stiff, Silty, w/Roots	CL	18.1											
2	2-4	1.00		Brown, Clay, Stiff, Silty	CL	27.6										0.40	
3	4-6	1.50		Brown, Clay, Stiff, Silty, w/Ferrous stains	CL	28.4	93.5	120.1	34	18	100.0	99.7	99.1		88.4	0.30	0.15
4	6-8	0.75		Brown, Clay, Medium stiff	CH	36.2										0.40	
5	8-10	0.25		Dark brown, Clay, Soft	CH	35.8										0.25	
6	10-12	0.25		Dark brown, Clay, Soft	CH	44.9										0.20	
7	12-14	0.25		Gray, Clay, Soft, Silty, w/Shell & shell fragments	CL	37.2	82.8	113.7	46	22	92.1*	91.1*	89.1*		67.3	0.15	0.12
8	14-16	0.25		Gray, Clay, Soft, w/Shell & shell fragments	CH	47.0										0.20	
9	16-18	1.25		Brown, Clay, Stiff	CH	38.6											
10	18-20	1.00		Gray, Clay, Stiff	CH	47.6											
11	20-22	1.50		Gray, Clay, Stiff, w/Calcareous nodules	CH	40.6											
12	22-24	2.00		Brown & gray, Clay, Very stiff, w/Calcareous & ferrous nodules, Slickensided	CH	32.7	90.9	120.6	63	27	98.7	98.0	96.6		94.8		
13	24-26	2.75		Brown, Clay, Very stiff, w/Calcareous nodules	CH	29.9											
14	26-28	2.75		Brown & gray, Clay, Very stiff, w/Calcareous nodules	CH	21.1											
15	28-30	2.50		Brown, Clay, Very stiff, w/Calcareous nodules	CH	20.2											
16	30-32	4.50		Brown, Clay, Hard, w/Calcareous nodules	CH	16.6											
17	32-34	3.25		Brown, Clay, Very stiff, w/Calcareous nodules	CH	18.7											

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

* : Material retained are shell and shell fragments

Project Gulf Intracoastal Waterway near Sargeant Beach, Texas
Contract No. DACW64-91-D-001, Delivery Order No. 0022

SUMMARY OF LABORATORY TEST RESULTS

Boring No. 91-217

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		
18	34-36	4.00		Brown,Clay,Hard,w/Calcareous nodules	CH	21.0											
19	36-38	4.00		Brown,Clay,Hard,w/Calcareous nodules	CH	23.2											
20	38-40	4.50		Brown,Clay,Hard,w/Calcareous nodules	CH	23.6											
21	40-42	1.75		Brown & gray,Clay,Stiff,Silty,w/Calcareous nodules	CL	20.9											
22	42-44	1.25		Brown,Clay,Stiff,Silty,w/Calcareous nodules	CL	21.1	106.1	128.5	27	17	99.7	99.4	98.4		93.6		
23	44-46	2.75		Brown,Clay,Very stiff,Silty,w/Calcareous nodules	CL	22.0											
24	46-48	2.50		Brown,Clay,Very stiff,Silty	CL	22.2											
25	48-50	4.00		Brown,Clay,Hard	CH	22.7											
26	50-52	3.25		Brown & yellow,Clay,Very stiff,w/Calcareous nodules	CH	24.4											
27	52-54	2.25		Yellowish brown,Clay,Very stiff,w/Silty clay layers	CH	26.5											
28	54-56	4.50		Yellowish brown,Clay,Hard,w/Silt pockets	CH	18.5											
29	56-58	2.75		Yellowish brown,Clay,Very stiff,w/Silty clay layers	CH	25.4											
30	58-60	3.25		Brown,Clay,Very stiff,w/Silt pockets	CH	24.6											

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q u : Unconfined Compressive Strength, W O H : Weight of hammer, W O P : Weight of pipe