U.S. ARMY CORPS OF ENGINEERS

El 7.0 MLT

BORING NO. 91 309 DATE: BEGIN 7/1/91 PAGE 1 1 2

JOB NO. 146490 COMPLETE 7-11-91 Thin Walled Tube

PROJECT GIWW ☑ 3" ☐ 6"

LOCATION SARGENT BEACH

ELEVATION OF HOLE

MANUFACTURER'S DESIGNATION OF DRILL RIG F 36

GROUNDWATER: DEPTH 4 ft., ELEV. ____ ft., at end of Drilling

WEATHER

DRILLER Robert Jankenley LOGGER John A. Denty

DEPTH, FEET	SAMPLE	SAMPLE NO.	PEN./TORVANE SPT.-BLOW COUNT	COLOR	MATERIAL TYPE	CONSISTENCY	SECONDARY CONSTITUENTS	STRUCTURAL FEATURES AND COMMENTS
0		1	4.5+	BROWN	CLAY	HARD	SANDY	w/ROOTS
		2	1.75	BROWN	CLAY	STIFF		w/SILK POCKETS
5		3	0.75	BROWN	CLAY	MEDIUM STIFF	SILTY	UC
		4	0.75	"	"	"	"	w/SAND LAYER 8.5
10	X	5	0	BROWN	SAND	VERY LOOSE	SILTY	FINE, W.O.P 11
15	X	6	2 2 2	"	"	LOOSE	"	Limits of Excavation 9.5
20	X	7	3 3	BROWN	"	"	"	FINE GRAY w/CLAY LAYER
25	X	8	6 8 11	GRAY	"	MEDIUM DENSE	"	FINE 27.5
30		9	0.75	BROWN	CLAY	MEDIUM STIFF		w/SILT SEAMS
		10	0.5	"	"	"		UC "
		11	0.75	"	"	"		w/SILK LAYERS 32'
35			1.0	"	"	STIFF		

GEOTEST ENGINEERING, INC.

U.S. ARMY CORPS OF ENGINEERS

BORING NO. 91209 DATE: BEGIN 7-11-91 PAGE 1
JOB NO. 14G 490 COMPLETE 7-11-91 Thin Walled Tube
PROJECT GIWW. ☒ 3" ☐ 6"
LOCATION SARGENT BEACH
ELEVATION OF HOLE
MANUFACTURER'S DESIGNATION OF DRILL RIG F 36
GROUNDWATER: DEPTH 4 ft., ELEV. ____ ft., at end of Drilling
WEATHER PARTLY CLOUDY & SUNNY
DRILLER ROBERT TANKERSLEY LOGGER John A. Hentz

DEPTH, FEET	SAMPLE	SAMPLE NO.	PEN./TORVANE / SPT.-BLOW COUNT	COLOR	MATERIAL TYPE	CONSISTENCY	SECONDARY CONSTITUENTS	STRUCTURAL FEATURES AND COMMENTS
35		12		BROWN	CLAY	STIFF		-w/SILT LAYERS 32'-45'
		13	1.25	"	"	"		
		14	1.25	"			UC	--GRAY-w/SAND & SILT LAYERS
40		15	1.25	"	"	"		
		16	0.5	GRAY	"	MEDIUM STIFF		-w/WOOD & SILK LAYERS
45		17	0.5	"			UC	-w/SILT LAYERS 44'
		18	1.25	"	"	STIFF		
		19	1.25	"	"	"		
50		20	1.25	BROWN	"	"		*& GRAY
		21	1.25	"	"	"	UC	
55		22	1.5	BROWN	CLAY	STIFF	SILTY	
		23	1.25	"	"	"	"	-w/CLAY LAYER 56'-58'
60		24	1.25	BROWN	CLAY	STIFF		-w/SILT LAYERS BELOW 58'

BOTTOM OF 91209

GEOTEST ENGINEERING, INC.

U.S. ARMY CORPS OF ENGINEERS

BORING NO. 91209A DATE: BEGIN 7-11-91 PAGE 1 / 1
JOB NO. 14G490 COMPLETE 7-11-91 Thin Walled Tube
PROJECT GIWW ☐ 3" ☐ 6"
LOCATION SARGENT BEACH
ELEVATION OF HOLE
MANUFACTURER'S DESIGNATION OF DRILL RIG F-36
GROUNDWATER: DEPTH 2 ft., ELEV. ____ ft., at end of Drilling
WEATHER PARTLY CLOUDY
DRILLER ROBERT TANKERSLEY LOGGER John A. Gentry

DEPTH, FEET	SAMPLE	SAMPLE NO.	PEN./TORVANE SPT.-BLOW COUNT	COLOR	MATERIAL TYPE	CONSIS-TENCY	SECONDARY CONSTITUENTS	STRUCTURAL FEATURES AND COMMENTS
0								BOTTOM OF HOLE TO GROUND 15 FT; BOTTOM OF HOLE TO TOP OF WATER 18 FT
5								
10								
15								
								*SEE 91209 FOR STRUCTURAL FEATURES
								HOLE CAVE @ 8FT, WET ROTARY
							★ 7/12/91 BAIL 2:25 pm to 2:40 pm	7FT AFTER BAILING HOLE SITY UP BELOW 7 FT NEED TO BE PUMPED OUT

GEOTEST ENGINEERING, INC.

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

SUMMARY OF LABORATORY TEST RESULTS

Boring No. 91-209

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 #4	#10	#40	#100	#200	Torvane Shear Strength (tsf)	q u (tsf)
1	0-2	4.5+		Brown,Clay,Hard,Sandy,w/Roots & strong odor	C L	11.6											
2	2-4	2.25		Brown,Clay,Very stiff,Silty,w/Calcareous nodules	C L	28.9											
3	4-6	0.75		Reddish brown,Clay,Medium ~~stiff~~,Silty,w/Calc-reous nodules	C L	28.5	94.9	122.0	36	18	100.0	100.0	99.9		99.3		0.44
4	6-8	0.25		Reddish brown,Clay,Soft,Sandy,w/Calcareous nodules (water bearing)	C L	26.4											
5	8.5-10		W.O.P.	Brown,Silt,Very loose,Sandy	M L						100.0	100.0	99.9		73.1		
6	13.5-15		4	Brown,Sand,Loose,Silty	S M						100.0	99.9	99.8		23.7		
7	18.5-20		4	Brown,Sand,Loose,Silty	S M												
8	23.5-25		19	Brown,Sand,Medium dense,Silty	S M												
9	28-30	0.50		Brown,Clay,~~Medium stiff~~ Soft	C H	31.0											
10	30-32	0.50		Brown,Clay,Medium ~~stiff~~ Soft	C H	33.2	88.9	118.4	51	21	100.0	100.0	99.9		99.4		0.60
11	32-34	0.50		Brown,Clay,~~Medium stiff~~ Soft,w/Sand pockets	C H	29.8											
12	34-36	1.00		Brown,Clay,Stiff,w/Sand seams	C H	29.4											
13	36-38	0.50		Brown,Clay,~~Medium~~ Soft stiff,w/Sand pockets	C H	27.1											
14	38-40	1.25		Brown,Clay,Stiff,w/Silt pockets	C H	39.4	80.2	111.8	71	28	100.0	100.0	100.0		99.0		0.53
15	40-42	1.00		Brown,Clay,Stiff	C H	38.1											
16	42-44	0.50		Olive gray,Clay,~~Medium stiff~~ Soft	C H	31.1											
17	44-46	0.50		Olive gray,Clay,~~Medium stiff~~ Soft,Silty	C L	34.5	85.5	115.0	46	22	100.0	100.0	100.0		100.0		0.40

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

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

SUMMARY OF LABORATORY TEST RESULTS

Boring No. 91-209

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 #4	#10	#40	#100	#200	Torvane Shear Strength (tsf)	q u (tsf)
18	46-48	1.00		Black,Clay,Stiff,w/Organic material	CH	72.6											
19	48-50	0.50		Olive gray,Clay,~~Medium stiff~~ Soft	CH	27.9											
20	50-52	1.00		Brown,Clay,Stiff	CH	31.4											
21	52-54	0.50		Brown,Clay,~~Medium stiff~~ Soft,Silty	CL	28.4	96.0	123.2	36	19	100.0	100.0	99.9		99.3		0.39
22	54-56	0.50		Brown,Clay,~~Medium stiff~~ Soft,Silty	CL	24.8											
23	56-58	0.50		Brown,Clay,~~Medium stiff~~ Soft	CH	31.1											
24	58-60	1.00		Brown,Clay,Stiff	CH	30.4											

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