

LOG OF BORING B-4

PROJECT: Wharves 2 & 6 - Bayport Terminal Complex
Port of Houston Authority

CLIENT: CH2M Hill
Houston, Texas

ELEVATION (FT) DEPTH (FT)	SAMPLE TYPE SYMBOL	COORDINATES: N 29.61194 W 95.01254 SURFACE ELEVATION: 14.41 ft DRILLING METHOD: Dry Augered: 0 to 20 Wash Bored: 20 to 120	(P) POCKET PEN (tsf) (T) TORVANE (tsf)	STD. PENETRATION TEST BLOW/COUNT	MOISTURE CONTENT (%)	DRY UNIT WEIGHT (pcf)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	COMPRESSIVE STRENGTH (tsf)	FAILURE STRAIN (%)	CONFINING PRESSURE (psi)	PASSING #200 SIEVE (%)	OTHER TESTS PERFORMED
		MATERIAL DESCRIPTION											
0		Gray SILTY SAND "FILL" w/ crushed concrete and gravel road base											
10		Firm gray & tan SANDY LEAN CLAY "FILL" w/ gravel	(P)1.25		13								
5		Stiff gray FAT CLAY (CH) w/ ferrous nodules	(P)1.75		31	87	86	61					
5		-slickensided, gray & tan @ 9'-11'	(P)2.00		31	87			1.25	5 *			
10		-gray & reddish brown @ 12'-14'	(P)2.50		24								
15		-very stiff & reddish brown @ 15'-17'	(P)4.25		24								
20		Stiff to very stiff reddish brown & light gray LEAN CLAY (CL) w/ ferrous nodules	(P)3.00 (T)0.63		20	103							
10		-soft to firm & reddish brown @ 23'-25'	(P)1.00 (T)0.38		26	100	31	12	0.34	6	14	100	
15		Stiff reddish brown & gray FAT CLAY (CH) slickensided w/ ferrous nodules	(P)2.50		29	93							
20		-very stiff @ 33'-43'			26	98						89	

COMPLETION DEPTH: 120 ft
DATE BORING STARTED: 11-11-09
DATE BORING COMPLETED: 11-12-09
LOGGER: G. Singleton
PROJECT NO.: 09.14.037

NOTES: Boring backfilled with cement bentonite grout upon completion of sampling.

LOG OF BORING B-4

PROJECT: Wharves 2 & 6 - Bayport Terminal Complex
Port of Houston Authority

CLIENT: CH2M Hill
Houston, Texas

ELEVATION (FT) DEPTH (FT)	SAMPLE TYPE SYMBOL	COORDINATES: N 29.61194 W 95.01254 SURFACE ELEVATION: 14.41 ft	(P) POCKET PEN (tsf) (T) TORVANE (tsf)	STD. PENETRATION TEST BLOWCOUNT	MOISTURE CONTENT (%)	DRY UNIT WEIGHT (pcf)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	COMPRESSIVE STRENGTH (tsf)	FAILURE STRAIN (%)	CONFINING PRESSURE (psi)	PASSING #200 SIEVE (%)	OTHER TESTS PERFORMED
		DRILLING METHOD: Dry Augered: 0 to 20 Wash Bored: 20 to 120											

COMPLETION DEPTH: 120 ft
DATE BORING STARTED: 11-11-09
DATE BORING COMPLETED: 11-12-09
LOGGER: G. Singleton
PROJECT NO.: 09.14.037

NOTES: Boring backfilled with cement bentonite grout upon completion of sampling.

LOG OF BORING B-4

PROJECT: Wharves 2 & 6 - Bayport Terminal Complex
Port of Houston Authority

CLIENT: CH2M Hill
Houston, Texas

ELEVATION (FT) DEPTH (FT)	SAMPLE TYPE SYMBOL	COORDINATES: N 29.61194 W 95.01254 SURFACE ELEVATION: 14.41 ft	(P) POCKET PEN (tsf) (T) TORVANE (tsf)	STD. PENETRATION TEST BLOW/COUNT	MOISTURE CONTENT (%)	DRY UNIT WEIGHT (pcf)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	COMPRESSIVE STRENGTH (tsf)	FAILURE STRAIN (%)	CONFINING PRESSURE (psi)	PASSING #200 SIEVE (%)	OTHER TESTS PERFORMED
		DRILLING METHOD: Dry Augered: 0 to 20 Wash Bored: 20 to 120 MATERIAL DESCRIPTION											
-60 75	X	Dense tan SILTY SAND (SM)		20/6" 26/6"									
-65 80	X	-very dense @ 78.5'-80'		28/6" 30/6" 40/6"									
-70 85		Very stiff to hard gray SANDY LEAN CLAY (CL) w/ ferrous & calcareous nodules	(P)4.50										
-75 90		-stiff to very stiff @ 88'-90'	(P)2.75		15	115			3.74	16	51	55	
-80 95		-light gray & tan @ 93'-95'	(P)4.50		16		28	10				70	
-85 100		Stiff to very stiff gray & tan FAT CLAY (CH) w/ ferrous nodules -slickensided @ 98'-100'	(P)4.00		22	102			1.28	4 *			
-90 105		Very stiff to hard light gray & tan SANDY LEAN CLAY (CL)	(P)4.50		19	111							
-95 110		-stiff below 108' -light gray @ 108'-115'	(P)2.25		20								

COMPLETION DEPTH: 120 ft
DATE BORING STARTED: 11-11-09
DATE BORING COMPLETED: 11-12-09
LOGGER: G. Singleton
PROJECT NO.: 09.14.037

NOTES: Boring backfilled with cement bentonite grout upon completion of sampling.



LOG OF BORING B-4

PROJECT: Wharves 2 & 6 - Bayport Terminal Complex
Port of Houston Authority

CLIENT: CH2M Hill
Houston, Texas

ELEVATION (FT) DEPTH (FT)	SAMPLE TYPE	SYMBOL	COORDINATES: N 29.61194 W 95.01254	(P) POCKET PEN (tsf) (T) TORVANE (tsf)	STD. PENETRATION TEST BLOWCOUNT	MOISTURE CONTENT (%)	DRY UNIT WEIGHT (pcf)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	COMPRESSIVE STRENGTH (tsf)	FAILURE STRAIN (%)	CONFINING PRESSURE (psi)	PASSING #200 SIEVE (%)	OTHER TESTS PERFORMED
			SURFACE ELEVATION: 14.41 ft											
DRILLING METHOD: Dry Augered: 0 to 20 Wash Bored: 20 to 120														
MATERIAL DESCRIPTION														
-100 115			Stiff light gray & tan SANDY LEAN CLAY (CL) w/ silty sand layers @ 113'-115'	(P)2.00										
			-tan @ 118'-120'	(P)2.75		19	110		1.09	10	69			
			Bottom @ 120'											
-110 125														
-115 130														
-120 135														
-125 140														
-130 145														

COMPLETION DEPTH: 120 ft
DATE BORING STARTED: 11-11-09
DATE BORING COMPLETED: 11-12-09
LOGGER: G. Singleton
PROJECT NO.: 09.14.037

NOTES: Boring backfilled with cement bentonite grout upon completion of sampling.