

## BORING LOG NO. B-22

CLIENT: **United States Army Corps of Engineers  
Galveston, Texas**

PROJECT: **Contract W912HY-09-D-0021  
Addicks and Barker Dams, TO-14**

BORING LOCATION: **N: 13836905.631  
E: 3032553.427**

SITE: **Addicks and Barker Reservoirs  
Houston, Texas**

Graphic Log	DESCRIPTION	DEPTH, FEET	SAMPLES					TESTS									
			USCS SYMBOL	TYPE	RECOVERY, IN	SPT, BLOWS/FT	CALIBRATED HAND PENETROM., TSF	TORVANE, TSF	MOISTURE CONTENT, %	DRY DENSITY, PCF	LIQUID LIMIT, %	PLASTIC LIMIT, %	PLASTICITY INDEX	MINUS #200 SIEVE, %	COMPRESSIVE STRENGTH, TSF	FAILURE STRAIN, %	CONFINING PRESSURE, PSI
<b>Approx. Surface Elevation: 90.5 feet</b>																	
88.5	<b>FILL: FAT CLAY w/SAND</b> dark gray, stiff, high plasticity, moist, with calcareous nodules, sand pockets and scattered roots	2.0	CH	ST	10		1.5		23								
	<b>FAT CLAY w/ SAND</b> gray, light gray and brown, stiff to very stiff, high plasticity, moist, with sand pockets, and calcareous and ferrous nodules		CH	ST	14		2.0		29								
				ST	19		1.75		28								
				ST	14		2.5		28								
80.5		10.0		ST	16		3.5		24								
	<b>SANDY LEAN CLAY</b> light gray and tan, very stiff, medium plasticity, moist, with sand pockets and seams, and calcareous and ferrous nodules		CL	ST	19		3.5		13	128	32	12	20	64			
				ST	15		4.5		24		34	12	22	65			
				ST	13		3.75				33	12	21	63			
72.5		18.0		ST	10		4.5		44		41	13	28	67			
	<b>FAT CLAY w/ SAND</b> light gray, brown and tan, very stiff, medium to high plasticity, moist, with sand pockets, and calcareous and ferrous nodules		CH	ST	19		3.75				51	17	34	80			
				ST	13		3.25		32								
				ST	14		4.0		29								
				ST	13		4.5		29								
<b>Continued Next Page</b>																	

STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARIES BETWEEN SOIL TYPES. IN SITU, THE TRANSITION BETWEEN STRATA MAY BE MORE GRADUAL.

REMARKS: Dry augered to 30 feet; wet rotary thereafter.

WATER LEVEL OBSERVATIONS			
▽ 28 ft	WD	▽ 23 ft	at 5 min
▽ 23 ft	at 10 min	▽ 23 ft	at 15 min



DATE DRILLED  
6/4/2012  
PROJECT NUMBER  
92125125

Page 1 of 2  
**B-22**  
**EXHIBIT A-48**

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			USCS SYMBOL	TYPE	RECOVERY, IN	SPT, BLOWS/FT	CALIBRATED HAND PENETROM., TSF	TORVANE, TSF	MOISTURE CONTENT, %	DRY DENSITY, PCF	LIQUID LIMIT, %	PLASTIC LIMIT, %	PLASTICITY INDEX	MINUS #200 SIEVE, %	COMPRESSIVE STRENGTH, TSF	FAILURE STRAIN, %
Approx. Surface Elevation: 90.5 feet																
62.5		27		ST	9		4.5		20							
	▽ 28.0	28		SP-SM												
60.5	<b>POORLY GRADED SAND w/ SILT</b> brown and tan, medium dense, non-plastic, fine-grained, uniform, wet, with clay seams	29		SS	19	14						7				
58.5	<b>SILTY SAND</b> brown and tan, very dense, non-plastic, fine-grained, uniform, wet, with scattered gravel	30		SM												
56.5		31		SS	15	50/6"			23			13				
50.5		32		SP-SM												
		33		SS	9	50/5"						8				
		34		SM												
		35		SS	7	50/5"			21			20				
		36														
		37		SS	3	50/5"						31				
		38														
		39		SS	3	50/5"						42				
		40		CH												
		41		SS	20	26			27							
		42														
		43		ST	14		4.5		27	103						
		44														
		45		ST	17		4.5		26							
		46														
		47		ST	10		4.5		27							
		48														
		49		ST	14		4.5		29							
		50														
	Boring terminated at 50 feet.															

STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARIES BETWEEN SOIL TYPES. IN SITU, THE TRANSITION BETWEEN STRATA MAY BE MORE GRADUAL.

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Page 2 of 2

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