



DEPTH, FT	WATER LEVEL SYMBOL SAMPLES	BLOWS PER FOOT	LOCATION: See Plate 2 COORDINATES: 29° 43' 53" N 95° 02' 58" W SURFACE EL.: -10.0' (Assumed)	STRATUM DEPTH, FT	CLASSIFICATION						SHEAR STRENGTH						
					UNIT DRY WT, POF	PASSING NO. 200 SIEVE, %	WATER CONTENT, %	LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX (PI)	KIPS PER SQ FT						
			STRATUM DESCRIPTION														
0 - 8.0	[Diagonal Hatching]		SILTY CLAY, very soft to soft, gray, with silt pockets and organic material			32											
8.0 - 16.0	[Dotted]		SILTY SAND, very loose, fine-grained, gray  - with clay seams below 13'		26												
16.0 - 31.0	[Diagonal Hatching]	WOH	SANDY CLAY, firm, gray  - with silt pockets below 23'		56	30	38	13	25								
31.0 - 38.0	[Diagonal Hatching]		SILTY CLAY, stiff to very stiff, red, brown, and gray, with calcareous nodules and silt pockets  - with shell fragments below 38'		109	20	39	11	28								

**NOTES:**

1. Water depth was 10' at time of drilling.
2. Terms and symbols defined on Plates A-32a and A-32b.
3. Coordinates were obtained by our field technician with a hand held GPS device.
4. WOH - Weight of Hammer

DATE: April 27, 2011  
 TOTAL DEPTH: 90'  
 CAVED DEPTH: Not Applicable  
 DRY AUGER: Not Applicable  
 WET ROTARY: Mudline to 90'  
 BACKFILL: Cuttings and Drilling Mud  
 LOGGER: T. Mireles

R:\041202011 PROJECTS\0001-0099\0412-11-0003\INDUSTRIAL\WIR\_MV 6/2/2011

**LOG OF BORING NO. B-16**  
**DOCKS, BRIDGE, AND BARNES ISLAND IMPROVEMENTS**  
**BATTLEGROUND OIL SPECIALTY TERMINAL COMPANY**  
**HARRIS COUNTY, TEXAS**





DEPTH, FT	WATER LEVEL SYMBOL SAMPLES	BLOWS PER FOOT	LOCATION: See Plate 2 COORDINATES: 29° 43' 53" N 95° 02' 58" W SURFACE EL.: -10.0' (Assumed)	STRATUM DEPTH, FT	CLASSIFICATION						SHEAR STRENGTH												
					UNIT DRY WT. POF	PASSING NO. 200 SIEVE, %	WATER CONTENT, %	LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX (PI)	KIPS PER SQ FT												
STRATUM DESCRIPTION			□ Penetrometer Unconfined ▼ ◇ Torvane Triaxial ● ○ Remolded Miniature Vane ▲ M.Vane																				
												0.5	1.0	1.5	2.0	2.5							
45			SILTY CLAY, very stiff, red, brown, and gray, with calcareous nodules, silt pockets, and shell fragments	41.5																			
			CLAY, very stiff, red, brown, and gray - slickensided with silt pockets, 42' to 53'																				
55			- gray and brown, 53' to 58'		97		28	71	17	54													
60			- brown, 58' to 63'																				
65			- red, brown, and gray with silt pockets below 63'																				
70			SILTY CLAY, stiff, brown and gray, with silt pockets	67.0	98		27																
75			- very stiff, with shell fragments below 73'																				

**NOTES:**

1. Water depth was 10' at time of drilling.
2. Terms and symbols defined on Plates A-32a and A-32b.
3. Coordinates were obtained by our field technician with a hand held GPS device.
4. WOH - Weight of Hammer

DATE: April 27, 2011  
 TOTAL DEPTH: 90'  
 CAVED DEPTH: Not Applicable  
 DRY AUGER: Not Applicable  
 WET ROTARY: Mudline to 90'  
 BACKFILL: Cuttings and Drilling Mud  
 LOGGER: T. Mireles

R:1041202011 PROJECTS\0001-0069\0412-11-0003\INDUSTRIAL (WIR\_MV) 6/2/2011 FUGRO\_SO (LAB DATA)\_INDUSTRIAL (WIR\_MV)

**LOG OF BORING NO. B-16**  
 DOCKS, BRIDGE, AND BARNES ISLAND IMPROVEMENTS  
 BATTLEGROUND OIL SPECIALTY TERMINAL COMPANY  
 HARRIS COUNTY, TEXAS





DEPTH, FT	WATER LEVEL SYMBOL SAMPLES	BLOWS PER FOOT	LOCATION: See Plate 2 COORDINATES: 29° 43' 53" N 95° 02' 58" W SURFACE EL.: -10.0' (Assumed)	STRATUM DEPTH, FT	CLASSIFICATION						SHEAR STRENGTH				
					UNIT DRY WT. POF	PASSING NO. 200 SIEVE, %	WATER CONTENT, %	LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX (PI)	KIPS PER SQ FT				
STRATUM DESCRIPTION										0.5	1.0	1.5	2.0	2.5	
85			SILTY CLAY, very stiff, brown and gray, with silt pockets and shell fragments												□+
90		43	SANDY SILT, dense, gray	88.0											
				90.0	81										
95															
100															
105															
110															
115															

**NOTES:**

1. Water depth was 10' at time of drilling.
2. Terms and symbols defined on Plates A-32a and A-32b.
3. Coordinates were obtained by our field technician with a hand held GPS device.
4. WOH - Weight of Hammer

DATE: April 27, 2011  
 TOTAL DEPTH: 90'  
 CAVED DEPTH: Not Applicable  
 DRY AUGER: Not Applicable  
 WET ROTARY: Mudline to 90'  
 BACKFILL: Cuttings and Drilling Mud  
 LOGGER: T. Mireles

R:\041202011 PROJECTS\0001-0099\0412-11-0003\INDUSTRIAL\WIR\_MV) 6/2/2011

**LOG OF BORING NO. B-16**  
 DOCKS, BRIDGE, AND BARNES ISLAND IMPROVEMENTS  
 BATTLEGROUND OIL SPECIALTY TERMINAL COMPANY  
 HARRIS COUNTY, TEXAS

