



Quaternary Resource Investigations, LLC
 13588 Florida Blvd
 Baton Rouge, LA 70819
 Telephone: 225-292-1400
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BORING NUMBER 13-B115

CLIENT _____ PROJECT NAME Peggy Lake Placement Area
 PROJECT NUMBER W912HY-13-D-0001; Task Order 0002 PROJECT LOCATION La Porte, Texas
 DATE STARTED 4/13/2013 7:35:00 AM COMPLETED 4/13/2013 6:30:00 PM GROUND ELEVATION 18.7477 ft HOLE SIZE 8.25 inches
 DRILLING CONTRACTOR Quaternary Resource Investigations, LLC NORTHING 13836684.12 ft EASTING 3215365.418 ft
 DRILLING METHOD Hollow Stem Auger DRILLING RIG MAKE/MODEL Mobile B57 on Gemco Articulated Platform
 LOGGED BY Terri Russin TOTAL DEPTH 60 ft GROUND WATER LEVEL _____
 WEATHER partly cloudy, warm, 60s - 70s, breezy to windy ∇ AT TIME OF DRILLING 12.00 ft / Elev 6.75 ft 4/13/2013 11:45:00 AM

COPY OF PEGG - GEOTECH BH - PEGGY LAKE TEMPLATE.GDT - 10/2/13 10:39 - C:\DOCUMENTS AND SETTINGS\TRU - KTOIPEGGY LAKE PLACEMENT AREA.3 9-27-13.GPJ

GRAPHIC LOG	USCS SYMBOL	MATERIAL DESCRIPTION	DEPTH (ft)	SAMPLE TYPE	RECOVERY (in)	SPT BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	FIELD TORVANE (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS				MINUS #200 SIEVE CONTENT (%)	COMPRESSIVE STRENGTH (tsf)	FAILURE STRAIN (%)	CONFINING PRESSURE (psi)		
											LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX							
	CL	Silty CLAY, light brown and yellow orange, moist, medium plasticity, with rootlets and caliche	0	ST	8		2.75/1.9			29										
				ST	8		1.5/1.75			26										
			5	ST	13		1.25/3.0			93	30	81	27	54	90	1.24	4.2	0		
				ST	13		2.3/--				30									
	SP	SAND, light brown, moist to wet, no plasticity, fine grained with shell fragments, laminated	10	SS	14	2-6-11-15 (17)	0	0		15				10						
				SS	8	4-4-3 (7)	0	0		15					6					
	CH	CLAY, yellow orange, moist to very moist, medium to high plasticity, with caliche	15	ST	17		1.0/1.0		103	22	76	23	53	88	1.19	4.3	6.1			
				ST	21		1.4			29										
				ST	19		1.1			25										
			20	ST	20		0.75			96	28	83	23	60		2.7	3.8	0		
				ST	22		0.75			34										
			25	ST	15		1.25			91	33	77	24	53	99					
				ST	16		0.75			35										
	CH	CLAY, dark gray to black, moist, soft, medium to high plasticity, with very thin light gray silt layers, hydrocarbon odor	30	ST	21		0	3.2	61	60										
				ST	22		0	3.3		75										
				ST	22		0/0.35	1.6/--		74										
	SP		35																	

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COPY OF PEGG

GRAPHIC LOG	USCS SYMBOL	MATERIAL DESCRIPTION	DEPTH (ft)	SAMPLE TYPE	RECOVERY (in)	SPT BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	FIELD TORVANE (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS				MINUS #200 SIEVE CONTENT (%)	COMPRESSIVE STRENGTH (tsf)	FAILURE STRAIN (%)	CONFINING PRESSURE (psi)
											LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX					
	SP	SAND, light gray to light brown, very fine grained, no plasticity, very moist (continued)	35	ST	15		0	0.3		23								
		3" gravel layer at 37.5'																
	CL	Silty CLAY, light brown, slightly moist, medium to high plasticity		SS	20	1-2-3-4 (5)	1.85				21							
		Clayey SILT, light gray with yellow orange spots, low plasticity, moist, dense, cracks easily, has silt in cracks, crumbly	40	ST	21		2.0/1.5			113	18							
				ST	21		2.15			115	17			85	1.35	3.4	10.5	
				ST	21		>4.5				14							
				ST	20		>4.5/2.3				17							
				ST	17		3.2											
				ST	17		3.4				17							
				ST	21		3.7				19							
				ST	21		2.5/>4.5				22							
		CL	Silty CLAY, orange, lightly dry, medium plasticity, blocky texture, hard, cracks easily, with light gray marbling	55	ST	15		>4.5										
				ST	18		4.5			21	70	22	48	99				
		color change from orange to yellow orange/light gray marble, with iron oxide spots	60	ST	11		3.5/4.2											

Bottom of borehole at 60.0 feet.