



Quaternary Resource Investigations, LLC
 13588 Florida Blvd
 Baton Rouge, LA 70819
 Telephone: 225-292-1400
 Fax: 225-292-1404

BORING NUMBER 13-B124

CLIENT _____ PROJECT NAME Peggy Lake Placement Area
 PROJECT NUMBER W912HY-13-D-0001; Task Order 0002 PROJECT LOCATION La Porte, Texas
 DATE STARTED 4/14/2013 8:00:00 AM COMPLETED 4/14/2013 3:00:00 PM GROUND ELEVATION 18.3672 ft HOLE SIZE 8.25 inches
 DRILLING CONTRACTOR Quaternary Resource Investigations, LLC NORTHING 13835275.47 ft EASTING 3219031.423 ft
 DRILLING METHOD Hollow Stem Auger DRILLING RIG MAKE/MODEL Mobile B57 on Gemco Articulated Platform
 LOGGED BY Lamar Melder TOTAL DEPTH 60 ft GROUND WATER LEVEL _____
 WEATHER partly cloudy, 60s - 70s, windy ∇ AT TIME OF DRILLING 19.50 ft / Elev -1.13 ft 4/14/2013 9:15:00 AM

COPY OF PEGGY LAKE TEMPLATE.GDT - 10/2/13 10:39 - C:\DOCUMENTS AND SETTINGS\STR... SKTOIR PEGGY 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					
	CH	CLAY, gray and brown, damp, medium stiffness, medium plasticity, with caliche	0	ST	14		2.75											
				ST	11		4.0					23						
		5	ST	10		3.5		107	20	68	19	49	78	3.38	5.4	0		
	CL	Silty CLAY, brown and gray, medium stiff, damp, medium plasticity, wet pockets		ST	11		3.0		101	24								
	CH	CLAY, light brown, wet, soft, plastic yellow orange color	10	ST	11		1.75			30								
				ST	14		1.25		89	35	72	24	48	95	0.74	4.4	4.4	
	CH	CLAY, mottled colors - yellow orange, reddish brown, dark brown, gray; stiff, damp, low plasticity, blocky	15	ST	16		3.0			27								
				ST	17		3.0			31								
				ST	20		2.75		96	29	75	22	53	89	2.56	9.2	0	
		20	∇	ST	18		2.5											
SP	SAND, light gray, wet, no plasticity		SS	20		2-6-7 (13)			22				3					
		25	SS	20		2-1-1 (2)			22									
CH	CLAY, dark gray to black, very soft, wet, plastic, hydrocarbon stained and odor a few light gray SILT layers	30	SS	18		0-0-0 (0)	0.75			117	30	87	96					
			ST	11				2.0	63	61								
			ST	16				1.25	18									
CL			35															

(Continued Next Page)



Quaternary Resource Investigations, LLC
 13588 Florida Blvd
 Baton Rouge, LA 70819
 Telephone: 225-292-1400
 Fax: 225-292-1404

BORING NUMBER 13-B124

CLIENT _____ PROJECT NAME Peggy Lake Placement Area
 PROJECT NUMBER W912HY-13-D-0001; Task Order 0002 PROJECT LOCATION La Porte, Texas

J:\KTO\PEGGY LAKE PLACEMENT AREA 3 - 9-27-13.GPJ
 C:\DOCUMENTS AND SETTINGS\RLU
 10/2/13 10:39 - PEGGY LAKE TEMPLATE.GDT - 10/2/13 10:39 - C:\DOCUMENTS AND SETTINGS\RLU
 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				
	CL	Silty CLAY, dark gray, damp, very soft, plastic, with a few SILT pockets (continued)	35	ST	14		0.75		68	52	97	26	71	94			
	ML	Clayey SILT, dark gray, saturated, loose		ST	17			1.75		28							
				ST	13			1.5		26							
			40														
	CL	Silty CLAY, dark gray (almost clayey SILT), wet, very soft, plastic, with bivalves		ST	16			2.25		35							
		no bivalves		ST	14			1.5	100	29							
			45														
		SILT pockets		ST	15			1.0		25							
				ST	18			1.5		34							
			50														
	ML	Clayey SILT, dark gray, saturated, very soft, plastic		ST	20		1.0		98	30	42	15	27	58	0.41	10.5	13.1
		with a few bivalves		ST	18			1.25		26							
		no bivalves		ST	15			1.25									
			55														
	CL	Silty CLAY, dark gray, wet, very soft, plastic, with light gray SAND pockets		ST	18			1.5		31							
				ST	15		1.0			29							
				ST	15		1.0										
			60														

Bottom of borehole at 60.0 feet.