



Quaternary Resource Investigations, LLC
 13588 Florida Blvd
 Baton Rouge, LA 70819
 Telephone: 225-292-1400
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BORING NUMBER 13-B134

CLIENT _____ PROJECT NAME Peggy Lake Placement Area
 PROJECT NUMBER W912HY-13-D-0001; Task Order 0002 PROJECT LOCATION La Porte, Texas
 DATE STARTED 5/1/2013 3:50:00 PM COMPLETED 5/2/2013 11:25:00 AM GROUND ELEVATION 22.1909 ft HOLE SIZE 8.25 inches
 DRILLING CONTRACTOR Quaternary Resource Investigations, LLC NORTHING 13833576.43 ft EASTING 3216976.991 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 mostly sunny, warm, 70s, breezy AT TIME OF DRILLING 42.00 ft / Elev -19.81 ft 5/2/2013 8:05:00 AM

COPY OF PEGG : GEOTECH BH - PEGGY LAKE TEMPLATE.GDT - 10/2/13 10:40 - 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, olive gray, moist, medium to high plasticity, with grass and roots	0	ST	11		0.6/1.5			18									
		with some caliche		ST	15		2.1			19									
		color change to yellow orange	5	ST	14		1.5/3.4		114	17	52	16	36	85	4.39	13.2	0		
		increased amount of caliche		ST	8		4.0			16									
	CH	CLAY, yellow orange, slightly moist, medium to high plasticity, with caliche with iron/manganese oxide grainy inclusions	10	ST	11		2.85			29									
				ST	18		1.85		92	32	92	26	66		1.37	1.4	0		
				ST	19		2.0												
		a little SILT present	15	ST	15		2.2			32									
				ST	19		1.85		91	33	79	26	53		1.6	9.1	7.1		
				ST	17		3.25			25									
	CL	Silty CLAY, yellow orange, slightly moist, medium to high plasticity, with caliche and iron/manganese oxide nodules, and staining (iron/manganese oxides)	20	ST	17		2.25		98	27									
		area of high SILT content		ST	20		2.5/2.75			24									
	CL	Silty CLAY, orange (with a little light gray color), slightly moist, medium to high plasticity, blocky textures, with iron/manganese oxide nodules and staining, and a little caliche	25	ST	17		2.5			28									
		crack with slickensides		ST	15		2.25		97	27	70	23	47	96					
				ST	16		2.9			30									
	CL	Silty CLAY, yellow orange (mix of light gray and orange), slightly moist, medium to high plasticity	30	ST	18		2.3			33									
				ST	19		3.0		92	32									
			35																

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E:\GEO TECH BH - PEGGY LAKE TEMPLATE.GDT - 10/2/13 10:40 - C:\DOCUMENTS AND SETTINGS\TRU

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)	ATTERBERG LIMITS				MINUS #200 SIEVE CONTENT (%)	COMPRESSIVE STRENGTH (tsf)	FAILURE STRAIN (%)	CONFINING PRESSURE (psi)
										MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX				
	CL		35	ST	16		2.75			28							
	CH	CLAY, orange, slightly moist, medium to high plasticity, with iron/manganese oxide nodules and staining and caliche		ST	19		3.8		109	18	69	21	48	2.54	2.2	0	
	ML	Clayey SILT, yellow orange, slightly moist, medium plasticity		ST	20		4.0			30							
	CH	CLAY, orange, slightly moist, medium to high plasticity	40	ST	21		3.1			21							
	CL	Silty CLAY, yellow orange, moist, medium to high plasticity, with a little caliche and manganese staining		ST	20		3.4		103	22							
	CL	increasing SILT content	45	ST	18		2.8			31							
	CL			ST	21		2.75/>4.5		108	19	46	19	27	1.55	1.7	18.2	
	ML	Clayey SILT, yellow orange, moist, medium plasticity, with caliche nodules, cracks easily, cracks lined with white sparkly SILT, with manganese/iron oxide staining	50	ST	20		4.25			18				84			
	ML			ST	21		>4.5			16							
	ML			ST	20		>4.5			14							
	ML		55	ST	19		4.25			18							
	CL	Silty CLAY, orange (with light gray), slightly moist, medium plasticity, with iron/manganese oxide staining, cracks easily as it dries, with caliche		ST	18		4.0			28							
	CL			ST	14		3.5										

Bottom of borehole at 60.0 feet.