



PROJECT NUMBER 170039	BORING NUMBER IW-4
SOIL BORING LOG	

PROJECT : EBT Treatability Study LOCATION : Memphis Depot
 ELEVATION : DRILLING CONTRACTOR : Boart Longyear
 DRILLING METHOD AND EQUIPMENT USED : Rotasonic rig (4 inch sample casing / 6 inch outer casing)
 WATER LEVELS : START : 04/15/2002 END: 04/16/2002 LOGGER : Mike Karafa

DEPTH BELOW SURFACE (FT)				STANDARD		SOIL DESCRIPTION		COMMENTS	
	INTERVAL (FT)		#/TYPE	PENETRATION TEST RESULTS 6"-6"-6" (N)	SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY, OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY.	DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION. Corrected FID (ppm): <i>(Soil headspace)</i>			
	RECOVERY (%)								
		100			Asphalt and gravel				
					Silt, brown, stiff, loess			2.5	
5		100						3.1	
10					Same as above, Silt			10.1	
15		100						3.3	
20					Same as above, Silt				
					Sand, orange, fine to medium grained, loose			0.0	
25		100			Sandy Silt, brown				
					Sand, orange, fine to medium grain, with silt, small less then 0.25 inch gravel			0.0	
					Silty sand, red, dry, stiff, fine grain, up to 0.5 inch gravel, 1/8 inch tan sand and up to 0.5 inch laminations				
30					Sand, silt, orange to red, fine to medium grained, moist			0.0	
35		100			Same as above				



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INTERVAL (FT)				6"-6"-6"-6" (N)		SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY, OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY.		DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION.	
RECOVERY (%)									
#/TYPE									
								Corrected FID (ppm):	
40						Sand, orange, fine grain, loose		0.0	
						Sand, yellow to light yellow, medium grain, loose			
						Sand, orange, medium grained, with less then 1/8 inch yellow and tan fine grain laminations			
45		100				Sand, silty, red, stiff		0	
						Sand, interbedded, yellow and light yellow, medium grain, up to 0.5 inch gravel			
						Sand, tan to white, medium grained, up to 0.5 inch grave		0.0	
50						Sand, yellow, medium grained, less then 1 inch gravel			
						Sand, orange, fine to medium grained, less then 1 inch gravel decreasing towards 60 feet		0.0	
55		100				Sand, orange, fine to medium grain, up to 0.25 inch gravel			
						Same as above except brown in color		0.0	
						Silty sand, red, fine grained, stiff, 0.5 inch thick		0.0	
						Sand, tan, fine to medium grain, 6 inch thick orange medium grain sand			
65		100				Sand, tan to white, medium grain, up to 0.5 inch gravel throughout			
						Sand, orange, fine grain, well sorted			
						Sand, white to tan, fine grain, well sorted			
						Sand, tan, fine grain, well sorted		0.0	
70						Same as above except orange			
								0.0	



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	INTERVAL (FT)		#/TYPE			
	RECOVERY (%)					
75		100			Same as above	
					Sand, brown, medium grain, poorly sorted, with up to 0.5 inch grave	0.0
					Sand, tan, fine grained, pebbles to cobbles	
					Sand, orange, fine grain, well sorted, with fine grain white sand laminations	
80					Same as above	
					Sandy clay, some silt, brown, damp	0.0
85		100			Sand, orange, medium grain, poorly sorted, damp, grave	
					Sand, white, fine grain, well sorted	
90		100			Sand, white, fine grain, well sorted, a few up to 0.25 inch gravel	
						0.0
					Sand, orange, fine grain, well sorted graded to a tan sand, fine to poorly sorted, grave from pebble to cobble size, damp	
95		100			Sand, white, fine grain, well sorted, interbedded with silty clay	
					Sand, white, well sorted, fine grain	
					Sand, tan, fine to medium grained, poorly sorted, pebble to cobble size gravel, wet	Watertable @ approximately 97 feet bgs
100					Clay, light grey, stiff at 101 feet 1 inch layer of lithics and quartz gravel	
					Silty sand, orange, fine grain, well sorted	
					Sand, white, fine grain, well sorted, interbedded with 1mm tan silty clay, damp	
105		100			Clay, dark grey, massive, stiff, little silt, damp	
110						



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RECOVERY (%)				TEST		
#/TYPE				RESULTS 6"-6"-6"-6" (N)		
115					Boring terminated at 115 feet bgs.	
120						
125						
130						
135						
140						