

PROJECT NUMBER	BORING NUMBER
170039	MW-119

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)

	R LEVELS			START:	c rig (4 inch sample casing / 6 inch outer casing) 05/02/2002 END: 05/02/2002 LOGGER:	Bryan Burkingstock
DEPTH I	BELOW SU	JRFACE (F	-T)	STANDARD	SOIL DESCRIPTION	COMMENTS
	INTERVA			PENETRATION		
		RECOVE		TEST	SOIL NAME, USCS GROUP SYMBOL, COLOR,	DEPTH OF CASING, DRILLING RATE,
			#/TYPE	RESULTS	MOISTURE CONTENT, RELATIVE DENSITY,	DRILLING FLUID LOSS,
				6"-6"-6"	OR CONSISTENCY, SOIL STRUCTURE,	TESTS, AND INSTRUMENTATION.
	<u>. </u>			(N)	MINERALOGY. Gravel (parking lot)	Corrected FID (ppm): (Soil headspace)
					Glaver (parking lot)	(Son neadspace)
	i i				Silt, brown, moist, (loess)	
-	1 !	100				
_						0.0
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_] -					0.0
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10	I	100		ĺ	Silt, brown, moist, (loess)	
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-	! !					
_	i	! 				0.0
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15	! 					
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_] -1					
	i i					0.0
_] !					
-						
20	i	100				
	<u> </u>					
_	-					
_	i	! 			Silt, brown, moist, (loess)	
	i i				Sandy Clay, reddish brown with red and gray mottles, moist, fine grained, stiff	0.0
I -]			ĺ		
-	i	i I		ĺ	Color grading from tan to brownish red to orange, red Increase fine grained sand with depth	
25	<u>!</u> İ	ļ		ĺ	3 · · · · · · · · · · · · · · · · · · ·	
	!			ĺ		
I -	i	i		ĺ	Clayey Sand, orange to dark red, fine grained, well sorted, moist, firm	
-				ĺ		
	!			ĺ		0.0
_	i	i		ĺ		
-	į i]		ĺ		
30] -	100		ĺ		
	i	i			Sand with gravel, orange to dark red, medium grained, well sorted, moist, loose, pebbles (<10%), subangular, <0.25 inches diameter	
-	į i	į		ĺ	posses (1.073), subungular, 10.20 mones alameter	
_	!!!	!				Driller's sample bag: 36.0
	: :			ĺ		Driller's sample bag: 36.0 Ziplock: 0.0
_	i i	i		ĺ		1
_	. !			ĺ		
35	 	! !		ĺ		
	i	i		ĺ	Clay, pink with light gray sandy clay inclusions, dense, massive, moist	
-	į į	!		ĺ		



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ELEVAT					DRILLING CONTRACTOR: Boart Longyear	
			EQUIPMENT		c rig (4 inch sample casing / 6 inch outer casing)	
WATER				START:	05/02/2002 END: 05/02/2002 LOGGER:	,
DEPTH B			FT)	STANDARD	SOIL DESCRIPTION	COMMENTS
	INTERVA			PENETRATION		
		RECOVE		TEST	SOIL NAME, USCS GROUP SYMBOL, COLOR,	DEPTH OF CASING, DRILLING RATE,
			#/TYPE	RESULTS	MOISTURE CONTENT, RELATIVE DENSITY,	DRILLING FLUID LOSS,
				6"-6"-6"-6"	OR CONSISTENCY, SOIL STRUCTURE,	TESTS, AND INSTRUMENTATION.
				(N)	MINERALOGY.	Corrected FID (ppm):
		I				Daillania accorda hacer 40.0
-		<u> </u>			Same as above, Clay	Driller's sample bag: 10.0 Ziplock: 0.0
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1 :		! 				
⁴⁰ —		100			Company of the control of the contro	
l i		Ī			Same as above, Clay	
I -		<u> </u>			Gravelly Sand, tan, fine grained, well sorted, moist, loose, pebbles (<10%),	1
-		!			<0.25 inch diameter, subangular	
1 :						Driller's sample bag: 230.0
-					Sand, light yellow, well sorted, fine grained, loose	Ziplock: 0.0
_i		i				
45		I				
⁴⁵ —		ļ			Gravelly Sand, brownish yellow to light yellow, fine to coarse grained, poorly sorted,	
1 !					loose, moist, pebbles (<20%), <0.5 inches diameter, subangular	
-					, , , , , , , , , , , , , , , , , , ,	
I -i		i				
l i		İ				Driller's sample bag: 264.0
1 7		I				Ziplock: 0.0
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50		400				
50		100				
1 1		i				
		i				
-1		I				
<u> </u>		<u> </u>			Same as above, Gravelly Sand	Driller's sample bag: 241.0
_					same as above, station, station	Ziplock: 0.0
_						
55		i				
33 —		i				
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		I				
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					Same as above, Gravelly Sand	Driller's sample bag: 174.0
		! 				Driller's sample bag: 174.0 Ziplock: 0.0
-i		i				
60		100				
· · ·		100				
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		<u>.</u>				
-		i			Sand, brownish yellow, medium grained, well sorted, moist, loose	
1 .i		Ī			,,,	Driller's sample bag: 141.0
		I				Ziplock: 0.0
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65		ļ				
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l i		l				
-		<u> </u>				
_!		!				Driller's sample bag: 157.0
						Ziplock: 0.0
-		i			Same as above, Sand	
70		100			Same as above, dand	
		Ī				
_i		I				
]		!				
-!		ļ				
1 _;		! !				Driller's sample bag: 163.0
1 7		i			Gravelly Sand, brownish yellow, fine to coarse grained, poorly sorted, pebbles (<20%) <1 inch diameter, subangular, mois	Žiplock: 0.0
<u> </u>			Ì		> i incir diameter, subangular, mois	



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	BELOW SU		ET)	STANDARD	SOIL DESCRIPTION	COMMENTS
I	INTERVA		• /	PENETRATION	SOLDESONI HON	COMEITIO
		RECOVE	RY (%)	TEST	SOIL NAME, USCS GROUP SYMBOL, COLOR,	DEPTH OF CASING, DRILLING RATE,
			#/TYPE	RESULTS	MOISTURE CONTENT, RELATIVE DENSITY,	DRILLING FLUID LOSS,
				6"-6"-6"-6"	OR CONSISTENCY, SOIL STRUCTURE,	TESTS, AND INSTRUMENTATION.
				(N)	MINERALOGY.	Corrected FID (ppm):
75 <u> </u>	 -				Same as above, some gravel 2 inches in diameter	
80		100				Driller's sample bag: 181.0 Ziplock: 0.0
- 85	1					Driller's sample bag: 134.0 Ziplock: 0.0
90	-	100			Same as above, Gravelly Sand	Driller's sample bag: 104.0 Ziplock: 0.0
95						Driller's sample bag: 37.0 Ziplock: 0.0 Watertable @ approximately 93 feet bg
- 100 - -		100			Boring Terminated @ 101 feet bgs	
105 - - - - 110	-					