

PROJECT NUMBER	BORING NUMBER
170039	MW-109

## **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)

	RLEVELS			START:	05/01/2002 END: 05/02/2002 LOGGER:	Mike Karafa
	BELOW SU		T)	STANDARD	SOIL DESCRIPTION	COMMENTS
DE: 1111	INTERVA		• /	PENETRATION	GOIL BLOOM! HON	COMMENTO
I			DN (0/)		COLL NAME TIGOS COOLD SYMPOL COLOS	DEDTH OF CACING PRILLING BATT
I		RECOVE	#/TYPE	TEST	SOIL NAME, USCS GROUP SYMBOL, COLOR,	DEPTH OF CASING, DRILLING RATE,
I			#/1170	RESULTS	MOISTURE CONTENT, RELATIVE DENSITY,	DRILLING FLUID LOSS,
I				6"-6"-6"	OR CONSISTENCY, SOIL STRUCTURE,	TESTS, AND INSTRUMENTATION.  Corrected FID (ppm):
$\vdash$	<u> </u>			(N)	MINERALOGY. Asphalt and gravel	(Soil headspace)
_	! !	•			g. 4101	-
	i	i				
-	1	100			Silt, stiff, brown	•
	<u> </u>					0.0
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	i	i				
I -	<u>I</u>	!				9.1
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	i					
_	<u> </u>					
_	ļ					0.0
	! !					
_	i					
20	j i	100				
	<u> </u>					
_	1				Silty Sand, red, fine to medium grained, poorly sorted, loose	1
_	:					
I	i i	i				0.0
I -	!					
I -	<u> </u>					1
25	! 	•			Sandy Clay, reddish brown, fine grained, stiff, damp	
I	i	j			Sand, some silt, bright red, fine to medium grained, poorly sorted, stiff, dry	1
-	<u>I</u> i	!				
I	!					
I -						
I -	i	100				0.0
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30	! !———	!				
I		•				
I -	i i	i				
I -	j j	ı				
I	<u> </u>	100				4.3
-	!	100				
	! !	•				
25	i i	i			Sand, red, fine to medium grained, poorly sorted, loose	
35	<u> </u>	!			Silty Sand, red to brown, fine to medium grained, poorly sorted, stiff, damp	1
	! !	!			early carra, roa to promit, fine to mediam grained, poorly sorted, still, damp	
I -	!					
	_					



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PROJECT: EBT Treatability Study LOCATION : Memphis Depot ELEVATION:

DRILLING CONTRACTO
DRILLING METHOD AND EQUIPMENT USED: Rotasonic rig (4 inch sample casing / 6 inch outer casing) DRILLING CONTRACTOR : Boart Longyear

WATER LEVELS :				START: 05/01/2002 END: 05/02/2002 LOGGER: Mike Karafa		
	DEPTH BELOW SURFACE (FT)		STANDARD	SOIL DESCRIPTION	COMMENTS	
I			PENETRATION	SSIE BESONIE HON	33	
	INTERVAL (FT)					
		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):
	ı	l			Sand, orange yellow, fine grained, well sorted, loose	
-	į	Î				11.3
	ĺ	Ī				
-	-i	Ī				
40	I	100				
40 _	1	100				
	I	I				
-	1	l				
		I				
		I				
_	_l	I				16.2
	Ţ	<u>l</u>			Sand, orange, fine to coarse grained, poorly sorted, loose, some gravel	
-	-	ļ				
45	<u> </u>	!				
¬¬ –	!	!			Same as above except orange and yellow	
	!	!			came as above except crange and yellow	
I -	1	!				
I -	.:	!				
I -	i	!				
-	-{	:				0.5
	i	:				
-	-	i				
50 _	i	100				
	i					
	i	i				
_	i	i				
_	i	i				
	ĺ	Î				
-	-i	î				0.8
	i	i				
-	-i	Î				
55	ĺ	Ī				
- "	7	1			Same as above, no gravel	
	I	I				
_	1	I				
_		I				
	I	100				
-	-1	I				0.0
		I				
-	-	<u>l</u>				
60	!	!				
I	<u> </u>	1			Sand, tan, fine to coarse grained, poorly sorted, gravel, pebbles to cobbles, loose, dry	
I -		!				
Ī	!	!				
-	-{	:				
	1	100				0.0
-	-{	100			Sand, light yellow, fine grained, loose, dry	0.0
	1	:			oana, ngrit yonow, nine granieu, 1003e, ury	
-	1	:				
65	i	i				
I	i	ī			Sand, light yellow to orange, fine grained, well sorted, loose, dry	
-	i	i				
	ì	Ī				
-	-i	ī				
Ī	Ì	Ī				4.7
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	Į.	<u> </u>				0.0
-	-[	<u>Į</u>				0.0
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WATER LEVELS			START:	05/01/2002 END: 05/02/2002 LOGGER:	Mike Karafa
		ET)	STANDARD	SOIL DESCRIPTION	COMMENTS
	DEPTH BELOW SURFACE (FT)  INTERVAL (FT)			OOIL DESCRIPTION	COMMITTIO
INTERV			PENETRATION		
	RECOVE		TEST	SOIL NAME, USCS GROUP SYMBOL, COLOR,	DEPTH OF CASING, DRILLING RATE,
	1	#/TYPE	RESULTS	MOISTURE CONTENT, RELATIVE DENSITY,	DRILLING FLUID LOSS,
	1	1	6"-6"-6"-6"	OR CONSISTENCY, SOIL STRUCTURE,	TESTS, AND INSTRUMENTATION.
			(N)	MINERALOGY.	Corrected FID (ppm):
	1				
75				Sand, tan, fine to medium grained, loose, damp, some gravel	
80	       100			Sand, tan, fine grained, loose, dry	0.0
_ <u> </u>	 			Sand, orange, fine to coarse grained, loose, dry	0.0
<u> </u>	İ			Same as above, gravel, pebble to cobble	
85	-		ĺ		
	į			Sand, white, fine grained, loose, dry	
-    _    _				Same as above, orange	0.0
90	100				
-!	ļ			Sand, orange, fine to coarse grained, poorly sorted, loose, gravel, damp	
-{   -{	ļ			Sand, light tan, fine to coarse grained, poorly sorted, damp, pebble to cobbl	0.0
95	į			Sand, some silt, tan, fine grained, stiff wet	
-	1		ĺ	Sand, tan, fine to medium grained, poorly sorted, loose, gravel, wet	Water table @ 96 ft bgs
I ⊣i	i				
i			ĺ	Silty Clay, tan, orange mottled, stiff, wet	
<u>-i</u>	ļ		ĺ	Sand, gray, fine grained, well sorted, loose, wet	
-	!				
100	100				
	i       			Sand, brown, fine to medium grained, poorly sorted, loose, wet, gravel, pebble to cobble, subangular to subrounded	
<u>                                   </u>	į			Clay, some silt, gray and orange mottling, massive, stiff, we	
105			ĺ		
l 1	1		ĺ	Boring terminated at 105 ft bgs	
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