

PROJECT NUMBER	BORING NUMBER
170039	IW-1

SOIL BORING LOG

PROJECT :	EBT Treatability Study	LOCATION : Memphis Depot		
ELEVATION:		DRILLING CONTRACTOR: Boart Longyear		
DRILLING METHOD AND FOUIPMENT USED: Rotasonic rig (4 inch sample casing / 6 inch outer casing)				

WATER	R LEVELS	:		START:	04/15/2002 END: 04/16/2002 LOGGER:	Bryan Burkingstock
	DEPTH BELOW SURFACE (FT)		STANDARD	SOIL DESCRIPTION	COMMENTS	
DE1 111			-1	SOIL DESCRIPTION	COMMICIATO	
1				PENETRATION		
1		RECOVERY (%) 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.	PID (ppm):
	1				Asphalt, 6 inches	(Soil headspace)
_	-i				Silt, brown, loess, moist	_
-	1					3.3
]					
_	!					
-	}	100				
5	1	100			Silt, brown, loess, moist	
	1				ont, brown, roess, moist	
	i					
l -	i i					
	Ī i	Ī				6.4
-	1 1					
_	1					
10	<u>. </u>					
	!				Silt, brown, loess, moist	
I -	!					
-	-					3.4
	•					J
	i					
l _	j i	i				
1,5	i i	400				
15	1	100			Cité berrier le constitut	
					Silt, brown, loess, moist	
-	1 1					
I -	1					5.5
_						
-						
20						
20 _	-				Silt, brown, loess, moist	
I _	.i					
	ì					
I -	i	i				40.0
	i i				Sandy clay with silty sand inclusions (tan), brown	10.3
1 -	1	I				
1	1					
1	<u> </u>		I		Clayey Sand with slight silt, red, stiff with yellow and tan mottles, dense	
25	ļ ļ	400				
		100			Same as above, sandy clay, red with tan to light brown mottles	
-			I			
1	:					
1 -		•				9.2
I -	i	i	I			
1	i	i				
-	i		I			
30	į į	Ī				
JU —	1 1		1		Same as above, dense	
I		I			Same as assit, derive	
_	1		I			
I -	J I		1			
1	<u> </u>					12.2
-			I		Cilly to along young increase of fine grained and an interest fine and in the city of the	
	<u> </u>		I		Silty to clayey sand, increase of fine grained sand, moist firm, red with tan mottle	
-	!	!				
35	!		I			
	1		1		Same as above	
1	!					
1	!		I			
L	1					



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ELEVATION:

DRILLING CONTRACTO

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: Bryan Burkingstock

WATER LEVELS :	START:	04/15/2002	END:	04/16/2002	LOGGER:	Bryan Burkingstock
DEPTH BELOW SURFACE (FT)	STANDARD		SOIL	DESCRIPTION		COMMENTS
INTERVAL (FT)	PENETRATION					
RECOVERY (%)	TEST	SOIL NAME, USCS G	ROUP SYMBOL	, COLOR,		DEPTH OF CASING, DRILLING RATE,
#/TYPE	RESULTS	MOISTURE CONTEN				DRILLING FLUID LOSS,
	6"-6"-6"	OR CONSISTENCY,				TESTS, AND INSTRUMENTATION.
	(N)	MINERALOGY.		,		PID (ppm):
i i						6.7
_i i		Sand (abrupt change),	fine grained, well	sorted, moist, golden		
i i						
- <u>I</u> <u>I</u>		Sand, light yellow, fine	grained, well sort	ed		
40						
7 1 1		3 inches of silty sand le Sand, well sorted, fine	enses @ 40 feet, i	tan		
-i i l		Sand, well sorted, fine	grained, golden to	o light yellow		
i i						
<u> </u>						3.4
-!!!		0	_:		hlaa (ahaaalaa)	
1 1		<0.25 inches, <10%	ained, poorly sort	ed, light yellow, slight pebl	bies (subangular)	
-i i						
45						
100						
-!!!						
_;						
i i l						7.2
-i i		Sand, yellowish whit	e. poorly sorted			
_! !		•	-			
50		Sand, yellowish whit	e, poorly sorted	d, slight pebbles (10-20	%), <1 inches, subang	ula I
50		Sand, yellow, fine to me	edium grained, po	oorly sorted		
_i i				•		
1 1				ained, poorly sorted, pebb	les (10-30%),	
-!!!		<0.5 inches, subangula	ar .			
						6.5
i i l		Same as above, tan, de	ecrease in pebble	es		
-i i						
55						
_ii		Sand, tan to yellowish t	tan, fine to coarse	grained, moist		
- !!!!						
i i						
i i						
_						5.3
!!!						
60						
i i		Sand, brownish yellow	to light yellow, fin	e to coarse grained, poorly	y sorted	
<u>-i</u> i	1	ĺ				
_{ ! !						
; ;	1	ĺ				7.8
i i l	1	ĺ				7.0
_i i	1					
65 100	1	Sand, white to yellowis	n white, poorly so	orted, fine to medium grain	ed	
65100	1	Sand, brown, poorly so	rted, fine to medi	um grained, pebbles (<109	%), <0.25 inches	
_		.,, p.zz, 00	.,	3, ,	,,	
i i l	1	ĺ				
-i i	1	ĺ				
_! !	1	ĺ				13.2
!!!		Turning yellowish br	own @ 68 feet	bgs		
	1	ĺ				
70	1	ĺ				
··- –i i		Sand, yellow, fine grain	ned, well-sorted			
_i		1				
!!!		ĺ				
-		ĺ				
_i i		ĺ				11.1
i i l		ĺ				
_i i l	Ī	ī				



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	DEPTH BELOW SURFACE (FT) STANDARD			SOIL DESCRIPTION	COMMENTS	
1			PENETRATION			
		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"	OR CONSISTENCY, SOIL STRUCTURE,	TESTS, AND INSTRUMENTATION.
				(N)	MINERALOGY.	PID (ppm):
	i					VI.
75 <u> </u>	1				Gravelly sand, brown, poorly sorted, fine to medium grained, pebbles (20-30%), <0.25 inches	
-	i i i i				Sand, light yellow, fine grained, well sorted, dry	9.0
80	!!!					
					Clayey sand (thin fine sand between thin clay layers), yellowish gray	-
_	i i				Sand, tan, medium grained, well-sorted	
-	-1 -1 -1					14.0
0.5	i i	100			wet at approximately 84 feet bgs	
85 <u> </u>		100			Sandy clay (interbedded thin layers of sand and clay), yellowish brown, firm, wet	
90					Sandy clay, increase of clay, yellowish brown, dense, moist	2.1
-					Sand, white to light yellow, fine grained, well sorted, dr	2.6
95	<u> </u>				Cilty and hands of gray and tan fine grained depocky neeked wat	
-]				Silty sand, bands of gray and tan, fine grained, densely packed, wet Sand, tannish brown, fine to medium grained, poorly sorted, wet, pebbles, <0.25 inches	Watertable @ approximately 96 feet bg
-					Clay, yellowish gray to dark gray	
100]]]]	100			Gley, yellowish grey to denk grey	
105						
-					Boring Terminated @ 107 feet bgs	
110	-					