

PROJECT NUMBER BORING NUMBER 160492.SA.03 MW-108

# **SOIL BORING LOG**

Long Term Operational Areas - Memphis Depot LOCATION : Memphis, Tennessee PROJECT:

DRILLING CONTRACTOR: Tri-State Testing Services, Inc.

 ELEVATION:
 303.07 feet MSL (TOC);
 303.25 feet MSL (ground)
 DRILLING CONTE

 DRILLING METHOD AND EQUIPMENT USED:
 Hollow Stem Auger 4.25 inch ID with CME Sampler

 WATER LEVELS:
 113.21 feet BTOC (11/2001)
 START:
 10/22/2001
 END:
 10/23

		OC (11/2001) START:	10/22/2001	END: 10/23/2001	LOGGER :	Jay Parker (Jacobs)	
	SURFACE (FT)	STANDARD		SOIL DESCRIPTION		COMMENTS	
INTERV	/AL (FT)	PENETRATION					
	RECOVERY (%)	TEST	SOIL NAME, USCS G	GROUP SYMBOL, COLOR,		DEPTH OF CASING, DRILLI	ING RATE
	#/TYPE	RESULTS	MOISTURE CONTEN	IT, RELATIVE DENSITY,		DRILLING FLUID LOSS,	
		6"-6"-6"	OR CONSISTENCY,	SOIL STRUCTURE,		TESTS, AND INSTRUMENTA	ATION.
		(N)	MINERALOGY.			Corrected	d FID (ppr
ı		Used hollow-stem	Grass, clayey SILT, bro	own, soft, slightly plastic, damp.		(Soil he	eadspac
-[	<u> </u>	auger	1				
ļ	<u> </u>	drilling method					
-	!	drilling method no penetration tes	st				
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i	- i		Clayey SILT, same as	above, moist to wet, slightly plastic to medic	ım plastic,		
-i	j l		high clay content.				
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PROJECT NUMBER

160492.SA.03

BORING NUMBER

MW-108

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ELEVATION: 303.07 feet MSL (TOC); 303.25 feet MSL (ground) DRILLING CONTRACTOR: Tri-State Testing Services, Inc.

DRILLING METHOD AND EQUIPMENT USED: Hollow Stem Auger 4.25 inch ID with CME Sampler

WATER LEVELS: 113.21 feet BTOC (11/2001) START: 10/22/2001 END: 10/23/2001 LOGGER: Jay Parker (Jacobs) DEPTH BELOW SURFACE (FT) STANDARD SOIL DESCRIPTION COMMENTS INTERVAL (FT) PENETRATION RECOVERY (%) TEST SOIL NAME, USCS GROUP SYMBOL, COLOR, DEPTH OF CASING, DRILLING RATE, #/TYPE MOISTURE CONTENT, RELATIVE DENSITY, DRILLING FLUID LOSS, RESULTS 6"-6"-6"-6" OR CONSISTENCY, SOIL STRUCTURE, TESTS, AND INSTRUMENTATION. (N) MINERALOGY Corrected FID (ppm): Clayey SILT, same as above
Grades quickly to SILTY SAND @38' 5YR 5/6
yellowish red, fine, dense, damp, slightly to non plastic, matrix holding, fine sand Used hollow-stem auger drilling method no penetration tes together seen somewhat clayey/silty 40 results 0.0 45 0.0 100 SAND, reddish yellow 5YR 6/8, fine to medium loose, damp to moist, well sorted, some gravel in thin beds further down 50 0.0 SAND, turns yellow 2.5YR 8/6 with trace grand/small rounded pebbles. 55 2.6 SAND, 2.5YR 8/6 yellow, fine loose, damp, some to trace fine gravels/pebbles as above, zones of more grave up to  $60\,{}^\sim_{}\,15\%$ 60 0.0 100 65 0.0 CLAY, 6" thick, mottled gray and red, very plastic SAND, 2.5YR 8/6 yellow, fine loose, damp, some to trace fine gravels/pebbles Sand is so loose some fell out as sampler was about to take sample. 70 0.6 100



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WATER	R LEVELS	: 113.21	feet BTOC (	11/2001) START:	10/22/2001 END: 10/23/2001 LOGGER:	Jay Parker (Jacobs)		
DEPTH	BELOW SU	RFACE (I	=T)	STANDARD	SOIL DESCRIPTION	COMMENTS		
	INTERVA			PENETRATION				_
		RECOVE	RY (%)	TEST	SOIL NAME, USCS GROUP SYMBOL, COLOR,	DEPTH OF CASING, DRILL	ING RATE	
			#/TYPE	RESULTS	MOISTURE CONTENT, RELATIVE DENSITY,	DRILLING FLUID LOSS,		'
				6"-6"-6"	OR CONSISTENCY, SOIL STRUCTURE,	TESTS, AND INSTRUMENT	ATION	
				(N)	MINERALOGY.		ed FID (ppn	۵).
	<u>                                     </u>			(11)	WIINERALOGT.	Correcte	и гір (рріі	1).
75 _				Used hollow-stem			1.4	
	i i			auger	SAND same as above, turns redder			
_	-i i			drilling method				-
				drilling method no penetration test results				
_	<u> </u>				Gravelly, SAND, yellowish brown, 10YR 5/6, medium to coarse, loose, damp to n	noist,		-
_	!!!				fine to coarse gravels rounded to sub angular			_
	! !							
-	: i							-
80	i i						0.6	
	i i							
_	J I							_
		100						
-	· !	100						-
I -	i i							_
-	i i				Black stained area, oily, slight hydro-carbon order, 6" band	At 83.5 readings were 0.0/0.0		-
85	ı i						1.0	
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	!!							
-	:t				Fine SAND at 87 to 89.			-
	i i							
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-	-l I				Silty Clayey SAND, very pale brown 10YR 7/4 mottled with white very fine, wet to			_
90	!!!				moist, slightly plastic medium stiff		0.0	
30 _	!!!				most, siightiy piastic medidiri stiri		0.0	_
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	i	400						
-	i i	100						_
	i i							
	1 .				SAND, with gravel, strong brown 7.5YR 5/6, loose, moist to wet, fine to medium			
-	!!!				gravel <u>~</u> 5% up to 2"			_
95							1.4	
33_	1 1						1.4	_
_	i i							_
	i i					Sample collected for VOC		
I -	11				Gravelly SAND, pale yellow 2.54 7/4, medium to coarse, loose wet.	Sample collected for VOCs	3	-
	!				Stavelly Grand, pale yellow 2.04 774, medium to coarse, loose wet.			
I -	] !					Sample fell out while bring	ing it to	_
-	: :					the surface. Sample lost at	1	_
100	i i					H2O. Contact, guess <u>∧</u> to	0.0	
100 _	i i					be at <u>~</u> 100'	0.0	_
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-	<b>!</b> !							-
	i				SAND, light olive brown 2.5YR 5/6, fine, loose, wet trace gravel up to 2"			
-	i i				S. 115, 1g.1. S. 170 DIOWIT 2.0 FT. O/O, IIIIO, 10005, Wet trace graver up to 2			-
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110 _	!!!							_
	<u>!</u> !		Ì					



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DRILLING METHOD AND EQUIPMENT USED: Hollow Stem Auger 4.25 inch ID with CME Sampler

WATER LEVELS: 113.21 feet BTOC (11/2001)

START: 10/22/2001

END: 10/23

				1/2001) START:	em Auger 4.25 inch ID with CME Sampler  10/22/2001 END: 10/23/2001 LOGGER:	Jay Parker (Jacobs)
DEPTH BE				STANDARD	SOIL DESCRIPTION	COMMENTS
_	NTERVAL		•,	PENETRATION	GOL BLOOM HON	COMMENTO
"		ECOVE	RY (%) #/TYPE	TEST RESULTS 6"-6"-6"-6"	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):
115		50		(N) Used hollow-stem auger drilling method no penetration test results		Water Table
-     -    -         	\    \       				SAND, 5YR 7/1 light gray, very fine, well sort, soft/medium dense, wet.  Clayey Silty SAND, Chart 1 CLAY greenish gray 5/1, very fine, slightly plastic to nonplastic, stiff/dense, wet, high clay content	
1 1 1 1 1					CLAY, 6" of gray SAND, light gray 2.5YR 7/2, fine to medium, loose, wet	
135		100			CLAY, light yellowish brown 2.5YR 6/3, plastic, damp, soft/medium still SAND, as above, light gray, fine to medium	
140	i ! !					



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		STANDARD	SOIL DESCRIPTION	COMMENTS	
INTER\	/AL (FT)	PENETRATION			
	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"	OR CONSISTENCY, SOIL STRUCTURE,	TESTS, AND INSTRUMENTATION.	
		(N)	MINERALOGY.	Corrected FID (ppr	
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-{	ł		SAND, as above, light gray, fine to medium		
ł		auger			
_i	i l	drilling method			
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7			SAND, light gray 2.5YR 7/2 to brownish yellow in grades throughout the 20' sample,		
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-	Į I		fine to medium, loose wet.		
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-j    -	<u> </u>		SAND, light gray 2.5YR 7/2 to brownish yellow, fine to medium, loose wet.	Sample collected for TOC	



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				1/2001) START:	em Auger 4.25 inch ID with CME Sampler  10/22/2001 END: 10/23/2001 LOGGER:	Jay Parker (Jacobs)
	BELOW SURF			STANDARD	SOIL DESCRIPTION	COMMENTS
	INTERVAL (I	FT)		PENETRATION		
	RE	COVERY	′ (%)	TEST	SOIL NAME, USCS GROUP SYMBOL, COLOR,	DEPTH OF CASING, DRILLING RATE,
		#/	TYPE	RESULTS	MOISTURE CONTENT, RELATIVE DENSITY,	DRILLING FLUID LOSS,
				6"-6"-6" (N)	OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY.	TESTS, AND INSTRUMENTATION.  Corrected FID (ppm):
				(14)	WINERALOGT.	Corrected Fib (ppin).
_	į į			Used hollow-stem	SAND, light gray 2.5YR 7/2 to brownish yellow, fine to medium, loose wet.	_
				auger		
170	i			drilling method		
	!!				@ 170' CLAY, tan, sandy, soft, moist, grading to darker gray with depth	
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					BORING TERMINATED @ 187 FEET BGS.	
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