



Proj. No.: 113630.01.ZZ

SOIL BORING LOG

Project: DDMT GW Investigation

Drilling Contractor: Boart Longyear

Drilling Method & Equipment: Rotasonic

Logger: S. Bruer/MGM

Depth Below Surface (FT)	Sample			Standard Penetration Test Results 5'-6"-5" (N)	Soil Description	Comments
	Interval	Number and Type	Recovery (FT)			
Elevation:			Location: Memphis, TN			Boring No. MW-48(I)
Start: 0855 1/24/96			Finish: 1730 1/24/96			Water Level: 79.98 ft bgs

Sheet 1 of 3

0				1 inch TOPSOIL	Start Drilling at 0855 <u>modified loess</u>
5	5		5	SILTY CLAY (CL) , light brown with light gray mottling, moist, soft, low plasticity, trace organics, trace iron nodules (<1/8-inch diameter)	
10					
15	15		10	- stiff with light brown with black mottling below 14 ft - with light gray, orange, and black mottling below 15 ft	- 1 inch SILT (ML), light gray, at 18 ft <u>Fluvial Deposits</u>
20			10	SANDY CLAY (CL) , light brown, moist, medium stiff, medium plasticity, fine to coarse, quartz sand, trace fine to medium, subangular to rounded, chert gravel	- gradational contact
25	25			CLAYEY SAND (SC) , brownish-red, moist, medium dense, medium to coarse, quartz, trace fine to medium, subrounded to rounded, chert gravel	- gradational contact at 26 ft
30	30		5	SILTY FINE SAND (SM) , brownish-orange, moist, loose, quartz	- abrupt contact with black iron staining and coarse, chert gravel at 27 ft
30	30			POORLY GRADED SAND (SP) , orangish-brown, moist, loose, medium, quartz, trace fine, subrounded, chert gravel	- gradational contact at 29 ft
30	30		5	SILTY FINE SAND (SM) , tan, moist, loose, quartz	- gradational contact at 31 ft
35	35			POORLY GRADED SAND (SP) , tan to orangish-brown, moist, loose, quartz.	

NOTES:

- groundwater level measurement made 1/27/96



Proj. No.: 113830.01.ZZ

SOIL BORING LOG

Project: DDMT GW Investigation

Drilling Contractor: Boart Longyear

Drilling Method & Equipment: Rotasonic

Logger: S. Bruer/MGM

Depth Below Surface (FT)	Sample			Standard Penetration Test Results 6"-6"-6" (N)	Soil Description	Comments
	Interval	Number and Type	Recovery (FT)			
35					trace fine, subrounded, chert gravel	
40			10		- light brown to orangish-brown below 39 ft	- free water present on gravels below 39 ft
45	45				SILTY FINE SAND (SM) , tan, moist, loose, quartz	- gradational contact
50			10		POORLY GRADED SAND (SP) , tan, moist loose, fine to medium, quartz - orangish-brown below 52 ft	- gradational contact, clayey
55	55				WELL GRADED GRAVELLY SAND (SW) , orangish-brown, moist to wet, loose, fine to coarse, quartz, with fine to coarse, subangular to rounded, chert gravel	- free water present on gravels below 55 ft
60			10		POORLY GRADED SAND (SP) , tan, moist, loose, fine to medium, quartz - clay laminations at 62 ft - orangish-brown to brownish-orange below 62 ft	- gradational contact - abrupt color change at 62 ft
65	65				- clay laminations at 66 ft - tan below 68 ft	- abrupt color change at 66 ft
70						

NOTES:

- groundwater level measurement made 1/27/96

Sheet 2 of 3



Proj. No.: 113630.01.ZZ

SOIL BORING LOG

Project: DDMT GW Investigation

Drilling Contractor: Boart Longyear

Drilling Method & Equipment: Rotasonic

Logger: S. Bruer/MGM

Depth Below Surface (FT)	Sample			Standard Penetration Test Results 6"-6'-8" (N)	Soil Description Soil name, uscs group symbol, color, moisture content, relative density or consistency, soil structure, mineralogy	Comments Depth of casing, drilling rate, drilling fluid loss, tests and instrumentation
	Interval	Number and Type	Recovery (FT)			
Elevation:				Location: Memphis, TN		Boring No. MW-48(I)
Start: 0855 1/24/98				Finish: 1730 1/24/98		
Sheet 3 of 3						
75	75		10		WELL GRADED GRAVELLY SAND (SW) , brownish-orange, moist, loose, fine to coarse, quartz, with fine to coarse, sub-angular to rounded, chert and quartz gravel - tan and white below 72 ft	- gradational contact
80			10			
85	85					
90			10		- orangish-brown below 88 ft; increase in gravel content to 91 ft, SW-GW	- geotechnical sample collected from 93.5 ft to 94.5 ft
95	95					- erosional contact at 94.5 ft
100			10		SILTY CLAY (CL) , light brown with black mottling, moist, medium stiff to stiff, low to medium plasticity - light brown and gray below 98 ft - light gray with black mottling and very stiff to hard below 99 ft - light gray SILT laminations at 102 ft	<u>Jackson Frm/Upper Claiborne</u>
105	105				Boring Terminated at 105 Feet	Stopped Drilling at 1610
NOTES:						1730 - MW-48 installed, see attached construction log
- groundwater level measurement made 1/27/98						