



MACTEC Engineering and Consulting  
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Kennesaw, GA 30144


# FIELD BOREHOLE LOG

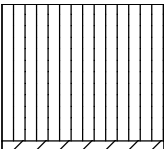
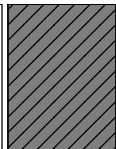
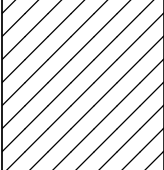
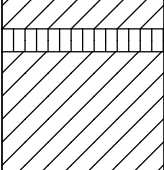

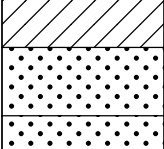

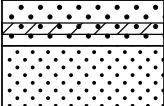
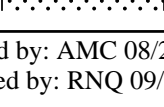
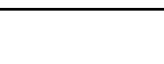

BOREHOLE NO.: MW-152

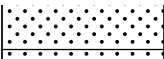
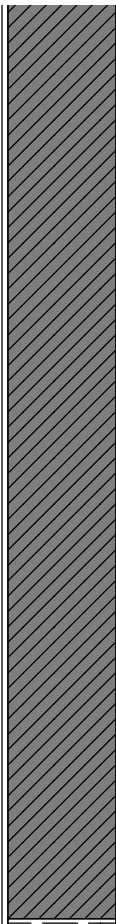
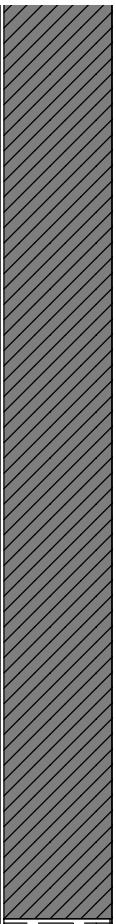

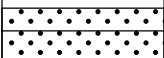







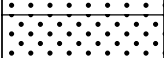




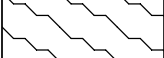

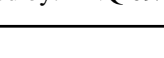
TOTAL DEPTH: 116

PROJECT INFORMATION		DRILLING INFORMATION	
PROJECT:	DDMT	DRILLING CO.:	ProSonic
SITE LOCATION:	Memphis, TN	DRILLER:	David Wilcox
JOB NO.:	6301-04-0002	RIG TYPE:	RotoSonic
LOGGED BY:	Kevin Arnold	TOP OF CASING ELEVATION:	289.59'
PROJECT MANAGER:	Tom Holmes	GROUND SURFACE ELEVATION:	289.82'
DATE DRILLED:	8/11/04		

## NOTES:

- 1) Drilling technique: 0 to 116.0 ft, bgs 6-inch diameter borehole with roto sonic.
- 2) Well construction: 2-inch diameter schedule 40 PVC casing set to 109.0 ft, bgs with 20 ft of 0.01-inch slot well screen.
- 3) Well screens the fluvial aquifer.
- 4)  Stabilized water level measured on 8/19/04

DEPTH	SOIL SYMBOLS	USCS	SOIL DESCRIPTION	FID ppm	WELL COMPLETION	WELL DESCRIPTION
0		ML	yellowish brown (10 YR 5/6), non-plastic to low plastic, clayey SILT			Grouted Annulus
-5		CL	olive brown (2.5 Y 4/4), slightly to medium plastic, silty CLAY, soft to very soft	0.0		
-10				0.0		
-15		ML	olive brown (2.5 Y 4/4), low to slightly plastic, clayey SILT, soft	0.0		
-20		CL	strong brown (7.5 YR 5/6), slight to medium plastic, silty CLAY with trace fine grain SAND, soft, moist	0.0		
-25		CL	strong brown (7.5 YR 5/6), low to medium plasticity, silty CLAY, medium stiff	0.0		
-30		SP	yellowish red (5 YR 5/6), fine grain SAND with well rounded coarse gravel, loose	0.0		
-35		SP	yellowish red (5 YR 5/6), fine grain SAND with trace medium stiff clay, moist	0.0		
-40		NR	No Recovery	0.0		
		SP	light grayish brown to reddish brown, fine grain SAND with trace medium to coarse grain sand, loose	0.0		
		CL	reddish yellow (7.5 YR 6/6), CLAY lense	0.0		
		SP	reddish yellow (7.5 YR 6/6), rounded to subrounded, fine	0.0		

DEPTH	SOIL SYMBOLS	USCS	SOIL DESCRIPTION	FID ppm	WELL COMPLETION		WELL DESCRIPTION
-45		SW	grain SAND with coarse gravel, well sorted	0.0			
		NR	red (2.5 YR 4/6), fine to coarse grain SAND, very loose				
			No Recovery				
-50		SP	red (2.5 YR 4/6), fine grain SAND, very loose, moist	0.0			
		SP	light red (2.5 YR 7/6), fine grain SAND with rounded coarse gravel, well sorted, loose				
-55				0.0			
		NR	No Recovery				
-60		SP	pink (5 YR 8/3) rounded, fine grain SAND with trace rounded to well rounded fine gravel to cobbles, loose, poorly graded, moist	0.0			
-65				0.0			
		NR	No Recovery				
-70		SP	reddish yellow (5 YR 7/5), fine grain SAND with trace rounded coarse gravel, very loose, poorly graded	0.0			
		SP	pinkish gray (5 YR 7/2), fine grain SAND with trace medium grain sand and rounded, fine gravel, very loose				
-75							
		NR	No Recovery				
-80		SP	light reddish brown (5 YR 6/4), fine to medium grain SAND with trace rounded, fine gravel, loose, well sorted				
-85							
		SP	yellow (10 YR 7/8), fine to medium grain SAND with trace rounded, fine gravel, very loose, well sorted, wet				
-90							
		SW	brownish yellow (10 YR 6/8), fine to medium grain SAND and rounded, fine GRAVEL, very loose, wet				
-95		SP	yellow brown (10 YR 5/8), fine to medium grain SAND with fine to coarse gravel, loose, well sorted				
-100							
-105							
		CH	dark gray (5Y 4/1), highly plastic CLAY, hard				
-110							
-115			Boring Terminated at 116 feet bgs				

Bentonite Seal

Sand Pack /  
Screened Interval

Bentonite Plug