



MACTEC Engineering and Consulting
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FIELD BOREHOLE LOG

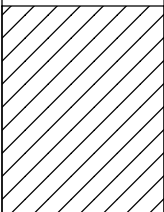
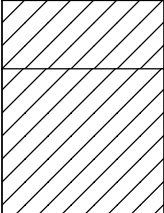
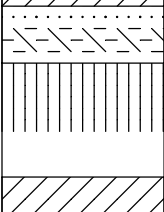
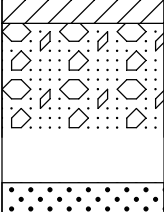
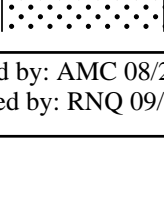
BOREHOLE NO.: **MW-157**

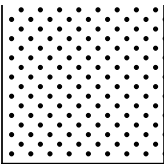
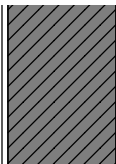
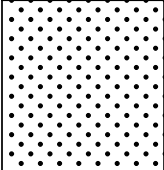
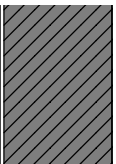

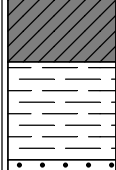
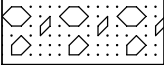

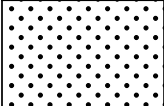



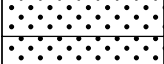



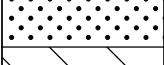




TOTAL DEPTH: **86**

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:	286.78'
PROJECT MANAGER:	Tom Holmes	GROUND SURFACE ELEVATION:	286.83'
DATE DRILLED:	8/15/04		

NOTES:

- 1) Drilling technique: 0 to 86.0 ft, bgs 6-inch diameter borehole with roto sonic.
- 2) Well construction: 2-inch diameter schedule 40 PVC casing set to 77.25ft, 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		Fill CL	Gray fine gravel from old railroad spur			
-5			brown (10 YR 4/3), silty CLAY, slightly plastic, medium stiff			
-10		CL	brown (10 YR 5/4), silty CLAY, non-plastic, medium stiff			
-15		CL	light yellowish brown (10 YR 6/4), mottled, silty CLAY, non-plastic, stiff			
-20		CL-SP	yellowish red (5 YR 5/6) silty CLAY, slightly to medium plasticity and fine grain SAND, medium stiff			
-25		ML	yellowish red (5 YR 5/6) slightly clayey SILT, non-plastic, medium stiff to stiff, slightly moist			
-30		NR	No Recovery			
-35		CL	yellowish red (5 YR 5/8) silty CLAY with trace fine gravel, poorly sorted			
-40		SP-GP	yellow (10 YR 7/6) fine grain SAND and well sorted, rounded to subrounded, fine GRAVEL			
		NR	No Recovery			
		SP	very pale brown (10 YR 8/4 - 7/4) fine grain SAND with trace well sorted, well rounded fine gravel, loose			

DEPTH	SOIL SYMBOLS	USCS	SOIL DESCRIPTION	FID ppm	WELL COMPLETION	WELL DESCRIPTION
-45		SP				
-50			brownish yellow (10 YR 6/6) fine grain SAND with rounded to subrounded fine gravel and trace well sorted coarse gravel			
-55		NR	No Recovery			Bentonite Seal
-60		SP-GP	brownish yellow (10 YR 6/8) fine grain SAND and well sorted, rounded, fine GRAVEL and trace well rounded, coarse gravel			
-65		SP	brownish yellow (10 YR 6/8) fine grain SAND and trace well sorted, rounded, fine gravel, moist			Sand Pack / Screened Interval
-70		NR	No Recovery			
-75		SP	fine to medium grain SAND with trace well rounded fine gravel			
-80		SP	brownish yellow (10 YR 6/8), fine to medium grain SAND with trace clay, very loose, wet			
-85		CH	brownish yellow (10 YR 6/8) slightly silty CLAY, highly plastic, hard			
		CH	grayish brown (10 YR 5/2) slightly silty CLAY, highly plastic			Bentonite Plug
			Boring Terminated at 86 feet bgs		