MACTEC

MACTEC Engineering and Consulting
3200 Town Point Dr, Suite 100
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FIELD BOREHOLE LOG

BOREHOLE NO.: **MW-150**

TOTAL DEPTH: **106**

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:	**296.81'**
PROJECT MANAGER:	**Tom Holmes**	GROUND SURFACE ELEVATION:	**297.15'**
DATE DRILLED:	**6/8/04**		

NOTES:

1) Drilling technique: 0 to 106.0 ft, bgs 6-inch diameter borehole with rotosonic.

2) Well construction: 2-inch diameter schedule 40 PVC casing set to 91.0 ft, bgs with 20 ft of 0.01-inch slot well screen.

3) Well screens the fluvial aquifer.

4) ▼ Stabilized water level measured on 6/24/04

DEPTH	SOIL SYMBOLS	USCS	SOIL DESCRIPTION	FID ppm	WELL COMPLETION	WELL DESCRIPTION
0		CL	silty CLAY, slight organics, slightly plastic, moist	0.0		Grouted Annulus
		CL	brown silty CLAY, non-plastic, dry, soft			
-5				0.0		
		CL	brown silty CLAY, slightly plastic, soft			
-10				0.0		
		CL	brown slightly silty (<5%) CLAY, medium to highly plastic, soft			
-15				0.0		
-20				0.0		
		CL	brown silty CLAY, very stiff, slightly plastic, dry			
-25				0.0		
		SM-ML	reddish brown silty fine grain SAND/fine sandy SILT, medium stiff to stiff, slightly plastic			
-30				0.0		
-35		SP-SC	reddish brown clayey, fine grain SAND, with rounded coarse size chert nodules (25%), non plastic	0.0		
		GP	rounded coarse to cobble size chert nodules with reddish brown slightly clayey fine grain SAND, loose			
-40			reddish brown fine to medium grain SAND with 50 %	0.0		

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DEPTH	SOIL SYMBOLS	USCS	SOIL DESCRIPTION	FID ppm	WELL COMPLETION	WELL DESCRIPTION
		SW	very rounded coarse to cobble size chert nodules			
		SP	light gray and yellow fine grain SAND with trace <5% coarse size chert, loose			
-45		SP	reddish orange, fine grain SAND	0.0		
		GC	brown sandy, clayey GRAVEL			
		SP	brown fine grain SAND, moist			
		SP	reddish orange fine grain SAND			
-50		SP	light brown and yellow, fine grain SAND with gravel to rounded cobble size chert nodules	0.0		
-55		SP	light brown and yellow medium grain SAND	4.8		
		NR	no recovery			
		SP	brown medium grain SAND with gravel to rounded cobble size chert			
-60		SP	brown fine to medium grain SAND with gravel/pebbles	149.2/31.3		
		SM-ML	light gray very fine grain SAND and SILT			Bentonite Seal
-65				94.7/4.1		
		SM-ML	brownish orange fine grain SAND and SILT with some clay and a few pebbles			Sand Pack / Screened Interval
-70		SP-SC	brown yellowish fine grain SAND with some clay	0.0		
		SP-SC	yellowish brown clayey fine grain SAND			
		SP	gray, yellowish brown fine to medium grain SAND			
-75		SP	gray, brown very fine SAND	0.0		
		SP	yellow, brown fine grain SAND with pebbles			
		SP	light brown very fine grain SAND			
-80		SP	light brown, orange fine grain SAND, moist	NA		
		SP	yellowish brown fine to medium grain SAND, wet			
-85		SP	yellowish brown coarse grain SAND with few rounded pebbles, wet	NA		
-90		CH	light gray and orange yellowish fat CLAY	NA		
-95		CH	gray fat CLAY	NA		Bentonite Plug
-100				NA		
-105			Boring Terminated at 106 feet bgs	NA		

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