



MACTEC Engineering and Consulting
3200 Town Point Dr, Suite 100
Kennesaw, GA 30144

FIELD BOREHOLE LOG

BOREHOLE NO.: MW-168

TOTAL DEPTH: 128'

PROJECT INFORMATION

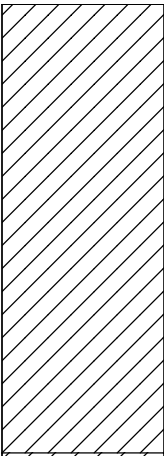
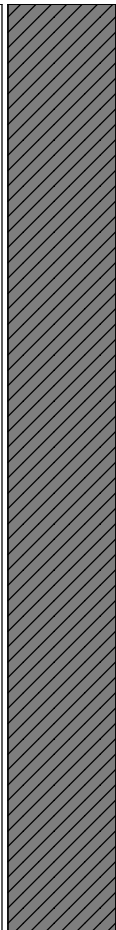


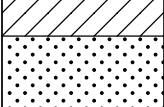
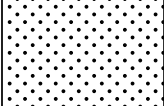
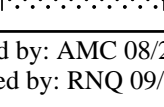
PROJECT: **DDMT**
SITE LOCATION: **Memphis, TN**
JOB NO.: **6301-04-0002**
LOGGED BY: **Bill Payne**
PROJECT MANAGER: **Tom Holmes**
DATE DRILLED: **11/11/04**

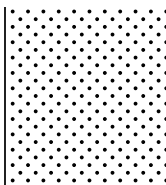
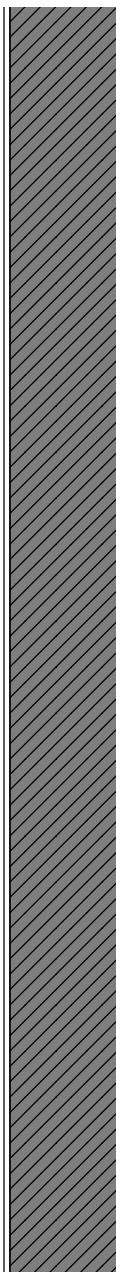
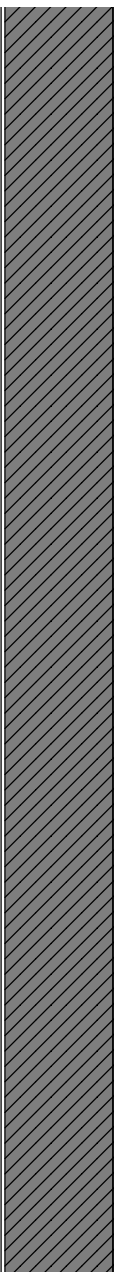
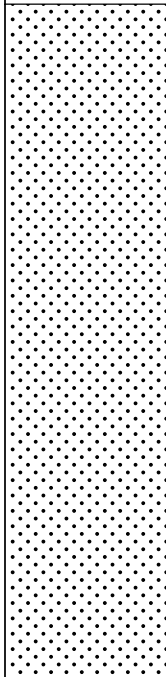
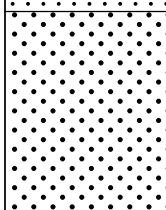
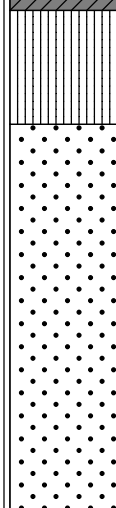
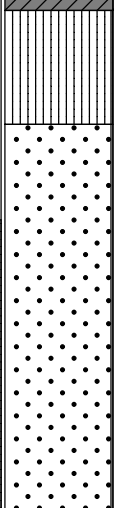
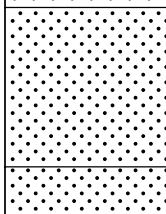
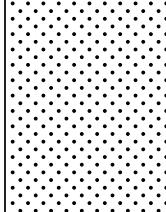
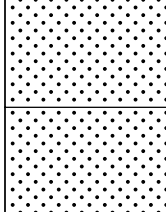
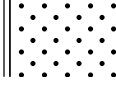
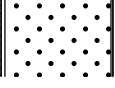
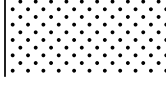
DRILLING INFORMATION

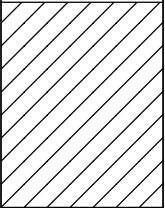
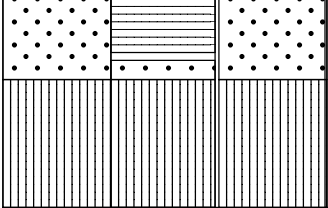
DRILLING CO.: **ProSonic**
DRILLER: **Dan O'Mara**
RIG TYPE: **RotoSonic**
TOP OF CASING
ELEVATION: **283.95'**
GROUND SURFACE
ELEVATION: **284.17'**

NOTES:

- 1) Drilling technique: 0 to 128 ft, bgs 6-inch diameter borehole with rotonsonic.
- 2) Well construction: 2-inch diameter schedule 40 PVC casing set to 119.5ft, bgs with 15 ft of 0.01-inch slot well screen.
- 3) Well screens the fluvial aquifer.
- 4) ▼ Stabilized water level measured on 11/20/04

DEPTH	SOIL SYMBOLS	USCS	SOIL DESCRIPTION	FID ppm	WELL COMPLETION	WELL DESCRIPTION
0		CL	strong brown (7.5 YR 5/6) silty CLAY.			Grouted Annulus
-5						
-10						
-15						
-20		CL	strong brown (7.5 YR 5/6) silty CLAY with trace light brown (7.5 YR 6/4) very fine grain sandy silty CLAY			
-25		CL	strong brown (7.5 YR 5/6) silty CLAY			
-30		SC	strong brown (7.5 YR 5/6) silty CLAY with layers of very pale brown (10 YR 8/4) fine to very fine grain SAND with coarse subangular chert pebbles			
-35		CL	strong brown (7.5 YR 5/6) silty fine grain sandy CLAY with trace subangular, fine gravel			
-40		SW	red (2.5 YR 4/6) to reddish yellow (7.5 YR 7/8) fine grain SAND to coarse subrounded GRAVEL			

DEPTH	SOIL SYMBOLS	USCS	SOIL DESCRIPTION	FID ppm	WELL COMPLETION	WELL DESCRIPTION
-45		SW	reddish-yellow (7.5 YR 6/6) fine to coarse grain SAND with interbedded subrounded, fine grain GRAVEL (wet at 69')			
-50						
-55		SP	very pale brown (10 YR 7/4) fine to medium grain SAND with interbedded subrounded, fine gravel			
-60						
-65						
-70		SP	very pale brown (10 YR 7/4) fine to coarse grain SAND.			
-75						
-80						
-85		SP	very pale brown (10YR 7/4) fine to coarse SAND with fine gravel			
-90						
-95						
-100		SP	yellowish brown (10 YR 5/4) fine to coarse grain SAND with fine gravel, grading into brownish yellow (10 YR 6/8) fine to coarse SAND with fine to coarse gravel			
-105						
-110						
-115		SP	very pale brown (10YR 7/4) fine to coarse SAND with fine gravel			
-120						
-125						
-130		SP	very pale brown (10YR 7/4) fine to coarse SAND with fine gravel			
-135						
-140						
-145		SP	very pale brown (10YR 7/4) fine to coarse SAND with fine gravel			
-150						
-155						
-160		SP	very pale brown (10YR 7/4) fine to coarse SAND with fine gravel			
-165						
-170						
-175		SP	very pale brown (10YR 7/4) fine to coarse SAND with fine gravel			
-180						
-185						
-190		SP	very pale brown (10YR 7/4) fine to coarse SAND with fine gravel			
-195						
-200						
-205		SP	very pale brown (10YR 7/4) fine to coarse SAND with fine gravel			
-210						
-215						
-220		SP	very pale brown (10YR 7/4) fine to coarse SAND with fine gravel			
-225						
-230						
-235		SP	very pale brown (10YR 7/4) fine to coarse SAND with fine gravel			
-240						
-245						
-250		SP	very pale brown (10YR 7/4) fine to coarse SAND with fine gravel			
-255						
-260						
-265		SP	very pale brown (10YR 7/4) fine to coarse SAND with fine gravel			
-270						
-275						
-280		SP	very pale brown (10YR 7/4) fine to coarse SAND with fine gravel			
-285						
-290						
-295		SP	very pale brown (10YR 7/4) fine to coarse SAND with fine gravel			
-300						
-305						
-310		SP	very pale brown (10YR 7/4) fine to coarse SAND with fine gravel			
-315						
-320						
-325		SP	very pale brown (10YR 7/4) fine to coarse SAND with fine gravel			
-330						
-335						
-340		SP	very pale brown (10YR 7/4) fine to coarse SAND with fine gravel			
-345						
-350						
-355		SP	very pale brown (10YR 7/4) fine to coarse SAND with fine gravel			
-360						
-365						
-370		SP	very pale brown (10YR 7/4) fine to coarse SAND with fine gravel			
-375						
-380						
-385		SP	very pale brown (10YR 7/4) fine to coarse SAND with fine gravel			
-390						
-395						
-400		SP	very pale brown (10YR 7/4) fine to coarse SAND with fine gravel			
-405						
-410						
-415		SP	very pale brown (10YR 7/4) fine to coarse SAND with fine gravel			
-420						
-425						
-430		SP	very pale brown (10YR 7/4) fine to coarse SAND with fine gravel			
-435						
-440						
-445		SP	very pale brown (10YR 7/4) fine to coarse SAND with fine gravel			
-450						
-455						
-460		SP	very pale brown (10YR 7/4) fine to coarse SAND with fine gravel			
-465						
-470						
-475		SP	very pale brown (10YR 7/4) fine to coarse SAND with fine gravel			
-480						
-485						
-490		SP	very pale brown (10YR 7/4) fine to coarse SAND with fine gravel			
-495						
-500						
-505		SP	very pale brown (10YR 7/4) fine to coarse SAND with fine gravel			
-510						
-515						
-520		SP	very pale brown (10YR 7/4) fine to coarse SAND with fine gravel			
-525						
-530						
-535		SP	very pale brown (10YR 7/4) fine to coarse SAND with fine gravel			
-540						
-545						
-550		SP	very pale brown (10YR 7/4) fine to coarse SAND with fine gravel			
-555						
-560						
-565		SP	very pale brown (10YR 7/4) fine to coarse SAND with fine gravel			
-570						
-575						
-580		SP	very pale brown (10YR 7/4) fine to coarse SAND with fine gravel			
-585						
-590						
-595		SP	very pale brown (10YR 7/4) fine to coarse SAND with fine gravel			
-600						
-605						
-610		SP	very pale brown (10YR 7/4) fine to coarse SAND with fine gravel			
-615						
-620						
-625		SP	very pale brown (10YR 7/4) fine to coarse SAND with fine gravel			
-630						
-635						
-640		SP	very pale brown (10YR 7/4) fine to coarse SAND with fine gravel			
-645						
-650						
-655		SP	very pale brown (10YR 7/4) fine to coarse SAND with fine gravel			
-660						
-665						
-670		SP	very pale brown (10YR 7/4) fine to coarse SAND with fine gravel			
-675						
-680						
-685		SP	very pale brown (10YR 7/4) fine to coarse SAND with fine gravel			
-690						
-695						
-700		SP	very pale brown (10YR 7/4) fine to coarse SAND with fine gravel			
-705						
-710						
-715		SP	very pale brown (10YR 7/4) fine to coarse SAND with fine gravel			
-720						
-725						
-730		SP	very pale brown (10YR 7/4) fine to coarse SAND with fine gravel			
-735						
-740						
-745		SP	very pale brown (10YR 7/4) fine to coarse SAND with fine gravel			
-750						
-755						
-760		SP	very pale brown (10YR 7/4) fine to coarse SAND with fine gravel			
-765						
-770						

DEPTH	SOIL SYMBOLS	USCS	SOIL DESCRIPTION	FID ppm	WELL COMPLETION	WELL DESCRIPTION
<div> <div>-120</div> <div>-125</div> </div>		CL	<div>dark gray (10 YR 4/1) CLAY</div> <div>Boring Terminated at 128 ft, bgs</div>			Bentonite Plug