



MACTEC Engineering and Consulting
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FIELD BOREHOLE LOG

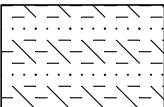

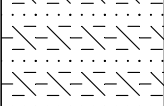
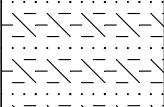
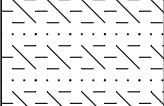
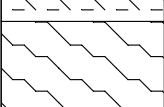


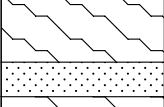
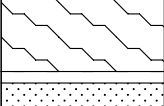
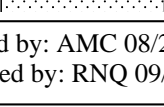
BOREHOLE NO.: **MW-140**

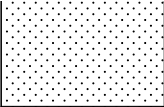
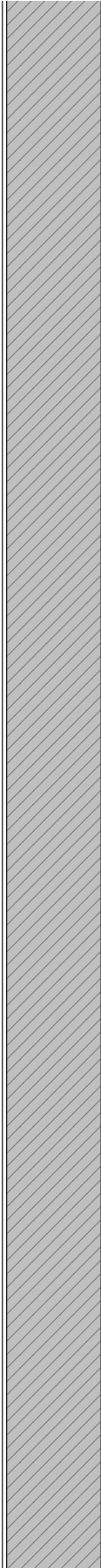


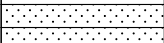
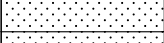


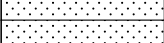
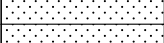
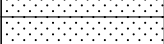
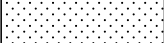
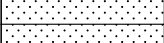
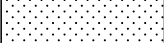


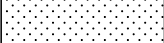

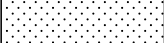

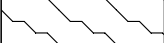
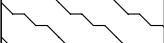
TOTAL DEPTH: **246**

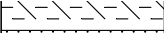
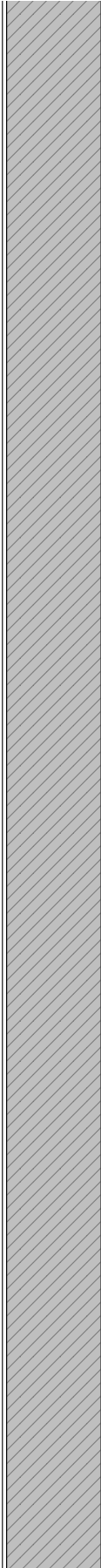

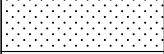

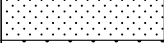


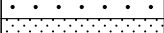
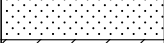
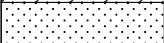
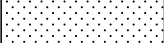

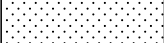
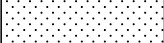
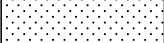

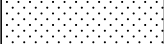


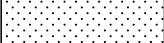
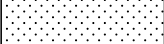

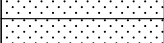
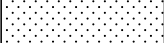
| PROJECT INFORMATION | | DRILLING INFORMATION | |
|---------------------|---------------------|---------------------------|---------------------|
| PROJECT: | DDMT | DRILLING CO.: | ProSonic |
| SITE LOCATION: | Memphis, TN | DRILLER: | David Wilcox |
| JOB NO.: | 6301-04-0002 | RIG TYPE: | RotoSonic |
| LOGGED BY: | Bill Payne | TOP OF CASING ELEVATION: | 298.12' |
| PROJECT MANAGER: | Tom Holmes | GROUND SURFACE ELEVATION: | 298.16' |
| DATE DRILLED: | 5/19/04 | | |

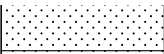


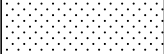
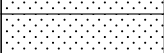
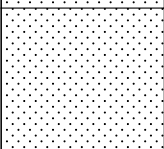
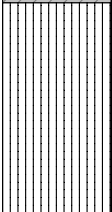
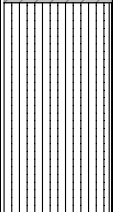
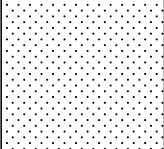
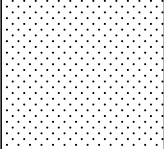
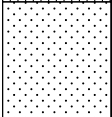
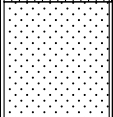
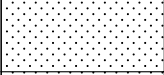
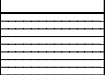

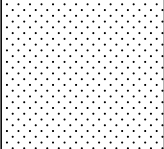

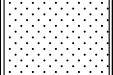
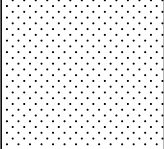
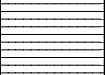

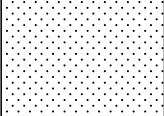
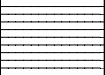

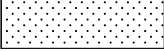
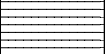

NOTES:

- 1) Drilling technique: 0 to 246 ft, bgs 6-inch diameter borehole with roto sonic.
- 2) Well construction: 2-inch diameter schedule 40 PVC casing set to 245 ft, bgs with 20 ft of 0.01-inch slot well screen.
- 3) Well screens the intermediate aquifer.
- 4)  Stabilized water level measured on 6/25/04

| DEPTH | SOIL SYMBOLS | USCS | SOIL DESCRIPTION | FID ppm | WELL COMPLETION | | WELL DESCRIPTION |
|-------|---|----------|--|---------|---|--|------------------|
| 0 |  | CL | dark brown silty CLAY | 0.0 |  | | Grouted Annulus |
| -5 |  | | | 0.0 | | | |
| -10 |  | | | 0.0 | | | |
| -15 |  | | | 0.0 | | | |
| -20 |  | CH | brown CLAY | 0.0 | | | |
| -25 |  | | | 0.0 | | | |
| -30 |  | | | 0.0 | | | |
| -35 |  | SP | light brown to yellowish brown fine grain SAND | 0.0 | | | |
| -38 |  | CH | brown to pale red CLAY | | | | |
| -40 |  | CL SP | brown fine grain sandy CLAY yellowish-brown medium grain SAND | 0.0 | | | |

| DEPTH | SOIL SYMBOLS | USCS | SOIL DESCRIPTION | FID ppm | WELL COMPLETION | | WELL DESCRIPTION |
|-------|--|------|--|---------|---|--|------------------|
| -45 |  | SP | light brown medium to coarse grain SAND and fine GRAVEL | 0.0 |  |  | |
| |  | | light brown medium grain SAND | | | | |
| -50 |  | SP | light brown medium grain SAND and fine GRAVEL | 0.0 | | | |
| |  | SP | light brown medium grain SAND | | | | |
| -55 |  | SP | light brown medium to coarse grain SAND with <10% fine gravel | 0.0 | | | |
| |  | SP | yellowish-brown medium grain SAND and fine GRAVEL | | | | |
| -60 |  | SP | light brown medium grain SAND with <5% coarse sand and fine gravel | 0.0 | | | |
| |  | SP | yellowish-brown medium grain SAND | | | | |
| -65 |  | SP | yellowish-brown medium grain SAND to fine gravel | 0.0 | | | |
| -70 |  | | | 0.0 | | | |
| -75 |  | | | 0.0 | | | |
| -80 |  | CH | dark gray CLAY | 0.0 | | | |
| -85 |  | | | 0.0 | | | |
| -90 |  | | | 0.0 | | | |
| -95 |  | | | 0.0 | | | |
| -100 |  | | | 0.0 | | | |
| -105 |  | CH | dark gray CLAY | 0.0 | | | |
| -110 |  | | | 0.0 | | | |
| -115 |  | | yellowish brown fine grain SAND | 0.0 | | | |
| |  | | brownish-gray to yellowish-brown fine grain sandy CLAY | | | | |

| DEPTH | SOIL SYMBOLS | USCS | SOIL DESCRIPTION | FID ppm | WELL COMPLETION | | WELL DESCRIPTION |
|-------|---|------|--|---------|---|--|------------------|
| -120 |  | SP | | 0.0 |  |  | |
| |  | | light brown to reddish brown fine grain SAND | | | | |
| |  | CL | gray fine sandy CLAY lense | | | | |
| -125 |  | SP | light gray fine grain SAND | 0.0 | | | |
| |  | SM | | | | | |
| |  | | dark brown silty fine grain SAND | | | | |
| -130 |  | SP | | 0.0 | | | |
| |  | | light gray fine grain SAND | | | | |
| |  | SC | light gray clayey, fine grain SAND lense | | | | |
| -135 |  | SP | very light gray fine grain SAND | 0.0 | | | |
| |  | SP | | | | | |
| -140 |  | | | NA | | | |
| -145 |  | | | NA | | | |
| -150 |  | | | NA | | | |
| -155 |  | | | NA | | | |
| -160 |  | | very light gray fine grain SAND | NA | | | |
| -165 |  | | | NA | | | |
| -170 |  | | | NA | | | |
| -175 |  | | | NA | | | |
| -180 |  | | | NA | | | |
| -185 |  | | | | | | |
| -190 |  | | | NA | | | |
| -195 |  | | | NA | | | |

| DEPTH | SOIL SYMBOLS | USCS | SOIL DESCRIPTION | FID ppm | WELL COMPLETION | | WELL DESCRIPTION |
|-------|---|------|--|---------|---|---|-------------------------------|
| -200 |  | SP | light brownish-gray fine grain SAND | NA |  |  | |
| |  | | light brownish-gray fine grain SAND, with 4" light gray clay lense | | | | |
| -205 |  | | light brownish-gray fine grain SAND | | | | |
| -210 |  | SP | | NA |  |  | Bentonite Seal |
| -215 |  | | | NA | | | Sand Pack / Screened Interval |
| -220 |  | | | NA |  |  | |
| -225 |  | | very light gray to light brownish-gray fine grain SAND | NA |  |  | |
| -230 |  | | | NA |  |  | |
| -235 |  | | | |  |  | |
| -240 |  | | | NA |  |  | |
| -245 |  | | Boring Terminated at 246 feet bgs | NA |  |  | |