

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

## FIELD BOREHOLE LOG

BOREHOLE NO.: **DR1-5** TOTAL DEPTH: **156** 

| PROJECT IN       | FORMATION         | DRILLING INFORMATION         |               |  |  |
|------------------|-------------------|------------------------------|---------------|--|--|
| PROJECT:         | <b>Boring Log</b> | DRILLING CO.:                | ProSonic      |  |  |
| SITE LOCATION:   | Memphis, TN       | DRILLER:                     | Adam Marshall |  |  |
| JOB NO.:         | 6301-04-0002      | RIG TYPE:                    | RotoSonic     |  |  |
| LOGGED BY:       | Bill Payne        | TOP OF CASING                | 294.50'       |  |  |
| PROJECT MANAGER: | Tom Holmes        | ELEVATION:                   | 25 1100       |  |  |
| DATE DRILLED:    | 5/8/04            | GROUND SURFACE<br>ELEVATION: | 294.88'       |  |  |

## NOTES:

- 1) Drilling technique: 0 to 156 ft, bgs 6-inch diameter borehole with rotosonic.
- 2) Well construction: 2-inch diameter schedule 40 PVC casing set to 145.5 ft, bgs with 20 ft of 0.01-inch slot well screen.
- 3) Well screens the fluvial aquifer.
- 4) \_ Stabilized water level measured on 6/25/04

| DEDTH | SOIL          |       | COIL DESCRIPTION   | FID      | WELL       | WELL            |
|-------|---------------|-------|--|----------|------------|-----------------|
| DEPTH | SYMBOLS       | USCS  | SOIL DESCRIPTION   | ppm      | COMPLETION | DESCRIPTION     |
| 0     | -7-7-7-7      | ELLL  | Asphalt and crushed stone, fill  | 0.0      |            | Grouted Annulus |
| -     |               |       | brown silty CLAY   |          |            |                 |
| -5    |               |       |  | 0.0      |            |                 |
|       |               |       |  | 0.0      |            |                 |
|       |               |       |  |          |            |                 |
| -10 - |               |       |  | 0.0      |            |                 |
| -     | -/-/-/-/-/-/  |       |  |          |            |                 |
| -15 - | -/-/-/-/-/-/  |       |  | 0.0      |            |                 |
|       | -Z-Z-Z-Z-Z    | CL    | brown very fine grain sandy, silty, CLAY   | 0.0      |            |                 |
| ]     | -7-7-7-7      |       |  |          |            |                 |
| -20   |               | SC    | reddish brown to brown clayey, very fine grain SAND                                    | 0.0      |            |                 |
|       |               |       |  |          |            |                 |
| -25 – |               | SC    | mottled and bedded reddish brown, brown and light gray fine grain SAND with trace clay | 0.0      |            |                 |
| ]     |               | SW-GW | reddish brown fine to coarse grain SAND with fine to coarse gravel (<10%)              |          |            |                 |
| -30 — |               | SP-SC | reddish brown clayey, fine grain SAND with <10% fine gravel                            |          |            |                 |
|       |               | SW    | reddish brown fine to coarse grain SAND  | 0.0/46.5 |            |                 |
|       |               | SP    | reddish brown fine grain SAND  |          |            |                 |
| -35 — |               |       | readish from the grain SAIND   | 0.0      |            |                 |
|       | • • • • • • • | SW    | brown fine grain SAND to coarse GRAVEL   |          |            |                 |
| -40   |               |       | grayish reddish brown CLAY   | 0.0      |            |                 |
| -     | ••••••        | S₩    |  | 0.0      |            |                 |

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## Borehole No. DR1-5

| Borehole No. DR1-5  SOIL WELL WELL |   |       |  |       |            |             |
|------------------------------------|---|-------|--|-------|------------|-------------|
| DEPTH                              | SOIL                                    | USCS  | SOIL DESCRIPTION   | FID   |            |             |
|                                    | SYMBOLS                                 |       |  | ppm   | COMPLETION | DESCRIPTION |
| -                                  |   | SP    | brown fine grain SAND to fine GRAVEL   |       |            |             |
|                                    | 100000000000000000000000000000000000000 | NR    | light brown fine grain SAND  |       |            |             |
| -45 —                              |   |       | no recovery  | NA    |            |             |
|                                    |   | SP    | light brown fine grain SAND  |       |            |             |
|                                    |   |       |  |       |            |             |
| -50 —                              |   |       |  | 0.0   |            |             |
|                                    |   |       |  | 0.0   |            |             |
| -                                  |   | NR    | no recovery  |       |            |             |
| -55 –                              |   |       | list recovery  | NA NA |            |             |
|                                    | •••••                                   | SW    | brown fine to coarse grain SAND with some fine gravel                                    | INA.  |            |             |
| -                                  |   |       |  |       |            |             |
| -60                                |   |       |  | 0.0   |            |             |
|                                    |   |       |  | 0.0   |            |             |
|                                    |   | SP    | yellowish brown medium grain SAND, moist   |       |            |             |
| -65                                |   |       |  | 0.0   |            |             |
| -                                  |   |       |  | 0.0   |            |             |
| ]                                  |   |       |  |       |            |             |
| -70 —                              |   |       |  |       |            |             |
| '0                                 |   | sw    | brown medium grain SAND to fine GRAVEL   | 0.0   |            |             |
|                                    |   | 5.,   | brown medium grain SAND to fine GRAVEL   |       |            |             |
| 7.5                                |   |       |  |       |            |             |
| -75 —                              |   | SW-GW |  | 0.0   |            |             |
|                                    |   | SW-GW | brown to light brown and dark gray medium to coarse grain SAND and fine to coarse GRAVEL |       |            |             |
| -                                  |   |       |  |       |            |             |
| -80 —                              |   |       |  | 0.0   |            |             |
|                                    |   |       |  |       |            |             |
| -                                  |   |       |  |       |            |             |
| -85 —                              |   |       |  | 0.0   |            |             |
| -                                  |   |       |  |       |            |             |
|                                    |   |       |  | 0.0   |            |             |
| -90 —                              |   |       |  | 0.0   |            |             |
| -                                  |   |       |  |       |            |             |
|                                    | (\(\alpha\):::(\D.::(\D.:)              | SP    |  |       |            |             |
| -95 —                              |   | SP    | light brown fine grain SAND  | NA    |            |             |
| -                                  |   | 51    | light brown fine grain SAND  |       |            |             |
|                                    |   |       |  |       |            |             |
| -100                               |   |       |  | NA    |            |             |
|                                    |   |       |  |       |            |             |
|                                    |   |       |  |       |            |             |
| -105 —                             |   |       |  | NA    |            |             |
|                                    |   |       |  |       |            |             |
|                                    |   |       |  |       |            |             |
| -110 —                             |   | CM    |  | NA    |            |             |
|                                    |   | SW    | yellowish brown medium grain SAND to fine GRAVEL   |       |            |             |
|                                    |   |       |  |       |            |             |
| -115                               |   |       |  | NA    |            |             |
|                                    |   | SP    | light brown fine grain SAND  | 110   |            |             |
| -                                  |   |       |  |       |            |             |
|                                    | turururururururururururid               | 1     | 11   | II    |            |             |

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## Borehole No. DR1-5

| DEPTH  | SOIL<br>SYMBOLS | USCS               | SOIL DESCRIPTION   | FID | WELL       | WELL                             |
|--------|-----------------|--------------------|--|-----|------------|----------------------------------|
| DEFIN  |                 |                    |  | ppm | COMPLETION | DESCRIPTION                      |
| -120 - |                 |                    |  | NA  |            | Bentonite Seal                   |
| -125 — |                 | SP<br>SP           | light brown fine grain SAND with <10% coarse sand and fine gravel  brown medium to coarse grain SAND with <10% fine gravel | NA  |            | Sand Pack /<br>Screened Interval |
| -130 - |                 |                    |  | NA  |            |                                  |
| -135 — |                 | SP                 | grayish brown fine grain SAND  | NA  |            |                                  |
| -140 - |                 |                    | yellowish brown medium grain SAND and fine to coarse   | NA  |            |                                  |
| -145 — |                 | SP <sub>I</sub> GW | gray CLAY  | NA  |            |                                  |
| -150 - |                 |                    |  | NA  |            | Bentonite Plug                   |
| -155   |                 |                    | Boring Terminated at 156 ft, bgs   | NA  |            |                                  |