

| DESCRIPTION | REVISIONS | DATE |
|-------------|-----------|------|
|-------------|-----------|------|

BORING LOG NO. B-1

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PROJECT: Bridge 181A over Little Deep Fork Creek **CLIENT:** Guy Engineering
SITE: Creek County, Oklahoma

| DEPTH (ft.) | WATER LEVEL OBSERVATIONS | SAMPLE TYPE | RECOVERY (in.) | FIELD TEST RESULTS | UNCONFINED COMPRESSIVE STRENGTH (psf) | WATER CONTENT (%) | ATTEBERG LIMITS | PERCENT FINES |
|-------------|--------------------------|-------------|----------------|---------------------|---------------------------------------|-------------------|-----------------|---------------|
| 45 | | | | 50/3/8" 50/1/16" | | | | |
| 50 | | | | 50/1 1/4" 50/0" | | | | |
| 54.5 | | | | 50/1/8" 50/0" | | | | |

Stratification lines are approximate. In-situ, the transition may be gradual. Hammer Type: Automatic
 *Classification estimated from d'sturbed samples. Core samples and petrographic analysis may reveal other rock types.

Advancement Method: Hollow Stem Auger to 30 feet Wash Boring below 30 feet
 Abandonment Method: Backfilled with cuttings above 4'; grouted 4' to 14'; backfilled with cuttings from 14' to termination depth.
 See Exhibit A-3 for description of field procedures.
 See Appendix B for description of laboratory procedures and additional data (if any).
 See Appendix C for explanation of symbols and abbreviations.

| | | | |
|---------------------------------|---|----------------------------|------------------------------|
| WATER LEVEL OBSERVATIONS |  9522 E 47th Pl, Ste D Tulsa, OK | Boring Started: 10/19/2016 | Boring Completed: 10/19/2016 |
| ▽ 18 ft While Drilling | | Drill Rig: ATV 945 | Driller: KW |
| ▽ 16.5 ft After Boring | | Project No.: 04155168 | Exhibit: A-4 |

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEG SMART LOG-NO WELLS 04155168 BORE LOGS.GPJ

BORING LOG NO. B-2

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PROJECT: Bridge 181A over Little Deep Fork Creek **CLIENT:** Guy Engineering
SITE: Creek County, Oklahoma

| DEPTH (ft.) | WATER LEVEL OBSERVATIONS | SAMPLE TYPE | RECOVERY (in.) | FIELD TEST RESULTS | UNCONFINED COMPRESSIVE STRENGTH (psf) | WATER CONTENT (%) | ATTEBERG LIMITS | PERCENT FINES |
|-------------|--------------------------|-------------|----------------|--------------------|---------------------------------------|-------------------|-----------------|---------------|
| 18 | | | | 3-5-6 N=11 | | 8 | | |
| 18 | | | | 6-5-5 N=10 | | 7 | | |
| 18 | | | | 4-5-4 N=9 | | 5 | NP | 64 |
| 18 | | | | 4-3-3 N=6 | | 4 | | |
| 18 | | | | 3-2-4 N=6 | | 20 | 25-13-12 | 27 |
| 18 | | | | 2-2-3 N=5 | | 18 | | |

Stratification lines are approximate. In-situ, the transition may be gradual. Hammer Type: Automatic
 *Classification estimated from d'sturbed samples. Core samples and petrographic analysis may reveal other rock types.

Advancement Method: Hollow Stem Auger to 33.5 feet Wash Boring below 33.5 feet
 Abandonment Method: Backfilled with cuttings above 4'; grouted 4' to 14'; backfilled with cuttings from 14' to termination depth.
 See Exhibit A-3 for description of field procedures.
 See Appendix B for description of laboratory procedures and additional data (if any).
 See Appendix C for explanation of symbols and abbreviations.

| | | | |
|---------------------------------|---|----------------------------|------------------------------|
| WATER LEVEL OBSERVATIONS |  9522 E 47th Pl, Ste D Tulsa, OK | Boring Started: 10/20/2016 | Boring Completed: 10/20/2016 |
| ▽ 13.5 ft While Sampling | | Drill Rig: ATV 945 | Driller: KW |
| ▽ 13 ft After Boring | | Project No.: 04155168 | Exhibit: A-5 |

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEG SMART LOG-NO WELLS 04155168 BORE LOGS.GPJ

Friday, July 28, 2017 10:14:36 AM
 V:\13-850 Br 181A Little Deep Fork Crk - Creek 3\CIV3D\PLANS\850-BORING LOGS.dwg

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|--|-----------|-----------|------|-------|
| BR. 181A OVER LITTLE DEEP FORK CREEK COUNTY BRIDGE "A" | | Design | BSF | 07/17 |
| BORING LOGS SHEET 2 OF 5 | | Detail | BLP | 07/17 |
| | | Check | JRW | 07/17 |
| STATE OF OKLAHOMA | | Squad: | GUY | |
| GUY ENGINEERING SERVICES, INC. | | Engr. | GUY | |
| JOB PIECE NO. | 29407(04) | SHEET NO. | B006 | |