

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

**Illinois Department of Transportation**  
Division of Highways  
Ill. Dept. of Trans. 0-7

**SOIL BORING LOG** Page 1 of 1  
Date 9/28/05

ROUTE FAS 2826 (IL 37) DESCRIPTION Un-named Stream LOGGED BY E. Sandschafer  
SECTION 110B-1 LOCATION NE 1/4, SEC. 36, TWP. 1 S, RNG. 2 E, 3 PM  
COUNTY Jefferson DRILLING METHOD Hollow stem auger & split spoon HAMMER TYPE Auto 140#

STRUCT. NO. 041-0038  
Station \_\_\_\_\_  
BORING NO. 1  
Station 836+25  
Offset 14.00# RL  
Ground Surface Elev. 497.28 ft (R) (ft) (tsf) (%)

| DEPTH (ft) | DESCRIPTION  | DRILLING METHOD | HAMMER TYPE | Surface Water Elev. (ft) | Stream Bed Elev. (ft) | Groundwater Elev. (ft) | First Encounter (ft) | Upon Completion (ft) | After 48 Hrs. (ft) | (ft) (ft) (tsf) (%) |
|------------|--|-----------------|-------------|--------------------------|-----------------------|------------------------|----------------------|----------------------|--------------------|---------------------|
| 0          | 5' Mixture of aggregate shoulder and dark brown Clay. Silty, damp, red mottled gray, CLAY. |                 |             | 498.88                   |                       |                        |                      |                      |                    | 2 0.5 25            |
| 2          |  |                 |             |                          |                       |                        |                      |                      |                    | 2 0.5 25            |
| 4          | One 2" piece of hard, Sandy Clay Shale.  |                 | PP          |                          |                       |                        |                      |                      |                    | 1 2 0.1 27          |
| 4          |  |                 |             |                          |                       |                        |                      |                      |                    | 3 B                 |
| 2          |  |                 |             |                          |                       |                        |                      |                      |                    | 7                   |
| 2          | Tan mottled gray, w/ thin, black cinder partings.  |                 | PP          |                          |                       |                        |                      |                      |                    | 50 5" 50/7"         |
| 3          |  |                 |             |                          |                       |                        |                      |                      |                    | 6                   |
| 1          |  |                 |             |                          |                       |                        |                      |                      |                    | 41                  |
| 1          | Tan mottled gray, w/ trace fine gravel.  |                 | PP          |                          |                       |                        |                      |                      |                    | 50 3" 50/3"         |
| 2          |  |                 |             |                          |                       |                        |                      |                      |                    | 7                   |
| 1          |  |                 |             |                          |                       |                        |                      |                      |                    |                     |
| 2          | Medium to very soft, very damp to wet, gray, SANDY LOAM.                                   |                 | B           |                          |                       |                        |                      |                      |                    |                     |
| 4          |  |                 |             |                          |                       |                        |                      |                      |                    |                     |
| 2          |  |                 |             |                          |                       |                        |                      |                      |                    |                     |
| 2          |  |                 | PP          |                          |                       |                        |                      |                      |                    |                     |
| 0          |  |                 |             |                          |                       |                        |                      |                      |                    |                     |
| 0          |  |                 | B           |                          |                       |                        |                      |                      |                    |                     |
| 0          |  |                 |             |                          |                       |                        |                      |                      |                    |                     |
| 3          |  |                 |             |                          |                       |                        |                      |                      |                    |                     |
| 5          | Rod, w/ fine gravel.   |                 | S           |                          |                       |                        |                      |                      |                    |                     |
| 3          |  |                 |             |                          |                       |                        |                      |                      |                    |                     |
| 4          |  |                 |             |                          |                       |                        |                      |                      |                    |                     |
| 0          |  |                 |             |                          |                       |                        |                      |                      |                    |                     |

Surface Water Elev. 493.98 ft  
Stream Bed Elev. 481.93 ft  
Groundwater Elev.:  
First Encounter 492.9 ft  
Upon Completion Caved @ 10.5 ft  
After 48 Hrs. 487.3 ft

Soft to medium, damp, gray, CLAY w/ Silt. (continued)  
Very soft, very damp, red, SANDY LOAM.  
Very dense, moist, gray, CLAY SHALE. Samples pockerchipped.  
Extent of exploration.  
Benchmark: BM 304 chiseled square on top of SW wingwall of existing bridge = 496.38

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)  
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)  
BBS, from 137 (Rev. 8-99)

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ROUTE FAS 2826 (IL 37) DESCRIPTION Un-named Stream LOGGED BY E. Sandschafer  
SECTION 110B-1 LOCATION NE 1/4, SEC. 36, TWP. 1 S, RNG. 2 E, 3 PM  
COUNTY Jefferson DRILLING METHOD Hollow stem auger & split spoon HAMMER TYPE Auto 140#

STRUCT. NO. 041-0038  
Station \_\_\_\_\_  
BORING NO. 2  
Station 837+10  
Offset 13.00# RL  
Ground Surface Elev. 495.87 ft (R) (ft) (tsf) (%)

| DEPTH (ft) | DESCRIPTION   | DRILLING METHOD | HAMMER TYPE | Surface Water Elev. (ft) | Stream Bed Elev. (ft) | Groundwater Elev. (ft) | First Encounter (ft) | Upon Completion (ft) | After 48 Hrs. (ft) | (ft) (ft) (tsf) (%) |
|------------|---|-----------------|-------------|--------------------------|-----------------------|------------------------|----------------------|----------------------|--------------------|---------------------|
| 0          | 4' Mixture of aggregate shoulder and brown Sandy Clay. Very stiff, damp, brown mottled red, CLAY w/ trace gravel. |                 |             | 495.47                   |                       |                        |                      |                      |                    | 3 0.2 20            |
| 3          |   |                 |             |                          |                       |                        |                      |                      |                    | 3 0.2 20            |
| 4          |   |                 | PP          |                          |                       |                        |                      |                      |                    | 2 3 0.4 18          |
| 4          |   |                 |             |                          |                       |                        |                      |                      |                    | 3 S                 |
| 3          |   |                 |             |                          |                       |                        |                      |                      |                    | 2                   |
| 2          |   |                 |             |                          |                       |                        |                      |                      |                    | 7 1.7 29            |
| 3          | Very stiff, damp, red, CLAY w/ Silt.  |                 | PP          |                          |                       |                        |                      |                      |                    | 41 B                |
| 5          |   |                 |             |                          |                       |                        |                      |                      |                    |                     |
| 2          |   |                 |             |                          |                       |                        |                      |                      |                    | 50 4"               |
| 4          |   |                 | PP          |                          |                       |                        |                      |                      |                    | 50 5"               |
| 5          |   |                 |             |                          |                       |                        |                      |                      |                    | 50 11"              |
| 2          |   |                 |             |                          |                       |                        |                      |                      |                    |                     |
| 4          | Medium, damp, redgray, SILTY LOAM.  |                 | B           |                          |                       |                        |                      |                      |                    | 50 4"               |
| 5          |   |                 |             |                          |                       |                        |                      |                      |                    | 50 2"               |
| 3          |   |                 |             |                          |                       |                        |                      |                      |                    | 50 11"              |
| 3          |   |                 |             |                          |                       |                        |                      |                      |                    |                     |
| 4          |   |                 | B           |                          |                       |                        |                      |                      |                    |                     |
| 0          |   |                 |             |                          |                       |                        |                      |                      |                    |                     |
| 2          |   |                 |             |                          |                       |                        |                      |                      |                    |                     |
| 3          |   |                 |             |                          |                       |                        |                      |                      |                    |                     |
| 3          |   |                 | B           |                          |                       |                        |                      |                      |                    |                     |
| 1          |   |                 |             |                          |                       |                        |                      |                      |                    |                     |
| 2          |   |                 |             |                          |                       |                        |                      |                      |                    |                     |
| 3          |   |                 |             |                          |                       |                        |                      |                      |                    |                     |
| 0          |   |                 |             |                          |                       |                        |                      |                      |                    |                     |

Surface Water Elev. 483.98 ft  
Stream Bed Elev. 481.93 ft  
Groundwater Elev.:  
First Encounter Dry ft  
Upon Completion Caved @ 4.6 ft  
After 48 Hrs. 494.8 ft

Very soft, very damp, redgray, SANDY LOAM. (continued)  
Stiff, damp, gray CLAY.  
Very dense, moist, gray, CLAY SHALE.  
1" layer of brown, CHERT.  
Extent of exploration.  
Benchmark: BM 304 chiseled square on top of SW wingwall of existing bridge = 466.38

\*Note: 48 hour water level collected by rain event and subsequent runoff, final elevation in question.

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)  
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)  
BBS, from 137 (Rev. 8-99)

|          |     |
|----------|-----|
| DESIGNED | CMF |
| CHECKED  | KCM |
| DRAWN    | JLM |
| CHECKED  | TMM |

**BORING LOGS**  
**IL ROUTE 37 OVER LIMESTONE CREEK**  
**F.A.S. ROUTE 2826 SECTION 110B-1**  
**JEFFERSON COUNTY**  
**STA. 836+80**  
**S.N. 041-0107**

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