

Illinois Department of Transportation SOIL BORING LOG

Page 1 of 3
Date 10/2/08

ROUTE FAP 821 (IL 15) DESCRIPTION Un-Named Stream LOGGED BY E. Sandschafer

SECTION 22.82B-1 LOCATION SE 1/4, SEC. 4, TWP. 2 S, RNG. 9 E, 3 PM

COUNTY Wayne DRILLING METHOD Hollow stem auger & split spoon HAMMER TYPE Auto 140#

STRUCT. NO. 096-0013 SURFACE WATER ELEV. Dry ft
Station 402+80 Stream Bed Elev. 372.44 ft

BORING NO. 1 E Abut GROUNDWATER ELEV. 357.8 ft
Station 402+02 First Encounter 357.8 ft
Offset 7.00 ft Upon Completion 359.8 ft
Ground Surface Elev. 382.78 ft After 24 Hrs. 372.6 ft

| DEPTH (ft) | B | U | M | D | DESCRIPTION | B | U | M | D | DESCRIPTION |
|------------|---|-----|----|---|--|---|-----|----|---|---|
| 0 | 1 | 0.8 | 24 | | 4 1/4" asphalt on 10 1/2" concrete pavement. | 1 | 0.8 | 24 | | Medium, damp, gray mottled red, SILTY CLAY. |
| 5 | 5 | 0.9 | 21 | | Medium to stiff, damp, brown/gray, CLAY. | 5 | 0.9 | 21 | | |
| 8 | 4 | 1.8 | 26 | | | 4 | 1.8 | 26 | | |
| 11 | 2 | 0.9 | 28 | | | 2 | 0.9 | 28 | | |
| 14 | 4 | 1.0 | 29 | | Soft to medium, damp, gray mottled blue, SILTY CLAY. | 4 | 1.0 | 29 | | Stiff, damp, blue, CLAY. |
| 18 | 2 | 1.2 | 24 | | | 2 | 1.2 | 24 | | |
| 21 | 3 | 1.7 | 28 | | | 3 | 1.7 | 28 | | Very soft, wet, brown, SANDY LOAM. |
| 24 | 2 | 0.8 | 23 | | | 2 | 0.8 | 23 | | |
| 27 | 4 | 1.0 | 29 | | | 4 | 1.0 | 29 | | |
| 30 | 0 | | | | | 0 | | | | |

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. 8-89)

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ROUTE FAP 821 (IL 15) DESCRIPTION Un-Named Stream LOGGED BY E. Sandschafer

SECTION 22.82B-1 LOCATION SE 1/4, SEC. 4, TWP. 2 S, RNG. 9 E, 3 PM

COUNTY Wayne DRILLING METHOD Hollow stem auger & split spoon HAMMER TYPE Auto 140#

STRUCT. NO. 096-0013 SURFACE WATER ELEV. Dry ft
Station 402+80 Stream Bed Elev. 372.44 ft

BORING NO. 1 E Abut GROUNDWATER ELEV. 357.8 ft
Station 402+02 First Encounter 357.8 ft
Offset 7.00 ft Upon Completion 359.8 ft
Ground Surface Elev. 382.78 ft After 24 Hrs. 372.6 ft

| DEPTH (ft) | B | U | M | D | DESCRIPTION | B | U | M | D | DESCRIPTION |
|------------|---|-----|----|---|--|---|-----|----|---|---|
| 48 | 4 | 1.5 | 22 | | Very dense, moist, brown, SANDY CLAY SHALE. Sample poked/chipped and powdered. (continued) | 4 | 1.5 | 22 | | |
| 51 | 5 | 0.7 | 25 | | | 5 | 0.7 | 25 | | |
| 54 | 2 | 0.7 | 25 | | Very dense, moist, gray w/ black layers, SILTY CLAY SHALE. | 2 | 0.7 | 25 | | |
| 55 | 3 | 1.0 | 27 | | Black, SHALE/COAL mixture. | 3 | 1.0 | 27 | | |
| 59 | 3 | 2.0 | 21 | | | 3 | 2.0 | 21 | | Very dense, moist, gray SANDY CLAY SHALE. Sample poked/chipped and powdered. Borehole continued with rock coring. |
| 60 | 4 | 1.0 | 29 | | | 4 | 1.0 | 29 | | |

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Illinois Department of Transportation ROCK CORE LOG

Page 3 of 3
Date 10/2/08

ROUTE FAP 821 (IL 15) DESCRIPTION Un-Named Stream LOGGED BY E. Sandschafer

SECTION 22.82B-1 LOCATION SE 1/4, SEC. 4, TWP. 2 S, RNG. 9 E, 3 PM

COUNTY Wayne DRILLING METHOD Rotary, split diamond bit CORING METHOD NW, core dia bit, split inner

STRUCT. NO. 096-0013 CORING BARREL TYPE & SIZE 2.06 in
Station 402+80 Top of Rock Elev. 363.28 ft
BORING NO. 1 E Abut Core Diameter 2.06 in
Station 402+02 Begin Core Elev. 342.78 ft
Offset 7.00 ft

| DEPTH (ft) | R | Q | D | R | Q | D |
|------------|----|----|---|---|---|---|
| 342.78 | 84 | 71 | 1 | | | |
| 347.78 | 96 | 75 | 1 | | | |
| 352.78 | | | | | | |

Gray, no weathering, SANDSTONE, scratches easily.

Rock core B1C1 from 53.8' to 54.2' depth Qu = 215 tsf.

Rock core B1C2 from 57.9' to 58.4' depth Qu = 106 tsf.

Extent of exploration: 342.78 - 40

Benchmark: WE 18 Chiseled square on NE headwall of existing structure, Sta 402+18, 19' Rt = 393.40' elevation. Provided by Program Development.

Color pictures of the cores Available on request
Cores will be stored for examination until 10/2/08
The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938) BBS, Form 138 (Rev. 8-89)

Field Rock Core Log

Date: 10-02-08

Structure #: 096-0013 Boring #: 1 E Abut

Rock Core #: C1 Rock Core #: C2

Depth: 50' Depth: 55'

| DEPTH (ft) | DESCRIPTION | DEPTH (ft) | DESCRIPTION |
|------------|--------------------|------------|--------------------|
| 0 | 6.00 ft to 6.50 ft | 0 | 6.00 ft to 6.50 ft |
| 1 | 6.50 ft to 7.00 ft | 1 | 6.50 ft to 7.00 ft |
| 2 | 7.00 ft to 7.50 ft | 2 | 7.00 ft to 7.50 ft |
| 3 | 7.50 ft to 8.00 ft | 3 | 7.50 ft to 8.00 ft |
| 4 | 8.00 ft to 8.50 ft | 4 | 8.00 ft to 8.50 ft |

RQD: 0.43, 0.39, 0.47, 0.73, 1.51, 3.53

Core Time: 4:45 (1.0) Core Time: 4:55 (1.0)

Recovery: 83.6 Recovery: 75.68

RQD: 70.6% RQD: 74.6%

Logged By: Eric Sandschafer

Illinois Department of Transportation SOIL BORING LOG

Page 1 of 2
Date 10/6/08

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COUNTY Wayne DRILLING METHOD Hollow stem auger & split spoon HAMMER TYPE Auto 140#

STRUCT. NO. 096-0013 SURFACE WATER ELEV. Dry ft
Station 402+80 Stream Bed Elev. 372.44 ft

BORING NO. 2 W Abut GROUNDWATER ELEV. Dry ft
Station 403+91 First Encounter Caved ft
Offset 6.50 ft Upon Completion Caved ft
Ground Surface Elev. 382.78 ft After N/A Hrs. N/A ft

| DEPTH (ft) | B | U | M | D | DESCRIPTION | B | U | M | D | DESCRIPTION |
|------------|---|-----|----|---|--|---|-----|----|---|---|
| 1 | 1 | 1.2 | 25 | | 4 1/8" asphalt on 11 1/2" concrete pavement. | 1 | 1.2 | 25 | | Stiff to soft, damp, gray/red/blue, SILTY CLAY. (continued) |
| 2 | 2 | 1.5 | 22 | | Stiff, damp, brown, CLAY. | 2 | 1.5 | 22 | | |
| 3 | 3 | 1.0 | 23 | | | 3 | 1.0 | 23 | | Medium to stiff, damp, brown, SILTY CLAY. |
| 4 | 4 | 1.0 | 23 | | | 4 | 1.0 | 23 | | |
| 5 | 3 | 1.0 | 28 | | | 3 | 1.0 | 28 | | Medium to stiff, damp, gray, CLAY. |
| 6 | 3 | 0.7 | 32 | | | 3 | 0.7 | 32 | | |
| 7 | 5 | 1.8 | 23 | | | 5 | 1.8 | 23 | | |
| 8 | 6 | 1.0 | 28 | | | 6 | 1.0 | 28 | | |
| 9 | 3 | 1.7 | 22 | | | 3 | 1.7 | 22 | | Soft, damp, red, CLAY LOAM TILL. |
| 10 | 3 | 1.7 | 22 | | | 3 | 1.7 | 22 | | |
| 11 | 1 | 0.7 | 29 | | | 1 | 0.7 | 29 | | Medium, damp, gray mottled red, SILTY LOAM. |
| 12 | 3 | 1.7 | 22 | | | 3 | 1.7 | 22 | | |
| 13 | 0 | | | | | 0 | | | | |

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BORING NO. 2 W Abut GROUNDWATER ELEV. Dry ft
Station 403+91 First Encounter Caved ft
Offset 6.50 ft Upon Completion Caved ft
Ground Surface Elev. 382.78 ft After N/A Hrs. N/A ft

| DEPTH (ft) | B | U | M | D | DESCRIPTION | B | U | M | D | DESCRIPTION |
|------------|----|-----|----|---|---|----|-----|----|---|---|
| 8 | 1 | 1.0 | 15 | | Medium to stiff, damp, red w/ gray layers, SANDY LOAM TILL. (continued) | 1 | 1.0 | 15 | | |
| 9 | 1 | 0.5 | 24 | | | 1 | 0.5 | 24 | | |
| 10 | 2 | 0.8 | 24 | | | 2 | 0.8 | 24 | | Very stiff, very moist, gray, SILTY CLAY. |
| 11 | 3 | 3.3 | 13 | | | 3 | 3.3 | 13 | | |
| 12 | 19 | | | | | 19 | | | | |
| 13 | 0 | | | | | 0 | | | | |
| 14 | 2 | 1.0 | 24 | | | 2 | 1.0 | 24 | | |
| 15 | 3 | 1.0 | 24 | | | 3 | 1.0 | 24 | | |
| 16 | 1 | 0.7 | 28 | | | 1 | 0.7 | 28 | | |
| 17 | 2 | 1.0 | 24 | | | 2 | 1.0 | 24 | | |
| 18 | 3 | 1.7 | 22 | | | 3 | 1.7 | 22 | | |
| 19 | 3 | 1.7 | 22 | | | 3 | 1.7 | 22 | | |
| 20 | 0 | | | | | 0 | | | | |

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PRINTED DATE: 12/5/2011
FILE NAME: c:\projects\work_order_06\case50\drawings\sheet\38_W05_Bor-Log.dgn

| | | |
|----------|---|-----|
| DESIGNED | - | ADG |
| CHECKED | - | DF |
| DRAWN | - | ADG |
| CHECKED | - | DF |

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ILLINOIS DEPARTMENT OF PROFESSIONAL REGULATION REGISTRATION #184-000685

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**BORING LOGS
STRUCTURE NO. 096-0074
SHEET NO. 24 OF 24 SHEETS**

| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET |
|--------------------|-------------------------|--------|------------------------------|-------|
| 823 | 22.82A/B-1 & 22.82B/B-1 | Wayne | 85 | 38 |
| CONTRACT NO. 74216 | | | ILLINOIS FEDERAL AID PROJECT | |