Illinois Department of Transportation
Division of Highways
geotechnology

# SOIL BORING LOG



Date 11/2/00

ROUTE FAI 64 DESCRIPTION Trilevel Interchange LOGGED BY BEC

SECTION 082-2-1HB LOCATION , SEC. 7, TWP. 2N, RNG. 9W

COUNTY St. Clair DRILLING METHOD Hollow Stem Auger and Mud Rotary HAMMER TYPE Automatic Hammer

STRUCT. NO. 082-0378
Station NA

BORING NO. B-18
Station 16+00
Offset 57.00ft Right
Ground Surface Elev. 420.00 ft

Surface Water Elev. Unknown ft
Stream Bed Elev. Unknown ft

Groundwater Elev.:
First Encounter ** ft
Upon Completion ** ft
After ** Hrs. ** ft

| DEPTH (ft) | BLOWS (/6") | UCS Qu (tsf) | MOIST (%) |
|---|---|---|---|
| Brown, CLAY with gravel/crushed limestone (FILL) | | | |
| | 1 | | |
| | 3 | 1.0 | 20 |
| | 4 | P | |
| 416.00 | 1 | | |
| Gravel/crushed limestone (FILL) 415.50 | 13 | * | 15 |
| Very stiff, brown, SANDY CLAY -5 | 10 | | |
| 414.50 | | | |
| Stiff, dark brown to brown, SILTY CLAY with laminations of brown, FINE GRAINED SAND @ 8'-10' | 3 | | |
| | 4 | 2.5 | 30 |
| | 6 | P | |
| | 3 | | |
| 410.00-10 | 6 | * | 21 |
| | 5 | | |
| Loose, brown, SANDY LOAM | | | |
| | 1 | | |
| | 3 | * | 18 |
| | 3 | | |
| 407.00 | | | |
| Soft, brown/gray, mottled, SILTY CLAY sandy in places with Fe staining @ 16'-19' | 1 | | |
| | 1 | 1.0 | 23 |
| -15 | 3 | S | |
| | 1 | | |
| | 2 | 1.0 | |
| | 2 | P | |
| 401.00 | 1 | | |
| Loose, brown, FINE GRAINED SAND with seams of brown/gray. -20 | 4 | | |
| | 3 | | |

| DEPTH (ft) | BLOWS (/6") | UCS Qu (tsf) | MOIST (%) |
|---|---|---|---|
| mottled, silt Started mud rotary drilling @ 20' 399.50 | | | |
| Loose, brown, SANDY LOAM with Fe staining | 3 | | |
| | 5 | * | |
| | 5 | | |
| | 3 | | |
| | 3 | * | |
| -25 | 3 | | |
| 394.50 | | | |
| Interbedded, stiff, gray, SILT and medium dense, brown, FINE GRAINED SAND | 3 | | |
| | 5 | * | |
| | 6 | | |
| 392.00 | | | |
| Medium dense, brown, SANDY LOAM with laminations of gray, silt- | 5 | | |
| | 7 | | |
| -30 | 9 | | |
| 386.00 | 7 | | |
| Medium dense, brown, FINE GRAINED SAND with laminations of black organic material and rare rounded quartz 35 | 8 | | |
| | 8 | | |
| -40 | 9 | | |
| | 11 | | |

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)

* Rimac attempted, not measured due to sample disturbance
** Not measured due to drilling methods used

BBS, from 137 (Rev. 8-99)



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Stream Bed Elev. Unknown ft

Groundwater Elev.:
First Encounter ** ft
Upon Completion ** ft
After ** Hrs. ** ft

| DEPTH (ft) | BLOWS (/6") | UCS Qu (tsf) | MOIST (%) |
|---|---|---|---|
| Medium dense, brown, FINE GRAINED SAND with laminations of black organic material and rare rounded quartz (continued) | | | |
| 378.00 | | | |
| Medium dense to dense, gray, FINE GRAINED SAND with layers of black organic material | | | |
| | 8 | | |
| | 11 | | |
| -45 | 14 | | |
| | | | |
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| | | | |
| | | | |
| | 10 | | |
| | 12 | | |
| -50 | 13 | | |
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| | | | |
| | | | |
| | 12 | | |
| | 19 | | |
| -55 | 25 | | |
| | | | |
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| | | | |
| | | | |
| See Attached Gradation Test Results | 11 | | |
| | 13 | | |
| -60 | 15 | | |

| DEPTH (ft) | BLOWS (/6") | UCS Qu (tsf) | MOIST (%) |
|---|---|---|---|
| Medium dense to dense, gray, FINE GRAINED SAND with layers of black organic material (continued) | | | |
| | 5 | | |
| | 7 | | |
| -65 | 14 | | |
| 355.00 | | | |
| Medium dense to very dense, gray, FINE GRAINED SAND | | | |
| | 8 | | |
| | 12 | | |
| -70 | 13 | | |
| | | | |
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| | | | |
| | 2 | | |
| | 12 | | |
| -75 | 18 | | |
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| | | | |
| | | | |
| -80 | | | |

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)

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First Encounter ** ft
Upon Completion ** ft
After ** Hrs. ** ft

| DEPTH (ft) | BLOWS (/6") | UCS Qu (tsf) | MOIST (%) |
|---|---|---|---|
| Medium dense to very dense, gray, FINE GRAINED SAND (continued) | | | |
| | 18 | | |
| | 33 | | |
| -85 | 35 | | |
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| 330.00 -90 | | | |
| Medium dense, gray, MEDIUM GRAINED SAND with rounded quartz | | | |
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| | 11 | | |
| | 14 | | |
| -95 | 15 | | |
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| 320.00 -100 | | | |

| DEPTH (ft) | BLOWS (/6") | UCS Qu (tsf) | MOIST (%) |
|---|---|---|---|
| Medium dense, brown, FINE GRAINED SAND with rounded quartz and lenses of light gray weathered limestone (109-114) | | | |
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