Illinois Department of Transportation
Division of Highways
Kaskaskia Engineering Group

SOIL BORING LOG

Page 1 of 2

Date 11/10/09

ROUTE 331 DESCRIPTION IL Route 13 over BNSF Railroad near Marathon Drive LOGGED BY KEG

SECTION

LOCATION Marion, SECS. 10SW & 15NW, TWP. 9S, RNG. 2E

COUNTY Williamson DRILLING METHOD CME 55LC w/HSA HAMMER TYPE Automatic

STRUCT. NO.
Station

BORING NO. SB-11
Station 748+30.9
Offset 55.60ft Rt
Ground Surface Elev. 446.28 ft

Surface Water Elev. ft
Stream Bed Elev. ft

Groundwater Elev.:
First Encounter 432.8 ft ▼
Upon Completion - ft
After - Hrs. - ft

Description	Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
GRASS, TOPSOIL, & CRUSHED ROCK - 12 inches	445.28				
FILL: Brown, silty clay (A-6)			2 1 3	1.5 P	20
FILL: Brown and dark brown, clay, trace sand, coal, shale fragments (A-7)	443.28	-5	4 4 4	1.7 B	20
SILTY CLAY: Grayish brown, trace to some sand (A-6)	440.78		3 1 1	0.2 B	31
CLAY: Brown (A-7) Shelby tube - 19 inches recovery. Consolidation test performed on sample with results shown on the Consolidation Test Summary.	438.28	-10		2.0	26
SILTY CLAY: Grayish brown and brown (A-6)	436.63		WH 2 3	0.6 B	24
SILTY CLAY: Grayish brown and brown, trace sand (A-7)	433.28 ▼	-15	1 2 3	0.8 B	21
CLAY: Gray and brown, trace to some sand (A-7)	430.78		1 2 2	1.3 B	21
Becomes brown and gray, trace sand		-20	1 2 3	1.4 B	27
CLAY: Gray and brown, trace to some sand (A-7) *(continued)* Trace to some sand			1 3 3	1.4 B	22
		-25	1 2 3	1.1 B	21
Becomes brown, some sand, no gravel			1 1 5	0.9 B	18
Trace gravel		-30	4 6 8	2.7 B	17
Hard drilling at 31 feet.	415.28				
CLAYEY SHALE: Gray		-35	45 50/1" 50/2"	-	15
			50/3" 50/3"	-	7
		-40			

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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First Encounter 432.8 ft ▼
Upon Completion - ft
After - Hrs. - ft

Description	Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
CLAYEY SHALE: Gray *(continued)* No recovery	406.78		100/0"	-	
		-45			
		-50			
		-55			
		-60			

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)

ILLINOIS DEPARTMENT OF TRANSPORTATION
District Nine Materials

Bridge Foundation Boring Log
Sheet 1 of 2

Illinois Route 13 Over the Burlington Northern Santa Fe Railroad

Route: Illinois 13 Structure Number: Proposed M.S.E. Structure Date: 12/15/2003
Section Bored By: Bryan Keller
County: Williamson Location: Illinois Route 13 Checked By: Rob Graeff

Boring No SB-15
Station 746+69
Offset 19' LT CL WBL
Ground Surface 99.8 Ft

Surf Wat Elev:
Ground Water Elevation
when Drilling 87.8
At Completion 76.8
At: Hrs:

Description	Elev.	DEPTH	BLOWS	Qu tsf	W%
Bituminous Shoulder	98.3				
Very stiff, moist, brown, Silty Clay A-6	95.3		1 3 5	3.5S	13
Very stiff, moist, brown mottled grey, Silty Clay A-6	92.8	5.0	2 4 4	3.1B	20
Stiff, very moist, grey motled brown, Clay to Silty Clay A7-6	90.3		1 4 4	1.4B	28
Stiff, moist, brown, Silty Clay A-6	85.3	10.0	1 3 4	1.7B	23
			1 3 3	1.7B	22
Very stiff, very moist, brown, Silty Clay A7-6	82.8	15.0	1 4 4	2.7S	25
Medium, moist, brown, Silty Clay A7-6	80.3		WH 1 1	0.6B	22
Stiff, moist, brown, Silty Clay A-6 with some Gravel	77.8	20.0	1 3 3	1.6B	17
Very stiff, very moist, brown, Silty Clay A-6	75.3		1 3 4	2.1S	24
	25.0		1		
Stiff, moist, brown, Silty Clay A-6	72.8		3 4	1.6S	17
Stiff, moist, brown, Silty Clay Loam A-6	67.8	30.0	1 4 6	1.3S	13
			1 3 5	1.4S	17
Very stiff, moist to very moist, brown, Silty Clay A-6 with some Pea Gravel	65.3		1 3 4	2.1B	17
Hard, dry, dark grey, Clay St	64.8	35.0	100/6"		
Bottom of hole = 35.0 ft.					
Free water observed at 12.0 ft.					
Elevation referenced to CL of B.S.F. RR and Rt 13 ; Assumed Elevation = 100.0 ft.					
To convert "N" value to "N60" values multiply by 1.25.		40.0			
		45.0			
		50.0			

N-Std Pentr Test: 2" OD Sampler,140# Hammer, 30" Fall (Type Fail. B-Bulge S-Shear E-Estimated P-Penetrometer)

CMT
CRAWFORD MURPHY & TILLY, INC.
CONSULTING ENGINEERS
SPRINGFIELD, IL ■ AURORA, IL ■ ST. LOUIS, MO
ROCKFORD, IL ■ PEORIA, IL ■ CHICAGO, IL

FILE NAME = i:\dot\0986003\draw\cadd_sheets\structural plans\bnsf rr bridge\BORING LOGS 3.dgn

USER NAME = Gary Davis	DESIGNED - MCC	REVISED -	
	CHECKED - ATI	REVISED -	
PLOT SCALE =	DRAWN - GLD	REVISED -	
PLOT DATE = 12/7/2011	CHECKED - ATI	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BORING LOGS III
STRUCTURE NO. 100-0093 (W.B.) & 100-0094 (E.B.)
SHEET NO.S-360F S-41 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
331	(1X-1)VB-1	WILLIAMSON	367	202
		CONTRACT NO. 98859		
		ILLINOIS FED. AID PROJECT		