Illinois Department of Transportation
Division of Highways
SCI Engineering

SOIL BORING LOG

Date 02/09/12

ROUTE FAP Route 42 (IL 127) DESCRIPTION IL 127 Over Kaskaskia River LOGGED BY SCI (HHF)

SECTION 1-1BR-2 LOCATION Carlyle, IL, SEC. 31, TWP. 2N, RNG. 2W

COUNTY Clinton DRILLING METHOD MUD ROTARY HAMMER TYPE Automatic

STRUCT. NO. 014-0014
Station 140+00

BORING NO. B-7
Station 139+28
Offset 9 ft RT
Ground Surface Elev. 436.0 ft

Surface Water Elev. 421.5 ft
Stream Bed Elev. 405.0 ft

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

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	Description
435.8				ASPHALT - 2 inches
435.1				REINFORCED CONCRETE - 9 inches
				Open air below bridge deck
-5				
-10				
421.5				Flowing water
-15				
-20				
				Flowing water *(continued)*
-25				
-30				
405.0				Soft material, weight of casing. Casing pushed in to seal off for mud rotary drilling
-35				
399.0				Began mud rotary drilling at 37 feet
	2 2 3	NC		SAND: Brown, tan, black, fine to medium [A-3] GSA performed
-40				

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
AASHTO Classifications are based on visual classifications unless otherwise noted BBS, form 137 (Rev. 8-99)

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

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	Description
395.5				SAND: Fine to coarse, with gravel [A-2]
	3 2 3	NC		GSA performed
393.0				difficult drilling at 43 feet, gravel observed in drilling fluid
-45	6 6 9	NC		SAND: Gray, tan, black, fine to medium [A-3] GSA performed
389.5	7 31 50/4"	NC	18	SHALE: Gray
-50	50/3"	NA	14	
384.8	50/3"	NA		Borehole continued with rock coring.
-55				
-60				

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
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ROCK CORE LOG

Date 02/09/12

ROUTE FAP Route 42 (IL 127) DESCRIPTION IL 127 Over Kaskaskia River LOGGED BY SCI (HHF)

SECTION 1-1BR-2 LOCATION Carlyle, IL, SEC. 31, TWP. 2N, RNG. 2W

COUNTY Clinton CORING METHOD Wireline

STRUCT. NO. 014-0014
Station 140+00

CORING BARREL TYPE & SIZE NX
Core Diameter 2.25 in
Top of Rock Elev. 389.5 ft
Begin Core Elev. 384.8 ft

BORING NO. B-7
Station 139+28
Offset 9 ft RT
Ground Surface Elev. 436.0 ft

DEPTH (ft)	CORE (#)	RECOVERY (%)	R.Q.D. (%)	CORE TIME (min/ft)	STRENGTH (tsf)	MOISTURE (%)	Description
384.8							ARGILLACEOUS SANDSTONE: Gray, fine grained, moderately hard, slightly to moderately weathered, with interbedded layers of soft shale, occasional iron staining.
	1	100	98	1.6			
-55					11.2	8.9	
	2	100	100	2.1			
-60					2.7	6.2	
-65					2.3	5.8	
369.8							Boring terminated at 66.3 ft.
-70							

Color pictures of the cores Yes
Cores will be stored for examination until
The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)
BBS, form 138 (Rev. 8-99)

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Experience great bridges.

USER NAME =	DESIGNED - RLM	REVISED
	CHECKED - JTH	REVISED
PLOT SCALE =	DRAWN - PRC	REVISED
PLOT DATE = 2/1/2013	CHECKED - RLM	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORING AND ROCK CORE LOG B-7
STRUCTURE NO. 014-0033
SHEET NO. 59 OF 61 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
42	1-1BR-2	CLINTON	159	128
		CONTRACT NO. 76479		
	ILLINOIS	FED. AID PROJECT		