SB-05 Run-2

Geo Services, Inc.
Geotechnical, Environmental & Civil Engineering
805 Deerlake Court, Suite 204
Naperville, Illinois 60565
630/355-1555

ROCK CORE LOG

PAGE 2 of 2
DATE 3/30-31/2009
LOGGED BY DR
GSI JOB No. 08201

ROUTE I-70
DESCRIPTION I-70 Tri-Level Connection IDOT Job No. D-98-059-08
SECTION 82-2-1HVB
LOCATION I-70 Curved Approach Structures
COUNTY St. Clair
CORING METHOD Rotary Wash
STRUCT. NO. S.N. 082-0318
Station: 127+00 to 140+74
BORING NO. SB-05
Station: 135+64
Offset: 43.0' Left
Ground Surface Elev. 403.8
CORING BARREL TYPE & SIZE NX Double Swivel-5 ft
Core Diameter 2.0 in
Top of Rock Elev. 297.3
Begin Core Elev. 297.3

	DEPTH (ft)	CORE RUN (#)	RECOVERY (%)	R.Q.D. (%)	CORE TIME (min/ft)	STRENGTH (tsf)
RUN 2 (-116.5' to -121.5') Mississippian System, Valmeyeran Series Limestone Light gray with horizontal bedding. Fine grained with numerous horizontal fractures throughout & some thin clay partings becoming darker gray & weathered with some chert replacement. Numerous horizontal fractures throughout.	287.3 -5 -10	2	100.0	8.0	n/a	n/a

Color pictures of the cores Yes Cores will be stored for examination for XX
The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)

SB-06

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SOIL BORING LOG

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DATE 4/1-2/2009
LOGGED BY DR
GSI JOB No. 08201

ROUTE I-70
DESCRIPTION I-70 Tri-Level Connection IDOT Job No. D-98-059-08
SECTION 82-2-1HVB
LOCATION I-70 Curved Approach Structures
COUNTY St. Clair
DRILLING METHOD 3.25" Hollow Stem Auger
HAMMER TYPE CME Automatic
STRUCT. NO. S.N. 082-0318
Station: 127+00 to 140+74
BORING NO. SB-06
Station: 135+64
Offset: 43.0' Right
Ground Surface Elev. 411.1
Surface Water Elev. n/a
Stream Bed Elev. n/a
Groundwater Elevation:
First Encounter n/a
Upon Completion n/a
Cave In 393.1

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
SANDY LOAM with Cinders-black-very loose (A-2) Fill		AS 1 1 1	NP	21
408.1				
SILTY LOAM-dark brown & black-very loose (A-4) Fill, Wet	-5	1 1 1	NP	30
405.6				
CINDERS, SAND & BRICK-very loose (Fill)	-10	1 1 0	NP	30
400.6				
SILTY CLAY-brown & gray-medium dense (A-7) Wet		1 1 ST	0.5P	23 41
398.1				
SANDY LOAM-brown-medium dense (A-2)	-15	2 3 7	NP	26
395.6				
SAND-brown-medium dense (A-3)	-20	4 5 7 10 11 11	NP	25 24
SAND-brown-medium dense (A-3)	-25			
SAND-dark gray-medium dense (A-3)	-30			
378.1				
SAND-dark gray-medium dense (A-3)	-35			
375.6				
SANDY LOAM with Organics-dark gray-loose (A-2)	-40			

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
		7 10 10	NP	23
		9 8 6	NP	23
		7 6 4	NP	28
		8 10 7	NP	23
		6 8 5	NP	26
		7 7 9	NP	26
		3 3 4	NP	39
		2 5 4	NP	52

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR-No Recovery

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HAMMER TYPE CME Automatic
STRUCT. NO. S.N. 082-0318
Station: 127+00 to 140+74
BORING NO. SB-06
Station: 135+64
Offset: 43.0' Right
Ground Surface Elev. 411.1
Surface Water Elev. n/a
Stream Bed Elev. n/a
Groundwater Elevation:
First Encounter n/a
Upon Completion n/a
Cave In 393.1

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
SANDY LOAM-dark gray-loose (A-2)				
370.6				
SAND-gray-medium dense (A-3)		5 5 5	NP	28
368.1				
SANDY LOAM with Organics-dark gray to black-loose to medium dense (A-2)	-45	2 3 3	NP	60
363.1				
SAND-gray-medium dense to very dense (A-3)	-50	2 4 9	NP	54
SAND-gray-medium dense to very dense (A-3)	-55	8 10 12	NP	25
Clay seams from -56.0' to -57.5'.	-60	8 9 12	NP	21
SAND-gray-medium dense to dense (A-3)	-65	8 12 17	NP	24
SAND-gray-medium dense to dense (A-3)	-70	8 10 16	NP	18
SAND-gray-medium dense to dense (A-3)	-75	13 17 19	NP	23
SAND-gray-medium dense to very dense (A-3)				
343.1				
SAND with Gravel-brown & gray-medium dense (A-1-b)	-80			

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
		18 22 42	NP	22
		30 36 37	NP	21
		14 22 44	NP	20
		7 7 5	NP	19
		6 7 9	NP	16
		9 14 17	NP	19
		9 10 17	NP	18
		11 19 26	NP	20

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR-No Recovery