Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Page 1 of 2

Date 6/16/06

ROUTE FAP 91 (IL 16) DESCRIPTION Embarras River LOGGED BY E. Sandschafer

SECTION 5 BR LOCATION SW 1/4, SEC. 5, TWP. 12 N, RNG. 10 E, 3 PM

COUNTY Coles DRILLING METHOD Hollow stem auger & split spoon HAMMER TYPE Auto 140lb

STRUCT. NO. 015-0019
Station 155+09

BORING NO. 1 (2006) W Abut
Station 153+36
Offset 9.00ft Rt
Ground Surface Elev. 601.12 ft

Surface Water Elev. 580.51 ft
Stream Bed Elev. 576.11 ft

Groundwater Elev.:
First Encounter 586.6 ft
Upon Completion 592.6 ft
After 48 Hrs. 586.0 ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
7" asphalt on 12" concrete pavement.			
599.82			
Very stiff, damp, brown, SANDY CLAY TILL.	2		
	6	3.1	11
	6	5	
596.62			
Soft, very damp, brown, SANDY LOAM.	2		
	3	0.3	20
	3	6	
594.12			
Soft, damp, gray, SILTY LOAM.	1		
	2	0.3	14
	3	8	
591.12	0		
Soft to medium, damp, gray marbled red, CLAY LOAM.	2	0.5	16
	3	8	
589.12			
Soft, damp, brown/gray, SANDY CLAY LOAM.	0		
	2	0.4	13
	3	8	
	0		
	1	0.3	14
	2	8	
583.62			
Stiff, damp, gray, SANDY CLAY LOAM TILL.	0		
	0	2.1	12
	3	8	
581.62			
Soft, damp, gray, CLAY LOAM.	0		

Borehole continued with rock coring.

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Soft, damp, gray, CLAY LOAM. (continued) 580.62	0	0.3	18
Very soft, damp, dark gray, SANDY LOAM.	2	B	
	0		
	0	0.1	18
	C	B	
-25	0		
	0	0.1	16
	0	B	
-30	0		
** 50/1", 50/0", 50/0"	1		
* Very dense, moist, gray, LIMESTONE. Borehole continued with rock coring.	0		
-35	0		
	5	0.1	12
	10	B	
	1		
	0		
-45	14		16
	22		
Dense, damp, gray, SANDY LOAM w/ Gravel. 556.62			
* 551.62	50/1"		
-50	50/0"		

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. 8-99)

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

ROCK CORE LOG

Page 2 of 2

Date 6/16/06

ROUTE FAP 91 (IL 16) DESCRIPTION Embarras River LOGGED BY E. Sandschafer

SECTION 5 BR LOCATION SW 1/4, SEC. 5, TWP. 12 N, RNG. 10 E, 3 PM

COUNTY Coles CORING METHOD Rotary, Surf Set Diamond Bit

STRUCT. NO. 015-0019
Station 155+09

CORING BARREL TYPE & SIZE NW, Conv Dbl Brk, Split Inner

BORING NO. 1 (2006) W Abut
Station 153+36
Offset 9.00ft Rt
Ground Surface Elev. 601.12 ft

Core Diameter 2.06 in
Top of Rock Elev. 581.62 ft
Begin Core Elev. 581.12 ft

DEPTH (ft)	CORE (ft)	RECOVERY (%)	RQD (%)	CORE TIME (min/ft)	STRENGTH (tsf)
Gray, LIMESTONE. 581.12	B1C1	98	67	2.1	
Gray, SANDY CLAY SHALE. 568.12					
Gray, LIMESTONE. *Severely weathered area.* *Rock core B1C1 at depth 44.1' to 44.6' depth = 1102 tsf Qu.*	B1C2	68	70	1.7	
-50					
Dark gray, moderately weathered, SILTY CLAY SHALE. 554.02					
Rock core B1C2 from 47.9' to 48.5' depth = 5.8 tsf Qu. 552.62					
Light gray, soft, SANDY CLAY SHALE. 551.12					
-55					
Extent of exploration.					
-60					
-65					
-70					

Benchmark: BM 4733-2 chiseled square on NE wingwall of existing structure = 597.43' elevation. Provided by Program Development.

Color pictures of the cores Available on request
Cores will be stored for examination until 03/18/09
The "Strength" column represents the unlaxial compressive strength of the core sample (ASTM D-2938)

BBS, form 138 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

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Date 8/19/06

ROUTE FAP 91 (IL 16) DESCRIPTION Embarras River LOGGED BY E. Sandschafer

SECTION 5 BR LOCATION SW 1/4, SEC. 5, TWP. 12 N, RNG. 10 E, 3 PM

COUNTY Coles DRILLING METHOD Hollow stem auger & split spoon HAMMER TYPE Auto 140lb

STRUCT. NO. 015-0019
Station 156+09

BORING NO. 2 (2006) E Abut
Station 156+79
Offset 9.00ft Lt
Ground Surface Elev. 596.88 ft

Surface Water Elev. 580.51 ft
Stream Bed Elev. 576.11 ft

Groundwater Elev.:
First Encounter 582.4 ft
Upon Completion 586.2 ft
After 24 Hrs. 581.6 ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
14" asphalt pavement.			
596.88			
Stiff to medium, damp, brown, CLAY LOAM.	2		
	3	1.3	11
	4	B	
	2		
-5	3	0.8	15
	4	B	
586.88			
Very soft, very damp, brown, SILTY LOAM.	0		
	0	0.1	16
	1	B	
587.38			
Very soft, very damp, brown mottled gray, SANDY LOAM.	1		
-10	2	0.2	13
	2	S	
	2		
	2	0.2	14
	2	S	
582.38			
Very loose, wet, brown, fine grained, SAND. *9% passing #200 sieve.*	0		
-15	0		24
	0		
579.88			
Very soft, wet, brown, SANDY LOAM w/ some fine gravel.	3		
	2	0.1	17
	3	S	
577.38			
-20	1		

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Soft, damp, brown/marbled gray, SILTY LOAM w/ some medium gravel. (continued) 574.88	3	0.4	19
	3	S	
Very dense, wet, brown, fine grained, SAND. *9% passing #200 sieve.* 574.38	50/2"		3
	50/1"		
Very dense, moist, gray, LIMESTONE fragments.	50/2"		7
-25 571.88	50/1"		
Borehole continued with rock coring.	50/0"		
-30			
-35			
-40			
-45			

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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ROCK CORE LOG

Page 2 of 2

Date 8/19/06

ROUTE FAP 91 (IL 16) DESCRIPTION Embarras River LOGGED BY E. Sandschafer

SECTION 5 BR LOCATION SW 1/4, SEC. 5, TWP. 12 N, RNG. 10 E, 3 PM

COUNTY Coles CORING METHOD Rotary, Surf Set Diamond Bit

STRUCT. NO. 015-0019
Station 156+09

CORING BARREL TYPE & SIZE NW, Conv Dbl Brk, Split Inner

BORING NO. 2 (2006) E Abut
Station 156+79
Offset 9.00ft Lt
Ground Surface Elev. 596.88 ft

Core Diameter 2.06 in
Top of Rock Elev. 574.38 ft
Begin Core Elev. 571.88 ft

DEPTH (ft)	CORE (ft)	RECOVERY (%)	RQD (%)	CORE TIME (min/ft)	STRENGTH (tsf)
Gray, moderate to severe weathered, LIMESTONE. 571.88	B2C1	80	38	1.5	
570.38					
Grey, severely weathered, LIMESTONE fragments and chips. 570.06					
Gray, slightly weathered, LIMESTONE.					
Rock core B2C1 at depth 28.6' to 29.1' = 1365 tsf Qu.					
-30 528.88					
Gray, moderately weathered, LIMESTONE. *Rock core B2C2 at depth 30.6' to 30.9' = 630 tsf Qu.*	B2C2	95	29	1.2	
564.28					
Alternating layers of gray, LIMESTONE and light gray, SANDY CLAY SHALE. 553.28					
Gray, SILTY CLAY SHALE.					
-55 551.88					
Extent of exploration.					
-60					
-65					
-70					

Benchmark: BM 4733-2 chiseled square on NE wingwall of existing structure = 597.43' elevation. Provided by Program Development.

Color pictures of the cores Available on request
Cores will be stored for examination until 08/18/09
The "Strength" column represents the unlaxial compressive strength of the core sample (ASTM D-2938)

BBS, form 138 (Rev. 8-99)

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Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

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Date 8/9/80

ROUTE FAP 91 (IL 16) DESCRIPTION Embarras River LOGGED BY Baker

SECTION 5 BR LOCATION SW 1/4, SEC. 5, TWP. 12 N, RNG. 10 E, 3 PM

COUNTY Coles DRILLING METHOD HAMMER TYPE

STRUCT. NO. 015-0019
Station 155+09

BORING NO. 1 (1980) W Abut
Station 153+80
Offset 19.00ft Rt
Ground Surface Elev. 584.2 ft

Surface Water Elev. ft
Stream Bed Elev. ft

Groundwater Elev.:
First Encounter N/A ft
Upon Completion N/A ft
After Hrs. N/A ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Black, SANDY CLAY LOAM, alluvium.			
	6	0.8	15
	S		
-5			
	10		20
578.80			
Black, fine, organic, SANDY CLAY LOAM with SAND Lens and Water.	4	0.4	16
-10	B		
574.00			
Brown, SAND & GRAVEL.	10		
571.80			
Coarse, cobbley, GRAVEL.			
-15	23		
-20	100		

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Coarse, cobbley, GRAVEL. (continued) 564.30	75		
Grey, SHALE			
Extent of exploration. 560.30			
-25 *Augered to 560.3, no Limestone encountered.*			
-30			
-35			
-40			
-45			
-50			

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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SOIL BORING LOG

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Date 8/9/80

ROUTE FAP 91 (IL 16) DESCRIPTION Embarras River LOGGED BY Baker

SECTION 5 BR LOCATION SW 1/4, SEC. 5, TWP. 12 N, RNG. 10 E, 3 PM

COUNTY Coles DRILLING METHOD HAMMER TYPE

STRUCT. NO. 015-0019
Station 156+09

BORING NO. 2 (1980)
Station 154+15
Offset 19.00ft Rt
Ground Surface Elev. 584.00 ft

Surface Water Elev. ft
Stream Bed Elev. ft

Groundwater Elev.:
First Encounter N/A ft
Upon Completion N/A ft
After Hrs. N/A ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Black, SANDY LOAM, alluvium w/ water.			
578.00			
Soft, black, SANDY CLAY LOAM, alluvium.	5		
-5			
575.50	2		
Loose, fine, brown, SAND.			
-10 573.00	2		
Brown, coarse, SAND & GRAVEL.			
	13		
570.50			
Brown, GRAVEL.			
-15	21		
567.50			
LIMESTONE.	100/0"		
Extent of exploration. 566.50			
-20			

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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SOIL BORING LOG

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Date 8/9/80

ROUTE FAP 91 (IL 16) DESCRIPTION Embarras River LOGGED BY Baker

SECTION 5 BR LOCATION SW 1/4, SEC. 5, TWP. 12 N, RNG. 10 E, 3 PM

COUNTY Coles DRILLING METHOD HAMMER TYPE

STRUCT. NO. 015-0019
Station 155+09

BORING NO. 3 (1980) P-1
Station 154+27
Offset 21.00ft Lt
Ground Surface Elev. 584.2 ft

Surface Water Elev. ft
Stream Bed Elev. ft

Groundwater Elev.:
First Encounter N/A ft
Upon Completion N/A ft
After Hrs. N/A ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Black, SANDY CLAY LOAM, alluvium.			
-5	6		14
577.20			
Fine, dark gray, SANDY LOAM, alluvium w/ water.			
-10	2		
572.20			
Coarse, GRAVEL.			
-15	26		
569.20			
Boulders - GRAVEL.			
	118		
564.70			
LIMESTONE.			
-20			

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Extent of exploration.			
-25			
-30			
-35			
-40			
-45			
-50			

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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SOIL BORING LOG

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Date 8/9/80

ROUTE FAP 91 (IL 16) DESCRIPTION Embarras River LOGGED BY Baker

SECTION 5 BR LOCATION SW 1/4, SEC. 5, TWP. 12 N, RNG. 10 E, 3 PM

COUNTY Coles DRILLING METHOD HAMMER TYPE

STRUCT. NO. 015-0019
Station 156+09

BORING NO. 4 (1980) E Abut
Station 158+50
Offset 29.00ft Lt
Ground Surface Elev. 583.3 ft

Surface Water Elev. ft
Stream Bed Elev. ft

Groundwater Elev.:
First Encounter N/A ft
Upon Completion N/A ft
After Hrs. N/A ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Dark gray, SANDY CLAY LOAM to CLAY LOAM, alluvium.			
-5	5	0.4	19
		B	
576.30			
Weathered, broken, SHALE.			
-10	48		
572.80			
Gray, SHALE w/ Limestone lens.			
	100/0"		
570.30			
LIMESTONE.			
568.80			
Extent of exploration.	100/0"		
-15			
-20			

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)

(Sheet 1 of 2)

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PLOT DATE = 5/11/2011

DESIGNED	DF	REVISED -
CHECKED	ADG, SA	REVISED -
DRAWN	ADG	REVISED -
CHECKED	DF	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BORING LOGS
STRUCTURE NO. 015-0075
SHEET NO. 23 OF 24 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
91	(5BR)B-1	COLES	91	58
		CONTRACT NO. 74244		
FED. ROAD DIST. NO. -	ILLINOIS	FED. AID PROJECT		