

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

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**ROCK CORE LOG**

DATE 9/19/2008

LOGGED BY DR

JOB NUMBER P-91-186-08 GSI JOB No. 08015

ROUTE I-294 & I-57 DESCRIPTION I-57 & I-294 Interchange Improvements (PTB 146, Item 1)

SECTION - LOCATION I-57 Over I-294

COUNTY Cook CORING METHOD Rotary Wash

STRUCT. NO. 016-1096 & 016-1097 CORING BARREL TYPE & SIZE NX Double Swivel-10 ft

Station - Core Diameter 2.0 in

BORING NO. I57-I294 B-8 Top of Rock Elev. 577.6

Station: 260+46 Begin Core Elev. 569.6

Offset: 67.5' Left

Ground Surface Elev. 635.1

D E P T H (ft)	B U L G E (#)	S H E A R (%)	P E N E T R A T I O N (%)	S T R E N G T H (tsf)	S T R E N G T H (tsf)
569.6	2	97.5	95.6	n/a	948@ 66.2'
-68.5					
-73.5					

Run 2 (-65.5' to -73.5')  
Silurian System Niagaran Series Dolomite

Light gray to gray with horizontal bedding. Fine grained with some varving. Horizontal fractures @ -66.1 & -66.6'. Tight vertical fracture from -67.8' to -69.5'. Horizontal fractures @ -68.4', -70.4', -70.8' & -71.5'.

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

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**SOIL BORING LOG**

DATE 9/18/2008

LOGGED BY MD

JOB NUMBER P-91-186-08 GSI JOB No. 08015

ROUTE I-294 & I-57 DESCRIPTION I-57 & I-294 Interchange Improvements (PTB 146, Item 1)

SECTION - LOCATION I-57 Over I-294

COUNTY Cook DRILLING METHOD Straight Flight Auger/Rotary HAMMER TYPE CME Automatic

STRUCT. NO. 016-1096 & 016-1097

Station -

BORING NO. I57-I294 B-9

Station: 260+15

Offset: 6.0' Right

Ground Surface Elev. 636.0

D E P T H (ft)	B U L G E (#)	S H E A R (%)	P E N E T R A T I O N (%)	S T R E N G T H (tsf)	S T R E N G T H (tsf)
634.8	4				
633.0	6		NP	12	
	3				
	5				
	-5	5	4.0P	19	
	3			109	
	5		3.7S@		
	6		11.3%	20	
	4				
	7				
	-10	8	4.5P	17	
	6			108	
	9				
	10		4.25B	18	
	3			106	
	4				
	-15	5	2.5B	22	
	5			106	
	8				
	9		2.6B	20	
	5			107	
	6				
	-20	7	3.5B	20	

5.0" ASPHALT, 6.5" CONCRETE,  
2.5" CRUSHED STONE

CLAY with Crushed Stone-  
medium dense (Fill)

CLAY-brown & gray-  
very stiff to hard (A-6) Fill

CLAY-brown & gray-  
very stiff to hard (A-6) Fill

SILTY LOAM to SILT-gray-  
medium dense to very dense (A-4)

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) SF-Shelly Tube Sample VS-Vane Shear Test  
The SPT (N value) is the sum of the last two blow values in each sampling zone (ASTM T296) The Unit Dry Weight (pcf) is noted in italics above moist (%)  
NB-No Recovery

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**SOIL BORING LOG**

DATE 9/18/2008

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JOB NUMBER P-91-186-08 GSI JOB No. 08015

ROUTE I-294 & I-57 DESCRIPTION I-57 & I-294 Interchange Improvements (PTB 146, Item 1)

SECTION - LOCATION I-57 Over I-294

COUNTY Cook DRILLING METHOD Straight Flight Auger/Rotary HAMMER TYPE CME Automatic

STRUCT. NO. 016-1096 & 016-1097

Station -

BORING NO. I57-I294 B-9

Station: 260+15

Offset: 6.0' Right

Ground Surface Elev. 636.0

D E P T H (ft)	B U L G E (#)	S H E A R (%)	P E N E T R A T I O N (%)	S T R E N G T H (tsf)	S T R E N G T H (tsf)
589.0					
	17				
	19				
	-45	22	NP	12	
	8			105	
	10				
	11		2.4B	22	
	6			106	
	8				
	-30	10	2.7B	22	
	6			106	
	9				
	10		4.25B	18	
	3			106	
	4				
	-15	5	2.5B	22	
	5			106	
	8				
	9		2.6B	20	
	5			107	
	6				
	-20	7	3.5B	20	

Run 1 (-60.0' to -70.0')  
Silurian System Niagaran Series Dolomite

SILTY LOAM to SILT-gray-  
medium dense to very dense (A-4)

Light gray to gray with horizontal bedding. Fine grained with some varving. Horizontal fractures @ -60.3', -60.8', -60.9', -61.1', -62.0' & -62.3'. Vertical fracture from -62.3' to -62.8'. Horizontal fractures @ -62.9', -63.3', -63.4', -63.9', -64.2', -65.9', -66.1', -66.2', -67.2', -67.6' & -67.9'. 1.5" clay parting @ -68.4'. Horizontal fracture @ -68.9'.

Recovery = 93.0%  
R.Q.D. = 47.0%

Drillers Observation: Cobbles or boulder from -49.5' to -51.0'.

SANDY LOAM with Fractured Rock-  
gray-very dense (A-2A-4)

End Of Boring @ -70.0'  
Straight Flight Augers To -10.0'  
Rotary Drilling To Completion  
CME Automatic Hammer  
10.0' 4.0" Casing Used  
60.0' 3.0" Casing Used

Drillers Observation: Apparent Bedrock.

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) SF-Shelly Tube Sample VS-Vane Shear Test  
The SPT (N value) is the sum of the last two blow values in each sampling zone (ASTM T296) The Unit Dry Weight (pcf) is noted in italics above moist (%)  
NB-No Recovery

**BORING LOGS 9**  
**STRUCTURE NO. 016-1251**

<b>TYLIN INTERNATIONAL</b>	DESIGNED - JMA	REVISIONS		F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
	CHECKED - SP,	NAME	DATE						
	DRAWN - JMA								
	CHECKED - SP,PDF								
	DATE - 03/18/10								
				SHEET NO. 65	57	1414.2B	COOK	516	310
				68 SHEETS	CONTRACT NO. 60J27				
				FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					

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3/17/2010