

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



SOIL BORING LOG

Page 1 of 3

ROUTE FAS 2703 DESCRIPTION Illinois Central Railroad LOGGED BY E. Sandschafer  
 SECTION (9-VBR)BR LOCATION Sec 19 - SE 1/4, Sec 30 - NE 1/4, SEC. TWP. 4 N, RNG. 5 E, 3 PM  
 COUNTY Clay DRILLING METHOD Hollow stem auger & split spoon HAMMER TYPE Auto 140#

STRUCT. NO. 013-0034 DEPTH (ft) (ft) (ft) (%) (ft) (ft) (ft) (%)  
 Station 475+50.4  
 BORING NO. 2 SURFACE WATER ELEV. N/A ft  
 Station 476+00 STREAM BED ELEV. N/A ft  
 Offset 10.00R L1 GROUNDWATER ELEV.:  
 Ground Surface Elev. 588.43 ft (ft) (ft) (tsf) (%) (ft) (ft) (tsf) (%)  
 First Encounter Dry ft  
 Upon Completion Washed ft  
 After 144 \*\* Hrs. 557.6 ft

DEPTH (ft)	DESCRIPTION	DEPTH (ft)	DEPTH (ft)	DEPTH (ft)	DEPTH (ft)	DEPTH (ft)	DEPTH (ft)
0	12" asphalt pavement.	0					
6	18" crushed stone.	6	2.3	16			
6	546.43	6	B				
3	Medium, damp, gray, SILTY CLAY.	3	0.8	24			
3	543.93	3	B				
2	Soft, damp, gray, SILTY LOAM.	2	0.3	25			
3	543.93	3	B				
2	Very stiff, damp, red marbled gray, SILTY CLAY.	2	2.3	19			
3	540.93	3	S				
2	Very stiff, damp, red marbled gray, CLAY LOAM TILL.	2	2.2	18			
3	538.93	3	B				
2	Very dense, moist, dark gray, CLAY SHALE.	2	0.7	28			
2	511.43	2	B				
2		2	0.9	25			
2	508.83	2	B				
2		2					
2		2					
2		2					
2		2					
2		2					
2		2					

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)



SOIL BORING LOG

Page 2 of 3

ROUTE FAS 2703 DESCRIPTION Illinois Central Railroad LOGGED BY E. Sandschafer  
 SECTION (9-VBR)BR LOCATION Sec 19 - SE 1/4, Sec 30 - NE 1/4, SEC. TWP. 4 N, RNG. 5 E, 3 PM  
 COUNTY Clay DRILLING METHOD Hollow stem auger & split spoon HAMMER TYPE Auto 140#

STRUCT. NO. 013-0034 DEPTH (ft) (ft) (ft) (%) (ft) (ft) (ft) (%)  
 Station 475+50.4  
 BORING NO. 2 SURFACE WATER ELEV. N/A ft  
 Station 476+00 STREAM BED ELEV. N/A ft  
 Offset 10.00R L1 GROUNDWATER ELEV.:  
 Ground Surface Elev. 588.43 ft (ft) (ft) (tsf) (%) (ft) (ft) (tsf) (%)  
 First Encounter Dry ft  
 Upon Completion Washed ft  
 After 144 \*\* Hrs. 557.6 ft

DEPTH (ft)	DESCRIPTION	DEPTH (ft)	DEPTH (ft)	DEPTH (ft)	DEPTH (ft)	DEPTH (ft)	DEPTH (ft)
6	Very stiff, damp, red marbled gray, CLAY LOAM TILL. (continued)	6	2.7				
9	546.43	9	B				
5	Very stiff, damp, red mottled gray, CLAY TILL.	5	3.5	17			
9	523.93	9	B				
3	Medium, damp, red mottled gray, SILTY CLAY TILL.	3	0.8				
8	518.93	8	B				
13	511.43	13	B				
7	Very dense, moist, dark gray, CLAY SHALE.	7					
508.83	508.83						

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)



ROCK CORE LOG

Page 3 of 3

ROUTE FAS 2703 DESCRIPTION Illinois Central Railroad LOGGED BY E. Sandschafer  
 SECTION (9-VBR)BR LOCATION Sec 19 - SE 1/4, Sec 30 - NE 1/4, SEC. TWP. 4 N, RNG. 5 E, 3 PM  
 COUNTY Clay CORING METHOD Rotary, surf. set diamond bit

STRUCT. NO. 013-0034 NW, conv dbl bbl, split inner  
 Station 475+50.4 CORE DIAMETER 2.06 in  
 BORING NO. 2 TOP OF ROCK ELEV. 508.93 ft  
 Station 476+00 BEGIN CORE ELEV. 508.83 ft  
 Offset 10.00R L1 GROUND SURFACE ELEV. 588.43 ft

DEPTH (ft)	DESCRIPTION	DEPTH (ft)	DEPTH (ft)	DEPTH (ft)	DEPTH (ft)	DEPTH (ft)	DEPTH (ft)
508.83	Very hard, gray, SILTY CLAY SHALE, diagonal layering.	508.83	80	60	1.1		
507.03	Rock Core sample B2A at depth 60.8' to 61.3' Qu = 279 tsf.	507.03					
506.83	Gray, SANDY CLAY SHALE.	506.83					
506.03	Gray, CLAY SHALE w/ some harder shale veins.	506.03					
504.33	Very hard, dark gray, SILTY CLAY SHALE.	504.33					
503.03	Gray, slightly weathered, CLAY SHALE.	503.03	95	63	1.3		
503.03	Gray, CLAY SHALE, sample swelled. Rock Core sample B2B at depth 65.4' to 65.9' Qu = 10 tsf.	503.03					
500.43	Very hard, brown, SILTY CLAY SHALE.	500.43					
498.83	Hard, gray, slightly weathered, SANDSTONE. Extent of exploration.	498.83					
498.83	498.83						

Benchmark: BM 114 chiseled square on SE corner of W abutment of existing structure 013-0034, Sta 474+56, 18.4' Lt = 588.20' elevation. Provided by Program Development.

\*\* Note: Hole caved/water level at 21.5' when checked on 07/10/07.

Color pictures of the cores Available on request  
 Cores will be stored for examination until 05/21/08  
 The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)  
 BBS, form 138 (Rev. 8-99)

DESIGNED B.B.  
 CHECKED C.J.F.  
 DRAWN J.G.  
 CHECKED C.J.F. & B.B.

SOIL BORINGS-2  
 KINMUNDY/LOUISVILLE ROAD  
 OVER ILLINOIS CENTRAL RR  
 STA. 475+50.44

BERNARDIN LOCHMUELLER & ASSOCIATES, INC.

3 Oak Drive  
 Maryville, IL 62062-5635  
 Local (618) 288-4665  
 Fax 618-288-4666

SHEET NO. 21 22 SHEETS	F.A.S. RTE. 2703	SECTION (9-VBR)B	COUNTY CLAY	TOTAL SHEETS 65	SHEET NO. 43
	SN 013-0044		CONTRACT NO. 74136		
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT					