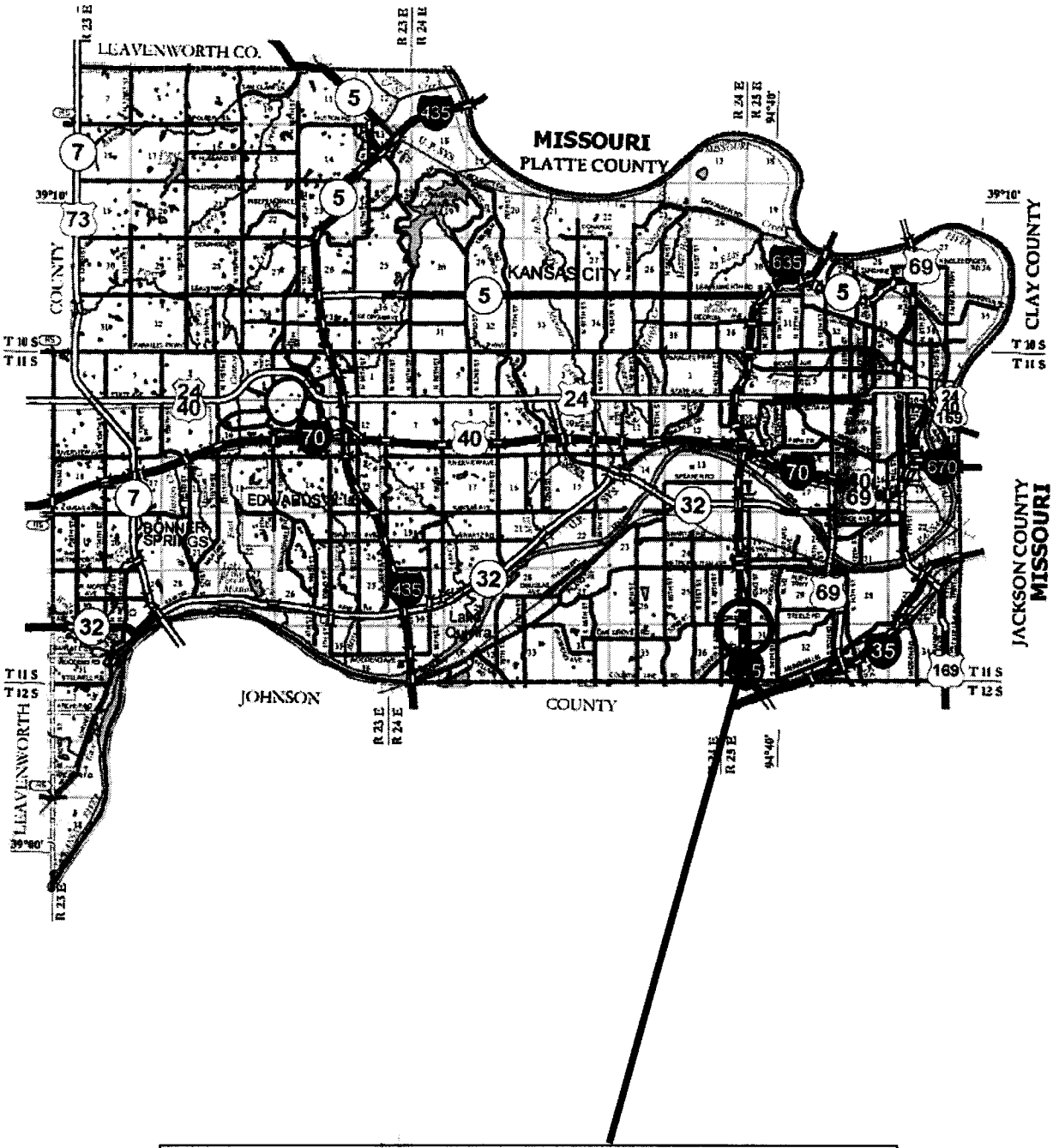

635-105 KA-2093-01 Gibbs Rd. over I-635

1.43 miles North of I-35

Wyandotte County

CD 05

N: 39.058622 E: -94.679289 (Approximate)

SE ¼, SE ¼, SW ¼, Sect 30, T11S, R25E

10/8/2012

KANSAS DEPARTMENT OF TRANSPORTATION

Kansas Department of Transportation

RTE./CO.	I-635 / Wyandotte	SOUNDING NO.	CD 05	SHEET 1 of 3	
BRIDGE STA.	154+97.14	PROJ. NO.	635-105 KA-2093-01	BRIDGE NO.	1.05(326)
SITE NAME	Gibbs Rd over I-635			HOLE STA.	48+58, 47.0' Rt CL
GEOLOGIST	R. Crow, P.G.	SCALE 1 inch = 5.0 feet		DATE	October 8, 2012
DRILLER	R. Vervynck	RIG TYPE	CME 55	TOP HOLE ELEV.	1039.42
GW ELEV.	1017.4	TOTAL DEPTH	53.4	M/B ELEV.	1027.62

Bit Type	GEOLOGIC NAME	STRATIGRAPHIC COLUMN	DEPTH	ELEVATION	CLASSIFICATION OF MATERIALS DESCRIPTION AND REMARKS	UNCONFINED COMPRESSION (TSF)	ELASTIC MODULUS (PSF)	N60 COUNT (SPT)	ELEVATION
8" Hollow Augers	Mantle			1039.4	Silty clay, reddish-brown, sandy	1.5	160000		1028.62
			11.8	1027.6	Sandstone, shaly, tan/brown				
NQ2 Diamond	Vilas Formation	1	12.5	1026.9	Tan sandy shale				
			13.4	1026.0	Sandstone, tan, cross bedded				
			14.2	1025.2	Sandstone, lime cement, gray				
		2	14.3	1025.1	Sandstone, tan, sandy				
			15.3	1024.1	Shale, gray, clayey, sandy	5	330000		1022.62
		3	21.8	1017.6	Limestone, gray, hard	376	1.4E+08		1016.02
	Plattsburg Limestone Formation	4	23.4	1016.0	Limestone, gray, wavy-bedded, hard	227	2.32E+08		1013.22
		5							

1035 1030 1025 1020 1015 1010

BOREHOLE REPORT - KANSAS DOT.GDT - 10/22/12 08:40 - Q:\GEOLOGY\BRIDGE\635-105 KA-2093-01\GIBBS RD OVER 635.GPJ

KANSAS DEPARTMENT OF TRANSPORTATION

Kansas Department of Transportation

RTE./CO.	I-635 / Wyandotte	SOUNDING NO.	CD 05	SHEET 2 of 3	
BRIDGE STA.	154+97.14	PROJ. NO.	635-105 KA-2093-01	BRIDGE NO.	1.05(326)
SITE NAME	Gibbs Rd over I-635			HOLE STA.	48+58, 47.0' Rt CL

Bit Type	GEOLOGIC NAME	STRATIGRAPHIC COLUMN	DEPTH	ELEVATION	CLASSIFICATION OF MATERIALS DESCRIPTION AND REMARKS	UNCONFINED COMPRESSION (TSF)	ELASTIC MODULUS (PSF)	N60 COUNT (SPT)	ELEVATION
NQ2 Diamond	Plattsburg Limestone Formation	5			Limestone, gray, wavy-bedded, hard	443	1.5E+08		1008.22
			33.2	1006.2	Shale, gray				
			33.4	1006.0	Limestone, dark gray, fossil fragments				
			33.9	1005.5	Limestone, very fine, white/gray				
		6	34.5	1004.9	Shale, dark gray	330	1.19E+08		1003.72
			34.7	1004.7	Limestone, very fine, gray, hard, wavy-bedded				
			35.7	1003.7	Shale, gray, limy				
			36.6	1002.8	Limestone, very hard, light gray, very fine, dense				
	Bonner Springs Formation	7	38.4	1001.0	Shale, gray, limy, sandy	132	3.09E+07		998.32
		8	43.4	996.0	Sandstone, gray, micro cross beds, shaly	58	1.78E+07		991.62
		9	48.4	991.0	Sandstone, gray, shaly, limy				
			50.5	988.9	Shale, sandy, gray	28	3470000		987.22
			53.4	986.02	T.D. = 53.4				

BOREHOLE REPORT - KANSAS DOT.GDT - 10/22/12 08:40 - Q:\GEOLOGY\BRIDGE\635-105 KA-2093-01\GIBBS RD OVER 635.GPJ

KANSAS DEPARTMENT OF TRANSPORTATION

Kansas Department of Transportation

RTE./CO.	I-635 / Wyandotte	SOUNDING NO.	CD 05	SHEET 3 of 3	
BRIDGE STA.	154+97.14	PROJ. NO.	635-105 KA-2093-01	BRIDGE NO.	1.05(326)
SITE NAME	Gibbs Rd over I-635			HOLE STA.	48+58, 47.0' Rt CL

Bit Type	GEOLOGIC NAME	STRATIGRAPHIC COLUMN	DEPTH	ELEVATION	CLASSIFICATION OF MATERIALS DESCRIPTION AND REMARKS	UNCONFINED COMPRESSION (TSF)	ELASTIC MODULUS (PSF)	N60 COUNT (SPT)	ELEVATION

Core	Depth	Elev.	Cut	Rec	Rec %	RQD
1	12.5	1026.92	0.9	0.4	44	0%
2	13.4	1026.02	5.0	5.0	100	82%
3	18.4	1021.02	5.0	5.0	100	92%
4	23.4	1016.02	5.0	5.0	100	94%
5	28.4	1011.02	5.0	5.0	100	92%
6	33.4	1006.02	5.0	5.0	100	98%
7	38.4	1001.02	5.0	5.0	100	84%
8	43.4	996.02	5.0	5.0	100	88%
9	48.4	991.02	5.0	5.0	100	74%
Total	**53.4**	**986.02**	**40.9**	**40.4**	**99**	**86%**