

Bridge Foundation Geology Report

CD2

32-52 KA-3078-01

KDOT Bridge No.32-52-00.51(088)

KTA Bridge No. 206.345

K-32 over I-70

1.55 miles northeast of the Leavenworth/Douglas Co. line

Leavenworth County

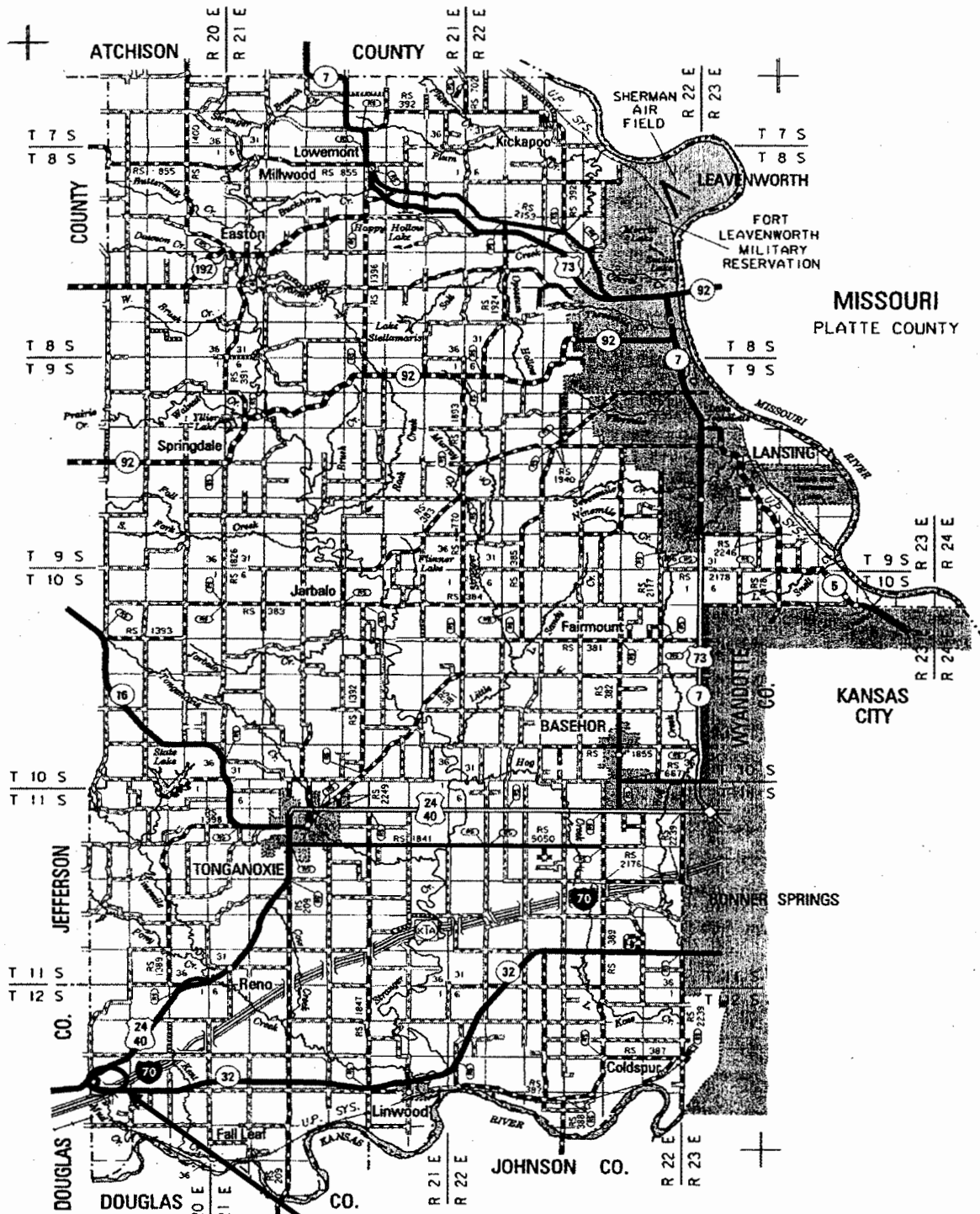
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Chief Geologist

Delmar Thompson, P.G.
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September, 2014



Bureau of Structures and Geotechnical Services
Geotechnical Unit



32-52 KA-3078-01 K32 over KTA
 Br. No. 32-52-00.51(088)
 Leavenworth County
 CD2
 N:39.000358 E:-95.177070
 SE ¼, SE ¼, SW ¼, S15. T12S, R20E

KANSAS DEPARTMENT OF TRANSPORTATION



RTE./CO.	K-32 / Leavenworth	SOUNDING NO.	CD 02	SHEET 1 of 4	
		PROJ. NO.	32-52 KA-3078-01	BRIDGE NO.	
SITE NAME	K-32 over KTA			HOLE STA.	49+53, 22.0' Rt CL
GEOLOGIST	R. Crow, P.G.	SCALE	1 inch = 5.0 feet	DATE	July 15, 2013
DRILLER	R. Vervynck	RIG TYPE	CME 55	TOP HOLE ELEV.	880.36
GW ELEV.	N/A	TOTAL DEPTH	97.5	W/B ELEV.	843.3

Bit Type	GEOLOGIC NAME	STRATIGRAPHIC COLUMN	DEPTH	ELEVATION	CLASSIFICATION OF MATERIALS DESCRIPTION AND REMARKS	UNCONFINED COMPRESSION (TSF)	ELASTIC MODULUS (PSF)	N60 COUNT (SPT)	ELEVATION
		880		880.4	Red/brown clay				
		875	5.6	874.8	Red silty clay	2.3	146000		874.76
		870		869.76		2.2	48900		869.76
		865		864.76		1.2	103000		864.76
		860		859.76		0.5	21300		859.76
		855							
		28.8		851.6	Tan sandy silty clay				

BOREHOLE REPORT - KANSAS DOT.GDT - 9/5/14.13.51 - C:\GEOLOGY\BRIDGE\32-52 KA-3078-01\K-32 OVER KTA.GPJ
8" Hollow Augers

Mantle



KANSAS DEPARTMENT OF TRANSPORTATION

RTE./CO.	K-32 / Leavenworth	SOUNDING NO.	CD 02	SHEET 2 of 4
		PROJ. NO.	32-52 KA-3078-01	BRIDGE NO.
SITE NAME	K-32 over KTA			HOLE STA. 49+53, 22.0' 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
8" Hollow Augers	Mantle		850		Tan sandy silty clay	0.5	30700		849.76
			33.8	846.6	Red/brown sandy silty clay	0.3	15000		844.96
	Tonganoxie Sandstone Member		37.1	843.3	Sandstone, tan/rust color, micaceous, carboniferous, cross bedded, shaly				
			1	840		70.0	1.87E+07		838.76
			2	835		84.0	3.13E+07		834.86
			3	830		28.0	4780000		831.66
4	53.6	826.8	Sandstone, shaly, gray						
5	57.1	823.3	Sandstone, tan/rust color, micaceous, carboniferous, cross bedded, shaly	117.0	3.84E+07		822.06		
6		820							
			815						

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KANSAS DEPARTMENT OF TRANSPORTATION

RTE./CO.	K-32 / Leavenworth	SOUNDING NO.	CD 02	SHEET 3 of 4
		PROJ. NO.	32-52 KA-3078-01	BRIDGE NO.
SITE NAME	K-32 over KTA			HOLE STA. 49+53, 22.0' 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	
	Tonganoxie Sandstone Member		6							
			67.5	812.9	Sandstone, tan/rust color, micaceous, carboniferous, cross bedded, shaly					
			7	810	Sandstone, gray, carboniferous, micaceous	104.0	4.68E+07		811.66	
			8	805		99.0	3.8E+07		805.16	
			9	800		95.0	3.05E+07		798.46	
			10	795		91.0	3.24E+07		794.86	
			11	790		58.0	1.9E+07		790.56	
				91.7	788.7	Interbedded limy shale and sandstone, gray				
				92.2	788.2	Sandstone, gray, micaceous, carboniferous				
				93.7	786.7	Shale, gray, laminar				
				94.1	786.3	Sandstone, gray, micaceous, carboniferous	51.0	2.09E+07		785.76
				12	785					
		97.5	782.86	T.D. = 97.5						

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