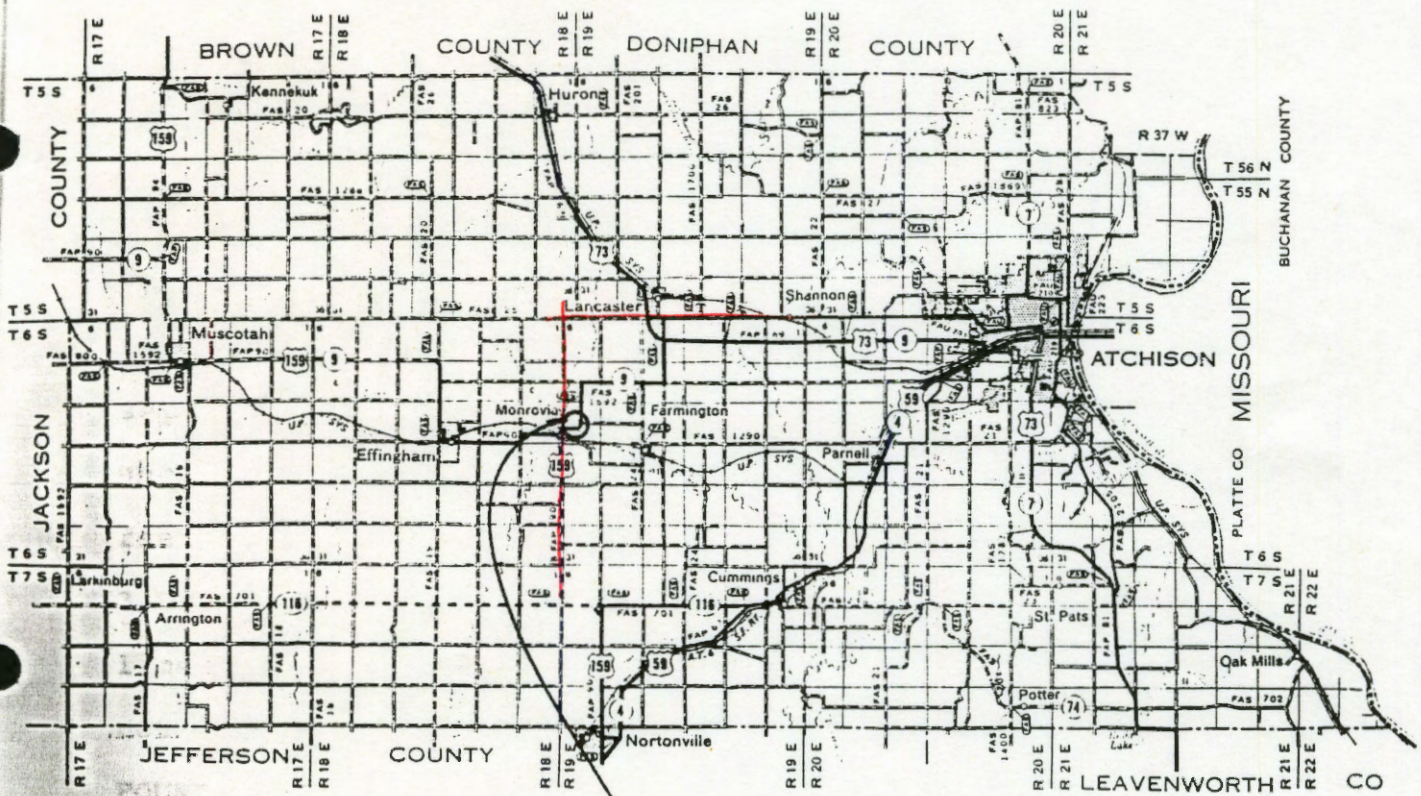


# Kansas Department of Transportation BRIDGE FOUNDATION GEOLOGY REPORT



18-65-19E

9-3 K-2629-01  
Br. No. 16.57  
Atchison County

# KANSAS DEPARTMENT OF TRANSPORTATION

COUNTY *Aitchison* PROJECT NO. *9-3-K-2629-01* BRIDGE NO. *16.57*

DESCRIPTION *K-9 over Stranger Crk.* STA. *115+32*

GEOLOGIST *D.L. Thompson* VERTICAL SCALE *1" = 5'* DATE *10-24-99*

BIT TYPE & NO.	GEOLOGIC NAME	GEOLOGIC COLUMN	GROUNDWATER ELEVATION	DEPTH	ELEVATION	GEOLOGIC DESCRIPTION  AND REMARKS <i>Core Drill # 1 Sta. 114+73, 1/2</i>	UNCONFINED COMPRESSION	STANDARD PENETRATION OR CASING DRIVE	
								BLOWS	ELEV.
				<i>0°</i>	<i>1006.1</i>				
	<i>Soil Mantle</i>	<i>(Hatched)</i>		<i>12°</i>	<i>993.5 Oct. '91</i>	<i>Clay, silty, brown to gray-brown</i>	<i>1.32</i>	<i>999.2</i>	<i>Push. 4" Casing</i>
							<i>.46</i>	<i>992.1</i>	
							<i>.43</i>	<i>982.6</i>	

# KANSAS DEPARTMENT OF TRANSPORTATION

COUNTY *Aitchison*

PROJECT NO. *9-3-K-2629-01* BRIDGE NO. *16.57*

DESCRIPTION *K-9 over Stranger Crk.*

STA. *115+33*

GEOLOGIST *D.L. Thompson*

VERTICAL SCALE *1" = 5'*

DATE *10-24-77*

BIT TYPE & NO.	GEOLOGIC NAME	GEOLOGIC COLUMN	GROUNDWATER ELEVATION	DEPTH	ELEVATION	GEOLOGIC DESCRIPTION AND REMARKS	UNCONFINED COMPRESSION	STANDARD PENETRATION OR CASING DRIVE	
								BLOWS	ELEV.
	<i>Soil Mantle</i>			<i>3f<sup>s</sup></i>	<i>971.6</i>	<i>Clay, silty, gray-brown</i>		<i>Push</i>	
					<i>970</i>	<i>Gravel; Light, Clay, silty, gray-brown</i>			
				<i>39.9</i>	<i>966.2</i>				
	<i>Stranger Fm.</i>				<i>965</i>	<i>Shale, light gray, clayey, upper 3.0' slightly weathered.</i>		<i>190 Blows</i>	<i>965.1</i>
					<i>961.6</i>		<i>13.6</i>		<i>961.8</i>
					<i>960</i>	<i>Shale, light gray, sandy with numerous thin sandstone lenses interbedded.</i>		<i>7.26</i>	<i>957.5</i>
					<i>955</i>				
					<i>950</i>				
					<i>945</i>				
					<i>940</i>				
				<i>66.8</i>	<i>939.3</i>	<i>Limestone, light gray, algal to impure</i>		<i>334</i>	<i>939.6</i>
				<i>68.9</i>	<i>937.2</i>	<i>Shale, black, very firm</i>			

# KANSAS DEPARTMENT OF TRANSPORTATION

COUNTY Atchison

PROJECT NO. 9-3-K-2629-01 BRIDGE NO. 16.57

DESCRIPTION K-9 over Stranger Crk

STA. 115+93

GEOLOGIST D. L. Thompson

VERTICAL SCALE 1" = 5'

DATE 10-24-91

BIT TYPE & NO.	GEOLOGIC NAME	GEOLOGIC COLUMN	GROUNDWATER ELEVATION	DEPTH	ELEVATION	GEOLOGIC DESCRIPTION AND REMARKS	UNCONFINED COMPRESSION	STANDARD PENETRATION OR CASING DRIVE	
								BLOWS	ELEV.
		6		66.8	939.3	Shale, light gray, sandy	334		939.6
		6QD		68.9	937.2	Limestone, light gray; siliceous to impure			
		76%		70.9	935.2	Shale, black, very fine	494		935.7
		7		72.7	933.4	Limestone, dark gray, impure	760		934.6
		7QD		74.8	931.3	Shale, dark gray, limy	631		931.4
		70%		75.7	930.4	T.D. Shale, olive, limy			
					930	Core Descriptions			
						Core # 1, 41 <sup>2</sup> -46 <sup>2</sup> , Cut 5°, Reco. 5°			
						41 <sup>2</sup> -44 <sup>5</sup> - Shale, light gray, clayey, siliceous weathered			
						44 <sup>5</sup> -46 <sup>2</sup> - Shale, gray, with thin sandstone lenses			
						Sample # 1 43 <sup>4</sup> -44 <sup>3</sup> , Sand, gray			
						RQD = 54%			
						Core # 2, 46 <sup>2</sup> -50 <sup>7</sup> , Cut 5°, Reco. 4°			
						46 <sup>2</sup> -47 <sup>9</sup> - Shale, gray, with thin sandstone lenses			
						47 <sup>9</sup> -50 <sup>7</sup> - Shale, gray, clayey			
						Sample # 2 48 <sup>6</sup> -48 <sup>6</sup> , shale, gray			
						RQD = 64%			
						Core # 3, 50 <sup>7</sup> -55 <sup>7</sup> , Cut 5°, Reco. 5°			
						50 <sup>7</sup> -55 <sup>7</sup> , Shale, gray, sandy to thin sandstone lenses.			
						RQD = 54%			
						Low RQD is the Result of the thin sandstone lenses which cause a Fissile effect.			

# KANSAS DEPARTMENT OF TRANSPORTATION

COUNTY Atchison PROJECT NO. 9-3-K-2629-01 BRIDGE NO. 16.57

DESCRIPTION K-9 over Stranger Crt. STA. 115+93

GEOLOGIST D.L. Thompson VERTICAL SCALE N.A. DATE 10-24-9.

BIT TYPE & NO.	GEOLOGIC NAME	GEOLOGIC COLUMN	GROUNDWATER ELEVATION	DEPTH	ELEVATION	GEOLOGIC DESCRIPTION AND REMARKS Core Drill # 1 Descriptions	UNCONFINED COMPRESSION	STANDARD PENETRATION OR CASING DRIVE	
								BLOWS	ELEV.
						Core # 4, 55 <sup>2</sup> -60 <sup>7</sup> Cut 5° Recov. 5° 55 <sup>2</sup> -60 <sup>7</sup> - Shale, gray, sandy to sandstone lenses. Sample # 3 57 <sup>0</sup> -59 <sup>0</sup> ; Shale, gray, sandy RQD = 30%			
						Core # 5, 60 <sup>7</sup> -65 <sup>7</sup> , Cut 5°, Recov. 5° 60 <sup>7</sup> -65 <sup>7</sup> - same as above. Sample # 4 - 61 <sup>5</sup> -62 <sup>0</sup> ; Shale gray, very sandy. Sample # 5 - 64 <sup>1</sup> -64 <sup>85</sup> , Shale gray, sandy RQD = 82%			
						Core # 6, 65 <sup>7</sup> -70 <sup>7</sup> , Cut 5°, Recov. 5° 65 <sup>7</sup> -66 <sup>3</sup> - Shale, dark gray, limy 66 <sup>3</sup> -69 <sup>9</sup> - Limestone, light gray, alaged to impure 69 <sup>9</sup> -70 <sup>7</sup> - Shale, dark gray to black, very firm Sample # 6 66 <sup>3</sup> -67 <sup>1</sup> - Limestone Sample # 7 69 <sup>9</sup> -70 <sup>4</sup> - Shale, black RQD = 98%			
						Core # 7, 70 <sup>7</sup> -75 <sup>7</sup> Cut 5°, Recov. 4° 70 <sup>7</sup> -70 <sup>7</sup> - Shale, black, very firm 70 <sup>7</sup> -72 <sup>7</sup> - Limestone, dark gray, impure 72 <sup>7</sup> -73 <sup>7</sup> - Shale, dark gray, limy 73 <sup>7</sup> -73 <sup>9</sup> - Limestone, impure 73 <sup>9</sup> -74 <sup>3</sup> - Shale, dark gray, limy 74 <sup>3</sup> -75 <sup>1</sup> - Shale, olive, limy			