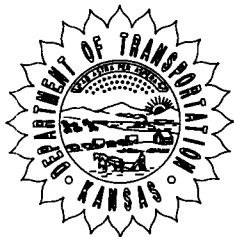


# KANSAS DEPARTMENT OF TRANSPORTATION



RTE./CO. 59-23	SOUNDING NO. CD *1	SHEET 1 OF 2
BRIDGE STA. 638+12.60 637+94.14	PROJ. NO. 59-23 K-7888-01	BRIDGE NO. 10J9 (123) 10J8 (122)
SITE NAME US-59 over 1000 Rd		HOLE 638+92 51' Lt US-59- STA. 49+32 76' Lt Rd 1000N
GEOLOGIST Denesha	SCALE 1:100 (10mm=1m)	DATE 6/23/04
DRILLER Johnson	RIG TYPE CME-75	TOP HOLE ELEV. 871.52
GW ELEV. <i>H</i>	TOTAL DEPTH 58.80	M/B ELEV. 862.02

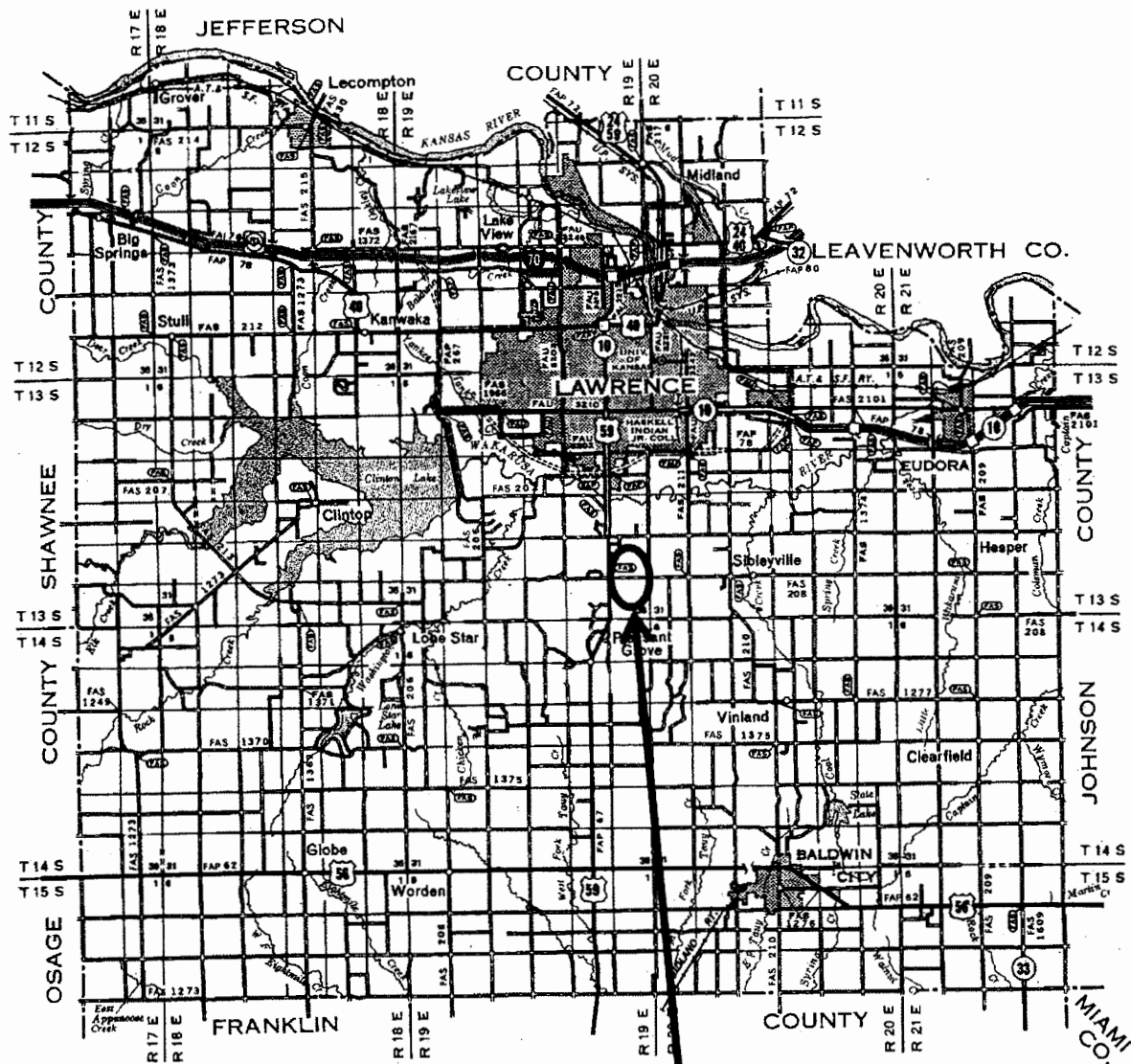
BIT TYPE	GEOLOGIC NAME	STRATIGRAPHIC COLUMN	DEPTH	ELEVATION	CLASSIFICATION OF MATERIALS DESCRIPTION AND REMARKS	UNCONFINED COMPRESSION psf	STANDARD PENETRATION TEST (SPT)	
							N COUNT	ELEVATION
				872	THE = 871.52			
8" Augers	Mantle			870	Mantle- Silty clay, red-brown to orange and light brown with very fine sand in the lower 3 feet.			
				868				
				866				
				864				
			9.50	862		862.02		
NW size core bit	Lawrence Shale			862	Sandstone-brown with thin interbedded darker brown and gray sand. Few carbon rich zones with thin black stringers. Pure brown medium grained sand in lower part of core 3.	189000	860.12	
				860		48700	857.52	
				858		43300	856.42	
				856				
				854				
				852		109000	853.17	
				850				
				848		30500	848.52	
			24.30	848		847.22 Clay-gray and sandy, very very soft and wet		
			24.60	846		876.92	220000	846.12
	844	Sandstone-gray with black fine grained carbon rich stringers, numerous clay partings in lower part core 4.						
			29.30		Shale- gray, clayey with light and dark laminations			



# KANSAS DEPARTMENT OF TRANSPORTATION

RTE./CO. 59-23	SOUNDING NO. CD #1	SHEET 2 OF 2
BRIDGE STA. 638+12.60 637+94.14	PROJ. NO. 59-23 K-7888-01	BRIDGE NO. 10J9 (123) 10J8 (122)
SITE NAME US-59 over 1000 Rd		HOLE STA. 638+92 5' Lt US-59- 49+32 76' Lt Rd 1000N

BIT TYPE	GEOLOGIC NAME	STRATIGRAPHIC COLUMN	DEPTH	ELEVATION	CLASSIFICATION OF MATERIALS DESCRIPTION AND REMARKS	UNCONFINED COMPRESSION	STANDARD PENETRATION TEST (SPT)																																																																																						
							N COUNT	ELEVATION																																																																																					
NW size core bit	Lawrence Shale	[Stratigraphic Column Diagram]	57.8	842	Shale- gray, clayey with light and dark laminations Carbon rich black stringers are present through the core. The shale is limy in core six and seven grading to sandy in cores eight through ten.	23200	428000	828.42																																																																																					
				840																																																																																									
				838																																																																																									
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K-7888-01 US-59 over Road 1000N

Douglas County

CD 01

N: 38.885371 E: -95.269197 (Approximate)

SW ¼, SW ¼, SW ¼, Sect 25, T13S, R19E

6/23/2004