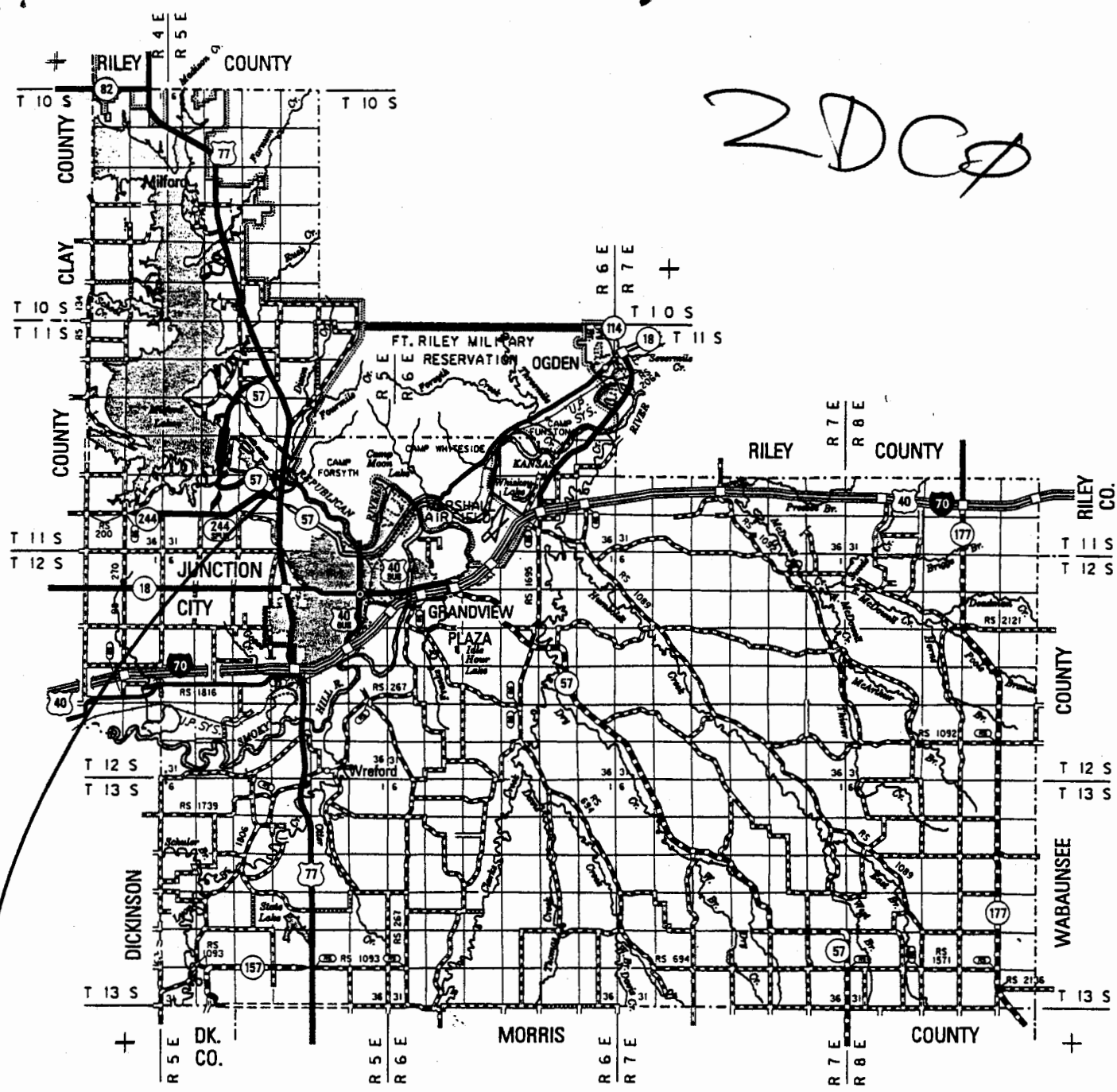


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2DCØ



Proj. No. 77-31 K-5373-01
 Bridge No. 14.06 (076)
 US-77 over Republican River
 Sta. 10+790.500



GENERAL HIGHWAY MAP
GEARY COUNTY
KANSAS

PREPARED BY THE
 KANSAS DEPARTMENT OF TRANSPORTATION
 BUREAU OF TRANSPORTATION PLANNING
 IN COOPERATION WITH THE
 U.S. DEPARTMENT OF TRANSPORTATION
 FEDERAL HIGHWAY ADMINISTRATION

SCALE IN MILES
 0 1 2 3 4

SCALE IN KILOMETERS
 0 1 2 3 4 5 6 7 8 9 10

RE SYSTEM REVISED TO OCTOBER 15, 1983

1982

COMPUTER
 GENERATED



KANSAS DEPARTMENT OF TRANSPORTATION

RTE./CO. 77-31	SOUNDING NO. CD# 3	SHEET 1 OF 3
BRIDGE STA 10+790 ⁵⁰⁰	PROJ. NO. K-5373-01	BRIDGE NO. 14.06
SITE NAME US-77 over Republican River	HOLE STA 10+764 ¹⁵ , 10 ⁶⁰ R	
GEOLOGIST Art Peterson	SCALE: 1:100 (10mm = 1 Meter)	DATE 11-27-95
DRILLER Bob Bergman	RIG TYPE B-61	TOP HOLE ELEV. 322.725
GROUNDWATER ELEV 321.81	TOTAL DEPTH 34 ¹⁶⁰	M/B ELEV. 316.225

BIT TYPE	GEOLOGIC NAME	STRATIGRAPHIC COLUMN	DEPTH	ELEVATION	CLASSIFICATION OF MATERIALS DESCRIPTION AND REMARKS	UNCONFINED COMPRESSION	STANDARD PENETRATION OR CASING DRIVE		
							BLOWS	ELEV	
3 1/2" Hawthorne	Alluvium			322	Pier 2 T.H.E. = 322.725 Sand, fine to medium grained with scattered gravel				
				320					
				318					
				317.425					
				316					
				316.225					
				316					
				315.475					
				314.855					
				314					
Diamond bit	3-Mile Mbr			314	Limestone, buff-white, fractured chert band				
				313.475					
				314.855					Limestone, lt gray, chert band, shale parting
				314.235					Shale, dk gray to gray, fossil fragments, limy
				314.065					Limestone, lt gray, fossiliferous
				313.035					Shale, green to gray
				312.655					Shale, green and maroon, limy
				312					
				310					
				309.645					
Blue Rapids	Funston Fm			309	Limestone, lt gray to white, algal				
				309.225					Shale, green to gray
				308.895					Gypsum and celestite
				308					Limestone, lt gray, contains celestite in upper portion
				308.025					
				307					Shale, dk gray-gray, limy contains gypsum stringers

				SOUNDING NO. <u>CD#3</u>	PROJECT NO. <u>K-5373-01</u>	SHEET <u>2 OF 3</u>		
DATE <u>11-27-95</u>		RTE./CO. <u>77-31</u>		TOTAL DEPTH <u>34¹⁶⁰</u>		THE <u>322.725</u>		
BIT TYPE	GEOLOGIC NAME	STRATIGRAPHIC COLUMN	DEPTH	ELEVATION	CLASSIFICATION OF MATERIALS DESCRIPTION AND REMARKS	UNCONFINED COMPRESSION	STANDARD PENETRATION OR CASING DRIVE	
							BLOWS	ELEV
T. cone Bit	Blue Rapids Fm		16 ⁵⁸	306	Shale, gray-dk gray, limy, contains thin gypsum stringers <u>306.445</u>			
					Shale, green-gray and maroon contains limestone stringers			
	Crouse Fm		20 ⁵⁵	302	<u>302.165</u> Limestone, lt gray - buff, shaly			
			21 ⁶⁶		<u>301.065</u> Shale, gray, limy with limestone stringers			
			22 ⁴⁰	300	<u>300.325</u> Limestone, lt gray - gray, shaly contains shale partings			
			24 ⁴²	298	<u>298.305</u> Shale, dk gray - gray contains thin gypsum stringers			
			26 ⁵⁵	296	<u>296.175</u> Limestone, gray, blocky			
			27 ⁰⁴		<u>295.685</u> Shale, green and maroon			
			28 ⁵⁰	294	<u>294.225</u> Shale, maroon, limy			
			29 ³⁰		<u>293.425</u> Gypsiferous shale, dk gray to gray			
	Middleburg mbr		32 ²²	292	<u>290.505</u> Limestone, tan - gray, platy			
			33 ¹⁰	290	<u>289.625</u> Shale, limy, gray			
			33 ⁴⁴		<u>289.285</u> Limestone, lt gray, hard			
Hooser mbr		33 ⁷⁹		<u>288.935</u> Shale, green to gray				
		34 ¹⁶ TD	288	<u>288.565</u>				

				SOUNDING NO. CD #3	PROJECT NO. K-5373-01	SHEET 3 OF 3		
DATE 11-27-95				RTE./CO. 77-31	TOTAL DEPTH 34 ¹⁶⁰	THE 322.725		
BIT TYPE	GEOLOGIC NAME	STRATIGRAPHIC COLUMN	DEPTH	ELEVATION	CLASSIFICATION OF MATERIALS DESCRIPTION AND REMARKS	UNCONFINED COMPRESSION	STANDARD PENETRATION OR CASING DRIVE	
							BLOWS	ELEV
					Core #1, 6⁷¹ - 7⁶⁵ (316.015 - 315.075) cut 0⁹⁴ Rec 0⁹⁴ Core Rec 100% RQD 55% Core #2, 7⁶⁵ - 9¹⁷ (315.075 - 313.555) cut 1⁵² Rec 1⁵² Core Rec 100% RQD 77% Core #3, 9¹⁷ - 10⁰⁸ (313.555 - 312.645) cut 0⁹¹ Rec 0⁸⁹ Core Rec 98% RQD 75% Core #4, 10⁰⁸ - 11⁶⁰ (312.645 - 311.125) cut 1⁵² Rec 1⁵⁰⁵ Core Rec 99% RQD 85% Core #5, 11⁶⁰ - 12⁵⁶ (311.125 - 310.165) cut 0⁹⁶ Rec 0⁹⁶ Core Rec 100% RQD 100% Core #6, 12⁵⁶ - 14⁰⁸ (310.165 - 308.645) cut 1⁵² Rec 1⁵² Core Rec 100% RQD 97% Core #7, 14⁰⁸ - 15⁶⁰ (308.645 - 307.125) cut 1⁵² Rec 1⁵² Core Rec 100% RQD 100%			