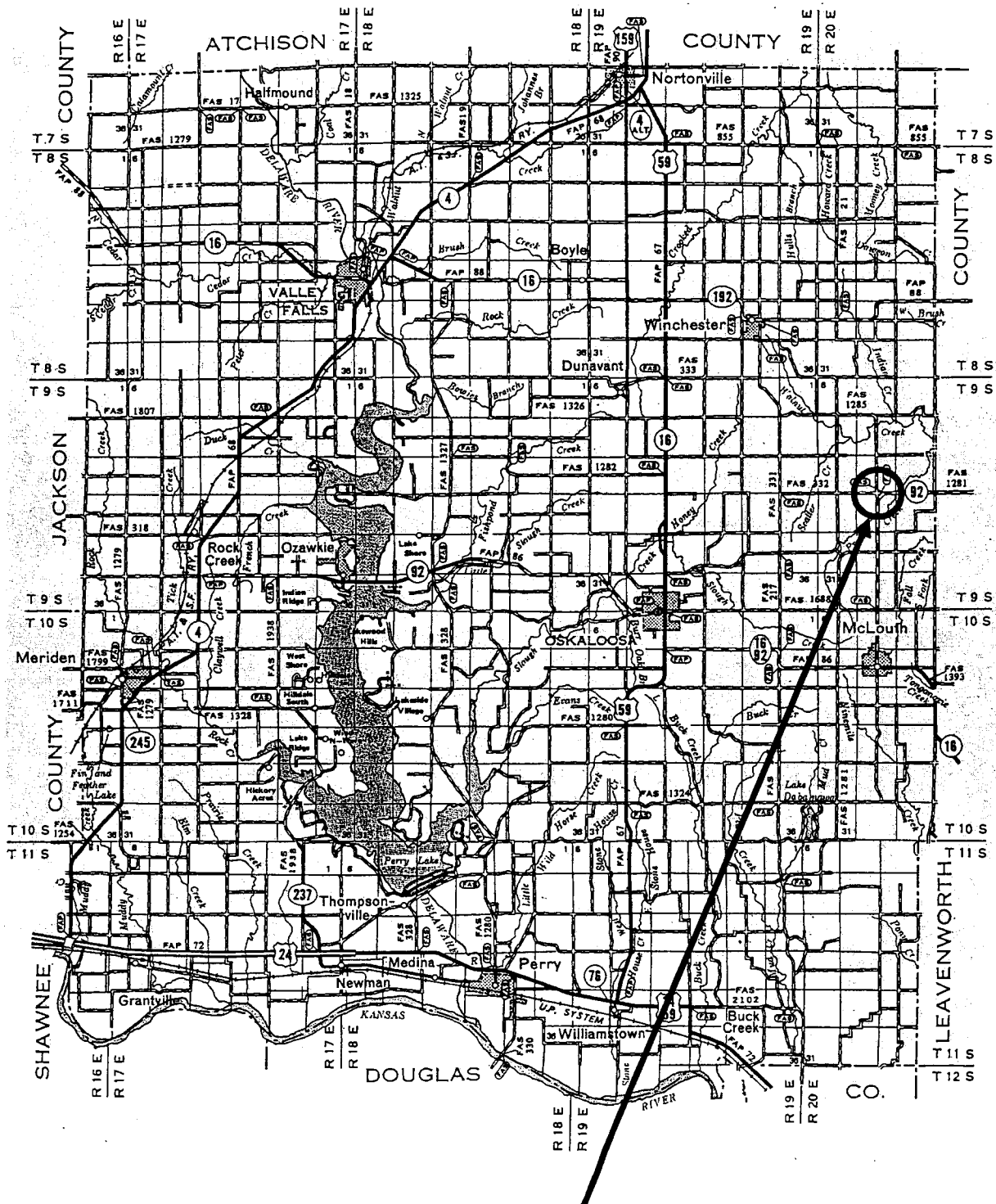
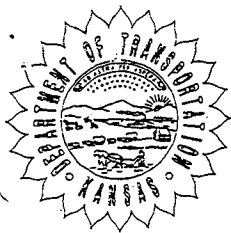


2nd floor, stacked over
onaga DC-79 core
in open area



Project 92-44 7381-01
K-92 over Prairie Creek, Bridge Replacement
Bridge No. 92-44-24.56 (055)
Jefferson County



KANSAS DEPARTMENT OF TRANSPORTATION

RTE./CO. 92/44	SOUNDING NO. 1	SHEET 1 OF 4
BRIDGE STA 7+967.000	PROJ. NO. K-7381-01	BRIDGE NO. 24.56 (055)
SITE NAME K-92 over Prairie Creek		HOLE STA 7+974.442
GEOLOGIST Thompson	SCALE: 1:100 (10mm = 1 Meter)	DATE 10-9-02
DRILLER Verlynck	RIG TYPE B-61	TOP HOLE ELEV. 294.67
GROUNDWATER ELEV 291.62	TOTAL DEPTH 16.31 m	M/B ELEV. 290.86

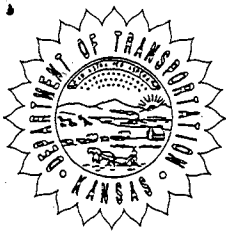
BIT TYPE	GEOLOGIC NAME	STRATIGRAPHIC COLUMN	DEPTH	ELEVATION	CLASSIFICATION OF MATERIALS DESCRIPTION AND REMARKS Core Drill # 1 Sta. 7+974.442, 29.5 ft	UNCONFINED COMPRESSION kPa	STANDARD PENETRATION OR CASING DRIVE	
							BLOWS	ELEV
			0.0	294.67				
				294	Silt to Silty Clay, brown, medium sand in lower half, heavy gravel to cobbles near base.			
				293				
				292		159		292.38
			3.05	291.62	Water Level			
			3.83	290.86				
			4.36	290.31	Shale, brown, to sandstone, very weathered			
				290	Limestone, light gray, dense, thin 0.03 shale break near middle	49200		289.77
			5.46	289.21				
				289	Shale, gray, Firm, upper 0.6 m calcareous.	752		288.88
			6.74	288		1090		288.18
				288				
				287	Limestone, light to dark gray, impure with numerous thin shale breaks, highly fossiliferous, zones with high concentration of fusulinids, minor amounts of chert noted	55300		287.43
				287				
				286		65400		286.67
				285		25900		285.17
				285				
				284				
				284				
				283		23100		283.24
				283				
				282	* Thin Shale breaks			
			12.45	282.2				
				281	Shale, dark gray to black, very Firm non-fissile, 100% RQD	10800		281.46
				281				
			14.23	280.34		24600		280.44
			14.98	279.69	Limestone, light gray, dense, unit bedded			
				279	* Snyderville Shale Mbr.			
				279	Shale, light gray, Firm, Clayey			



KANSAS DEPARTMENT OF TRANSPORTATION

RTE./CO. 92/44	SOUNDING NO. 1	SHEET 2 OF 4
BRIDGE STA 7+967.000	PROJ. NO. K-7381-01	BRIDGE NO. 24.56 (055)
SITE NAME K-92 over Prairie Creek		HOLE STA 7+974.442
GEOLOGIST Thompson	SCALE: 1:100 (10mm = 1 Meter)	DATE 10-9-02
DRILLER Vervynck	RIG TYPE B-61	TOP HOLE ELEV. 294.67
GROUNDWATER ELEV 291.62	TOTAL DEPTH 16.31 m	M/B ELEV. 290.86

BIT TYPE	GEOLOGIC NAME	STRATIGRAPHIC COLUMN	DEPTH	ELEVATION	CLASSIFICATION OF MATERIALS DESCRIPTION AND REMARKS	UNCONFINED COMPRESSION	STANDARD PENETRATION OR CASING DRIVE	
							BLOWS	ELEV
Leavenworth Ls. Mbr. Sh. Mbr. Snyder Ls. Mbr.	Leavenworth Ls. Mbr. Sh. Mbr. Snyder Ls. Mbr.	6 7 8	6	281	Shale, dark gray to black, very firm, non-fissile 100% RQD			
			14.33	280.31				
			14.98	279.69	Limestone, light gray, unit bedded			
Leavenworth Ls. Mbr. Sh. Mbr. Snyder Ls. Mbr.	Leavenworth Ls. Mbr. Sh. Mbr. Snyder Ls. Mbr.	8		279	Shale, light gray, firm, clayey			
				278.36 TO				
				278				
Leavenworth Ls. Mbr. Sh. Mbr. Snyder Ls. Mbr.	Leavenworth Ls. Mbr. Sh. Mbr. Snyder Ls. Mbr.				<u>Core Descriptions</u>			
					Core #1 290.04-288.51, Cut 1.52, Rec. 1.34			
					290.04 - Limestone, light gray, slightly impure			
Leavenworth Ls. Mbr. Sh. Mbr. Snyder Ls. Mbr.	Leavenworth Ls. Mbr. Sh. Mbr. Snyder Ls. Mbr.				289.55 - Shale, gray, limy			
					289.52 - Limestone, light gray, dense			
					289.21 - Shale, gray, firm, limy			
Leavenworth Ls. Mbr. Sh. Mbr. Snyder Ls. Mbr.	Leavenworth Ls. Mbr. Sh. Mbr. Snyder Ls. Mbr.				288.51 - S.S.			
					RQD = 82%			
					Sample #1 - 289.95 to 289.79 - Limestone - Kereford			
Leavenworth Ls. Mbr. Sh. Mbr. Snyder Ls. Mbr.	Leavenworth Ls. Mbr. Sh. Mbr. Snyder Ls. Mbr.				Sample #2 - 289.03 to 288.88 - Shale - Heumadar			
Leavenworth Ls. Mbr. Sh. Mbr. Snyder Ls. Mbr.	Leavenworth Ls. Mbr. Sh. Mbr. Snyder Ls. Mbr.				Core #2 288.51-287.17, Cut 1.33, Rec. 1.33			
					288.51 - Shale, gray, firm			
					287.93 - Limestone, light gray, very fossiliferous.			
Leavenworth Ls. Mbr. Sh. Mbr. Snyder Ls. Mbr.	Leavenworth Ls. Mbr. Sh. Mbr. Snyder Ls. Mbr.				287.17 S.S.			
					RQD = 81%			
					Sample #3 - 288.36 to 288.17 - Shale - Heumadar			
Leavenworth Ls. Mbr. Sh. Mbr. Snyder Ls. Mbr.	Leavenworth Ls. Mbr. Sh. Mbr. Snyder Ls. Mbr.				Sample #4 - 287.57 to 287.43 - Limestone - Plattsmouth			



KANSAS DEPARTMENT OF TRANSPORTATION

RTE/CO. 92/44	SOUNDING NO. 1	SHEET 3 OF 4
BRIDGE STA 7+967.000	PROJ. NO. K-7381-01	BRIDGE NO. 24.56
SITE NAME K-92 over Prairie Ck.		HOLE STA 7+974.442
GEOLOGIST Thompson	SCALE: 1/100 (10mm = 1 Meter)	DATE 10-9-02
DRILLER Veruynck	RIG TYPE B-61	TOP HOLE ELEV. 294.67
GROUNDWATER ELEV 291.62	TOTAL DEPTH 16.31	M/B ELEV. 290.86

BIT TYPE	GEOLOGIC NAME	STRATIGRAPHIC COLUMN	DEPTH	ELEVATION	CLASSIFICATION OF MATERIALS DESCRIPTION AND REMARKS Core Description Cont'd	UNCONFINED COMPRESSION	STANDARD PENETRATION OR CASING DRIVE	
							BLOWS	ELEV
					Core #3 287.17-285.70, Cut 1.46, Rec. 1.46 287.17 - Limestone, impure to shaly, numerous fusulinids 287.03 - Shale, very limy, numerous fossils very firm 286.85 - Limestone, impure with occasional thin shale break, very fossiliferous 285.70 - S.S RQD = 100%			
					Sample #5 286.50 to 286.27 Limestone, impure to shaly - Plattsmouth			
					Core #4 285.70-284.18, Cut 1.52, Rec. 1.46 285.70 - Same as above 284.95 - Shale break, dark gray to black 284.89 - Limestone, light gray, impure, with occasional shale breaks, numerous fossils 284.25 - lost lower 0.06 RQD = 95%			
					Sample #6 285.37 to 285.18 Limestone, shaly - Plattsmouth			
					Core #5 284.18-282.66, Cut 1.52, Rec. 1.52 284.18 - Limestone, light gray, dense 283.82 - Shale break, limy 283.79 - Limestone, light gray, algal 283.44 - Shale, dark gray, cross-bedded, limy 283.36 - Limestone, light gray, dense 283.12 - Shale break 283.10 - Limestone, light gray, dense 282.66 S.S RQD = 100%			
					Sample #7 283.42 to 283.24 Limestone, light gray, dense - Plattsmouth			



KANSAS DEPARTMENT OF TRANSPORTATION

RTE/CO. 92/44	SOUNDING NO. 1	SHEET 4 OF 4
BRIDGE STA 7+967.000	PROJ. NO. K-7381-01	BRIDGE NO. 24.56 (055)
SITE NAME K-92 over Prairie Crk.		HOLE STA 7+974.442
GEOLOGIST Thompson	SCALE: 1:100 (10mm = 1 Meter)	DATE 10-9-02
DRILLER Veruynek	RIG TYPE B-61	TOP HOLE ELEV. 294.67
GROUNDWATER ELEV 291.62	TOTAL DEPTH 16.31 m	M/B ELEV. 290.86

BIT TYPE	GEOLOGIC NAME	STRATIGRAPHIC COLUMN	DEPTH	ELEVATION	CLASSIFICATION OF MATERIALS DESCRIPTION AND REMARKS Core Descriptions Cont'd	UNCONFINED COMPRESSION	STANDARD PENETRATION OR CASING DRIVE	
							BLOWS	ELEV
					Core # 6 282.66-281.14 Cut 1.52, Rec. 1.52 282.66 - Limestone, light gray dense very minor shaly zone at 282.39 282.26 - Limestone, shaly, very impure - gradual contact with Heumader Shale Mbr. 282.22 - Shale, dark gray, clastic 282.05 - Shale, dark gray, very firm 281.14 - S.S. RQD = 100% Sample # 8 281.64 to 43.35 Shale, dark gray - Heumader Plattsburgh Heumader Sh.			
					Core # 7 281.14-279.62 Cut 1.52 to 1.52 281.14 - Shale, dark gray to black, very firm 280.34 - Limestone, light gray, dense, unit bedded 279.69 - Shale, dark gray, clayey 279.62 - S.S. RQD = 100% Leavenworth Ls.			
					Core # 8 279.62-278.36 Cut 1.26 Rec. 1.12 279.62 - Shale, gray, clayey 280.75 - S.S. TD			