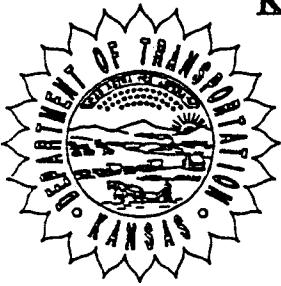


# KANSAS DEPARTMENT OF TRANSPORTATION



1. ROUTE-COUNTY NO. 470-089	7. SOUNDING NO. 1B	12. SHEET 01 OF 06
2. BRIDGE STA. 364+73.12	8. PROJECT NO. K-4470	13. BRIDGE NO.
3. DESCRIPTION Burlingame Road over I-470	14. HOLE STA. 365+15, 118 R/L	I-470
4. GEOLOGIST J. Clark	5. VERTICLE SCALE 1"=10'	15. DATE 7/20/89
6. DRILLER -	16. RIG B-61	17. ELEVATION TOP OF HOLE 978.3
8. GROUND WATER ELEV. -	18. TOTAL DEPTH OF HOLE 63.5	19. ELEVATION TOP OF ROCK 974.8

BIT TYPE & NO.	GEOLOGIC NAME	STRATIGRAPHIC COLUMN	DEPTH	ELEVATION	CLASSIFICATION OF MATERIALS DESCRIPTION AND REMARKS	UNCONFINED COMPRESSION	STANDARD PENETRATION OR CASING DRIVE		
							BLOWS	ELEV.	
			0	978.3					
	Mantle		35	974.8	Clay, very soft, tan				
	Utopia Mbr.		58	972.5	Limestone, weathered, broken, tan				
	Winzeler Mbr.		1	970	Shale, weathered, clayey, tan	4.84		968.3	
	Church Mbr.		113	967.0		141.0		966.5	
	Aarde Mbr.		132	965.1	Limestone, hard, gray, fossiliferous	766.0		965.5	
			2	962.7	Shale, firm, dark gray	64.7		963.7	
				961.7	Coal Nadaway Coal Bed				
Diamond Severy Formation			3	960	Shale, clayey grading to sandy	12.3		959.3	
					Very firm, gray	64.8		957.7	
			4	238	954.5		31.3		955.6
					Sandstone, gray, hard, micaceous	228.0		954.0	
			5	312	950		130.0		950.9
					947.1		110.8		948.5
			6				23.2		945.6
			7		940	Shale, gray, sandy			
			8				22.8		936.6
			9		930		48.6		932.1
		10	530	925.3		55.1		927.0	
				920	shale, gray, firm				
			626	915.7					
	Coal Creek Mbr.		63.5	914.8	Limestone				
				910					

4470-02

7/25/87 02/06

Proj 470-87 K-2484-01

Br# 5.82

Burlingame Rd over 1-470

CD#1B			Sta	365+15	118' RT	Q 1-470
			Sta	48+78	3'±	± Burl Rd
Pt	+	HI	-	Elev.		
BM#38				961.96	Median inlet to	Sta 364+66
$\pi_1$	18-15	980.41				
CD#1B			2.16	978.55	THE	
AA						Checked
<u>Casing</u>		1	4'	4'		
		2	5'	9'		
					- 1'± above THE	
					= 8'± from THE to bottom of casing	
<u>Sm Log</u>		571	978.3	0'-3'	Clay - v soft - tan	
		Utopia	974.8	3'-5'	Ls - broken - hard - tan/gray	
					3'-3' softer	
		W. color	972.5	5'-8'	Sh - wthd - v soft - Dnc/tan - clayey	
			969.7	8'	SIS	
<u>Cut#1</u>				Depth	8'-12'	
				Elev	969.7 - 966.0	
				Cut	3'	
<u>S<sub>0</sub>#1</u>				Rec	3'	
		973.7		% Rec	97%	
		969.7 - 969.7		RQD	0', 0', 0', 0', 0' = 68%	
		969.7		8'-11'	Sh - wthd - tan	
<u>S<sub>0</sub>#2</u>		(967.3)		11'-11'	Ls - gray - hard - fossiliferous	
				11'-11'	lost	
		966.7 - 966.5		966.4	11'-12'	Ls - gray - hard - fossiliferous

Core #	Depth	Elev	Core #	Depth	Elev	Core #	Depth	Elev	Notes
			Br #	582		Cr #	1B		
Core # 2	12 <sup>3</sup> - 16 <sup>7</sup>	966.0 - 961.6							
	12 <sup>3</sup> - 12 <sup>8</sup>	966.0 - 965.5							
Core # 3	13 <sup>0</sup> - 13 <sup>2</sup>	965.3							
	13 <sup>2</sup> - 15 <sup>6</sup>	965.1							
	15 <sup>6</sup> - 16 <sup>7</sup>	962.7							
Core # 4	16 <sup>7</sup> - 21 <sup>4</sup>	961.6 - 956.9							
	18 <sup>5</sup> - 19 <sup>0</sup>	957.8 - 959.3							
Core # 5	16 <sup>7</sup> - 18 <sup>2</sup>	961.6							
	18 <sup>2</sup> - 19 <sup>6</sup>	960.1							
	19 <sup>6</sup> - 21 <sup>4</sup>	958.7							

4470 - 02

Burlingame Rd over I-470 04/06

Proj. = 470-29 K-2450-01

B1# 5.22

C1# 1P

Core # 4

Depth 21' - 26"

Elev 956.9 - 951.9

Cut 5°

Sa # 7

Rec 5°

22<sup>2</sup> - 22<sup>7</sup>

% Rec 100%

956.1 - 955.6

RQD 0°, 0°, 0°, 1°, 0° = 78%

Sa # 8

23<sup>2</sup> - 24<sup>3</sup>

956.9 21' - 23" Sh - gray - v firm - sandy

954.5 23' - 26" Ss - gray - hard - micaceous

954.4 - 954.0

Core # 5

Depth 26' - 31'

Elev 951.9 - 946.9

Cut 5°

Sa # 9

Rec 5°

27<sup>2</sup> - 27<sup>4</sup>

% Rec 100%

951.3 - 950.9

RQD 1', 1', 1°, 0° = 90%

Sa # 10

28<sup>2</sup> - 29<sup>4</sup>

951.9 26' - 27" Ss - hard - gray - micaceous

950.8 27' - 27" Ss - hard - gray - silty

950.4 27' - 30" Ss - hard - gray

949.0 - 948.5 947.8 30' - 31" Ss - hard gray -

947.1 31' - 31" Sh - gray - v firm - sandy

Core # 6

Depth 31' - 35'

Elev 946.9 - 942.9

Cut 4°

Sa # 11

Rec 4°

32<sup>2</sup> - 32<sup>7</sup>

% Rec 100%

946.1 - 945.6

RQD 0°, 0°, 0°, 0°, 1° = 98%

946.9 31' - 35" Sh - gray - v firm - sandy

Core # 7

Depth 35<sup>4</sup> - 40<sup>4</sup>  
 Elev 942.9 - 937.9  
 Cut 5<sup>0</sup>  
 Rec 5<sup>0</sup>  
 % Rec 100%  
 ROD 0<sup>5</sup>, 0<sup>7</sup>, 0<sup>8</sup>, 0<sup>7</sup>, 0<sup>6</sup>, 0<sup>4</sup> = 74%

No samples taken  
 this core

942.9 35<sup>4</sup>-40<sup>4</sup> SL - gray - v firm - sandy

Core # 8

Depth 40<sup>4</sup> - 45<sup>4</sup>  
 Elev 937.9 - 932.9  
 Cut 5<sup>0</sup>  
 Rec 5<sup>0</sup>  
 % Rec 100%  
 ROD 0<sup>7</sup>, 0<sup>7</sup>, 0<sup>6</sup>, 0<sup>5</sup>, 0<sup>5</sup>, 1<sup>0</sup> = 76%

937.9 40<sup>4</sup>-45<sup>4</sup> SL - gray - v firm - sandy

Depth 45<sup>4</sup> - 50<sup>2</sup>  
 Elev 932.9 - 928.1  
 Cut 4<sup>8</sup>  
 Rec 4<sup>8</sup>  
 % Rec 100%  
 ROD 0<sup>4</sup>, 0<sup>6</sup>, 0<sup>4</sup>, 0<sup>5</sup>, 0<sup>6</sup>, 0<sup>7</sup>, 0<sup>5</sup> = 81%

45<sup>8</sup> - 46<sup>2</sup>  
 932.5 - 932.1

45<sup>2</sup> - 50<sup>2</sup> SL - gray, v firm - sandy

Core # 10

Depth 50<sup>2</sup> - 53<sup>0</sup>  
 Elev 928.1 - 925.3  
 Cut 2<sup>8</sup>  
 Rec 2<sup>7</sup>  
 % Rec 96%  
 ROD 1<sup>1</sup>, 1<sup>0</sup> = 75%

Sa # 14

50<sup>3</sup> - 51<sup>3</sup>  
 927.4 - 927.0

4970-02

170-89 K-2484-01

B1# 5.82

CL# 1B

cb/ob

928.1 50<sup>2</sup>-50<sup>3</sup> lost

928.0 50<sup>3</sup>-53<sup>0</sup> SL - gray, v firm, sandy

Strat from 53<sup>0</sup> on down

925.3 53<sup>0</sup>-62<sup>6</sup> SL - gray - firm

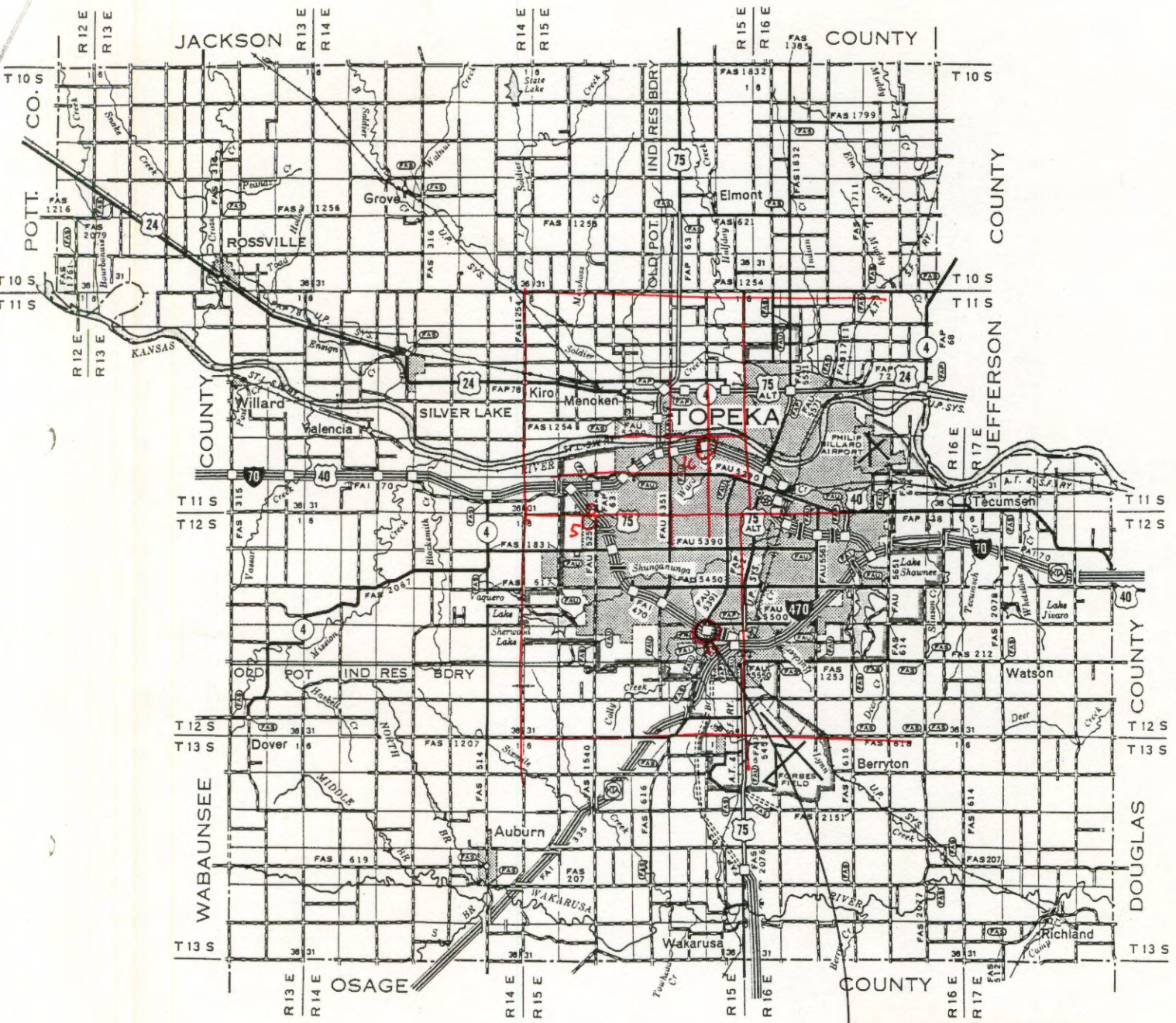
915.7 62<sup>6</sup>-62<sup>8</sup> ls - hard

915.5 62<sup>8</sup>-63<sup>3</sup> Softer - SL brk

915.0 63<sup>3</sup>-63<sup>3</sup> ls - hard

914.8 63<sup>3</sup> SIS





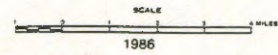
BUREAU OF MATERIALS AND RESEARCH GEOTECHNICAL UNIT  
GEOLOGY SECTION

BRIDGE FOUNDATION GEOLOGY REPORT

Proj. No. 470-89 K-4470-02  
Br. No. NB 5.83, SB 5.82  
Serial Nos. 247 & 246  
NB & SB Burlingame Road over I-470  
Sta. 364+73.12  
Shawnee County

~~XXXXXXXXXXXXXXXXXXXX~~  
NW NW - 24-12S-15E  
GENERAL HIGHWAY MAP  
SHAWNEE 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



0-63'  
Wabaunsee  
Utopia Limestone to coal creek ls