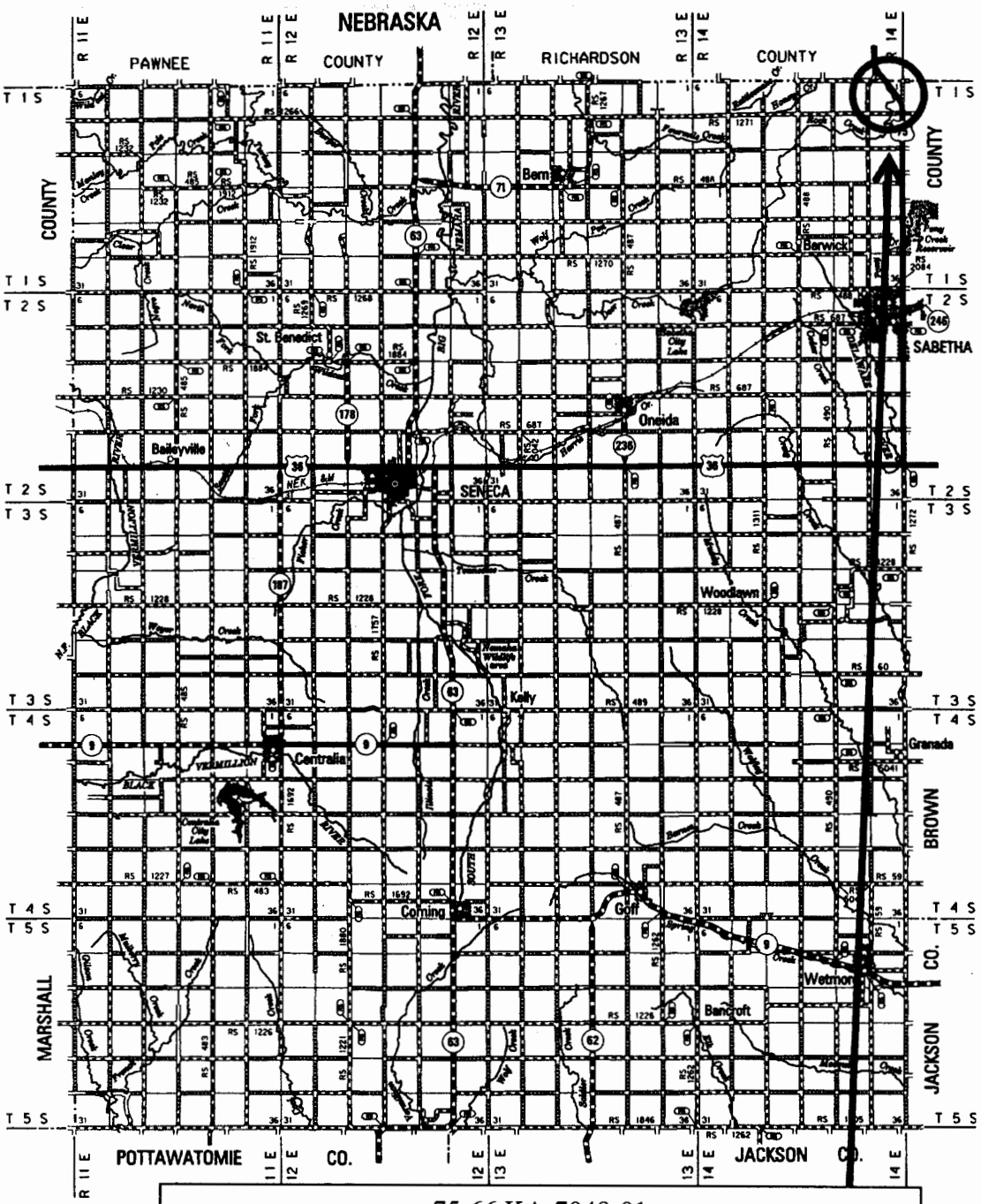


75-66 KA-7048-01

Nemaha County

CD 02

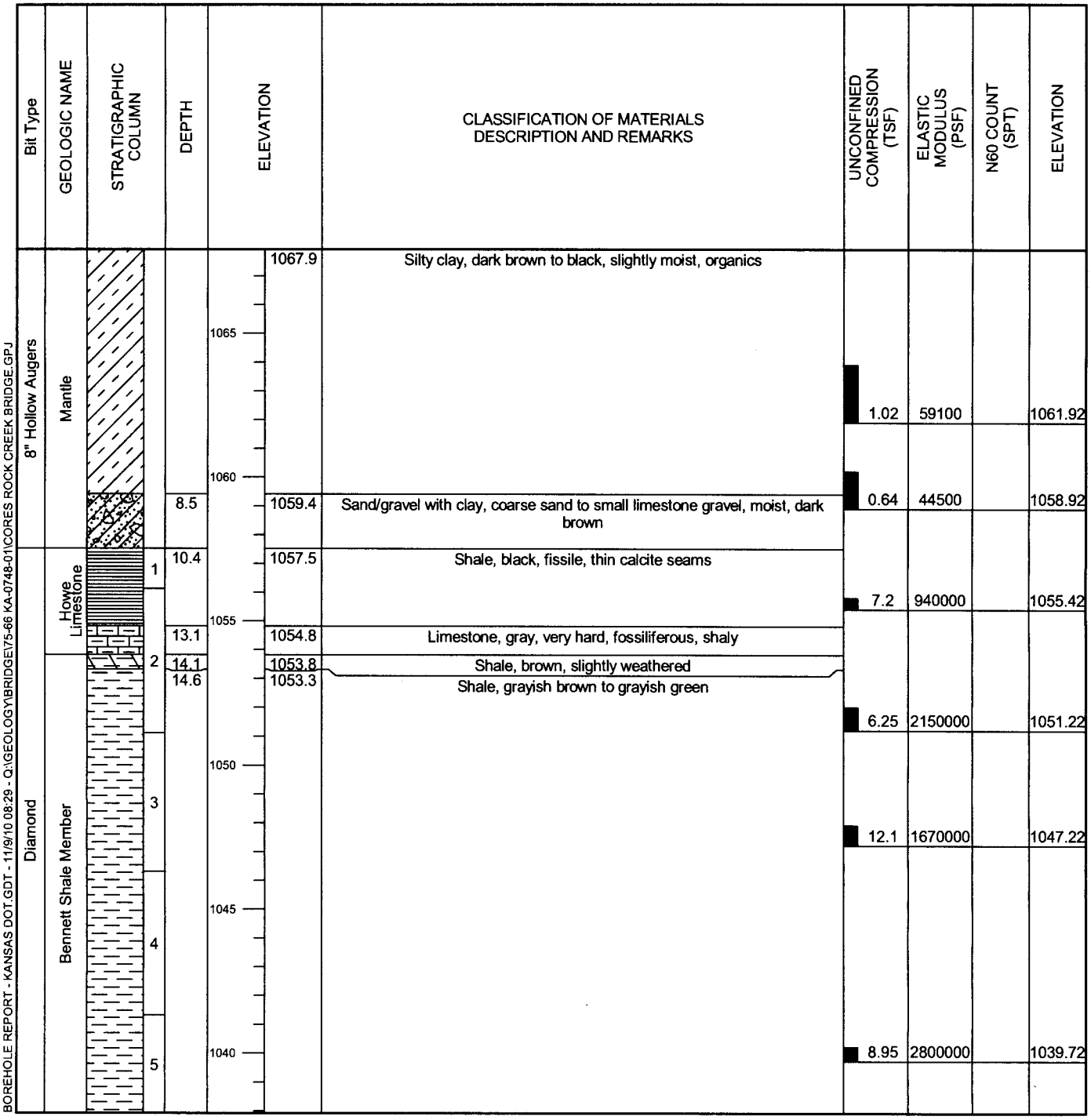
N: 39.999697 E: -95.797402 (Approximate)

NW ¼. NW ¼. NE ¼, Sect 1, T01S, R14E

5/19/2010

KANSAS DEPARTMENT OF TRANSPORTATION

RTE./CO.	75-66	SOUNDING NO.	CD2	SHEET 1 of 3	
BRIDGE STA.	584+79.33	PROJ. NO.	KA-0748-01	BRIDGE NO.	75-66-1.00(042)
SITE NAME	US-75 over Rock Creek Bridge			HOLE STA.	584+17.3, 68.0' Lt CL
GEOLOGIST	K. Halverson	SCALE 1 inch = 5.0 feet		DATE	May 19, 2010
DRILLER	R. Vervynck	RIG TYPE	CME 55	TOP HOLE ELEV.	1067.92
GW ELEV.	N/A	TOTAL DEPTH	31.4	M/B ELEV.	1057.52



BOREHOLE REPORT - KANSAS DOT.GDT - 11/9/10 08:29 - Q:\GEOLOGY\BRIDGE\75-66 KA-0748-01\CORES ROCK CREEK BRIDGE.GPJ

KANSAS DEPARTMENT OF TRANSPORTATION

RTE./CO.	75-66	SOUNDING NO.	CD2	SHEET 2 of 3	
BRIDGE STA.	584+79.33	PROJ. NO.	KA-0748-01	BRIDGE NO.	75-66-1.00(042)
SITE NAME	US-75 over Rock Creek Bridge			HOLE STA.	584+17.3, 68.0' Lt CL

Bit Type	GEOLOGIC NAME	STRATIGRAPHIC COLUMN		DEPTH	ELEVATION		CLASSIFICATION OF MATERIALS DESCRIPTION AND REMARKS	UNCONFINED COMPRESSION (TSF)	ELASTIC MODULUS (PSF)	N60 COUNT (SPT)	ELEVATION
			5				Shale, grayish brown to grayish green				
				31.4	1035	1036.52	T.D. = 31.4				

KANSAS DEPARTMENT OF TRANSPORTATION

RTE./CO.	75-66	SOUNDING NO.	CD2	SHEET 3 of 3	
BRIDGE STA.	584+79.33	PROJ. NO.	KA-0748-01	BRIDGE NO.	75-66-1.00(042)
SITE NAME	US-75 over Rock Creek Bridge			HOLE STA.	584+17.3, 68.0' Lt CL

Bit Type	GEOLOGIC NAME	STRATIGRAPHIC COLUMN	DEPTH	ELEVATION	CLASSIFICATION OF MATERIALS DESCRIPTION AND REMARKS	UNCONFINED COMPRESSION (TSF)	ELASTIC MODULUS (PSF)	N60 COUNT (SPT)	ELEVATION

Core	Depth	Elev.	Cut	Rec	Rec %	RQD
1	10.4	1057.52	1.4	1.1	79	0%
2	11.8	1056.12	5.0	5.0	100	50%
3	16.8	1051.12	4.8	4.8	100	63%
4	21.6	1046.32	5.0	5.0	100	58%
5	26.6	1041.32	4.8	2.7	56	31%
Total	**31.4**	**1036.52**	**21.0**	**18.6**	**89**	**47%**

Kansas Department of Transportation

Report of sample of Geology Cores

Laboratory No. 10-1343
Date Reported: 5/26/2010
Date Received: 5/20/2010

Specification No.	ASTM D 2938
Source of Material	75-66 KA-0748-01
Sampled from	75-66 KA-0748-01
Submitted by:	Kyle Halverson (Sampled by Kyle Halverson)
Identification marks:	Tags on samples
Project or POV	75-66 KA-0748-01
Description of site:	Bridge over Rock Creek, CD-2
Type of Construction	Bridge

Quantity: 4
County: Nemaha

TEST RESULTS

Sample No.	Station	CL Offset (FT)	Depth (FT)	Description	Unconfined. Compression Qu (psf)	Elastic Modulus E (psf)	Dry Density γ_d (pcf)	Moisture Percent w %
Sample 1	584+17.3	68.0 Lt.	12.1-12.5	Howe Limestone Mbr. Shale, Black	14400	940000	103.4	22.8
Sample 2	584+17.3	68.0 Lt.	15.9-16.7	Grayish green shale (Bennett Shale Mbr.)	12500	2150000	104.6	22.9
Sample 3	584+17.3	68.0 Lt.	20.0-20.7	Grayish green shale (Bennett Shale Mbr.)	24200	1670000	106.5	22.8
Sample 4	584+17.3	68.0 Lt.	27.7-28.2	Grayish green shale (Bennett Shale Mbr.)	17900	2800000	129.6	12.3

Note: Results of the two Shelby tube samples to be reported separately.

Reported by: Tawab Saeed for

Title: Luke Metheny, P.E., Soils Engineer

cc: R. Kreider
L. Metheny
R. Henthorne
D. Thompson
Soil Section
File 18-3