

October 28, 1969

MEMORANDUM TO: MR. R. R. BIEGE, ENGINEER OF LOCATION AND DESIGN CONCEPTS

SUBJECT: SUPPLEMENTARY GEOLOGY REPORT
Bridge Foundation Investigation
Project 63-75 K-1004 (4)
K-63 over U.P. R.R.
Bridge No. 08.38
Pottawatomie County

Copies of the above referenced Supplementary Geology Report have been distributed as follows:

- Construction Department - 3 copies.
- Soils Section - 1 copy.
- Bridge Section - 3 copies.
- Consultant (Hubert Caspar, Jr.) - 2 copies.

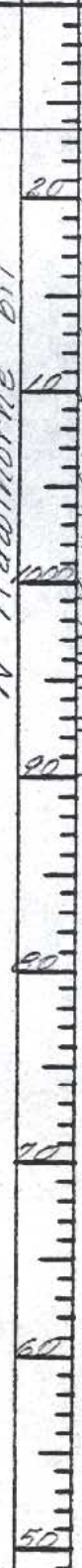
Virgil A. Burgat
Chief Geologist

VAB/df

COUNTY <i>Dottawaromic</i>		PROJECT NO. <i>63-75 K100A(4)</i>			BRIDGE NO. <i>08.38</i>				
E STA. <i>55+29.33</i>		NAME <i>K-63 over UPRR STA. 54+36</i>			RT/LT <i>14</i>		SOUND. NO. <i>2</i>		
GROUNDWATER EL. <i>1007.8</i>		VERTICAL SCALE <i>1" = 10'</i>			DATE <i>8 Aug. 1969</i>				
B.M. NO. <i>3</i>		B.M. EL. <i>1025.14</i>			SUBMITTED BY <i>G.C. Ferguson</i>				
POINT	B.S.	H.I.	F.S.	ELEV.	POINT	B.S.	H.I.	F.S.	ELEV.
<i>BM # 3</i>	<i>3.83</i>	<i>1028.97</i>		<i>1025.14</i>					
<i>C.D. # 2</i>			<i>5.37</i>	<i>1023.60</i>					

FORM	BIT	EL.	LOG	ACC. DEP.	GEOLOGIC DESCRIPTION AND REMARKS	CASING DRIVE REC.	
						DEPTH	BL/10
					<i>T.H. Elev. 1023.6</i>		
				<i>25 1021.1</i>	<i>Silt, clayey; dark gray - brown</i>		
					<i>Clay, silty; dark gray - brown</i>		
				<i>14 1009.6</i>			
				<i>20 1003.6</i>	<i>Silt, clayey with little fine sand and small ls. gravels. Few small shells.</i>		
				<i>24 999.1</i>	<i>Silt, fine sand, angular ls. gravel, & pieces shale.</i>		
				<i>26 997.2</i>	<i>Shale, with'd., lite-gray</i>		
				<i>27 995.9</i>	<i>Ls. solutioned in upper part; gray.</i>		
				<i>28 995.1</i>	<i>Sh., limy; green to gray.</i>		
				<i>28 994.7</i>	<i>Ls., shaly, fossiliferous; gray.</i>		
				<i>30 993.0</i>	<i>Sh., silty with limy zone; gray</i>		
				<i>31 992.3</i>	<i>Ls., lite gray-tan.</i>		
				<i>33 990.1</i>	<i>Sh., firm, thin limy zone; gray to dark-gray.</i>		
					<i>Stopped in same T.D. 33 (990.1)</i>		
					<i>Water level</i>		
					<i>8-15-69 15 (1007.8)</i>		
					<i>Caved @ 25 (997.7)</i>		

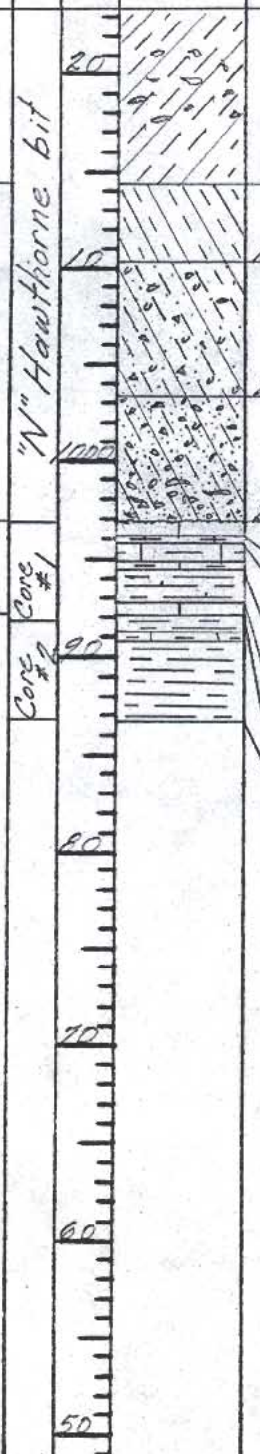
Alluvium
 "N" Hawthorne bit
 Hughes Creek
 Americus Ls.
 Hamlin Shale



COUNTY <i>Pottawatomie</i>	PROJECT NO. <i>63-75 K1004 (A)</i>	BRIDGE NO. <i>08.38</i>							
E STA. <i>55 + 4.55</i>	NAME <i>K-63 over U.P.R.R. STA. 54 + 99</i>	RT/LT <i>1</i>							
GROUNDWATER EL. <i>1008.4</i>	VERTICAL SCALE <i>1" = 10'</i>	DATE <i>13 Aug. 1969</i>							
B.M. NO. <i>3</i>	B.M. EL. <i>1025.14</i>	SUBMITTED BY <i>Col. Ferguson</i>							
POINT	B.S.	H.I.	F.S.	ELEV.	POINT	B.S.	H.I.	F.S.	ELEV.
<i>BM#3</i>	<i>3.83</i>	<i>1022.97</i>		<i>1025.14</i>					
<i>T.B.M.#2</i>	<i>3.41</i>	<i>1027.01</i>	<i>5.57</i>	<i>1023.60</i>					
<i>G.D.#3</i>			<i>3.60</i>	<i>1023.41</i>					
<i>T.B.M.#2</i>	<i>5.40</i>	<i>1029.00</i>	<i>3.41</i>	<i>1023.60</i>					
<i>BM#3</i>			<i>3.86</i>	<i>1025.14</i>					

FORM	BIT	EL.	LOG	ACC. DEP.	GEOLOGIC DESCRIPTION AND REMARKS	CASING DRIVE REC. DEPTH	BL/10
					<i>T.H. Elev 1023.4'</i>		
		<i>20</i>			<i>Fill, silt, clayey, dark brown-gray with some pieces ls.</i>		
				<i>9°</i>	<i>1014.4'</i>		
				<i>13°</i>	<i>1010.4'</i>		
				<i>20°</i>	<i>1003.4'</i>		
				<i>26°</i>	<i>996.9'</i>		
				<i>27°</i>	<i>996.8'</i>		
				<i>28°</i>	<i>994.5'</i>		
				<i>30°</i>	<i>992.8'</i>		
				<i>31°</i>	<i>991.8'</i>		
				<i>36°</i>	<i>986.8'</i>		
					<i>Stopped in same T.D. 36° (986.8)</i>		
					<i>Core #1 "N" Sawtooth bit</i>		
					<i>26° (996.8) to 31° (991.8) Cored 5°</i>		<i>Rcd. 4°</i>
					<i>Core #2</i>		
					<i>31° (991.8) to 36° (986.8) Cored 5°</i>		<i>Rcd. 5°</i>
					<i>Water level</i>		
					<i>8-15-69 15° (1008.4)</i>		
					<i>Hole open to 33° (989.6)</i>		

Alluvium Fill
 "N" Hawthorne bit
 Hamlin America Ls.
 Shale



9° 1014.4'
Clay, very silty, brown
13° 1010.4'
Silt, clayey; brown with small angular ls. gravel & small recent snail shells. Some fine sand
20° 1003.4'
Ditto above with more sand & gravel. Pieces shale
26° 996.9'
27° 996.8' Limestone, hard, gray
28° 994.5' Shale, limy, green
ls., very shaly to shaly, fossiliferous; gray
30° 992.8' Shale, silty, green-gray with little tan staining little limy
31° 991.8' ls., little gray-tan.
36° 986.8' Shale, thin shaly ls. in upper part, silty in lower part. Dark-gray.
Stopped in same T.D. 36° (986.8)
Core #1 "N" Sawtooth bit
26° (996.8) to 31° (991.8) Cored 5° Rcd. 4°
Core #2
31° (991.8) to 36° (986.8) Cored 5° Rcd. 5°
Water level
8-15-69 15° (1008.4)
Hole open to 33° (989.6)

COUNTY <i>Pottawatomie</i>		PROJECT NO. <i>63-75 K 1004 (A)</i>			BRIDGE NO. <i>02, 38</i>				
E STA. <i>55+42.33</i>		NAME <i>K-68 over I.P.R.K STA.</i>			RT/LT		SOUND. NO.		
GROUNDWATER EL.		VERTICAL SCALE			DATE <i>4 Sept. 1969</i>				
B.M. NO. <i>3</i>		B.M. EL.			SUBMITTED BY <i>G. J. Ferguson</i>				
POINT	B.S.	H.I.	F.S.	ELEV.	POINT	B.S.	H.I.	F.S.	ELEV.
<i>BM#3</i>	<i>3.83</i>	<i>1022.97</i>		<i>1025.14</i>	<i>T.R.M.#2</i>	<i>5.40</i>	<i>1029.00</i>	<i>4.20</i>	<i>1023.60</i>
<i>T.R.M.#2</i>	<i>4.20</i>	<i>1027.80</i>	<i>5.37</i>	<i>1023.60</i>	<i>BM#3</i>			<i>3.86</i>	<i>1025.14</i>
<i>PA#1</i>			<i>4.75</i>	<i>1023.55</i>					
<i>PA#2</i>			<i>6.40</i>	<i>1021.40</i>					
<i>PA#3</i>			<i>6.30</i>	<i>1021.50</i>					

FORM	BIT	EL.	LOG	ACC. DEP.	GEOLOGIC DESCRIPTION AND REMARKS	CASING DRIVE REC.	
						DEPTH	BL/10
					<p><i>P.A.#1 Sta. 54+43 Rt. 8</i> <i>T.H. Elev. 1023.6</i></p> <p><i>1023.6 0° Silt, clayey; dark gray-brown</i> <i>1005.7 17° Stopped in sandy silt. Didn't hit any ls. blocks.</i></p>		
					<p><i>P.A.#2 Sta. 54+58 Lt. 6</i> <i>T.H. Elev. 1021.4</i></p> <p><i>1021.4 0° Silt, clayey; brown (Fill)</i> <i>17.0 4° Ditto with small ls. rubble</i> <i>15.4 6° Silt, clayey; brown to clay, silty.</i> <i>01.5 19° Silt, clayey with small ls. gravels.</i> <i>997.4 24° Shale, w'thd., gray. (Hughes Creek)</i> <i>995.9 25° Ls., firm</i> <i>995.3 26° Stopped in ls. (Americus Ls.)</i></p>		
					<p><i>P.A.#3 Sta. 54+63 Lt. 11</i> <i>T.H. Elev. 1021.5</i></p> <p><i>1021.5 0° Silt, clayey; brown (Fill)</i> <i>16.8 4° Ditto with small ls. rubble</i> <i>15.4 6° Ls. (block)</i> <i>13.8 7° Silt, clayey to sandy</i> <i>997.0 24° Ls. rubble & w'thd. shale</i> <i>996.1 25° Ls., hard (Americus)</i> <i>995.5 26° Stopped in ls.</i></p>		