TEST-RECORD INSTRUCTIONS

1. Geologist in charge is to prepare a detailed sub-surface profile on center line of the site showing interpretations of logs.
2. Sub-surface profiles normal to center line are to be compiled if sub-surface conditions warrant.
3. The detail of each log is to show type of sample observed, accumulated depth to each formation or important change in characteristic, a detailed driving record and probable foundation characteristics.
4. Record ground water elevation if water table is present. Hole must be bailed twice and allowed to stand 10 hours before taking ground water elevation.
5. Indicate absence of ground water table.
6. One or more drive tests shall be made on each site as conditions warrant.
7. One or more core borings shall be made on each site with sufficient recovery in the clays and shales so that their physical properties may be examined.
8. Sufficient soundings shall be taken so as to justify the engineering-geology interpretations of the foundation studies.
9. Logs and sub-surface profiles shall be completed before leaving the project.
10. Obtain high water elevations at each site whenever possible and record, giving date and location of observation.

25-8584-S 4-55-150 BOOKS

geol. listed

RETURN TO

STATE HIGHWAY COMMISSION
OF KANSAS
TOPEKA

County Pottawatomie Date Oct. 1957

Route and Section 13-75-S-311(3)

Recorder

Geologist in charge Ferguson

Levelman

COUNTY Pottawatomie DATE Oct. 1957

RT. 13 SEC. 15 BR. NO. 19 PROJ. NO. 17-311(3)

STREAM NAME Cedar Creek BR. OR RD.

SOUNDING NO. 1 STA. 154+62 ℄

GROUND WATER EL. 1080.7 VERTICAL SCALE 1" = 10'

B.M. NO. 34 B.M. EL. 1088.28

POINT	B.S.	H.I.	F.S.	ELEV.
BM #34				1088.28
	5.20	1093.40		
Hole #1			6.25	~~1087.25~~ 1087.23

SUBMITTED BY

G. J. Ferguson

FORMATION	EL. T.H.	SAMPLE	LOG	ACC. DEPTH	REMARKS	DRIVE RECD.
	1090				T.H. Elev. 1087.25 .23	
Mantle					2' Top soil, brown silt. 1085.~~2~~.2	
	80				Silt, gravel & ls. rubble 8' 40# 1079.2 ✓	
Bennett Shale Hines Ls.					Limestone, buff, clayey with top. 11' 100-240# 1075.4 ✓	
					Shale, black, fissile upper 0' grey 100-160# 15' Lower 2' green 1071.~~6~~.5	
	70				Ls. light grey. 16' 200-400# 1070.~~6~~.5	
"N" Hawthorne bit					Shale, grey, clayey Buff limy zone lower part. 24' 200# 1062.8 ✓	
Henrietta	60				Ls. grey, sand. 24' 200-300# 1062.55 ✓ T.D. 24' (1062.55)	

(Stopped in same - Clearock Ls.)

REMARKS

Ground water elev. 1080.7, taken 48 hours after drilling

2

COUNTY Pottowatomie DATE Oct., 1957

RT. 13 SEC. 75 BR. NO. 1.9 PROJ. NO. IV-311(3)

STREAM NAME Cedar Creek BR. OR RD.

SOUNDING NO. 2 STA. 154+72 Rt. 115

GROUND WATER EL. 1079.8 VERTICAL SCALE 1" = 10'

B.M. NO. 34 B.M. EL. 1088.28

POINT	B.S.	H.I.	F.S.	ELEV.
BM #34				1088.28
	5.20	1093.50		
Hole #2			7.53	1085.97

SUBMITTED BY

G. J. Ferguson

FORMATION	EL. T.H.	SAMPLE	LOG	ACC. DEPTH	REMARKS	DRIVE RECD.
					T.H. Elev. 1085.97	
Bennett sh. Ls. Mantle	90	"N" Hawthorne bit.			2± Topsoil, brown silt 1083.3	
					Silt, gravel & ls. rubble 7± 1078.4	
					9± Ls., buff, clayey, with sh. top. 120-260# 1076.4	
					Shale, black, fissile 300# 13± Upper 0± grey Lower 0± green 1072.5	
	90				Ls. buff 300-350# 14± 1071.57	
					(Stopped in ls.)	
					T.D. 14± (1071.57)	
	100				Water level 6± below surface (1079.8)	
					49 hrs. after drilling.	
10	50					

Hawe

REMARKS 2

COUNTY Pottawattamie			DATE Oct. 1957	
RT. 13	SEC. 75	BR. NO. 19	PROJ. NO. H-311(3)	
STREAM NAME Cedar Creek				BR. OR RD.
SOUNDING NO. 3	STA. 154+62 Lt 115			
GROUND WATER EL. —			VERTICAL SCALE 1"=10'	
B.M. NO. 34		B.M. EL. 1088.28		

POINT	B.S.	H.I.	F.S.	ELEV.
BM #34				1088.28
	5.20	1093.50		
Hole #3			4.68	1088.82
BM #34			5.20	1088.28

FORMATION	EL. T.H.	SAMPLE	LOG	ACC. DEPTH	SUBMITTED BY / REMARKS	DRIVE RECD
					G. J. Ferguson	
	10				T.H. Elev. 1088.82	
Pennsylvanian	Hawthorne Shale	"N" Hawthorne bit			2' Topsoil, brown silt 1086.8	
	20				Silt, gravel & ls. rubble	
					9' 40-100# 1079.4	
					Limestone, buff, clayey With'd top	
					14' 100-200# 1074.8	
					Shale, black, fissile 200#	
	30				17' Upper 0' gray Lower 0' green 1070.9	
					Ls. Buff	
					18' 250-300# 1070.82	
					(Stopped in ls.)	
					T.D. 18' (1070.82)	
					Hole caved at 4' below surface (1084.8)	
	40					

DRIVE RECD	REMARKS
	P.A. Hole #1
	Sta. 154+42 Lt. 115
	T.H. Elev. 1088.4
	0' Topsoil, brown silt.
	0' Silt, gravel, & ls. rubble
	9' (1079.3) Limestone, buff, clayey
	Thin green shale break near center
	With'd top.
	13' (1074.6) Shale, grey.
	14' (1074.1) Shale, black fissile
	(Stopped in same)
	T.D. 16' (1072.0)

COUNTY Pottawattomie DATE Oct. 1957

RT. 13 SEC. 25 BR. NO. 19 PROJ. NO.

STREAM NAME BR. OR RD.

SOUNDING NO. STA.

GROUND WATER EL. VERTICAL SCALE

B.M. NO. B.M. EL.

POINT	B.S.	H.I.	F.S.	ELEV.

FORMATION	EL. T.H.	SAMPLE	LOG	ACC. DEPTH	SUBMITTED BY	DRIVE RECD.
					G.J. Ferguson	

REMARKS

P.A. Hole #2
Sta. 153+98 Lt. 115
T.H. Elev. 1083.4
0' Silt, gravel, & ls. rubble.
2' (1080.9) Ls., buff, clayey. Wth'd top. Thin green shale break near center.
8' (1074.6) Shale, black, fissile.
(Stopped in same)
T.D. 11' (1071.9)

REMARKS

P.A. Hole #3
Sta. 154+64 Rt. 115
T.H. Elev. 1086.25
0' Top soil, brown silt.
3' (1083.1) Silt, gravel, & ls. rubble.
9' (1078.4) Ls., buff, clayey. Wth'd top.
10' (1075.8) Shale, black, fissile.
13' (1072.4) Ls., buff.
(Stopped in same)
T.D. 14' (1072.25)

5

COUNTY Pottawatomie DATE Oct, 1957

RT. 15 SEC. 15 BR. NO. 19 PROJ. NO.

STREAM NAME BR. OR RD.

SOUNDING NO. STA.

GROUND WATER EL. VERTICAL SCALE

B.M. NO. B.M. EL.

POINT	B.S.	H.I.	F.S.	ELEV.

FORMATION	EL. T.H.	SAMPLE	LOG	ACC. DEPTH	SUBMITTED BY / REMARKS	DRIVE RECD.
					H. A. Hole #1 Sta. 154+18 Rt. 115 T.H. Elev 1082.9 0' Silt, gravel, & ls. rubble. 3' Solid buff ls. (Stopped on same) T.D. 3' (1079.6)	

REMARKS 5

COUNTY Pottawattamie		DATE Oct. 1957	
RT. 13	SEC. 75	BR. NO. 41	PROJ. NO. 17-311(3)
STREAM NAME Cedar Creek			BR. ~~OR RD.~~
SOUNDING NO. 1	STA. 251+50 Rt. 14		
GROUND WATER EL. 1141.9		VERTICAL SCALE 1"=10'	
B.M. NO. 44		B.M. EL. 1185.12	

POINT	B.S.	H.I.	F.S.	ELEV.
BM #44				1185.12
	2.02	1187.14		
Hole #1			4.24	1182.90

SUBMITTED BY: A.J. Ferguson

FORMATION	EL. T.H.	SAMPLE	LOG	ACC. DEPTH	REMARKS	DRIVE RECD.
					T.H. Elev. 1182.90	
	1180				Topsoil, brown silt 4± 1176.5	
Mantle					Silty clay reddish-brown 9± 40-80# 1173.4	
					Same as above with limestone gravel 14± 50-100# 1168.5	
Eskridge Sh.		"A" Hawthorne bit			Limestone, badly jointed & weathered 19± 100-200# 1165.4	
					Shale, vericolored. thin shaley lime in upper part.	

Eskridge			REMARKS
Nevy Ls.			100-200#
			42± 1140.4 Limestone, light gray
			43± 1139.7
			(Stopped in ls.)
			T.D. 43± (1139.7)
			Water level 11± below surface (1171.9)
			Taken 160 hrs. after drilling.

Point	BS	HI	FS	Elev.	
BM #44				1185.12	✓
	3.36	1188.48	✓		
Q,	1.38	1177.54	12.32	1176.16	✓
Sta. 250+50 Rt. 14	H.A. Hole #1		2.85	1174.69	
℄			5.80	1171.74	✓
Lt. 13	H.A. Hole #2		3.54	1174.00	✓
Lt. 10			6.33	1171.21	✓
Sta. 250+80 Rt. 14	Dug top		5.65	1171.89	✓

COUNTY Pottawattamie DATE Oct. 1957

RT. 13 SEC. 25 BR. NO. 4.1 PROJ. NO. 17-34(3)

STREAM NAME Cedar Creek BR. OR RD.

SOUNDING NO. 3 STA. 251+20 11.14

GROUND WATER EL. — VERTICAL SCALE 1" = 10'

B.M. NO. 44 B.M. EL. 1185.12

POINT	B.S.	H.I.	F.S.	ELEV.
BM #44				1185.12
	2.02	1187.14		
H.I. #3			4.38	1182.76

FORMATION	EL. T.H.	SAMPLE	LOG	ACC. DEPTH	SUBMITTED BY / REMARKS	DRIVE RECD
					G. J. Ferguson	
					T.H. Elev. 1182.76	
	80				1½ Topsoil, brown silt 1181.2	
					Silty clay, reddish-brown	
					11½ 30# 1171.8	
	70				Same as above w.h. 105#	
					13½ Is. gravel 50-100# 1169.2	
					Limestone badly jointed with	
					17½ 100-150# 1165.6	
					Shale, vericolored	
	60				23½ 100-200# 1159.36	
					(Stopped in shale)	
					T.D. 23½ (1159.36)	
	50					

Mantle

"N" Hawthorne Lit

Eskridge Sh.

REMARKS

COUNTY Pottawatomie DATE Oct. 1957

RT. 13 SEC. 25 BR. NO. 4.1 PROJ. NO. 1734(3)

STREAM NAME Cedar Creek BR. OR RD.

SOUNDING NO. 4 STA. 251+50 Lt. 14

GROUND WATER EL. — VERTICAL SCALE 1" = 10'

B.M. NO. 44 B.M. EL. 1185.12

POINT	B.S.	H.I.	F.S.	ELEV.
BM #44				1185.12
	2.02	1187.14		
Hole #4			4.17	1182.97
BM #44			2.02	1185.12

FORMATION	EL. T.H.	SAMPLE	LOG	ACC. DEPTH	SUBMITTED BY / REMARKS	DRIVE RECD.
					G.J. Ferguson	
					T.H. Elev. 1182.97	
Mantle	80	"N" Hawthorne bit.		2'	Top soil, brown silt 1180.0	
	70				Silty clay, reddish-brown 30-60#	
Cottonwood ls.				16'	1166.2 Limestone, badly jointed & wth'd	
Eskridge sh.	60			18'	100-200# 1165.0 Shale, vericolored	
	50			21'	100-200# 1161.77 (Stopped in shale) T.D. 21' (1161.77)	

REMARKS

H.A. Hole #1
Sta. 250+50 Rt. 14
T.H. Elev. 1174.69
0' ls. rubble & silt.
5' (1169.7) Limestone, solid, light grey. (Stopped on wth'd top Cottonwood ls.)
T.D. 5' (1169.7)

H.A. Hole #2
Sta. 250+50 Lt. 13
T.H. Elev. 1174.00
0' Silty clay, reddish brown, & ls. gravel.
4' (1169.9) Limestone, solid, light grey (Stopped on wth'd top Cottonwood ls.)
T.D. 4' (1169.9)

Dug Top
Sta. 250+80 Rt. 14
T.H. Elev. 1171.9
0' ls. rubble & silt.
1' (1170.9) Wth'd top Cottonwood ls.

10

COUNTY Pottawattamie		DATE Oct. 1957	
RT. 13	SEC. 75	BR. NO.	PROJ. NO.
STREAM NAME Cedar Creek Chan. Chg.			BR. OR RD.
SOUNDING NO. 1	STA. 250+80	17.150	
GROUND WATER EL. —		VERTICAL SCALE 1" = 10'	
B.M. NO. 44		B.M. EL. 1185.12	

POINT	B.S.	H.I.	F.S.	ELEV.
BM # 44				1185.12
	2.75	1187.87		
Hole #1			5.06	1182.81
BM # 44			2.75	1185.12

FORMATION	EL. T.H.	SAMPLE	LOG	ACC. DEPTH	SUBMITTED BY: G. J. Ferguson / REMARKS	DRIVE RECD.
					T.H. Elev. 1182.81	
	10				Topsoil, brown silt 3' 1179.8	
	20				Silty clay reddish-brown 30-60#	
	30				24' 1158.4	
	40				Silty clay & limestone gravel 32' 30-40# 1149.9	

10

COUNTY Pottawatomie		DATE Oct. 1957	
RT. 13	SEC. 75	BR. NO.	PROJ. NO.
STREAM NAME Cedar Creek Chan. Chg.			BR. OR RD.
SOUNDING NO. 1	STA. 250+80 Lt. 150		
GROUND WATER EL. —		VERTICAL SCALE 1" = 10'	
B.M. NO. 44		B.M. EL. 1185.12	

POINT	B.S.	H.I.	F.S.	ELEV.
BM #44				1185.12
	2.75	1187.87		
Hole #1			5.06	1182.81
BM #44			2.75	1185.12

FORMATION	EL. T.H.	SAMPLE	LOG	ACC. DEPTH	SUBMITTED BY / REMARKS	DRIVE RECD.
					G. J. Ferguson	
					T.H. Elev. 1182.81	
	80				Topsoil, brown silt 3' 1179.8	
	70				Silty clay reddish-brown 30-60#	
	60				24± 1158.4	
	50				Silty clay & limestone gravel 32' 30-40# 1149.9	

10

REMARKS
Wtth'd maroon shale 33± 60# 1149.2
Stopped in same T.D. 33± (1149.7)

REMARKS

Wtd Harrison shale
33' 80# 1149.2
Stopped in same
T.D. 33' (1149.7)

11

COUNTY		DATE	
RT.	SEC.	BR. NO.	PROJ. NO.
STREAM NAME Cedar Creek Chan Ch.			BR. OR RD.
SOUNDING NO.	STA. 251+00 Lt. 150'		
GROUND WATER EL.		VERTICAL SCALE	
B.M. NO.		B.M. EL.	

POINT	B.S.	H.I.	F.S.	ELEV.

FORMATION	EL. T.H.	SAMPLE	LOG	ACC. DEPTH	SUBMITTED BY / REMARKS	DRIVE RECD.
					G. J. Ferguson	
					P.A. Hole #1 Sta. 251+00 Lt. 150 T.H. Elev. 1182.93 0' Top soil, brown silt. 3' (1179.9) Reddish-brown silty clay 22' (1160.0) Silty clay & ls. gravel 28' (1154.9) Brown clayey silt. 33' (1149.4) Shale, marroon, wth'd top. (Stopped in same) T.D. 35' (1147.2)	

Water level 14' below surface (1168.3)
Taken 120 hrs. after drilling.

11

COUNTY			DATE	
RT.	SEC.	BR. NO.	PROJ. NO.	
STREAM NAME Cedar Creek Chan. Cha				BR. OR RD.
SOUNDING NO.		STA. 251+00 Lt. 150'		
GROUND WATER EL.			VERTICAL SCALE	
B.M. NO.		B.M. EL.		

POINT	B.S.	H.I.	F.S.	ELEV.

FORMATION	EL. T.H.	SAMPLE	LOG	ACC. DEPTH	SUBMITTED BY	DRIVE RECD
					G. J. Ferguson	
					REMARKS	

P.A. Hole #1
Sta. 251+00 Lt. 150
T.H. Elev. 1182.93
0' Topsoil, brown silt.
3' (1179.9) Reddish-brown silty clay
22' (1160.0) Silty clay & ls. gravel
28' (1154.9) Brown clayey silt.
33.5' (1149.4) Shale, marroon, wth'd top.
(Stopped in same)
T.D. 35.2' (1147.2)

Water level 14' below surface (1168.3)
Taken 120 hrs. after drilling.

Point	BS	HI	FS	Elev.
BM #44	2.75	1187.87		1185.12
P.A. Hole #1			4.94	1182.93
0,	3.89	1186.20	6.56	1181.31
P.A. Hole #2			6.08	1179.12
BM #43	5.65	1179.28		1173.63
0,	3.34	1176.49	6.13	1173.15
P.A. #3			5.54	1170.95

COUNTY			DATE	
RT.	SEC.	BR. NO.	PROJ. NO.	
STREAM NAME Cedar Creek Chan. Chg.			BR. OR RD.	
SOUNDING NO.	STA. 251+00 Lt. 150'			
GROUND WATER EL.		VERTICAL SCALE		
B.M. NO.		B.M. EL.		

POINT	B.S.	H.I.	F.S.	ELEV.

FORMATION	EL. T.H.	SAMPLE	LOG	ACC. DEPTH	SUBMITTED BY / REMARKS	DRIVE RECD.
					G. J. Ferguson	
					P.A. Hole #1 Sta. 251+00 Lt. 150 T.H. Elev. 1182.93 0.0 Topsoil, brown silt. 3.0 (1179.9) Reddish-brown silty clay 22.2 (1160.0) Silty clay & ls. gravel 28.0 (1154.9) Brown clayey silt. 33.5 (1149.4) Shale, marroon, wth'd top. (Stopped in same) T.D. 35.2 (1147.2)	

Water level 14.2 below surface (1166.3)
Taken 120 hrs. after drilling.

REMARKS
P.A. Hole #2 Sta. 246+20 Lt. 150 T.H. Elev. 1179.12 0.0 Topsoil, brown silt. 3.0 (1176.1) Silty-clay, reddish-brown (Stopped in same) T.D. 29.5 (1149.3) Water level 7.2 below surface (1171.9) Taken 140 hrs. after drilling.
P.A. Hole #3 Sta. 240+00 Lt. 245 T.H. Elev. 1170.95 0.0 Topsoil, brown silt. 3.0 (1167.9) Reddish-brown silty clay. 7.3 (1163.6) Silty-clay & limestone gravel (Stopped in same) T.D. 23.3 (1147.2) Water level 8.6 below surface (1162.4) Taken 140 hrs. after drilling.

REMARKS

P.A. Hole #2
Sta. 246+20 Lt. 150
T.H. Elev. 1179.12
0± Top soil, brown silt.
3± (1176.1) Silty-clay, reddish-brown
(Stopped in same)
T.D. 29± (1149.3)
Water level 7± below surface (1171.9)
Taken 140 hrs. after drilling.

P.A. Hole #3
Sta. 240+00 Lt. 245
T.H. Elev. 1170.95
0± Top soil, brown silt.
3± (1167.9) Reddish-brown silty clay.
7± (1163.6) Silty-clay & limestone gravel
(Stopped in same)
T.D. 23± (1147.2)
Water level 8± below surface (1162.4)
Taken 140 hrs. after drilling.

12

COUNTY Pottawatomie		DATE Dec. 1957		
RT. 13	SEC. 25	BR. NO. 1.9	PROJ. NO. 17-314(3)	
STREAM NAME Cedar Creek			BR. OR RD.	
SOUNDING NO. 4	STA. 155+09.5 Rt. 14			
GROUND WATER EL. 1081.3		VERTICAL SCALE 1"=10'		
B.M. NO. 34		B.M. EL. 1088.28		
POINT	B.S.	H.I.	F.S.	ELEV.
BM #34	3.72	1092.00		1088.28
Hole #4			3.11	1088.89

FORMATION	EL. T.H.	SAMPLE	LOG	ACC. DEPTH	SUBMITTED BY / REMARKS	DRIVE RECD
					G.J. Ferguson	
					T.H. Elev. 1088.89	
Bonneville Fm. Wood Mantle	80	"A" Hoot Hollow Lit.			2' Top soil 40# 1086.4	
					4' Brown silty clay 40# 1084.7	
					Ls. rubble, silt & clay	
					8' 40-100# 1080.5	
					with grey-green shale	
					9' Limy 60# 1078.4	
					Shaly buff Limestone	
					13' 60-100# 1075.4	
					Shale, black, fissile	
					Upper 0' grey, lower 0' green	
	70				17' 40-80# 1071.4	
					Limestone, light grey	
					17' 200# 1071.2	
					Stopped in same	
					T.D. 17' (1071.2)	
					Ground water elev.	
					1081.3 taken 22 hrs.	
					after drilling.	
	40					
	1050					

REMARKS 12

COUNTY Pottawattamie DATE Dec. 1957

RT. 13 SEC. 75 BR. NO. 19 PROJ. NO. 17-311(3)

STREAM NAME Cedar Creek BR. OR RD.

SOUNDING NO. 5 STA. 155+09.5 Lt. 15

GROUND WATER EL. 1081.6 VERTICAL SCALE 1" = 10'

B.M. NO. 34 B.M. EL. 1088.28

POINT	B.S.	H.I.	F.S.	ELEV.
BM #34	3.72	1092.00		1088.28
H.P. #5			2.63	1089.37

SUBMITTED BY

G.J. Ferguson

FORMATION	EL. T.H.	SAMPLE	LOG	ACC. DEPTH	REMARKS	DRIVE RECD.
	90				T.H. Elev. 1089.37	
Bennett & Wheelsitt Limestone		"A" Hamilton bit			3± Topsoil 1087.4	
					Brown silty clay	
					5± 40# 1083.6	
	80				LS. rattle, silt & clay	
					6± 60# 1080.7	
					With gray-green shale	
					10± Limy 60# 1078.7	
					Shaley buff limestone	
					14± 60-100# 1075.1	
					Shale, black, fissile	
					clay or dk gray, lower dk green	
	90				18± 90-80# 1070.9	
					Limestone, light gray	
					18± 200# 1070.8	
					Stopped in same	
					T.D. 18± (1070.8)	
					Ground water elev. 1081.6	
					taken 21 hrs. after	
	100				drilling	

REMARKS
Dug Top
Sta. 153+39.5 Lt. 15
T.H. Elev. 1128.2
0± Topsoil, silt, clay, & chert rubble
1± With. ls., clay, & with'd shale
3± (1124.6) Limestone with'd top
(Stopped on same)
T.D. 3± (1124.6)
Dug Top
Sta. 153+39.5 Rt. 7±
T.H. Elev. 1121.44
0± Buff with'd shale
2± (1118.9) Buff shale solid
(Stopped in same)
T.D. 3± (1118.2)