

Computer inventoried FORMATION LOG

W ENDELL S. JOHNS

Kine & Cities Service Oil #1 Briggeman "C"
 35/32/28; 34-260-138
 Pratt County, Kansas
 Elevation: 1940 derrick floor

8 5/8" surface casing 844'; 455 sacks cement
 40 sacks strata
 crete.
 600# c.c.
 5 1/2" casing 4385; 250 sacks cement.

Note: All measurements are taken from the top of the rotary bushing which is two feet above the derrick floor.

<u>Depth</u>	<u>Formation Description</u>	<u>Remarks</u>
0 - 400	Sand, clay and shale	Drillers log 0 - 3500'
400 - 780	Red bed	
780 - 810	Anhydrite	Stone Corral (Drillers top)
810 - 940	Red bed	
940 - 1350	Red bed and shale	
1350 - 1500	Shale and shells	
1500 - 1850	Shale, shells and salt	
1850 - 2325	Limestone	
2325 - 2620	Limestone and shale	
2620 - 3215	Shale and limestone	
3215 - 3500	Limestone	
3500 - 3505	Limestone, tan to buff, sub-crystalline to dense, fossiliferous.	Sample log 3500 to T.D.
3505 - 3510	Limestone, as above, good vugular porosity.	No show.
3510 - 3514	Limestone, as above	
3514 - 3549	Limestone, as above; porous, as above.	No show.
3549 - 3555	Shale, gray-black and brown	
3555 - 3568	Limestone, brown, sucrose, dolomitic	
3568 - 3574	Shale, brown-black, soft, micaceous	Neabner
3574 - 3578	Limestone, gray-brown, dense	Leavenworth
3578 - 3588	Shale, gray and gray-green, micaceous	Snyderville
3588 - 3607	Limestone, white, sub-crystalline, and tan to white, medium to sub-crystalline; gray shale streaks.	Toronto
3607 - 3633	Shale, gray and gray-green, micaceous, silty; streaks gray, fine, micaceous sand.	Probable Top Douglas 3607
3633 - 3669	Sand, white to gray and light green, fine, micaceous.	
3669 - 3728	Much brown shale, gray and gray-green silty shale; streaks sand, as above.	
3728 - 3734	Limestone, brown, dense	Top Brown Lansing 3728
3734 - 3756	Limestone, as above; streaks gray shale	
3756 - 3781	Limestone, white to tan, finely crystalline	Top Lansing 3756
3781 - 3796	Limestone, gray, sub-crystalline; fair to good vugular porosity.	Fair odor, fair show free oil
3796 - 3810	Limestone, white to gray, sub-crystalline to dense. Streaks brown shale.	
3810 - 3822	Limestone, white, finely sucrose, crypto-collitic, good vugular porosity.	No show
3822 - 3847	Limestone, dirty gray, sub-crystalline to brown, dense, lithographic; streaks gray-black and brown shale.	

<u>Depth</u>	<u>Formation Description</u>	<u>Remarks</u>
3847 - 3853	Limestone, tan, dirty, sub-crystalline, fair spotted vugular porosity	Fair spotted stain; some dead stain.
3853 - 3860	Limestone, brown, dense; streak brown shale.	
3860 - 3871	Limestone, brown, sub-crystalline; spotted pinpoint porosity.	Good stain.
3871 - 3875	Limestone, brown, dense	
3875 - 3895	Limestone, gray to brown, sub-crystalline, spotted pinpoint and fine vugular porosity.	Spotted stain
3895 - 3904	Limestone and shale streaks.	
3904 - 3909	Limestone, gray to brown, dense to sub-crystalline; trace gray, opaque chert; some spotted pinpoint porosity.	Slight spotted stain.
3909 - 3922	Limestone, brown, dense, fossiliferous, lithographic; streaks gray-green and brown shale.	
3922 - 3926	Limestone, white, sub-crystalline; spotted fine vugular porosity.	Spotted show free oil.
3926 - 3937	Limestone, brown, dense, fossiliferous.	
3937 - 3944	Limestone, sub-crystalline, as above; spotted porosity, as above	Spotted stain.
3944 - 3955	Limestone, gray-brown, dense	
3955 - 3963	Limestone, brown to gray, sub-crystalline, oolitic, good oolitic porosity.	Good stain, spotted show free oil.
3963 - 3974	Limestone, tan, dense; lithographic; streaks brown and green shale;	
3974 - 3979	Limestone; tan to brown, sucrose, oolitic; good honeycomb porosity.	Good odor, fair to good show free oil.
3979 - 3989	Mostly shale, gray-green and brown, some limestones.	
3989 - 3991	Limestone, gray to tan, finely sucrose, good vugular porosity	Good odor, very good show free oil.
3991 - 4031	Mostly limestone, tan to gray, sub-crystalline to dense; chert, gray, opaque; streaks gray-green shale.	
4031 - 4038	Limestone, brown, sub-crystalline, crypto-oolitic; spotted pinpoint porosity.	Spotted stain.
4038 - 4076	Limestone, tan to gray to brown, dense, resinous; chert, gray, vitreous, translucent; streaks shale, as above.	Probable Base Kansas City 4076
4076 - 4097	Shale, gray and gray-green, micaceous; streaks gray and tan sub-crystalline, argillaceous limestone; trace chert, gray to tan to salmon, opaque to translucent, vitreous.	Top Harston (?) 4076
4097 - 4109	Limestone and chert, as above; streak porosity 4103-09.	No show
4109 - 4124	Shale and limestone streaks, as above; chert, as above.	
4124 - 4130	Limestone, gray to tan, finely crystalline to sub-crystalline; spotted pinpoint porosity; increase in chert, as above.	Spotted stain

<u>Depth</u>	<u>Formation Description</u>	<u>Remarks</u>
4130 - 4137	Shale and limestone, as above	
4137 - 4144	Chert, brown to salmon to white, opaque to translucent; chert, white to brown, semi-devitrified to devitrified.	Top Mississippi 4137; slight odor, slight show free oil.
4144 - 4163	Mostly shale, gray and gray-green; some chert, as above	
4163 - 4190	Chert, white, opaque, vitreous, some salmon to pink-orange, vitreous, opaque, some brown and white, vitreous to semi-devitrified; some white tripolitic chert.	Light brown stain, no odor or free oil; much dead stain.
4190 - 4196	Shale, gray-green and silver-gray, micaceous.	Top Kinderhook 4190
4196 - 4221	Chert, as above; chert, white and brown, banded; chert, tan, spicular, some vugular porosity; streak shale 4207-10.	Light brown stain, slight odor, no free oil.
4221 - 4224	Shale, as above, some gray-black shale.	
4224 - 4271	Chert, white, opaque, vitreous, white to brown, semi-devitrified, porous; chert, white, vitreous, spicular.	Top Viola 4224; trace odor, no free oil, brown to black stain.
4271 - 4279	Shale, gray-green and gray-black.	
4279 - 4285	Limestone, white, finely crystalline, chalky, sandy.	
4285 - 4290	Shale, bright green, sandy-sand, medium, sub-angular, argillaceous	Top Simpson 4285
4290 - 4295	Dolomite, brown, sacroose, sandy, finely crystalline; sand, tan to brown to white, dolomitic, sub-angular. Porous 4291-95.	Spotted trace gilsonitic stain, no odor or free oil
4295 - 4301	Mostly sand, as above, some sandy dolomite as above	No porosity
4301 - 4304	Shale, bright green, sandy	
4304 - 4310	Dolomitic sand and sandy dolomite, as above. Porous 4305-10	Spotted gilsonitic stain.
4310 - 4313	Dolomite, brown to tan, finely crystalline some sandy.	
4313 - 4318	Sand, as above, dolomitic.	Spotted stain, as above
4318 - 4324	Sandy dolomite, as above; interfingered bright green shale streaks.	
4324 - 4332	Sand, medium to coarse, rounded to sub-rounded, argillaceous.	Fair show light brown free oil.
4332 - 4338	Sand, porous, as above	Fair show light brown free oil.
4338 - 4343	Sand, porous, as above	Fair show light brown free oil.
4343 - 4373	Increase in bright green to green-black shale; sand, tan to white, sub-medium, argillaceous with black phosphatic nodules; streaks dolomite, as above.	
4373 - 4378	Dolomite, brown, finely sacroose, oolitic; good oolitic porosity.	No show
4378 - 4382	Shale, green to green-black, as above.	
4382 - 4387	Dolomite, tan, finely sacroose, rhombohedral; chert, white, to tan with white oolites	Top Arbuckle 4382; no shows in Arbuckle to T.D.
4387 - 4390	Dolomite, gray to sub-crystalline.	
4390	Rotary total depth.	

The following drill stem tests were run on the #1 Briggeman "C":

Lensing:

(#1) 3775 - 3800; open 1 hour; strong blow throughout, gas to surface in 20 minutes.
Recovered 65' heavily oil and gas cut mud
180' muddy oil, 90' clean oil and 90' oily water
Bottom hole pressure 1275# (20 min.)
Initial flowing pressure 375#
Final flowing pressure 375#

(#2) 3971 - 95; open 1 hour; weak blow throughout
Recovered 150' gas cut mud, trace oil
Bottom hole pressure 1300# (20 min.)

Mississippi:

(#3) 4134 - 48; Straddle packer test with 7' of anchor below bottom packer. Total depth at time of test was 4155.
Open 30 minutes - weak blow for 7 minutes.
Recovered 60' mud, no oil, gas or water
Bottom hole pressure 0 (15 min.)

(#4) 4150 - 85; Open 1 hour - strong blow throughout test
Recovered 60' mud, no oil, gas or water
Bottom hole pressure 300# (20 min.)

Viola:

(#5) 4213 - 48; Open 1 hour; strong blow throughout test
Recovered 900' gas and 150' slightly oil and gas cut mud
Bottom hole pressure 405# (20 min.)

(#6) 4248 - 95; Mis-run; hit bridge in hole.

(#7) 4248 - 95; Open 1 hour - strong blow throughout test, gas to surface in 17 minutes.
Recovered 3650' clean gassy oil
Bottom hole pressure 1365# (20 min.)
Initial flowing pressure 450#
Final flowing pressure 310#

Sinason:

(#8) 4307 - 45; Open 1 hour - strong blow throughout test
Recovered 2670' salt water, no oil gas or water
Bottom hole pressure 1425# (20 min.)

(Samples examined and log compiled by Willis J. Hagathan)

WENDELL S. JOHNS

Kine and Cities Service Oil #1 Briggaman "C"
S./22/W4; 34-260-130
Pratt County, Kansas
elevation: 1940 derrick floor

Note: All measurements are taken from the rotary bushing which is two feet above the derrick floor.

<u>Depth</u>	<u>Time</u>	<u>Remarks</u>
3000 - 10	4-4-5-4-3-3-5-4-4-3	
20	3-2-3-3-4-5-4-2-2-3	
30	4-2-2-2-2-2-2-3-3-9	
40	2-2-3-3-4-3-3-4-3-3	
50	3-3-3-3-1-3-1-1-2-2	
60	1-1-1-1-1-2-1-1-3-3	
70	3-4-4-3-3-4-3-3-4-4	
80	3-2-2-3-2-2-2-3-3-3	
90	3-4-3-2-3-3-3-2-3-3	
90 - 3100	3-3-3-3-4-4-4-3-2-2	
3100 - 10	2-2-2-2-3-2-2-1-2-3	
20	2-2-2-2-4-4-4-3-2-2	
30	2-1-1-1-1-2-3-3-2-3	
40	2-2-3-3-3-3-3-3-2-2	
50	3-3-3-3-1-1-1-2-2-2	
60	2-3-3-3-3-3-3-2-2-2	
70	2-2-2-2-2-3-3-3-3-2	
80	2-2-2-1-1-1-1-2-2-2	
90	2-2-1-1-2-2-2-2-2-2	
90 - 3200	2-2-3-3-3-2-2-2-1-2	
3200 - 10	1-1-2-2-3-2-2-3-2-2	
20	3-4-2-2-3-3-3-3-4-3	
30	2-2-2-1-1-1-1-2-2-2	
40	2-3-2-4-4-3-3-3-3-4	
50	3-3-5-4-2-3-2-2-3-2	
60	2-2-2-2-3-3-3-2-2-2	
70	1-1-1-2-2-2-2-3-3-2	
80	4-5-5-4-4-4-5-5-4-4	
90	4-3-3-3-4-4-4-3-2-2	
90 - 3300	2-2-3-5-4-4-4-3-3-5	
3300 - 10	5-5-5-5-5-5-4-5-4-3	
20	3-3-4-3-4-4-5-5-5-5	
30	5-4-6-6-7-5-3-2-1-3	
40	3-4-5-5-5-4-4-5-5-4	
50	4-5-4-3-4-2-4-3-3-3	
60	2-2-4-5-5-4-4-3-4-3	
70	2-2-1-1-1-1-1-2-2-3	
80	4-4-3-2-1-1-1-1-2-1	
90	1-2-2-1-2-1-2-2-3-3	
90 - 3400	2-1-1-1-1-1-1-2-3-2	
3400 - 10	2-3-3-3-4-4-4-4-3-2	
20	3-3-3-3-3-2-3-1-1-1	
30	1-2-1-1-1-1-1-2-3-2	
40	3-3-3-3-2-2-2-2-2-2	
50	2-2-3-3-2-2-3-2-3-2	

Possible top fopena 3193

Trip 3325

<u>Depth</u>	<u>Time</u>	<u>Remarks</u>
3450 - 60	2-2-3-5-4-4-4-5-5-5	
70	5-2-2-2-3-2-2-2-2-2	
80	2-2-2-2-2-2-1-1-1-1	
90	1-1-1-1-1-1-1-1-2-3	
90 - 3500	3-3-2-2-3-3-5-3-3-3	
3500 - 10	2-2-3-3-4-3-3-3-3-3	
20	4-4-3-5-3-3-3-3-2-2	
30	2-2-2-3-3-2-3-3-2-2	
40	2-2-2-1-4-2-1-1-2-2	
50	2-2-2-2-2-2-2-2-2-3	
60	4-4-6-4-5-7-4-4-4-3	
70	3-3-3-4-5-5-4-3-4-3	
80	2-2-2-1-3-4-5-4-3-3	
90	4-3-4-4-4-4-5-4-4-4	
90 - 3600	4-4-3-3-4-4-4-4-6-6	
3600 - 10	5-5-5-5-5-5-5-4-3-3	
20	4-5-5-4-4-4-4-4-4-4	
30	4-4-4-4-3-4-4-4-4-4	
40	5-4-5-3-2-2-1-1-1-2	
50	1-2-1-1-1-1-2-3-2-2	
60	2-2-1-2-3-2-2-3-2-2	
70	2-2-4-3-3-3-3-3-3-4	
80	4-4-4-4-5-3-3-4-4-5	
90	5-5-4-5-5-6-4-3-3-3	
90 - 3700	4-5-3-3-4-4-4-4-5-4	
3700 - 10	3-3-3-3-2-3-3-3-3-3	
20	3-3-3-3-3-4-5-4-4-4	
30	3-4-5-4-4-4-3-4-5-6	
40	4-4-6-7-4-3-3-3-5-6	
50	5-4-4-5-4-3-5-4-3-2	
60	3-4-3-3-3-3-4-4-5-4	
70	4-3-4-4-4-3-4-5-3-5	
80	6-4-6-5-6-5-5-5-5-5	
90	3-3-5-4-4-4-5-4-4-5	
90 - 3800	4-3-3-4-4-5-5-5-5-5	
3800 - 10	7-5-5-6-8-9-8-7-5-4	
20	2-2-2-3-2-4-3-4-5-10-	
30	9-7-8-9-10-8-8-8-10-7	
40	9-9-9-9-8-8-11-10-11-10	
50	8-10-10-9-4-7-13-11-5-4	
60	4-5-5-6-8-10-11-8-8-8	
70	6-4-5-4-5-7-4-7-4-5	
80	4-6-8-5-6-6-5-7-5-5	
90	5-5-5-5-4-4-8-11-12-12	
90 - 3900	9-7-5-6-8-9-12-10-13-13	
3900 - 10	13-13-8-5-6-6-8-5-3-12	
20	10-10-9-9-10-9-10-11-14-8	
30	5-5-5-3-2-7-8-12-13-12	
40	11-12-6-6-9-8-10-4-4-7	
50	6-4-4-3-5-4-7-5-4-5	
		Top Heebner 3568
		Trip # 3685
		Top Brown Lansing 3728
		Top Lansing 3756
		Circ. 1½ hrs. @ 3800; new bit 3800
		Circ. 1½ hr. 3932; new bit 3932

<u>Depth</u>	<u>Time</u>	<u>Remarks</u>
3950 - 60	6-5-12-9-3-1-1-2-2-2	
70	2-4-4-9-13-11-10-12-10-10-	
80	12-11-12-7-4-4-5-6-5-8	
90	13-13-6-4-5-6-5-5-13-9	
90 - 4000	9-9-9-8-9-2-10-10-9-8	Circ. 1½ hrs 3995; new bit 3995
4000 - 10	12-13-10-12-12-12-13-12	
20	7-7-7-8-8-10-10-10-10-8	
30	9-9-3-11-8-7-6-14-14-13	
40	11-6-5-5-5-10-10-9-11-11	
50	10-11-11-11-12-12-12-10-7-3	
60	8-10-11-8-6-9-9-9-10-10	
70	9-9-9-10-9-10-8-9-6-3	
80	9-10-9-9-12-13-10-8-8-8	Probable Base Kansas City 4076; Top Harston 4076.
90	8-8-8-7-8-7-6-7-8-8	
90 - 4100	8-8-8-8-8-8-7-8-10-12	
4100 - 10	14-14-15-12-11-12-11-10-11-18	Trip 4109
20	13-11-13-14-12-13-13-12-11-9	
30	8-8-10-7-7-7-8-7-7-7	
40	8-8-9-12-9-8-8-4-4-4	Top Mississippi 4137
50	4-9-4-6-6-12-13-13-11-10	Circ. 1½ hrs. 4145
60	8-7-8-6-5-8-6-5-6-5	Circ. 1½ hr. 4155; new bit 4155
70	6-6-7-4-4-3-3-3-4-4	
80	2-3-3-2-3-3-4-4-4-4	
90	5-3-4-5-5-5-7-7-8-6	Circ. 1½ hr. 4185; new bit 4185; Top Kinderhook 4190
90 - 4200	10-9-8-8-6-6-4-3-5-7	
4200 - 10	5-6-6-5-6-8-11-14-22-24	Circ. 1½ hr. = 4210
20	15-19-17-18-17-11-7-5-7-8	
30	5-7-6-6-6-6-5-6-5-5	Top Viola 4224; circ. 1½ hr. = 4230
40	4-3-3-4-3-5-5-4-4-5	
50	5-5-6-6-6-6-7-10-10-6	Circ. 1½ hr. 4248; new bit 4248
60	6-8-5-4-7-4-7-8-6-5	
70	7-5-5-7-8-7-7-6-9	
80	15-14-15-12-14-15-12-11-12-9	
90	8-10-10-9-10-11-12-15-11-12	Top Simpson 4285
90 - 4300	10-8-12-12-10-11-13-12-14	Circ. 1½ hr. 4295; new bit 4295
4300 - 10	10-9-8-8-10-13-11-22-11-15	Trip 4306
20	14-10-11-11-10-21-22-21-11-8	
30	11-14-13-15-8-8-8-9-12-12	
40	8-9-11-11-11-12-11-9-9-9	
50	8-8-9-11-12-10-10-9-10-9	Circ. 1½ hr. 4345; new bit 4345
60	9-9-9-9-8-10-8-9-9-9	
70	6-10-9-8-9-10-8-9-8-10	
80	11-11-12-9-12-11-13-13-9-10	
90	11-8-12-13-14-14-14-13-10-10	Top Arbuckle 4382; Circ. 1½ hr. 4385; circ. 1½ hr. 439 A.T.D. 4390

(Time log condensed by Willis Jack Magathan)