

Formation Log

A.G. Hill #1 Repp
NE NE NW; 27-26S-13W
Pratt County, Kansas
Elevation: 1935 derrick floor

8 5/8" surface casing 521'
Comm: 6-2-54
Comp: 6-16-54

Note: All measurements are taken from the top of the rotary bushing which is 3' above the derrick floor.

<u>Depth</u>	<u>Formation Description</u>	<u>Remarks</u>
0 - 195	Sand and gravel	Drillers log 0-3500'
195 - 830	Red bed and shells	
830 - 870	Anhydrite	Stone Corral - drillers log
870 - 1100	Shale and shells	
1100 - 1720	Shale, shells and salt	
1720 - 1760	Shale and shells	
1760 - 2555	Limestone and shale	
2555 - 2915	Shale and limestone	
2915 - 3030	Limestone and shale	
3030 - 3160	Shale and limestone	
3160 - 3435	Limestone and shale	
3435 - 3500	Sandy limestone and shale	
3500 - 10	Limestone, gray, sub-crystal- line, chalky	Sample log 3500 to T.D.
3510 - 24	Limestone, tan, finely sucrose, oolitic; good oolitic porosity	No show
3524 - 28	Limestone and gray shale	
3528 - 51	Limestone, porous, as above	
3551 - 56	Limestone, light gray to buff, sub-crystalline to dense	
3556 - 78	Limestone, light gray to tan, finely crystalline; spotted vugular porosity	No show
3578 - 86	Mostly gray-black shale; some tan sub-crystalline limestone at top	
3586 - 99	Limestone, tan, very finely sucrose, dolomitic, gritty; spotted vugular porosity	No show
3599 - 3603	Shale, brown-black, fissile, finely micaceous	Heebner
3603 - 09	Limestone, brown-gray, sub- crystalline to dense	Leavenworth
3609 - 14	Shale, gray to gray-green	Snyderville
3614 - 28	Limestone, cream to buff, medium to sub-crystalline; electric log shows porosity 3618-26, no porosity detected in samples	Toronto
3628 - 67	Shale, gray, some gray-green, finely micaceous; streaks fine gray siltstone	Top Douglas 3628

(2) Formation Log: A.G. Hill #1 Ropp

<u>Depth</u>	<u>Formation Description</u>	<u>Remarks</u>
3667 - 3707	Sand, fine, gray; sub-angular, micaceous, argillaceous and calcareous, glauconitic; porous 3671-3707	No show
3707 - 67	Mostly gray shale, some brown shale; some streaks sand, as above	
3767 - 72	Limestone, brown, dense, lithographic	Top Brown Lime 3767
3772 - 86	Shale, gray	
3786 - 90	Limestone, as above	
3790 - 93	Shale, gray	
3793 - 3814	Limestone, tan to gray, finely crystalline to sub-crystalline	Top Lansing 3793
3814 - 16	Shale, gray and gray-green	
3816 - 46	Limestone, brown, sub-crystalline to dense; streaks gray-brown shale	
3846 - 59	Limestone, gray, sub-crystalline, very fossiliferous; fair vugular porosity	No show
3859 - 96	Limestone, gray, sub-crystalline fossiliferous to brown, dense; trace brown, resinous chert; some brown shale streaks	Streak porosity on electric log 3870-76
3896 - 3908	Limestone, brown to white, sub-crystalline; spotted vugular porosity; chert, gray earthy	No show
3908 - 12	Limestone as above; much brown to white mottled sub-crystalline silicified limestone	
3912 - 17	Limestone, tan to brown, sub-crystalline, fossiliferous; fair vugular porosity; increase in chert	Possible trace stain
3917 - 19	Shale, brown and gray	
3919 - 24	Limestone, porous, as above	Possible trace stain
3924 - 28	Limestone, and chert, as above	No porosity
3928 - 37	Limestone, porous, as above	Possible trace stain
3937 - 49	Limestone, dirty brown, sub-crystalline to dense; chert, as above; streaks gray and brown shale	
3949 - 52	Limestone, tan, finely sucrose, oolitic; fair oolitic porosity	Trace stain
3952 - 64	Limestone, tan, dense; much gray, earthy, opaque chert; streak gray green shale 3961-64	
3964 - 71	Limestone, gray, finely sucrose, oolitic, fair oolitic porosity	Good light brown stain
3971 - 85	Limestone, tan, dense; streak gray-green shale 3978-80	

(3) Formation Log: A.G. Hill #1 Repp

<u>Depth</u>	<u>Formation Description</u>	<u>Remarks</u>
3985 - 87	Limestone, tan, finely crystalline, oolitic; spotted vugular and oolitic porosity	Spotted stain: D.S.T.
3987 - 96	Limestone, light tan to brown dense, lithographic	
3996 - 4005	Limestone, tan to brown, finely crystalline, oolitic; good oolitic porosity	Good odor, very good show free oil: D.S.T.
4005 - 16	Limestone, light gray to light cream, dense, lithographic	
4016 - 20	Limestone, light tan, sub-crystalline, oolitic; spotted oolitic and vugular porosity	Little if any stain
4020 - 29	Limestone, and brown shale streaks	
4029 - 34	Limestone, gray, sub-crystalline oolitic; fair oolitic porosity	Possible slight trace free oil - very bad samples
4034 - 70	Limestone, gray-blue to tan, dense; trace white, translucent, milky chert; streaks gray and brown shale	
4070 - 77	Limestone, gray, sub-crystalline very fossiliferous; good vugular porosity	Good show free oil: D.S.T.
4077 - 4104	Limestone, gray to tan, sub-crystalline to dense, streaks gray-black shale	
4104 - 12	Shale, gray-black	
4112 - 16	Limestone, as above	Base Kansas City 4116
4116 - 30	Shale, gray, gray-green and brown-maroon	Top Marmaton 4116
4130 - 46	Mostly limestone, gray to green and salmon, sub-crystalline; streaks shale, as above	
4146 - 56	Limestone, as above, chert, pale, citrine to salmon, opaque to translucent, sub-vitreous	
4156 - 67	Mostly shale, as above; some streaks limestone	
4167 - 81	Limestone, tan, very finely sucrose; spotted vugular porosity; chert, as above	No show
4181 - 4250	Mostly gray-black to gray-green shale, some brown to gray silicified limestone	
4250 - 65	Chert, white, opaque, vitreous to devitrified; chert, pale green to salmon to light brown, sub-vitreous; chert, white to brown, devitrified with dark brown stain	Top Mississippi 4250 No free oil: B.S.T.
4265 - 76	Chert, as above; much gray-green shale	

(4) Formation Log: A.G. Hill #1 Repp

<u>Depth</u>	<u>Formation Description</u>	<u>Remarks</u>
4276 - 79	Shale, black, gray-green, green and dull gray	Top Kinderhook 4276
4279 - 92	Limestone, gray, sub-crystalline	
4292 - 4300	Streaks shale, as above	
4300 - 29	Chert, tan to salmon to brown, vitreous to sub-vitreous; chert, white, opaque, vitreous; chert, white to brown, to tan, devitrified; chert milky to clear with amber to white lace work; vitreous	Top Viola 4300 Slight to fair show free oil: D.S.T.
4329 - 35	Limestone, white to tan, chalky large rounded, frosted, included sand grains	
4335 - 43	Shale, gray-green to bright green sandy; sand, fine, white to tan, sub-angular, medium, dolomitic	Top Simpson 4335
4343 - 57	Sand, brown to white, medium, angular to sub-angular	Slight show sticky brown oil: D.S.T.
4357 - 68	Dolomite, brown to tan, finely crystalline to medium crystalline, some sandy	
4368 - 71	Sand, brown to tan, fine, sub-angular, much fine white, sub-rounded sand	No show
4371 - 92	Much green shale; streaks sand and dolomite, as above	
4392 - 96	Dolomite, as above	
4396 - 4430	Streaks, shale, sand and dolomite, as above; much gray-black shale	
4430 - 41	Dolomite, buff, medium to finely crystalline, rhombohedral; trace oolitic chert; spotted vugular porosity 4431-33	Top Arbuckle 4430 No show
4441 - 43	Dolomite, porous, as above	No show
4443 - 45	Shale, dark green	
4445 - 47	Dolomite, porous, as above; increase in gray to milky, oolitic, translucent chert	No show
4447 - 52	Dolomite, tan, sub-crystalline to nearly dense; trace green shale	
4452 - 55	Dolomite, cream to tan, sub-crystalline, oolitic; fair oolitic porosity	No show
4455 - 63	Dolomite, as above, no porosity	
4463 - 65	Dolomite, tan to cream, finely crystalline to coarsely crystalline, some oolitic; fair to good vugular and oolitic porosity	No show
4465 - 67	Shale, dark green	
4467 - 75	Dolomite, gray, coarsely crystalline; chert, gray to milky, oolitic, as above	
4475	Rotary total depth	

Dry and abandoned 6-16-54

(5) Formation Log: A.G. Hill #1 Repp

Drill Stem Test Data:

Lansing-Kansas City:

(1) D.S.T. 3976-4007: Open 1 hour - fair blow throughout test.
Recovered 70' gas.
50' slightly oil cut mud.
Shut in pressure 1050# (30 min.).

(5) D.S.T. 4067-81: (T.D. at time to test 4475') Had 393.75'
of tail below top of lower packer, 13.70'
of anchor between packers.
Open 1½ hours - small blow which increased
to fair blow and remained fair to end of
test.
Recovered 180' salt water.
Shut in pressure 1180# (30 min.).
Initial flow pressure 48#.
Final flow pressure 108#.

Mississippi:

(2) D.S.T. 4250-70: Open 1 hour - good blow throughout test.
Recovered 1440' gas.
50' slightly oil and gas out mud.
Shut in pressure, tool failed to function.

Viola:

(3) D.S.T. 4292-4330: Open 1 hour - weak blow for 35 minutes.
Opened and closed by-pass to flush anchor
and had weak blow for 25 minutes.
Recovered 35' mud-slight rainbow.
Shut in pressure 97# (30 min.).

Simpson:

(4) D.S.T. 4335-60: Open 1 hour - weak blow for 7 minutes.
Opened and closed by-pass and had weak blow
for one minute after re-opening tool.
Recovered 7' mud.
Shut in pressure 30# (15 minutes).

Samples examined and log compiled by:

Willis Jack Magathan

TIME LOG

WENDELL S. JOHNS

A. G. Hill #1 Repp
 NE NE NW; 27-26S-13W
 Pratt County, Kansas
 Elevation: 1935 derrick floor

Note: All measurements are from the top of the rotary bashing
 which is 3' above the derrick floor.

<u>Depth</u>	<u>Time</u>	<u>Remarks</u>
3500	10	1-3-3-5-5-6-1-3-4
	20	1-1-1-3-3-1-3-3-3
	30	3-3-3-3-3-1-3-6-1
	40	1-2-3-1-3-3-3-3-3
	50	3-3-1-3-2-3-2-2-3
	60	3-1-3-1-5-6-1-3-1-3
	70	3-2-2-1-1-2-1-1-2
	80	2-1-3-2-2-3-3-1-5-4
	90	5-5-6-1-7-5-5-5-5-4
90	3600	1-1-3-3-3-5-5-6-5
3600	10	5-1-5-1-3-3-3-6-9-8
	20	7-5-5-7-7-5-8-1-1-4
	30	2-2-2-2-3-5-1-5-6-5
	40	5-5-5-1-3-1-1-5-1-5
	50	1-3-1-5-1-3-1-3-1-3
	60	1-5-1-1-1-1-7-6-6-5
	70	6-5-5-6-6-5-5-7-5-5
	80	7-1-2-2-2-2-2-2-1-3
	90	2-2-1-2-2-2-1-2-3-3
90	3700	2-2-3-3-2-1-3-3-3-3
3700	10	5-3-2-3-7-1-3-1-8-6
	20	5-6-5-5-7-8-10-1-3-3
	30	1-1-5-1-1-1-1-5-1-1
	40	3-1-1-3-1-1-3-3-1-1
	50	3-3-3-3-1-3-1-3-1-3
	60	3-3-3-3-3-1-3-3-1-1
	70	1-3-3-3-1-3-1-6-9-7
	80	8-8-7-7-6-1-5-6-1-6
	90	7-5-5-5-1-1-7-7-7-7
90	3800	6-6-6-6-7-8-7-7-7-8
3800	10	9-7-5-7-8-7-7-9-9-5
	20	7-9-8-7-5-6-9-7-8-7
	30	5-7-7-6-7-8-7-1-1-5
	40	5-8-5-6-7-8-8-7-7-9
	50	9-9-8-1-3-2-1-3-2-2
	60	2-3-2-2-3-5-5-1-5-7
	70	9-8-7-5-8-7-6-7-7-9
	80	6-8-8-9-7-7-9-9-9-9
	90	11-8-8-6-6-8-9-7-9-12
90	3900	11-11-10-13-8-5-1-5-3
3900	10	5-6-6-7-7-1-1-10-11
	20	8-10-8-7-7-6-5-6-1-1
	30	1-1-5-1-5-7-9-10-8-6
	40	9-6-5-9-10-13-15-8-9-8
	50	6-6-1-5-6-6-5-6-5-2
	60	1-2-6-7-9-7-7-6-7-6

Top Hoebner 3599

Trip # 3717

Top Brown Line 3767

Top Lansing 3793

Circ. 1 1/2 hr. # 3835

Trip # 3937

(2) Time Logs A. G. Hill #1 Napp

Depth	Time	Remarks	
-	70	7-6-5-5-4-5-4-4-4-6	
	80	6-9-6-8-9-9-8-7-8-3	
	90	6-5-5-6-8-6-2-3-4-5	
90	1000	8-7-8-7-8-8-4-3-2-2	
1000	10	2-1-1-3-1-3-5-6-1-2-8-7	Circ. 1 1/2 hr. @ 4007; D.S.T. New bit @ 4007
	20	7-6-10-7-8-10-5-5-3-5	
	30	4-8-9-9-7-5-5-5-8-5	
	40	4-3-3-6-7-1-5-1-2-8-1-3-1-3	
	50	1-2-1-1-9-8-8-6-5-7-7-8	
	60	8-7-7-8-8-8-9-10-8-9	
	70	9-8-8-5-5-10-11-12-10-8	
	80	4-1-3-3-1-3-5-5-8-1-2-10	Circ. 2 hr. @ 4075 D.S.T. 4067 - 81
	90	1-6-1-3-1-1-8-9-10-10-1-2-1-2-5	
90	1100	4-8-8-9-5-7-1-1-1-8-6-9	
1100	10	9-10-9-9-7-7-6-6-6-6	
	20	6-6-7-7-8-8-8-5-4-5	Base Kansas City 4116 Top Marston 4116
	30	9-8-6-5-7-9-9-9-8-9	
	40	8-10-11-11-9-10-10-9-9-10	
	50	1-2-1-2-10-1-2-1-3-1-2-1-3-1-1-9	
	60	1-2-1-2-9-8-9-10-10-10-7-8	
	70	9-6-6-6-5-5-4-6-6-10	
	80	7-8-10-10-8-9-8-7-8-9	
	90	11-10-10-11-11-10-9-8-7-8	
90	1200	11-11-8-7-7-7-7-9-10-10	
1200	10	10-8-8-7-6-7-7-7-7-8	
	20	7-8-6-6-7-7-8-8-7-9	
	30	7-7-7-7-7-5-4-5-4-4	
	40	5-5-7-6-7-7-6-6-7-7	
	50	8-9-9-10-9-11-10-10-11-12	Circ. 2 hrs. @ 4240 Top Mississippi @ 4250
	60	5-6-5-4-5-4-5-5-5-4	
	70	4-3-3-3-3-3-3-8-5-8	Circ. 1 1/2 hrs. D.S.T. 4270 New Bit @ 4270 Top Kinderhook 4276
	80	4-7-5-5-6-6-7-7-8-1-2	
	90	1-5-1-8-20-20-1-5-1-7-1-9-1-6-1-3-1-3	
90	1300	1-3-1-3-9-4-5-6-6-6-5-7	Top Viola 4300
1300	10	6-4-5-5-6-6-6-6-5-6-5	
	20	4-5-5-5-6-6-6-6-5-5-5	
	30	6-6-6-6-6-6-6-5-7-5	Circ. 1 1/2 hrs. @ 4330 D. S. T.; New bit @ 4330 Top Simpson 4335
	40	5-9-6-10-10-8-9-8-8-7	Circ. 2 hrs. @ 4345 Circ. 2 hrs. @ 4380; D.S.T.
	50	8-7-6-7-7-9-9-7-6-8	
	60	8-8-8-8-7-8-11-10-10-11	
	70	1-2-1-5-1-5-1-2-1-3-10-7-8-7-4	
	80	2-3-3-1-4-5-5-7-9-8	Circ 2 hrs. @ 4378
	90	10-9-8-7-5-8-8-7-8-9	
90	1400	11-10-9-7-9-8-9-9-11-11	
1400	10	9-9-11-10-10-9-8-7-9-8	
	20	8-8-9-9-9-9-9-8-7-7	
	30	10-11-11-11-11-11-10-9-1-2-10	Top Arbuckle 4430

(3) Time Log: A. G. Hill #1 Repp

<u>Depth</u>	<u>Time</u>	<u>Remarks</u>
40	10-11-11-11-10-9-9-8-9	
50	11-9-11-10-11-11-10-11-9-10	Circ. 2 hrs. @ 4445
60	10-13-13-10-9-11-12-11-15-12	
70	15-11-11-12-7-8-7-9-10-9	
80	11-9-11-15-9	Circ. 2 hrs. @ 4475 R.T.D. 4475

(Time Log condensed by JOHNS & MAGATHAN)