FORMATION LOG

Aylward #1 Skinner "A"
C SE, 33-31S-15W
Barber County, Kansas
Elevation: 1918 derrick floor
1921 rotary bushing

8 5/8" 295' 250 sacks
5½" 4741' 200 sacks
Comm: 12/11/52
Comp:

Note: All measurements are from the top of the rotary bushing.

Depth	Formation Description	Remarks
0 - 133	No log	Drillers log 133 - 3700
133 - 485	Red beds and shale	
485 - 500	Red beds	
500 - 800	Red beds and shale	
800 - 1034	Shale and limestone	
1034 - 1080	Anhydrite	Stone Corral
1080 - 1274	No log	
1274 - 1485	Limestone and shale	
1485 - 1625	Shale and shells	
1625 - 1700	Shale	
1700 - 1895	Shale and shells	
1895 - 2510	Limestone	
2510 - 2555	Limestone	Ft. Riley?
2555 - 2570	Limestone and shale	
2570 - 2610	Shale	
2610 - 2755	Limestone	
2755 - 2785	Broken limestone	
2785 - 3000	Limestone and shale	
3000 - 3135	Broken limestone	
3135 - 3200	Shale and limestone	
3200 - 3375	Sandy limestone and shale	
3375 - 3495	Broken limestone	
3495 - 3585	Shale	
3585 - 3615	Shale and limestone	
3615 - 3700	Broken limestone	
3700 - 3704	Limestone, light tan to gray, finely crystalline to dense, some fossils and some chert.	Sample log 3700 - T.d.
3704 - 3749	Limestone, light tan to buff, sub-crystalline to sucrose; vugular and oolicastic porosity. May be sand grain molds instead of oolicastic. Trace sand grains, some chert.	No show.
3749 - 3772	Limestone, gray to brown, finely crystalline, some oolicastis, slight porosity.	No show
3772 - 3788	Limestone, gray, sub-crystalline to dense, trace chert devitrified.	
3788 - 3808	Limestone, brown to tan, finely crystalline, oolicastic and oolitic, fossiliferous, slight porosity, some streaks dark gray shale.	No show
3808 - 3830	Limestone, dark dirty gray to dark brown, sub-crystalline to finely granular.	

(2) Formation log; Aylward #1 Skinner "A"

Depth	Formation Description	Remarks
3830 - 3872	Limestone, as above, much shale, dark gray and gray green.	
3872 - 3910	Limestone, tan platy, sub-crystalline to finely crystalline, some gray dense limestone with fossils.	
3910 - 3919	Limestone, light tan to buff, finely crystalline, fair vugular porosity.	No show
3919 - 3929	Limestone, tan to buff, dense to finely crystalline, some shale streaks.	
3929 - 3954	Limestone, light tan to cream, finely crystalline to crystalline, some fair vugular porosity, possibly some oolicastic porosity.	No show
3954 - 3965	Limestone, light brown sucrose, to tan finely crystalline, some oolicastic porosity.	Possible light oil stain??
3965 - 3995	Limestone, tan to light brown, dense, trace vugular porosity. Streaks Heebner-like black shale.	No show
3995 - 3998	Limestone, blue-gray, dense	
3998 - 4006	Black shale - Heebner.	Note: Samples from 3990-4080 are very bad. Most of the log in this section is from correlating the time log with the electric log on old gas well to the north.
4006 - 4012	Limestone - Leavenworth.	
4012 - 4034	Mostly shale - Snyderville	
4034 - 4050	Limestone, white, chalky, to finely crystalline - Toronto.	
4050 - 4072	Shale, very fissile, gray, gray - green mica - Top Douglas 4050.	
4072 - 4095	Sand, fine, white to light gray angular, micaceous silty.	Douglas sand, trace stain.
4095 - 4111	Sand, clean, white, gray and light brown, medium angular, micaceous, fair porosity.	Most of sand barren. Some pieces with fair stain.
4111 - 4113	Streak limestone, brown, dense	
4113 - 4128	Sand, fine to sub-medium, gray to white, micaceous, angular, fairly clean, good porosity.	Mostly barren, some pieces stained.
4128 - 4177	Shale, gray and brown, silty micaceous, some streaks fine gray sand. A few thin streaks of gray-brown dense limestone.	Base Douglas 4177
4177 - 4180	Limestone, gray to brown, dense to finely crystalline, fossiliferous.	Brm Lansing 4177
4180 - 4188	Shale, gray, some limestone.	
4188 - 4194	Limestone, gray to dark gray, dense to sub-crystalline, fossiliferous, possibly some oolites.	
4194 - 4203	Mostly gray shale with limestone streaks.	Lansing 4203
4203 - 4218	Limestone, brown to dark brown to gray-brown, finely crystalline, oolitic.	
4218 - 4226	Limestone, as above, possibly some trace vugular porosity from 4218-20.	No show.
4226 - 4234	Limestone, as above, with gray shale streaks.	

(3) Formation log; Aylward #1 Skinner "A"

Depth	Formation Description	Remarks
4234 - 4250	Limestone, tan to brown crystalline, to dense, streaks fine vugular porosity.	No show
4250 - 4264	Limestone, as above, grayer, trace black oolites and white opaque chert.	
4264 - 4278	Limestone, tan to gray dense to finely crystalline.	
4278 - 4285	Limestone, tan to buff, crystalline to finely crystalline, oolitic and fossiliferous, a little vugular porosity.	No show
4285 - 4304	Limestone, tan to gray dense to sub-crystalline; chert, gray to brown opaque.	
4304 - 4308	Shale, dark gray	
4308 - 4320	Limestone, as above, no chert, possible trace vugular porosity.	No show
4320 - 4340	Limestone, as above, trace oolites, no porosity.	
4340 - 4363	Limestone, as above, some chert, white, gray and brown, opaque.	
4363 - 4366	Shale, dark gray	
4366 - 4374	Limestone, as above, fossils, chert gray, devitrified.	
4374 - 4392	Limestone, tan sucrose, fossiliferous, oolitic, trace vugular and oolicastic porosity, some chert	Possible trace slight stain.
4392 - 4400	Limestone, light tan, sub-crystalline to finely crystalline, oolitic, trace chert.	
4400 - 4405	Shale, gray	
4405 - 4411	Limestone, gray, sub-crystalline	
4411 - 4414	Limestone, as above, oolicastic porosity.	No show
4414 - 4426	Limestone, as above, no porosity, trace chert, gray-brown, opaque.	
4426 - 4431	Limestone, gray to tan, partly sucrose, oolicastic porosity.	
4431 - 4446	Limestone, tan to gray, finely crystalline to dense, some chert, gray and brown opaque.	
4446 - 4451	Shale, gray-green to dark gray	
4451 - 4462	Limestone, as above, fossilifer us possibly oolitic, some porosity.	No show
4462 - 4489	Limestone, gray to light brown, dense, chert, gray, opaque.	
4489 - 4506	Limestone, as above, streaks of dark gray to black shale.	
4506 - 4512	Limestone, light gray to tan, sub-crystalline, oolicastic, good porosity, some pearly chert.	No show
4512 - 4536	Limestone, gray dense; chert, white and gray opaque, gray devitrified, figured and fossiliferous.	
4536 - 4552	Limestone, brown, dense, chert, brown, translucent, streaks gray shale.	
4552 - 4570	Limestone, gray to tan, dense to finely crystalline, chert, gray, vitreous, opaque.	

(4) Formation log; Aylward #1 Skinner "A"

Depth	Formation Description	Remarks
4570 - 4580	Limestone, light cream, dense to finely crystalline.	Base Kansas City 4580
4580 - 4586	Shale, green and maroon variegated, some gray silty shale.	Top Marmaton 4580
4586 - 4608	Limestone, gray sub-crystalline; dark brown dense, resinous crystalline, red weathered. Chert, brown vitreous, translucent; probably some shale streaks.	
4608 - 4621	Limestone, gray, finely crystalline, chert, gray, brown and white translucent.	
4621 - 4628	Shale, dark gray and green silty.	
4628 - 4633	Limestone and chert, as above	
4633 - 4637	Shale, green and variegated	
4637 - 4653	Limestone, tan dense and brown finely crystalline, some red limestone, some fossil remnants-probably Chaetites. Trace chert.	
4653 - 4658	Limestone, as above with shale streaks.	
4658 - 4669	Limestone, light brown, dense, some chert.	
4669 - 4678	Shale, gray silty calcareous, some brown shale.	
4678 - 4686	Sand, fine, gray angular, micaceous, silty, fair porosity, streaks sandy shale.	Fair stain, no odor
4686 - 4698	Limestone, brown dense, trace gray opaque chert.	
4698 - 4702	Shale, green-gray silty, calcareous.	
4702 - 4709	Limestone, as above, some brown translucent chert.	
4709 - 4715	Limestone, as above, some fossiliferous limestone.	
4715 - 4719	Shale, gray, green and brown	
4719 - 4725	Limestone, gray, sub-crystalline, some slightly silicified	
4725 - 4741	Sand, dark brown, coarse, angular, very calcareous quartzite, chert, red, citrine, gray-yellow opaque; gray-green devitrified chert, some green shale.	Conglomerate
4741 - 4760	Chert, brown, gray and white, opaque, vitreous to non-vitreous.	Top Mississippi 4741; fair odor and stain, some gas bubbles and show free oil.
4760 - 4763	Limestone, green-brown, granular; shale, gray-green, fissile.	
4763 -	Total Depth.	

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Drill Stem Test: 4723-63; open 10 min; gas to surface in 1 min.; gauged 8 million cubic feet per day at end of 10 min.
Recovered 85' gas cut mud
Final flowing pressure 700#
Bottom Hole pressure 1600# (10 min.)

Completion Data: Drilled out plug
Swabbed off part of load and well cleaned itself
Gauged 4 million cubic feet of gas per day natural.

(Formation log condensed by Wendell S. Johns)

DRILLING TIME LOG

WENDELL G. COLLINS

D. W. Skinner
#1A Skinner
Center Southeast
Section 33-31S-15W
Barber County, Kansas

3700 to	3710	3-3-3-3-2-2-1-1-1-1	Vis. 32 @ 3701; Hughes OSC Set #9 @3585
	3720	1-1-1-1-1-1-1-1-1-1	
	3730	1-1-1-1-1-1-½-½-½-½	
	3740	½-½-½-½-1-1-1-1-1-1	Conn. & Swivel @ 3734
	3750	1-1-1-1-1-1-1-1-1-2	
	3760	1-2-3-3-3-2-2-3-3-3	
	3770	3-2-2-2-3-3-2-3-2-3	
	3780	3-3-6-4-5-5-5-5-5-5	
	3790	4-4-6-5-4-4-4-5-4-4	
	3800	3-3-3-3-4-3-4-3-4-3	Conn. O.B. 1.12 @ 3794
3800 to	3810	4-4-4-3-3-3-3-5-5	
	3820	4-5-5-6-5-2-5-5-5-7	Mix Mud O.B. 3.13 @ 3815
	3830	7-6-4-6-5-3-4-4-4-4	Conn. O.B. 4.06 @ 3824
	3840	3-2-3-3-3-3-2-5-6-2	
	3850	2-3-4-6-4-4-4-4-4-4	
	3860	4-4-5-2-3-2-4-5-6-5	Vis. 31 Wt. 9.8 Conn. OB 6:05 @ 3853
	3870	3-3-4-3-4-4-5-2-4-3	SR @ 3868, 3870
	3880	4-4-5-6-5-5-5-4-5-5	Mix Mud @ 3876
	3890	5-6-4-3-5-4-4-3-4-4	Conn. @ 3884
	3900	4-5-4-5-5-4-4-4-4-4	Mud Vis 33 Wt. 9.8 @ 3892
3900 to	3910	4-4-6-6-5-5-5-6-7-10	Mud Vis 33 @ 3908
	3920	3-2-2-1-3-5-4-3-3-4	On Bottom HJC @3912 OSC; Conn. @ 3914
	3930	5-5-5-5-4-4-5-5-5-4	
	3940	4-3-4-5-4-4-4-4-4-3	
	3950	5-2-3-2-2-4-3-3-3-4	Conn. @ 3945 @
	3960	3-3-3-4-2-2-2-2-2-2	
	3970	1-1-1-1-1-2-4-4-3-2	
	3980	4-10-5-6-7-5-5-5-8-7	Drlg. 250# PPS PWI. Mix 40 Sks. @ 3972
	3990	5-8-5-5-8-7-8-7-10-10	of starch
	4000	8-10-7-5-7-7-7-7-6-6	Jet Hole in Pit @ 3993; Vis 36 @ 3995
4000 to	4010	5-4-5-4-5-5-6-7-10-8	Conn. O.B. 1144 @ 4005
	4020	10-8-6-5-5-6-5-4-5-10	
	4030	9-8-7-6-7-7-10-11-9-8	
	4040	7-9-8-9-7-5-6-7-6-7	Conn. O.B. @ 4035
	4050	8-7-9-7-9-8-8-8-8-8	
	4060	9-9-9-9-9-10-9-8-10-12	Vis. 36 Wt. 10 @ 4058
	4070	9-8-9-8-9-5-5-5-5-7	Conn. OB @ 4065
	4080	6-5-4-3-2-2-2-2-3-3	Circ. 1½ hr. for samples @ 4077
	4090	4-3-3-5-3-2-3-4-4-4	Circ. 1½ Hr. @ 4085
	4100	6-5-4-4-5-3-4-2-3-3	Conn. @ 4095
4100 to	4110	1½-3-2-1½-1½-4-2-4-3-3	Circ. 1½ hr. @ 4105
	4120	2-5-11-5-2½-2½-4-3-3-3-	Vis. 36 @ 4120
	4130	4-2-2-9-5-4-5-5-9-6	Circ. @ 4124; Conn. @4126; Vis 35 @ 4127
	4140	10-10-6-8-6-6-4-4-4-5	SR @ 4131;
	4150	5-4-4-5-3-4-6-3-4-3	
	4160	5-3-5-5-4-5-6-4-5-5	Conn. Jet hole in pit and cellar @ 4158
			Mud Vis. 37, Wt. 9.8 @ 4160
	4170	5-4-4-6-5-4-4-4-3-4	
	4180	5-6-6-4-4-4-4-6-5-5	
	4190	5-5-5-5-5-5-5-5-7-8	Conn. @ 4188
	4200	7-8-7-7-4-6-6-4-4-5	Mud Vis 38 Wt. 9.8 @ 4200
4200 to	4210	5-5-5-6-8-8-7-9-9-10	
	4220	10-9-9-9-10-9-8-9-4-3	Conn. @ 4218
	4230	5-7-8-6-7-9-5-4-4-5	
	4240	5-5-5-5-6-7-5-6-6-6	
	4250	5-4-6-3-4-4-6-5-5-5	Conn. & Rig. @ 4247
	4260	5-5-7-5-5-5-6-5-5-5	Vis. 40 @ 4259
	4270	5-6-5-5-8-9-8-6-7-10	
	4280	10-12-12-12-9-5-5-5-4-4	Trip for new bit @ 4275; Conn. O.B. @ 4277
	4290	3-3-3-4-4-6-7-9-10-10	
	4300	10-10-12-7-11-9-9-11-11-11-11	Vis. 37 Wt. 9.9 @ 4292

DRILLING TIME LOG

D. W. Skinner
#1A Skinner
Center Southeast
Section 33-31S-15W
Barber County, Kansas

4300 to 4310	13-11-10-14-6-6-6-5-7-11	Conn. Mix Mud @4307; Vis 39 Wt. 9.9 @ 4310
4320	10-5-9-3-5-5-5-3-3-4	
4330	5-5-5-9-10-10-10-7-5-7	
4340	8-8-7-7-8-8-10-7-12-7	Conn. S.L.M. @ 4338
4350	6-7-7-6-8-8-7-6-6-6	Mud Vis. 37 Wt. 9.8 @ 4343
4360	6-4-6-4-4-5-5-5-5-6	
4370	10-9-11-6-5-8-10-12-9-9	Conn. @ 4369; Mud Vis. 36 @ 4370
4380	12-12-11-7-5-5-5-4-6-5	Vis 36 @ 4379
4390	3-3-4-3-4-6-6-6-8-5	
4400	7-6-9-10-13-13-20-216-6	Trip on bottom @4400; W7 - Set #13
4400 to 4410	4-5-6-6-5-8-5-5-5-5	
4420	5-3-2-2-6-7-7-6-7-6	
4430	6-9-8-8-8-6-3-4-4-4	Conn. & Rig @ 4430
4440	3-5-5-6-5-9-9-7-10-14	
4450	10-13-11-11-11-9-6-5-4-8	Vis 42 @ 4444; Hughes w7 @4400
4460	12-5-7-7-4-4-7-4-6-6	Conn @ 4459
4470	4-6-8-8-10-10-9-9-6-14	Wt. 10.2 Vis 40 @ 4461
4480	15-15-13-12-14-16-12-16-10-9	Mud Vis 38 Wt. 9.8 @ 4473; Trip @ 4478
4490	7-10-8-8-11-11-12-15-16-7	Mud Vis 35 Wt. 9.9 @ 4481; Conn. @4489
4500	8-12-6-15-12-12-10-10-13-13	Vis 37 @ 4491
4500 to 4510	8-11-6-12-13-9-6-3-2-2	SR @ 4508
4520	3-5-13-15-16-13-13-12-12-10	Conn. @ 4519
4530	10-13-12-11-12-10-12-12-15-13	
~~4540~~	~~14-13-10-12-16~~	
4540	13-20-19-14-16-14-13-10-12-16	Trip @4535; Vis 39 Wt. 9.9 @ 4537
4550	10-6-7-11-11-6-10-7-11-12	
4560	8-6-10-11-14-9-12-13-10-10	Conn. & rig service @ 4451; Mud Vis 38 Wt 10
4570	8-13-13-11-10-11-11-10-11-9	
4580	14-11-10-9-13-6-10-7-7-10	Conn. @ 4580
4590	6-6-4-6-5-4-9-12-12-7	
4600	7-7-9-6-10-8-9-11-14-15	
4600 to 4610	15-13-8-14-8-14-15-12-7-7	Trip for new bit @4606; Conn. @ 4609
4620	11-8-10-9-8-9-8-9-8-8	Vis 40 Wt. 10 @ 4616
4630	9-7-6-7-6-6-5-5-9-7	
4640	8-6-8-5-6-6-5-7-8-7	Conn. Mix Mud @ 4639; Vis 40 Wt. 9.9
4650	6-8-7-7-9-10-8-10-8-7	
4660	7-7-7-6-7-7-6-5-8-8	Mud Vis 39 @ 4660
4670	8-8-9-8-8-8-7-9-8-6	Conn. @ 4670
4680	6-6-6-6-7-6-7-8-6-6	
4690	6-5-7-7-8-7-11-9-8-9	Mud Vis 39 Wt. 10.5 @ 4687
4700	10-8-9-9-9-8-9-10-7-7	Conn. @ 4699
4700 to 4710	8-7-8-8-10-10-10-11-12-8-	Drlg. 300# P.P., Mixing Mud; Drlg. 450# P.P. H.T.C. W7 @4605
4720	10-10-8-10-10-7-7-7-8-10	Circ. for samp. @ 4720
4730	10-9-11-10-12-18-12-4-6-5	Vis 41 @4723; Trip for new bit @4726; Conn. @4729
4740	4-6-4-4-4-6-4-7-6-6	
4750	7-6-4-4-5-4-4-3-3-3	SR @ 4748-49 Stop Circ. @ 4750
4760	2-4-3-2-3-3-2-3-2-2	Vis 41 Wt. 10.1 @ 4753; Conn. @ 4759
4763	4-6-9	Circ. Mud Vis 42 Wt. 10.01 @ 4763
		Mud Vis 39 @ 4765