WINDELL S. JOHNS

Computer Inventoried

Formation Log

R. W. Rine #4 Hosmer "B"
NW SE NW; 35-26S-13W
Pratt County, Kansas
Elevation: 1936 Kelly bushing

8 5/8" surface casing 1192
5 1/2 " casing 4372
Comm: 6-9-54
Comp:

Note: All measurements are from the top of the kelly bushing

Depth	Formation Description	Remarks
0 - 240	Sand and clay	Drillers log 0 - 3100
240 - 775	Red bed and shale	
775 - 808	Anhydrite	Stone Corral - drillers' top
808 - 925	Shale, shells and sand streaks	
925 - 1170	Red bed and shale	
1170 - 1565	Shale and shells	
1565 - 1640	Salt and shale	
1640 - 1990	Shale	
1990 - 2180	Shale and limestone	
2180 - 3100	Limestone and shale	
3100 - 48	Limestone, tan to brown, sub-crystalline to dense, fossiliferous; streaks gray shale	Sample log 3100 to T.D.
3148 - 55	Sand, fine, gray, silty	Top Severy 3139
3155 - 77	Shale, gray to green, finely micaceous	
3177 - 93	Limestone, cream to gray, sub-crystalline tan, dense	Top Topeka 3177
3193 - 95	Shale, gray	
3195 - 3200	Limestone, cream, subcrystalline, fossiliferous; spotted vugular porosity	Trace stain
3200 - 07	Limestone, blue-gray to tan, sub-crystalline, fossiliferous, shaly	
3207 - 21	Limestone, gray to white, chalky; trace tan, finely crystalline, dolomitic limestone with trace vugular porosity	No show
3221 - 24	Limestone, white to cream, dense	
3224 - 49	Limestone, tan to white, chalky fossiliferous	Porous on electric log, little, if any, porosity in samples
3249 - 64	Limestone, blue-gray, dense, lithographic; chert, light gray, opaque, figured	
3264 - 70	Limestone, tan to cream, sucrose to very finely sucrose, dolomitic; spotted pinpoint porosity	No show

Formation Log
R. W. Rine #4 Hoener "B"

Depth	Formation Description	Remarks
3270 - 88	Limestone, tan to blue-gray, subcrystalline, crypto-fossiliferous;	
3288 - 97	Limestone, cream to buff, subcrystalline, dolomitic; spotted fine vugular porosity; chert, white, opaque to translucent.	No show
3297 - 3303	Limestone, tan, granular to dense, fossiliferous	
3303 - 12	Limestone, white to cream, chalky, very little porosity	No show
3312 - 40	Limestone, gray to cream, subcrystalline, fossiliferous; some blue-gray, dense	Porous on electric log 3320 - 29, no porosity in samples
3340 - 47	Limestone, tan, subcrystalline, oolitic, good oolicastic porosity	No show
3347 - 53	Limestone, tan, subcrystalline to brown, dense, shaly	
3353 - 80	Limestone, cream to buff, subcrystalline, crypto-oolitic; spotted vugular and oolicastic porosity 3353-65 and 3367-80	No show
3380 - 3402	Limestone, tan, subcrystalline to dense; streaks gray to dark gray shale	
3402 - 16	Limestone, cream to tan, subcrystalline; very good oolicastic porosity 3402-11 and 3414-16	Possible trace stain
3416 - 49	Limestone, gray, subcrystalline to blue-gray, dense; much dark gray to brown fossiliferous shale 3432-43	
3449 - 95	Limestone, tan, finely crystalline to medium crystalline; spotted vugular porosity	No show
3495 - 3503	Limestone and dark gray shale streaks	
3503 - 38	Limestone, cream to white, finely crystalline, chalky; limestone, tan, sucrose, dolomitic with spotted vugular porosity 3503-10 and 3516-38	No show
3538 - 45	Shale, brown to dark gray	

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Depth	Formation Description	Remarks
3545 - 57	Limestone, brown to tan, sucrose, dolomitic; little if any porosity	
3557 - 61	Shale, gray-brown to brown-black, soft, fissile	Hoehner
3561 - 67	Limestone, light gray to dark gray-black, dense, fossiliferous	Leavenworth
3567 - 78	Shale, gray to gray-green, finely micaceous; much gray-black to brown-black shale	Snydersville
3578 - 97	Limestone, cream to tan, finely crystalline to dense; streak dark gray shale 3581-89	Toronto
3597 - 3601	Shale gray to gray-green	Top Douglas 3597
3601 - 05	Limestone, brown, resinous, fossiliferous	
3605 - 20	Shale, as above, some silty	
3620 - 58	Sand, fine, gray to gray-green subrounded to subangular, very micaceous, dolomitic in spots	No show
3658 - 3722	Shale, gray to gray-green; thin streaks sand, as above	
3722 - 28	Limestone, brown to chocolate brown, dense	Top Brown Lime 3722
3728 - 38	Shale, gray	
3738 - 45	Limestone, as above	
3745 - 51	Shale, streaks limestone, as above	
3751 - 74	Limestone, gray, suberystalline, crypto-oolitic; few oolicastic pieces in sample. Saturated with dark stain; streaks gray and brown shale	Top Lansing 3751 Little if any porosity on electric log
3774 - 86	Limestone, gray to brown, sub-crystalline, oolitic; fair to good oolicastic and inter-oolitic porosity	Fair spotted show free oil, trace odor
3786 - 3804	Limestone, gray, suberystalline, fossiliferous; streaks gray and brown shale	
3804 - 14	Limestone, white to cream, sub-crystalline; spotted vugular porosity	Slight show free oil, good odor
3814 - 53	Limestone, tan to cream, sub-crystalline; some brown-dense limestone; streaks gray and brown shale	

Formation Log
R. W. Rine #4 Hoerner "B"

Depth	Formation Description	Remarks
3853 - 78	Limestone, tan to white, mottled suberystalline, very fossiliferous; spotted vugular porosity; much gray, opaque, subvitreous, figured chert	Good odor, very little free oil
3878 - 82	Limestone, tan, dense, lithographic; chert, tan, opaque, subvitreous	
3882 - 88	Limestone, brown, suberystalline, fossiliferous; fair spotted vugular porosity	Trace odor, trace dark free oil
3888 - 92	Limestone, tan to brown, suberystalline to dense, fossiliferous; some chert, as above	
3892 - 96	Shale, gray to gray-green	
3896 - 3903	Limestone, tan, suberystalline, fossiliferous; spotted pinpoint porosity; some gray, opaque chert	Trace stain, no free oil
3903 - 13	Limestone, tan to brown, dense; some chert, as above; streaks gray shale	
3913 - 18	Limestone, cream to tan, suberystalline, oolitic; fair oolicastic porosity, poor permeability	Fair show free oil, slight odor
3918 - 45	Limestone, cream to tan, suberystalline to brown, dense, some fossiliferous; trace gray, opaque chert; streak dark gray to gray-green shale 3929-31; electric log shows streak porosity 3935-37, no porosity in samples	
3945 - 55	Limestone, cream, suberystalline, oolitic; fair oolicastic porosity	Fair show free oil, slight odor
3955 - 67	Limestone tan to buff, finely crystalline to suberystalline; streak dark gray shale 3960-63	
3967 - 69	Limestone; gray to tan with white oolites, very oolitic; spotted inter-oolitic porosity	Fair spotted show free oil
3969 - 81	Limestone and dark gray shale streaks	

Formation Log
R. W. Rine #4 Hosner "B"

Depth	Formation Description	Remarks
3981 - 91	Limestone, cream to tan, earthy, subcrystalline to finely sucrose, fossiliferous and oolitic; fair spotted oolicastic porosity	Fair show free oil, fair odor
3991 - 4013	Limestone, cream to gray, subcrystalline to tan, dense; chert, tan, opaque, subvitreous	
4013 - 23	Shale, gray-green to gray-black	
4023 - 27	Limestone, as above	
4027 - 29	Limestone, tan, subcrystalline, oolitic; trace oolicastic porosity, poor permeability	Trace stain, no free oil
4029 - 70	Limestone, tan to gray, subcrystalline to dense, lithographic; streaks green and gray-black shale	Base Kansas City 4070
4070 - 84	Shale, gray-gray-green and brown	Top Marmaton 4070
4084 - 91	Limestone, tan to green-gray, subcrystalline	
4091 - 4103	Shale and plates limestone as above	
4103 - 14	Limestone, tan, subcrystalline, fossiliferous, much light green to tan, finely crystalline, silicified limestone; chert, salmon to tan to gray to amber, vitreous, semi-translucent.	
4114 - 20	Shale, gray, green and purple-maroon	
4120 - 41	Dolomite, brown, subcrystalline, porous; much silicified limestone, as above	Good stain in dolomite, little if any free oil
4141 - 61	Shale, as above; trace fine gray, calcareous sand	
4161 - 71	Shale and shaly limestone	
4171 - 88	Chert, white, opaque, mostly sub-vitreous, some vitreous; chert, brown to salmon to tan, vitreous to sub-vitreous; some brown devitrified chert with good stain	Top Mississippi 4171; no odor or free oil
4188 - 4206	Mostly limestone, gray to gray-green to brown, subcrystalline; streaks gray, gray-green and silver-gray shale	Top Kinderhook 4188

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Depth	Formation Description	Remarks
4206 - 50	Chert, white, tan and salmon, vitreous to devitrified, opaque to translucent, figured; chert, brown and white, subvitreous to devitrified, porous	Top Viola 4206 spotted stain, no odor or free oil; D.S.T. 4203-25; D.S.T 4225-51
4250 - 52	Limestone, white to tan, sub-crystalline, sandy, some chalky	
4252 - 54	Shale, bright blue-green to pale green, weathered, sandy	Top Simpson 4252
4254 - 62	Sand, white to green, rounded to subrounded, shaly	Trace odor and free oil; D.S.T. 4251-95
4262 - 70	Shale, as above sandy	
4270 - 82	Dolomite, cream to brown to tan to yellow-tan, finely crystalline, sandy, grading into very dolomitic sand; porous 4272-80	Fair odor, slight show free oil
4282 - 89	Shale and sandy shale, as above	
4289 - 99	Sand, white, subangular to sub-rounded, dolomitic grading into very sandy, medium to coarsely crystalline dolomite, good porosity 4289-96, spotted porosity 4296-99	Slight show free oil
4299 - 4321	Shale, as above; thin streaks sand	
4321 - 25	Dolomite, tan to cream, finely sucrose, sandy, very shaly	
4325 - 64	Mostly shale gray to green; streaks fine gray to white dirty sand; probably thin streaks dolomite, as above	
4364 - 67	Dolomite, cream to gray, finely crystalline to medium crystalline, rhombohedral; trace white to amber oolitic chert.	Top Arbuckle 4364
4367 - 82	Dolomite, tan, subcrystalline to gray, coarsely crystalline, rhombohedral, some calcitic; few spotted vugs, poor permeability	No show
4382 - 85	Dolomite, tan to brown, finely crystalline, rhombohedral; spotted vugular porosity	Slight show free oil, trace odor
4385	Rotary Total Depth	

5½" casing set at 4372

Formation Log
R. W. Rine #4 Hoener "B"

Drill Stem Test Data: The following drill stem tests were run on the #4 Hoener "B"

Viola:

D.S.T. #1 4203 - 25; Open 1 hour - small blow which increased to fair blow at end test
Recovered 660' gas
80' very slightly oil cut mud
Initial Flow Pressure: 47 PSI
Final Flow Pressure: 63 PSI
Bottom Hole Pressure: 280 PSI (20 min. - still building rapidly)

D.S.T. #2 4225-51; Open 1 hour - strong blow throughout test - gas to surface in 10 minutes
Recovered 360' muddy oil
60' clean oil - no water
Initial Flow Pressure: 47 PSI
Final Flow Pressure: 185 PSI
Bottom Hole Pressure: 1390 PSI (30 minutes)

Simpson:

D.S.T. #3 4251-95; Open 1 hour - strong blow throughout - gas to surface in 2½ minutes
Gauged 519,000 at 5 min.
460,000 at 10 min.
416,000 at 15 min.
404,000 at 20 min.
391,000 at 25 min.
367,000 at 45 min.
367,000 at 60 min.
Recovered 80' slightly oil and gas cut mud
150' muddy oil
90' clean oil - no water
Initial Flow Pressure: 108 PSI
Final Flow Pressure: 155 PSI
Bottom Hole Pressure: 1038 PSI (30 minutes)

Samples examined and log compiled

by

Willis Jack Hagathan

WENDELL T. JOCKING

TIME LOG

R. W. Rine #4 Hoener "B"
NE SE NW; 35-26S-13W
Pratt County, Kansas
Elevation: 1936 Kelly bushing

Note: All Measurements are from the top of the kelly bushing.

Depth	Time	Remarks
3100 - 10	6-9-6-5-7-6-6-6-6-7	
20	6-7-9-8-7-5-7-7-7-7	
30	7-10-7-7-10-6-6-6-6-9	
40	6-6-8-6-7-8-2-4-4-2	Trip 3136 OSC
50	3-3-3-3-2-4-3-3-4-4	Top Severy 3139
60	2-3-2-2-2-2-2-2-2-2	
70	2-3-2-2-2-2-2-2-2-2	
80	2-3-3-1-3-2-3-4-3-2	Top Topeka 3177
90	3-3-3-3-3-2-3-4-3-4	
90 - 3200	3-5-5-3-3-2-3-3-2-3	
3200 - 10	3-4-4-4-4-3-4-3-3-2	
20	2-2-2-2-2-1-2-3-2-4	
30	4-5-5-4-4-3-4-3-4-2	
40	4-3-4-3-4-4-3-3-3-2	
50	3-3-2-4-4-2-2-5-2-4	
60	7-5-5-5-6-5-5-4-5-5	
70	5-5-5-5-4-3-4-4-3-3	
80	6-4-4-5-6-5-5-5-4-4	
90	5-6-6-5-5-7-6-7-5-5	
90 - 3300	5-5-5-5-5-5-5-6-7-6	
3300 - 10	7-9-6-5-6-6-5-5-6-6	
20	5-4-6-8-7-5-6-7-6-6	
30	7-7-5-6-6-6-7-8-7-8	
40	9-8-9-9-9-8-9-9-8-7	
50	4-4-3-4-5-5-5-6-7-7	
60	7-7-7-5-6-6-5-4-5-5	
70	5-6-6-6-6-9-9-6-5-4	
80	4-5-4-4-4-5-6-6-7-7	
90	8-10-10-10-9-9-10-7-8-10	
90 - 3400	8-7-6-3-1-2-5-3-2-3	
3400 - 10	2-1-1-3-2-1-1-1-2-3	Trip 3408 - DST
20	3-4-4-5-4-3-4-5-5-4	
30	6-7-6-7-5-5-5-5-6-5	
40	6-6-5-6-4-3-3-4-6-4	
50	3-4-4-4-4-4-2-3-4-3	
60	3-4-3-4-4-2-4-5-2-2	
70	3-3-3-3-4-3-3-2-2-3	

Time Log
R. W. Rine #4 Hoemer "B"

Depth	Time	Remarks
3470 - 80	4-3-3-3-3-3-3-2-3-3	
90	3-3-4-3-4-4-5-4-4-3	
90 - 3500	4-4-5-3-3-4-3-3-3-3	
3500 - 10	6-4-2-3-2-3-3-2-2-2	
20	4-4-4-3-3-4-3-3-3-2	
30	3-2-2-2-1-2-2-3-3-3	
40	2-2-2-2-3-2-1-3-2-3	
50	2-3-5-2-3-6-6-5-5-4	
60	5-4-4-6-6-5-5-5-5-2	Top Hoebner 3557
70	3-3-2-2-9-10-9-4-4-5	
80	3-3-4-5-5-5-5-6-6-7	
90	6-5-5-6-3-6-5-5-5-9	
90 - 3600	9-9-8-7-7-7-8-5-5-5	
3600 - 10	4-6-5-6-7-4-3-5-4-5	
20	5-5-3-5-4-4-5-5-4-4	
30	6-6-5-6-6-4-5-4-3-2	
40	2-2-2-2-2-1-3-2-2-2	
50	3-2-2-2-2-3-2-3-5-5	
60	1-2-2-2-2-1-2-3-3-2	
70	3-4-4-4-4-4-5-4-4-5	
80	4-3-5-4-4-4-4-5-5-4	
90	5-5-4-4-5-5-4-4-5-4	
90 - 3700	5-5-6-5-6-6-5-5-4-5	
3700 - 10	5-5-5-5-5-5-6-5-4-5	
20	5-5-5-5-5-5-4-5-4-6	
30	6-5-10-10-8-9-9-9-6-6	Top Brown Lime 3722
40	6-5-5-6-5-5-5-5-7-7	
50	8-13-13-10-5-6-6-6-5-7	Trip 3743 - GWV
60	5-8-9-7-7-9-7-4-8-9	Top Lansing 3751
70	7-10-8-8-10-7-7-5-6-8	
80	9-8-8-10-5-6-8-5-3-3	
90	4-4-3-3-4-4-6-5-5-8	
90 - 3800	6-8-8-10-10-9-5-2-6-2	
3800 - 10	5-5-7-7-6-5-5-5-6-6	
20	6-5-5-4-7-7-9-10-9-10	
30	8-9-10-8-10-9-7-9-14-14	
40	17-16-14-22-13-6-15-16-15-16	
50	12-15-11-16-15-16-10-5-10-9	
60	9-10-9-7-6-6-6-7-5-5	
70	5-6-8-12-15-10-11-8-7-8	
80	8-8-8-7-7-8-9-14-17-18	
90	15-18-13-9-11-14-20-16-19-23	
90 - 3900	27-10-8-6-6-9-8-9-8-8	Trip 3891 - W7

Time Log
R. W. Rine #4 Hoemer "B"

Depth	Time	Remarks
3900 - 10	3-1-5-9-12-11-11-10-8-7	
20	10-9-5-4-9-7-6-6-8-8	
30	9-9-9-10-8-10-8-8-8-7	
40	8-9-8-9-7-5-5-9-18-8	
50	7-7-8-7-4-1-2-2-4-3	
60	3-4-3-3-4-7-10-10-11-11	
70	8-9-11-11-13-10-11-7-6-9	
80	13-11-15-7-8-8-9-8-7-9	
90	8-7-5-5-5-4-3-4-4-3	
90 - 4000	6-8-12-11-12-13-13-12-12-13	
4000 - 10	12-14-8-9-13-13-12-12-15-12	
20	12-13-13-13-9-13-9-7-8-7	
30	8-8-9-18-15-14-13-9-9-14	
40	14-16-14-13-9-12-16-17-16-19	
50	18-20-19-14-19-34-6-7-6-7	Trip 4046 - W7
60	12-11-8-8-8-10-6-9-8-7	
70	6-8-7-10-6-8-10-10-10-10	Base Kansas City 4070 Top Marmaton 4070
80	6-8-7-8-7-8-6-4-5-5	
90	6-4-4-4-8-8-13-7-7-11	
90 - 4100	10-6-9-8-7-7-7-8-6-10	
4100 - 10	12-9-10-8-12-12-10-10-9-11	
20	9-12-10-10-10-12-13-8-7-8	
30	8-7-8-8-5-4-5-4-6-6	
40	4-9-5-14-16-12-10-8-8-7	
50	11-10-16-14-15-16-15-15-12-12	
60	10-9-9-9-10-10-10-9-8-8	
70	8-11-12-12-13-11-13-11-10-11	
80	10-5-6-3-4-4-3-4-5-5	Top Mississippi 4171
90	5-5-4-3-3-7-10-8-12-16	Circ. 1½ hrs. 4187 Top Kinderhook 4188
90 - 4200	16-14-21-19-22-22-21-21-23-26	Trip 4200 - W7R
4200 - 10	10-15-15-16-11-8-7-7-6-6	Top Viola 4206
20	5-4-5-4-5-4-5-4-5-5	
30	5-5-3-6-6-1-4-3-3-5	Circ. 1 hr @ 4225; D.S.T. 4203-25; Ran W7R @ 4225
40	5-2-3-5-5-5-6-5-5-4	
50	5-5-5-5-5-5-5-6-7-7	Circ. 1 hr. @ 4251; D.S.T. 4225-51
60	10-12-6-7-8-7-7-4-5-4	Top Simpson 4252 Circ. 1 hr. @ 4260
70	6-13-8-7-7-12-10-8-7-8	
80	9-8-9-8-10-9-13-15-16-19	
90	14-19-10-11-10-12-11-5-4-4	
90 - 5300	4-4-4-4-9-6-6-6-8-12	Circ. 1½ hr. @ 4295 D.S.T. #3 4251-95

Time Log
R. W. Rine #4 Hoemer "B"

Depth	Time	Remarks
5300 - 10	12-12-11-13-10-13-7-10-10-10	
20	11-7-11-12-9-11-11-12-12-12	
30	14-12-13-13-11-13-12-13-12-12	
40	11-10-12-11-10-13-10-11-11-12	
50	13-11-9-12-10-12-12-6-13-14	Circ. 1½ hr. 4350
60	10-11-10-12-11-11-13-13-13-14	Circ. 1½ hr. 4360
70	11-14-14-12-23-20-19-14-14-16	Circ. 1 hr. 4366 Circ. 1¼ hr. 4370 Top Arbuckle 4364
80	14-14-15-18-17-13-10-11-11-19	Circ. 1¼ hrs. 4375
85	20-19-16-10-13	Circ. 1½ hrs. 4385 R.T.D. 4385

Time Log Condensed

by

Johns and Nagathan