

8-27S-14W

LION OIL CO. #1 EWBANK
NE NE NE SEC. 8-27S-14W
Wildcat Discovery
Pratt County, Kansas

GENERAL:

Contractor: D & M Drilling Co. - Rotary Tools
Spudded: 12-19-51
Completed: 1-10-52
Surface Casing: 8-5/8" @ 854
Elevation: 2007DF
Samples: 10' samples 3600-3800: 5' samples 3800-4646 RTD
Drilling Time: 1' D.T. 3600-4646

SAMPLE DETERMINATIONS AND PERTINENT DATA:

	<u>Sample Tops</u>	<u>Schlumberger Tops</u>
	Top Anhydrite	924 (✓1085)
	Base Anhydrite	946 (✓1061)
No shows observed in the Shawnee group.		
	Top Heebner 3715 (-1708)	3714 (-1707)
3715-3721	Black, organic, fissile shale.	
3721- 24	Brown, dense limestone.	
3724- 32	Gray and greenish gray, clayey shale.	
	Top Toronto 3732 (-1725)	3732 (-1725)
3732- 56	Limestone, buff to tan, very fossiliferous.	
	Top Douglas 3756 (-1749)	3756 (-1749)
3756- 70	Shale, gray to green, with streaks of fine-grained, micaceous sandstone.	
3770- 92	Same, some red shale with thicker streaks of fine-grained sandstone.	
3792-3809	Sandstone, fine to medium grained, gray, silty, micaceous.	
3809- 72	Shale, gray, green and red, with streaks of gray siltstone.	
	Top Brown Lime 3872 (-1865)	3872 (-1865)
3872- 79	Limestone, brown, dense to finely crystalline.	
3879-3902	Shale, dark gray, fissile, limy in part.	
	Top Lansing 3902 (-1894)	3901 (-1893)

SAMPLE DETERMINATION AND PERTINENT DATA: (Cont.)

- 3902-3916 Limestone, buff to white to cream, fine crystalline, slightly fossiliferous.
- 3916- 20 Gray shale.
- 3920- 25 Limestone, fine crystalline, slightly granular, slightly fossiliferous, with inter-crystalline porosity, light stain, slight show of free oil.
- 3930- 43 Limestone, buff to white to light gray, fine crystalline, fair inter-crystalline porosity, even to spotted saturation, poor show of free oil, no odor.
- DST #1: 3929-45, open 45 min., gas in 33 min., recovered 60' heavily oil and gas cut mud / 90' muddy oil / 80' muddy oil with slight water cut / 10' water, 30-min. SI-BHP 1050#.
- 3945- 49 Shale, gray, green.
- 3954- 57 Limestone, buff to tan, fine crystalline, mealy and slightly chalky, poor pinpoint to vugular porosity, no show of oil.
- 3957- 70 Limestone, gray to buff, shaly,
- 3970- 93 Limestone, fine crystalline, buff, slightly cherty.
- * 3993-4001 Limestone, buff to gray, fine crystalline, with gray, even textured chert.
- 4001- 10 Porosity indicated on Schlumberger, no show or porosity noted in samples.
- 4018- 30 Limestone, buff to gray, fine crystalline, cherty. Schlumberger indicates porosity, no show or porosity in samples.
- 4030- 45 Limestone, buff, fine crystalline to dense, very cherty.
- 4045- 53 Shale, gray to green.
- 4053- 61 Limestone, buff to gray, fine crystalline, oolitic, fossiliferous, slightly cherty, fair oocastic vugular porosity, good show of free oil, good odor, good spotty saturation and stain.
- DST #2: 4045-60, open 45 min., fair to weak blow, recovered 25' very slightly oil and gas cut mud, 15-min. SI-BHP 0#.
- 4061- 76 Limestone, dense, with streaks of shale.
- 4076- 79 Limestone, fossiliferous, cream, sub-oolitic, fine crystalline, poor pinpoint to vugular porosity, slight spotty stain.
- 4079- 88 Limestone, brown, dense.
- 4086- 92 Shale, gray to green.
- 4092-4103 Limestone, tan, fine crystalline, dense.

SAMPLE DETERMINATION AND PERTINENT DATA: (Cont.)

- 4103-4112 Limestone, buff to cream, fine crystalline, sub-oolitic to oolitic, fossiliferous, good pinpoint to sub-ocastic porosity, very slight show of free oil, light stain, probable water.
- DST #3: 4070-4108, open 1 hr. 20 min., fair to weak blow, recovered 300' gas cut mud with trace of oil / 125' gas cut salt water, 15-min. SI-BHP 1400#, FFP 215#.
- 4112- 21 Limestone, tan to buff, fine crystalline, with included brown, semi-translucent chert, trace of gray, opaque chert.
- 4121- 26 Schlumberger indicates porosity, no porosity or show seen in samples.
- 4130- 35 Shale, gray to green.
- 4139- 44 Limestone, gray to buff, fine crystalline, sub-oolitic, slightly cherty, fair sub-ocastic to pinpoint and some vugular porosity, good show of free oil, good odor, good saturation and stain.
- DST #4: 4130-45, open 45 min., recovered 30' very slightly oil cut mud, 15-min. SI-BHP 1125#.
- 4144- 57 Limestone, brown, crystalline, cherty, fossiliferous.
- 4157- 76 Limestone, cream to white to buff, fine crystalline, with brown and gray, even textured, opaque chert.
- 4176- 79 Limestone, brown, fine crystalline to dense, fair vugular porosity and stain.
- 4179- 85 Limestone, white to brown, fine crystalline, trace of tan chert.
- 4185- 97 Limestone, tan, fine crystalline, fossiliferous, slightly chalky to cherty in part.
- 4197-4206 Shale, gray to green, fossiliferous.
- 4208- 10 Limestone, buff to tan, fine crystalline, cherty.
- 4210- 21 Same, with black shale streaks.
- 4221- 27 Sandstone, silty, green, very fine-grained.
- 4227- 36 Limestone, brown, dense to finely crystalline, slightly modular.
- 4236- 55 Limestone, brown to tan, fine crystalline to dense, streaks of shale, slightly cherty.
- 4257- 66 Shale, red to brown to gray.

SAMPLE DETERMINATION AND PERTINENT DATA: (Cont.)

4286-4287 Shale, gray to red, streaks of brown, dense limestone.

4287-4312 Shale, gray, limy, streaks of dense, brown limestone.

4312- 26 Limestone, brown, fine crystalline, slightly granular, cherty.

4326- 42 Same, with streaks of shale.

Top Mississippian 4342 (-2335)

4342 (-2335)

4342- 48 Chert, white to gray to bluish gray, opaque, tripolitic in part, trace of light brown and some black stain, poor porosity.

4348- 54 Same, with no stain or porosity.

4354- 62 Predominantly gray and green shale.

DST #5: 4326-62, open 1 hr., recovered 700' gas / 20' slightly gas cut mud, 15-min. SI-BHP 0#.

4362- 86 Chert, white to tan to cream, opaque, fresh, trace of very light stain, some evidence of fracture porosity.

4386- 95 Limestone, buff to white, crystalline.

Top Kinderhook 4395 (-2388)

4395 (-2388)

4395-4436 Shale, gray to green, streaks of crystalline, buff to white limestone.

Top Viola 4436 (-2429)

4436 (-2429)

4436- 51 Limestone, light gray to white, fine to medium crystalline, slightly cherty.

4451- 94 Limestone, white to buff to light tan, chalky to fine crystalline, trace of coarse crystalline, some with microrhoms of dolomite imbedded, much chert, very light gray to white, solid colored, even textured, opaque, slightly granular in part.

4494-4505 Chert, tripolitic, fair to good pinpoint porosity, good show of free oil, good odor, good even saturation and stain.

4505- 09 Shale, green to gray.

DST #6: 4492-4510, open 1 hr., weak blow throughout, recovered 35' slightly oil cut mud, 15-min. SI-BHP 70#.

4509- 29 Limestone, buff to cream, mottled, coarse crystalline, becoming sandy near the base.

Top Simpson 4529 (-2522)

4531 (-2524)

SAMPLE DETERMINATION AND PERTINENT DATA: (Cont.)

- 4529-4531 Sandstone, cream, limy, medium-grained, with inclusions of green shale.
- 4531- 41 Green shale with stringers of gray to medium gray shaly sandstone with phosphatic nodules.
- 4541- 48 Sandstone, white, medium-grained, sub-angular to sub-rounded, moderately friable, fair porosity, no show.
- 4548- 69 Sandstone, gray, medium to coarse-grained, with stringers of greenish gray, waxy shale.
- 4569-4630 Shale, green to gray, waxy in part, with scattered thin streaks of light gray, tight sandstone.
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| Top Arbuckle | 4630 (-2623) | 4650 (-2623) |
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- 4630- 46 Dolomite, buff, fine crystalline, sucrosic in part, with streaks of tan to brown dolomite, having some good vugular porosity, no show of oil. Trace of semi-translucent, polished oolitic chert.

RTD 4646 (-2639)
SJT 4647 (-2640)

COMPLETION DATA:

5½" 4565
Perf 44/4496-4504
1000 acid - dry
Perf 48/4367-83
1000 acid - dry
PB 4200
Perf 18/4181-87; 11/4190 - 94 dry
PB 4150
Perf 24/4139-45
1000 acid - swab wtr. w/slight show gas
PB 4090
Perf 23/4076-80 - swab wtr. w/slight show gas
PB 3950
Perf 24/3918-26 - swab wtr. w/slight show gas
Squeeze perforations
Set retainer 3885
Squeeze & CO 3943
Perf 40 jets/3929-36
1000 acid - 1,750,000 CFG
Swab 2½ bfp - 95% water.
3000 acid
Flow 4½ bop - 5% bs / 6-8 MCFGPD
Rods & tubing
Pot. 8,388,000 CFGPD thru 1" choke
2,500,000 CFGPD / 1 bop thru 20/64" choke