

GEOLOGICAL REPORT

LEE BANKS & FERGUSON OIL COMPANY

#1-32 Fischer

C SE, Section 32-32S-33W

Seward County, Kansas

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Approx. Center of SE/4, Sec. 32-32S-33W (1250' FEL, 1320' FSL)
Seward County, Kansas

Commencement Date: 2/13/73

Completion Date: 2/28/73

Elevation: 2827 K.B.

2817 G.L.

Total Depth: 5800' Driller

5798' Welex Log

Contractor: Rine Drilling Company, Rig #8

Electrical Surveys: Welex Induction Electric; Potential Millivolts,
Resistivity OHMS and Conductivity Millimhos and
Compensated Acoustic Velocity with Gamma and Travel
Time Porosity Logs.

Casing: Surface: 8 5/8" @ 1586' Driller and Welex
Production: None

Special Equipment: Baroid Gas Detecting Equipment in operation from
approximately 3520' to total depth.

Completion: Dry Hole

Drill Stem Testing: Western Testing Company

Well Sample Geologist: Ralph M. Reynolds

FORMATION TOPS AND STRUCTURAL COMPARISONS

	Banks & Ferguson Approx. C of SW/4 Sec. 32-32S-33W #1-32 Fischer	Wilmar Oil Inc. SW/4 NE/4 Sec. 5-33S-33W #1 Peterson-Fischer	Amoco Prod. 50' E of C SW Sec. 33-32S-33W #3-A Lemert	Cabot Corp. SE/4 NE/4 SW/4 Sec. 32-32S-33W #1-32 Ruth Fischer
Winfield	2652 (+175)		15' High	19' Low
Wreford	2864 (-37)	8' High	19' High	19' Low
Heebner Shale	4172 (-1345)	2' High	4' Low	29' Low
Toronto	4192 (-1365)	1' Low	6' Low	30' Low
Lansing	4308 (-1481)	2' High	6' Low	28' Low
Lansing "C" Zone	4360 (-1533)	4' High	6' Low	27' Low
Kansas City	4584 (-1757)	8' High	12' Low	29' Low
Hodges	4818 (-1991)	4' High	26' Low	31' Low
Checkerboard	4878 (-2051)	2' High	26' Low	21' Low
Marmaton	4986 (-2159)	2' Low	6' Low	31' Low
Marmaton Porosity	5010 (-2183)	8' Low	10' Low	29' Low
Cherokee Shale	5176 (-2349)	8' High	2' Low	23' Low
Morrow Shale	5544 (-2717)	10' High	20' Low	19' Low
Upper Mw. Sand	5580 (-2753)	2' Low	14' Low	17' Low
Middle Mw. Sand	5622 (-2795)	33' High	2' High	5' Low
Lower Mw. Sand	5740 (-2913)	24' High	Flat	11' Low
Miss., Chester	5766 (-2939)	30' High	10' Low	31' Low
Total Depth	5798	6386	6105	6357

The only indications of gas of interest were recorded by the Baroid Gas Detector from the Upper Morrow Sand and the Lower Morrow Sand intervals, both zones were tested by Drill Stem Tests as follows:

D.S.T. #1 5543 to 5625 feet Drilling Rig Depths (Reported)
5541 to 5623 feet Welex Log Depths
Tool open: 30 minutes, fair blow throughout
Initial Shut-In: 30 minutes
Tool reopened: 30 minutes, decreased to weak blow
Final Shut-In: 60 minutes
Recovered: 55 feet of thin drilling mud with no gas

IFP - 35 - 35 lbs.
FFP - 42 - 42 lbs.
ISIP - (30 Min.) 55 lbs.
FSIP - (60 Min.) 59 lbs.
IHHP - 2794 lbs.
Temp. 132°

A maximum gas kick of 50 units of Methane was recorded in the Upper Morrow Sand interval at 5580 to 5586 feet.

D.S.T. #2 5745 to 5798 feet Welex Log Depths
Tool open: 30 minutes, weak to fair blow
Initial Shut-In: 30 minutes
Tool reopened: 90 minutes, weak to fair blow
Final Shut-In: 60 minutes
Recovered: 60 feet of gas in drill pipe
60 feet of slightly gas cut drilling mud

IFP - 45 - 45 lbs.
FFP - 45 - 45 lbs.
ISIP - (30 Min.) 120 lbs.
FSIP - (60 Min.) 240 lbs.
IHHP - 2942 lbs.
FHP - 2916 lbs.
Temp. 142°

A maximum gas kick of approximately 12 to 15 units of Methane gas was recorded in the sand interval from 5740 to 5762 feet.

SAMPLE DESCRIPTION

By: Ralph M. Reynolds

- 4000-10 Gray-dark gray shale and gray, limy shale.
 4010-20 As above.
 4020-30 As above; trace of tan-brown-gray, fine crystalline limestone; trace of fossils.
 4030-40 As above; trace of tan, fine crystalline, collicastic limestone.
 4040-50 Gray shale and gray, limy shale; trace of tan, fine crystalline, slightly fossiliferous limestone; trace of tan, fine crystalline, collicastic limestone.
 4050-60 Gray-dark gray, greenish gray and maroon shale; trace of tan-brown, fine crystalline, slightly fossiliferous limestone.
 4060-70 As above.
 4070-80 " "
 4080-90 Shale as above; trace of black shale; brown-gray, fine crystalline limestone.
 4090-4100 As above.
 4100-10 As above.
 4110-20 As above; increase in tan-brown, fine crystalline limestone.
 4120-30 Tan-brown-gray, fine crystalline limestone; trace of fossils; gray-greenish gray shale.
 4130-40 As above; trace of maroon shale.
 4140-50 Tan, fine crystalline, granular limestone; trace of brown-gray, fine crystalline limestone; shale as above.
 4150-60 As above; trace of tan-buff chert.
 4160-70 Tan, fine crystalline limestone; trace of fossils; gray-greenish gray shale.
 4170-80 As above.
 4180-90 " "
 4190-4200 Black carbonaceous shale; trace of shale and limestone as above.
 4200-10 As above; decrease in black shale.
 4210-20 Tan-buff, fine crystalline limestone; gray-greenish gray and black shale.
 4220-30 Tan-brown-gray, fine crystalline, slightly fossiliferous limestone; gray and black shale.
 4230-40 As above.
 4240-50 " "
 4250-60 " "
 4260-70 " "
 4270-80 As above; increase in gray shale.
 4280-90 As above.
 4290-4300 " "
 4300-10 Gray-black shale; trace of tan-brown, fine crystalline limestone.
 4310-20 As above.
 4320-30 " "
 4330-40 Tan-buff, fine crystalline, fossiliferous, oolitic limestone; shale as above.
 4340-50 Tan-brown, fine crystalline limestone; trace of tan-buff, fine crystalline, fossiliferous, oolitic, slightly collicastic limestone; gray and black shale.

SAMPLE DESCRIPTION

4350-60	As above.
4360-70	" "
4370-80	" "
4380-90	" "
4390-4400	" "
4400-10	Tan-buff, fine crystalline, slightly fossiliferous, slightly oolitic limestone; gray shale.
4410-20	As above; trace of red and maroon shale.
4420-30	As above.
4430-40	As above; increase in shale.
4440-50	Gray shale; limestone as above.
4450-60	Gray shale; maroon shale; buff, fine crystalline, oolitic, slightly fossiliferous limestone.
4460-70	As above.
4470-80	" "
4480-90	" "
4490-4500	" "
4500-10	Tan-buff, fine crystalline limestone; trace of tan, fine crystalline, oolitic limestone; gray shale; trace of maroon shale.
4510-20	Tan-buff, fine crystalline, slightly fossiliferous limestone; trace of gray shale.
4520-30	As above.
4530-40	As above; increase in shale.
4540-50	Gray and red shale cavings; trace of limestone as above.
4550-60	As above.
4560-70	" "
4570-80	Tan-buff, fine crystalline, fossiliferous, slightly oolitic limestone; gray shale.
4580-90	As above; increase in shale trace of gray chert.
4590-4600	Gray shale; trace of maroon shale; trace of tan-buff, fine crystalline limestone.
4600-10	Tan-brown, fine crystalline, slightly oolitic limestone; gray shale; trace of maroon shale.
4610-20	As above; trace of brown chert.
4620-30	As above; mostly cavings.
4630-40	Tan-buff, fine crystalline limestone; tan-buff, fine crystalline, oolitic, slightly oolitic limestone; trace of gray shale.
4640-50	As above; increase in oolitic limestone.
4650-60	Tan-buff, fine crystalline limestone; trace of limestone as above; trace of gray shale.
4660-70	As above; trace of gray chert.
4670-80	As above.
4680-90	" "
4690-4700	Limestone as above; trace of tan, fine crystalline, oolitic, slightly vuggy limestone; trace of gray shale.
4700-10	Tan-buff, fine crystalline, fossiliferous, oolitic, slightly chalky limestone; trace of gray chert; trace of gray shale.
4710-20	As above.
4720-30	" "

SAMPLE DESCRIPTION

4730-40	As above; trace of fossils.
4740-50	As above; trace of oolitic limestone.
4750-60	Buff, fine crystalline, slightly oolitic, chalky limestone; trace of brown, fine crystalline limestone; gray shale; trace of light gray chert.
4760-70	As above.
4770-80	As above; trace of fossils.
4780-90	Tan-brown, fine crystalline limestone; trace of limestone as above; trace of gray shale.
4790-4900	As above.
4800-10	Tan-brown, fine crystalline limestone; trace of tan, fine crystalline, oolitic limestone; trace of light gray chert; trace of gray shale.
4810-20	As above; increase in shale.
4820-30	Tan-buff-brown, fine crystalline limestone; gray shale.
4830-40	As above.
4840-50	Dark gray-black shale; trace of limestone as above.
4850-60	Tan-brown, fine crystalline, fossiliferous, slightly oolitic limestone; gray-black shale.
4860-70	As above.
4870-80	" "
4880-90	As above; red shale cavings.
4890-4900	As above.
4900-10	As above.
4910-20	" "
4920-30	Brown-buff, fine crystalline limestone; buff, fine crystalline, slightly fossiliferous, slightly oolitic limestone; gray-dark gray shale.
4930-40	Gray shale; brown-buff, fine crystalline limestone.
4940-50	As above.
4950-60	As above; increase in shale.
4960-70	As above.
4970-80	" "
4980-90	" "
4990-5000	" "
5000-10	Gray-dark gray-black shale; brown-gray, fine crystalline limestone.
5010-20	As above.
5020-30	" "
5030-40	" "
5040-50	Tan-buff, fine crystalline, oolitic-oolitic limestone; gray-dark gray shale.
5050-60	As above.
5060-70	As above; trace of tan-brown, fine crystalline limestone.
5070-80	Tan-brown, fine crystalline limestone; trace of tan, fine crystalline, oolitic-oolitic limestone; trace of gray shale.
5080-90	Tan-buff, fine crystalline, slightly fossiliferous, slightly oolitic limestone; trace of tan, fine crystalline, oolitic limestone; trace of gray shale.
5090-5100	As above.

SAMPLE DESCRIPTION

5100-10	As above.
5110-20	Tan-brown, fine crystalline, slightly fossiliferous, slightly oolitic limestone; trace of buff chert; trace of gray shale.
5120-30	As above.
5130-40	" "
5140-50	" "
5150-60	Tan-buff, fine crystalline, slightly fossiliferous, slightly oolitic, slightly chalky limestone; trace of gray shale.
5160-70	As above.
5170-80	As above; trace of chert.
5180-90	As above.
5190-5200	" "
5200-10	As above.
5210-20	" "
5220-30	" "
5230-40	As above; slight increase in shale.
5240-50	As above.
5250-60	Tan-brown, fine crystalline, slightly fossiliferous limestone; trace of gray chert; gray shale.
5260-70	As above.
5270-80	As above; trace of gray, fine crystalline limestone.
5280-90	As above.
5290-5300	" "
5300-10	As above.
5310-20	As above; increase in shale.
5320-30	Gray-dark gray shale; trace of brown, fine crystalline limestone.
5330-40	As above.
5340-50	" "
5350-60	Gray-dark gray-black shale; trace of limestone as above.
5360-70	As above.
5370-80	" "
5380-90	" "
5390-5400	" "
5400-10	Tan-brown, fine crystalline limestone; gray-dark gray shale.
5410-20	As above.
5420-30	" "
5430-40	Gray-dark gray shale; trace of limestone as above.
5440-50	Dark gray-black shale; trace of brown-gray, fine crystalline limestone.
5450-60	As above.
5460-70	" "
5470-80	" "
5480-90	" "
5490-5500	" "
5500-10	Gray, greenish gray and black shale; trace of brown, fine crystalline limestone; abundant cavings.
5510-20	As above.
5520-30	As above; brown-gray, fine crystalline limestone.
5530-40	As above.

5540-50	As above.
5550-60	" "
5560-70	Gray-black shale; brown-gray, fine crystalline limestone.
5570-80	As above; few scattered fossils; slight increase in limestone.
5580-85	Brown-gray, fine crystalline limestone; scattered fossils; dark gray-black shale.
5585-90	Dark gray-black shale; limestone as above.
5590-95	Gray-black shale; trace of limestone as above.
5595-5600	Shale as above; trace of fine grained sandstone.
5600-05	As above.
5605-10	Shale as above; few pieces of sandstone as above.
5610-15	As above.
5615-20	Gray-black shale; trace of brown, fine crystalline limestone; few scattered clusters of fine grained sandstone.
5620-25	As above.
5625	30 Min. Circ. Gray-black shale.
	60 Min. Circ. As above.
	90 Min. Circ. As above; trace of brown, fine crystalline, fossiliferous limestone.
5625-40	Gray-black shale; trace of brown, fine crystalline, fossiliferous limestone.
5640-50	Shale as above; trace of gray, fine grained, limy, fossiliferous, glauconitic sandstone.
5650-60	Tan-brown, fine crystalline, fossiliferous, slightly glauconitic limestone; gray-black shale.
5660-70	As above.
5670-80	" "
5680-90	" "
5690-5700	" "
5700-10	Tan-buff, fine crystalline, colitic, slightly fossiliferous, glauconitic limestone; shale as above.
5710-20	As above.
5720-30	" "
5730-40	" "
5740-50	" "
5750-60	" "
5760-70	" "
5770-80	" "
5780-90	" "
5790-5800	As above; trace of buff-brown, fine-medium crystalline, fossiliferous, slightly chalky limestone.
5800	30 Min. Circ. As above; slight increase in brown limestone.
	60 Min. Circ. As above.
	90 Min. Circ. As above; tan-buff, fine crystalline, colitic, fossiliferous limestone.

T.D. 5800