

15-163-22031-00-00

GEOLOGICAL REPORT
FRONTIER OIL COMPANY

BARTHOLOMEW NO. 1
SE NE NW Sec. 11-6S-18W
ROOKS COUNTY, KANSAS

Commenced: April 27, 1983
Date of RTD: May 6, 1983

Richard D. Parker

RECEIVED
STATE CORPORATION COMMISSION

MAY 20 1983

CONSERVATION DIVISION
Wichita, Kansas

Frontier Oil Company
1720 Kansas State Bank Building
Wichita, Kansas 67202

RE: Frontier Oil Company
No. 1 Bartholomew
SE NE NW 11-6S-18W
Rooks County, Kansas

Dear Sir:

The following is a Geological Report, with a Time Log attached on the above captioned well.

Drilling was supervised from 2300' to 3650', rotary total depth. Samples were examined from 2300' to rotary total depth.

All formation tops, zones of porosity, and staining are based on rotary bushing measurements. Any corrections in measurements during the drilling of this well have been incorporated into this report.

Elevation (L&S)	1856 GL --- 1864 KB (Three foot adjustment after L&S ran elevation.)
Anhydrite	Driller could not pick
Tarkio	2683 (- 819)
Howard	2846 (- 982)
Topeka	2879 (-1015)
Heebner	3087 (-1223)
Toronto	3116 (-1252)
Lansing-Kansas City	3134 (-1270)
Base of Kansas City	3342 (-1478)
Cherty Conglomerate	3465 (-1601)
Arbuckle	3582 (-1718)
RTD	3650 (-1786)

Structurally, on top of the Lansing-Kansas City the Bartholomew No. 1 ran 97' lower than the Transit Corp.'s Faubian No. 1, a Lansing producer, located approximately 1 mile East. The Arbuckle on the No. 1 Bartholomew came in at 3582 (-1718).

ZONES OF INTEREST

TARKIO LIME (Top 2683)

2683 to 2694

Tan fine crystalline lime with no show of oil.

TOPEKA (Top 2879)

2879 to 2884

Dark grey dense to fine crystalline lime with no show of oil.

2910 to 2916

Tan to light grey fine crystalline to sucrosic lime with no show of oil.

3040 to 3042

Tan, small oolitic lime with good pin point porosity, trace of black, tar, stringy oil. Trace of dark oil stains. No odor.

TORONTO (Top 3116)

3116 to 3120

Tan to grey fine crystalline to chalky lime with no show of oil.

LANSING-KANSAS CITY (Top 3134)

3134 to 3146

White fine crystalline to extremely cherty lime with no show of oil. (Included in DST No. 1.)

3174 to 3180

White fine crystalline lime with a trace of dark oil stain. No odor. (Included in DST No. 1.)

3192 to 3196

White oolitic to slightly oolitic lime with a trace of free oil, trace of stain and no odor. (Included in DST No. 1.)

3212 to 3216

White fossiliferous lime with no show of oil and no odor.

DRILL STEM TEST NO. 1 (Western Testing)

3124 to 3220

60-30-30-30 First open good to diminishing to no blow in 45 minutes. (Slight leakage on packer.) Second open no blow. Recovered 90' watery mud. Initial flows of 120 to 120#. Final flows of 131 to 131#. Initial shut in pressure of 566#. Final shut in pressure of 556#. (Both initial and final pressure still building when shut in.)

3234 to 3238

Tan fine crystalline to dense lime with no show of oil. (Included in DST No. 2.)

3266 to 3274

White chalky to slightly fossiliferous lime with a trace of stain. No show of free oil and no odor. (Included in DST No. 2.)

3292 to 3296

White chalky to slightly vuggy lime with abundant sharp white to opaque chert. Trace of free oil in vuggy lime, trace of dark stain and no odor. (Included in DST No. 2.)

3310 to 3314

White fossiliferous lime with no show of oil and no odor. (Included in DST No. 2.)

3334 to 3340

White to tan fossiliferous lime with good vuggy porosity, trace of free oil, spotted dark stain and a faint odor.

DRILL STEM TEST NO. 2 (Western Testing)

3220 to 3350

60-30-60-30 First open strong blow. Second open good blow. Recovered 285' muddy saltwater. Initial flows of 131 to 207#. Final flows of 229 to 272#. Initial shut in pressure of 1178#. Final shut in pressure of 1146#.

CHERTY CONGLOMERATE (Top 3465)

3464 to 3550

Various colored fresh cherts grading into bony white chert. No show of oil and no odor.

3550 to 3560

Tan to clear well rounded fine sand grains in clusters with no show of oil and no odor.

3560 to 3586

Red and dark green shale with white chert.

ARBUCKLE (Top 3582)

3582 to 3650

Tan medium crystalline to slightly sandy dolomite. Fair intercrystalline porosity. No show of oil and no odor.

Due to low structural position and negative drill stem test results the Bartholomew No. 1 was plugged and abandoned, a dry hole.

Sincerely,

Richard D. Parker
Richard D. Parker

/ss

DRILLING INFORMATION ON THE BARTHOLOMEW NO. 1

Contractor: Red Tiger Drilling Co.

Drillers: Koehler
Lyle
Waggoner, Pat

Tool Pusher: Kenneth Lyle

Spud Date: April 27, 1983

Date of RTD: May 6, 1983

Surface Pipe: 8-5/8" @ 329' w/185 sx

Casing: None

TOTAL FOOTAGE DRILLED PER DAY

Under Surface at 3:30 A.M. On April 28, 1983

540	Feet	At	7:00 A.M.	On	April 28, 1983
1775	"	"	" "	"	April 29, 1983
2317	"	"	" "	"	April 30, 1983
2652	"	"	" "	"	May 1, 1983
2997	"	"	" "	"	May 2, 1983
3208	"	"	" "	"	May 3, 1983
3286	"	"	" "	"	May 4, 1983
3418	"	"	" "	"	May 5, 1983
3650	"	"	1:44 A.M.	"	May 6, 1983

BIT RECORD

<u>BITS</u>	<u>TYPE</u>	<u>FOOTAGE</u>
No. 1	Reed - HS-51 (ReRun)	340' to 2577'
No. 2	Walker-McDonald - L40771	2577' to 3650'

MUD RECORD (BAROID)

Surface:	35 sx aquagel, 5 sx lime, 5 sx hulls
1450	5 sx hulls
2157	4 sx hulls
2450	36 sx aquagel, 8 sx soda ash, 3 sx hulls
2888	45 sx aquagel, 2 sx cellex, 6 sx cc-16, 5 sx caustic, 3 sx hulls
3126	1 sx soda ash, 1 sx cc-16, 1 sx caustic soda
3286	12 sx aquagel, 3 sx hulls, 2 sx soda ash, 1 sx cc-16, 1 sx caustic soda
3500	20 sx aquagel, 2 sx soda ash, 1 sx cc-16, 1 sx caustic soda, 5 sx hulls

DRILLERS TIME LOG

FRONTIER OIL COMPANY
NO. 1 BARTHOLOMEW

SE NE NW
11-6S-18W
Rooks County, Kansas

Elev.: 1856 CL
1864 KB
(3' adjustment)

DEPTH

MINUTES

REMARKS

1 foot drilling time

2400 to 2410	3-2-2-3-3-3-3-3-4-4
2420	3-3-2-2-2-2-3-3-3-3
2430	3-5-5-3-3-3-3-4-2-3
2440	2-2-3-2-3-3-3-3-3-3
2450	3-4-3-3-3-3-3-2-4-2
2460	3-4-3-3-2-1-2-1-2-3
2470	4-4-3-3-2-2-2-3-4-3
2480	3-3-2-1-2-2-2-2-2-3
2490	3-4-3-3-3-4-3-4-4-4
2500	4-4-3-2-2-3-3-3-3-4
2500 to 2510	3-4-3-4-5-6-3-4-5-3
2520	4-4-3-3-4-3-4-5-4-2
2530	3-3-2-2-3-3-3-2-4-4
2540	4-3-4-3-4-4-4-3-3-3
2550	3-3-2-2-3-2-2-3-4-3
2560	4-4-4-5-4-4-3-3-4-4
2570	4-4-4-3-3-3-3-3-3-4
2580	3-3-4-5-4-4-5-3-4-3
2590	4-6-4-3-3-3-3-3-3-4
2600	1-1-3-3-4-5-5-5-4-5
2600 to 2610	6-5-6-4-4-3-4-3-4-3
2620	3-4-5-6-4-4-4-3-3-2
2630	1-4-6-6-4-4-6-5-4-6
2640	6-6-4-3-3-4-6-5-5-5
2650	4-5-4-4-4-3-4-3-3-3
2660	2-5-3-4-4-4-2-1-3-2
2670	3-3-3-4-3-2-4-6-6-4
2680	2-3-3-3-2-3-3-3-3-2
2690	3-2-2-3-3-4-5-4-5-4
2700	4-4-4-2-2-2-2-2-2-3

2700 to	2710	3-3-3-5-3-4-3-3-3-4
	2720	4-4-4-4-4-4-4-4-5-4
	2730	5-3-2-3-3-4-3-3-4-4
	2740	2-2-1-1-2-2-4-6-5-3
	2750	3-3-3-3-3-4-5-5-5-6
	2760	7-6-6-5-6-7-7-4-4-4
	2770	3-5-6-6-7-6-8-8-7-5
	2780	6-8-7-6-3-4-3-2-4-4
	2790	2-3-5-3-5-6-5-6-5-4
	2800	5-5-5-5-5-5-3-4-4-4
2800 to	2810	3-3-2-1-1-2-1-1-1-2
	2820	1-2-2-2-3-3-6-5-6-5
	2830	5-6-5-5-3-5-4-6-3-2
	2840	3-2-3-5-4-2-3-2-2-2
	2850	2-3-2-2-2-2-4-5-4-3
	2860	3-3-3-2-2-2-5-3-3-1
	2870	1-1-2-2-2-2-3-2-2-2
	2880	2-3-2-3-2-2-2-1-4-5
	2890	4-4-4-6-6-6-6-5-5-4
	2900	5-6-5-4-5-4-4-4-5-6
2900 to	2910	4-5-4-4-6-5-4-5-2-2
	2920	1-1-1-3-4-3-5-6-8-7
	2930	3-6-7-7-7-6-6-4-3-4
	2940	5-4-4-3-3-5-5-5-5-5
	2950	8-9-7-6-6-7-6-3-2-2
	2960	2-4-3-4-5-5-7-7-6-3
	2970	2-3-5-5-5-6-4-4-5-6
	2980	5-5-6-7-5-2-4-3-4-3
	2990	2-2-3-2-2-2-2-2-2-2
	3000	2-3-3-4-3-4-5-4-4-2
3000 to	3010	1-1-1-3-3-3-3-2-3-4
	3020	4-4-3-4-6-6-6-6-6-5
	3030	4-4-4-4-5-6-5-6-6-6
	3040	6-4-4-6-5-4-5-6-5-2
	3050	1-2-2-4-5-4-5-5-5-6
	3060	6-6-6-5-5-6-7-6-4-5
	3070	3-4-4-5-4-4-3-5-4-6
	3080	5-6-5-7-5-6-7-4-4-6
	3090	5-5-6-5-5-6-6-3-2-3
	3100	5-7-5-6-6-5-6-3-4-3
3100 to	3110	5-7-4-4-4-5-5-4-4-5
	3120	4-4-3-4-5-4-6-6-7-6
	3130	8-7-7-7-5-4-5-7-5-5
	3140	5-5-4-3-5-6-7-8-7-8
	3150	7-6-6-5-7-5-7-6-7-7
	3160	6-6-6-7-6-6-8-6-6-5
	3170	6-7-5-6-6-5-5-5-7-4
	3180	3-4-4-4-5-6-5-6-6-6
	3190	5-5-5-6-7-7-7-5-7-4
	3200	6-7-6-5-5-5-7-6-7-6

3200 to	3210	7-7-7-7-6-4-6-7-5-5
	3220	6-7-5-4-6-7-8-6-7-6
	3230	6-8-7-7-6-8-9-8-7-6
	3240	4-5-7-7-6-8-6-5-8-8
	3250	8-7-7-8-8-8-9-9-7-8
	3260	6-6-4-5-10-9-7-4-5-9
	3270	9-5-8-5-4-5-7-6-6-7
	3280	7-7-6-5-7-9-9-7-9-9
	3290	7-8-5-5-8-6-6-6-5-4
	3300	5-7-5-4-5-7-4-6-5-5
3300 to	3310	5-6-4-5-5-5-5-5-4-4
	3320	6-6-6-6-6-5-3-4-6-8
	3330	6-7-3-3-4-4-4-5-4-6
	3340	5-5-5-4-6-6-7-6-6-5
	3350	6-8-7-7-7-8-5-6-6-5
	3360	5-5-5-6-5-4-5-5-6-7
	3370	6-8-8-6-8-6-5-5-5-3
	3380	4-3-4-4-3-3-2-2-3-2
	3390	3-2-3-4-3-4-3-5-4-8
	3400	7-9-7-5-3-4-4-3-4-4
3400 to	3410	6-6-8-6-6-6-6-5-3-7
	3420	8-9-8-8-8-7-8-8-7-6
	3430	9-7-7-6-6-5-5-5-6-5
	3440	6-7-7-6-8-7-3-3-3-6
	3450	6-5-5-8-8-7-7-6-6-6
	3460	6-5-4-5-6-5-5-7-4-3
	3470	4-2-3-4-7-6-3-4-1-4
	3480	2-4-2-2-1-1-1-1-1-1
	3490	2-2-2-2-2-2-2-2-2-2
	3500	1-2-3-2-1-2-2-2-2-3
3500 to	3510	3-1-3-3-3-3-2-2-2-2
	3520	2-2-2-2-2-3-3-2-1-2
	3530	3-3-2-2-2-1-1-2-1-4
	3540	4-3-3-3-2-3-1-2-4-3
	3550	3-3-2-3-4-2-3-5-5-3
	3560	4-3-3-3-3-3-3-3-3-3
	3570	3-4-4-3-3-4-4-4-3-3
	3580	4-3-3-3-4-2-3-3-3-4
	3590	4-4-3-3-3-3-4-3-4-4
	3600	4-2-4-4-5-6-4-3-3-4
3600 to	3610	5-4-5-3-3-3-4-4-5-5
	3620	5-6-5-5-6-6-8-5-2-3
	3630	4-7-5-5-5-6-5-6-5-7
	3640	7-8-8-5-4-7-6-7-6-6
	3650	4-5-6-7-2-1-2-6-4-4

DST No. 1 (3124 to 3220)

DST No. 2 (3220 to 3350)