21-15-4E

GEOLOGICAL REPORT

FRONTIER OIL COMPANY

NO. 1 WEBER "A"

SE SE SE Sec. 21-15S-4E

Dickinson County, Kansas

Commenced: May 31, 1983

Completed: June 8, 1983

Joel A. Alberts

21-15-4E

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

Re: Frontier Oil Company's
No. 1 Weber "A"
SE SE SE Sec. 21-15S-4E
Dickinson County, Kansas

Dear Sir:

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

Drilling was supervised from 1500' to 3000', rotary total depth. Samples were examined from 300' to 3000', rotary total depth.

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

Elevation (L&S)	1302 GL --- 1307 KB	
Heebner	1435	(- 128)
Lansing-Kansas City	1612	(- 305)
Base of Kansas City	2008	(- 701)
Mississippian	2196	(- 889)
Kinderhook	2275	(- 968)
Hunton	2442	(-1135)
Maquoketa	2646	(-1339)
Viola	2716	(-1409)
Simpson	2859	(-1552)
Arbuckle	2894	(-1587)
RTD	3000	(-1693)

Structurally, on top of the Lansing-Kansas City, the No. 1 Weber "A" ran 35' high to the E. H. Adair No. 1 Schlesener, a dry hole located 2 miles west and 1 mile north. On top of the Mississippian, the No. 1 Weber "A" ran 21' high to the No. 1 Schlesener. On top of the Hunton, the No. 1 Weber "A" ran 11' high to the No. 1 Schlesener. On top of the Viola, the No. 1 Weber "A" ran 46' high to the No. 1 Schlesener. On top of the Simpson, the No. 1 Weber "A" ran 23' high to the No. 1 Schlesener. On top of the Arbuckle, the No. 1 Weber "A" ran 48' high to the No. 1 Schlesener.

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ZONES OF INTEREST

LANSING-KANSAS CITY (Top 1612 (-305))	Weber "A" #1 21-15-4E
1640 to 1644	White oolitic limestone. No odor. No show.
1652 to 1658	White fine to medium crystalline oolicastic limestone. Barren. No odor. No show of oil.
1712 to 1718	Tan oolicastic limestone. Barren. No odor. No show.
1800 to 1811	White poorly developed oolicastic limestone. No odor. No show.
1929 to 1933	White oolicastic limestone. Barren. No odor. No show.
MISSISSIPPIAN (Top 2196 (-889))	
2196 to 2210	White weathered, pitted chert. Some light blue-green chert. Scattered grey fine crystalline dolomite with a good show of free oil. No odor.
DRILL STEM TEST NO. 1 (FOC Test)	
2151 to 2210	60-45-60-30 Weak blow both openings. Recovered 130' mud. Initial flow of 51 to 81#. Final flow of 81 to 102#. Initial shut in pressure 508#. Final shut in pressure 498#.
2210 to 2241	Chert as above grading into multi-colored cherts, white, yellow, orange and clear to translucent. No odor. No show of oil.

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DRILL STEM TEST NO. 2 (FOC Test)

2202 to 2255

60-30-60-30 First opening strong blow immediately decreasing to good blow in 30". Second opening good blow decreasing to dead in 60". Recovered 1360' salt water. Initial flow of 102 to 578#. Final flow of 578 to 578#. Initial and final shut in pressures 578#. (Hydrostatic reached during initial flow period.)

HUNTON (Top 2442 (-1135))

2449 to 2456

Tan to brown sucrosic dolomitic limestone. Scattered white to tan chert. No odor. No show.

DRILL STEM TEST NO. 3 (FOC Test)

2445 to 2455

60-30-60-30 Weak steady blow both openings. Recovered 150' clean salt water. Initial flow of 20 to 30#. Final flow of 51 to 81#. Initial shut in pressure 51#. Final shut in pressure 940#. (Tool did not shut in on first shut in. Possible formation damage on second shut in.)

2462 to 2530

White to light grey coarse crystalline dolomite. Very good intercrystalline porosity. Vuggy. No odor. No show of oil.

VIOLA (Top 2716 (-1409))

2721 to 2727

Grey to brown coarse to medium crystalline dolomite. Scattered tan to white opaque chert. No odor. No show of oil.

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DRILL STEM TEST NO. 4 (FOC Test)

Culver "A" #1
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2720 to 2727

45-30-20-15 First opening weak blow 9 minutes. Second opening no blow - flushed tool twice - no help. Recovered 5' mud. (No pressures recorded tool plugged.) (LCM @ 8# - needed to drill Hunton.)

SIMPSON (Top 2859 (-1552))

2859 to 2866

White fine to medium grained sand clusters with red shale laminations. Few scattered loose sand grains. No odor. No show of oil.

DRILL STEM TEST NO. 5 (FOC Test)

2854 to 2865

60-30-30-30 First opening weak blow throughout. Second opening no blow. Recovered 25' watery mud. Initial flow fo 0 to 10#. Final flow of 20 to 20#. Initial shut in pressure 950#. Final shut in pressure 930#.

2889 to 2894

Scattered loose sand grains. No odor. No show of oil.

ARBUCKLE (Top 2894 (-1587))

2898 to 2912

Tan fine to medium crystalline dolomite. Grey fine to coarse crystalline dolomite. Scattered grey and white chert. No odor. No show.

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DRILL STEM TEST NO. 6 (FOC Test)

2856 to 2900

60-30-30-30 First opening blow off bottom immediately, decreasing to dead in 40 minutes. Second opening no blow. Recovered 130' mud, 120' watery mud, 420' muddy water. (No pressures recorded, tool plugged during initial flow period.)

Due to the lack of shows and negative drill stem test results, the No. 1 Weber "A" was plugged and abandon, a dry hole.

Sincerely,

Joel A. Alberts

Joel A. Alberts

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DRILLING INFORMATION ON THE NO. 1 WEBER "A" 21-15-4E

Contractor: Red Tiger Drilling (Rig 3)

Tool Pusher: Ross Crawford

Drillers: John Ball
Ross Crawford
Richard Cox

Spud Date: May 31, 1983

RTD Date: June 8, 1983

Surface Casing: 8-5/8" @ 276' w/175 sx

Production Casing: None

TOTAL FOOTAGE DRILLED PER DAY

Under Surface at 3:45 A.M. on June 1, 1983

445	Feet	At	7:00 A.M.	On	June 1, 1983
1625	"	"	" "	"	June 2, 1983
2045	"	"	" "	"	June 3, 1983
2245	"	"	" "	"	June 4, 1983
2455	"	"	" "	"	June 5, 1983
2727	"	"	" "	"	June 6, 1983
2865	"	"	" "	"	June 7, 1983
2900	"	"	" "	"	June 8, 1983
3000	"	"	3:14 P.M.	"	June 8, 1983

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BIT RECORD Weber "A" #1
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BIT	TYPE	FOOTAGE
No. 1	Security S86F (RR)	281' to 2210'
No. 2	Security M84F (RR)	2210' to 3000'

MUD RECORD

Surface	30 sx freshwatergel, 4 sx lime, 10 sx hulls
281'	5 sx freshwatergel, 2 sx soda ash, 2 sx caustic soda
445'	33 sx gel
1000'	30 sx gel, 2 sx soda ash, 3 sx caustic soda, 3 sx tanothin
1500'	20 sx gel, 1 sx soda ash, 1 sx caustic soda, 2 sx tanothin
1700'	15 sx gel, 1 sx caustic soda, 2 sx hulls, 2 sx paper, 1 sx tanothin
2045'	20 sx gel, 1 sx caustic soda, 1 sx soda ash, 1 sx tanothin
2210'	10 sx gel, 1 sx caustic soda, 1 sx soda ash, 1 sx tanothin, 4 sx hulls
2300'	10 sx gel, 1 sx caustic soda, 1 sx soda ash, 1 sx tanothin
2365'	15 sx gel, 1 sx caustic soda, 1 sx tanothin, 10 sx hulls
2455'	1 sx caustic soda, 1 sx soda ash, 1 sx tanothin, 1 sx mud seal, 35 sx hulls
2600'	1 sx caustic soda, 1 sx tanothin, 8 sx hulls
2650'	15 sx gel, 1 sx caustic soda, 1 sx tanothin
2727'	10 sx gel, 1 sx caustic soda, 1 sx tanothin
2800'	20 sx gel, 1 sx caustic soda, 1 sx soda ash, 1 sx tanothin
2865'	6 sx gel, 2 sx caustic soda, 1 sx tanothin
2875'	1 sx caustic, 1 sx soda ash, 1 sx tanothin
2900'	12 sx gel, 1 sx caustic soda
2920'	20 sx gel, 1 sx caustic soda, 1 sx soda ash, 1 sx tanothin
2985'	10 sx gel