

27-13-30W

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WICHITA, KANSAS

February 7, 1964

Wycoff Brothers
Russell Springs, Kansas

Re: No. 1 Eklna
C SE NW 27-13S-30W
Gove County, Kansas

Gentlemen:

Drilling progress was observed at the above captioned well from 3865' to 4706', rotary total depth. Five foot drilling time was kept and 10 foot samples were saved from 3500' to 3800' and one foot drilling time and five foot samples were saved from 3800' to total depth. Samples were delivered to the Kansas Well Sample Bureau and a cut will be placed in the Kansas Geological Survey Sample Library.

MISCELLANEOUS DATA

Contractor: Jackson Drilling Company
Surface Hole: Jan. 19, 1964
Surface Casing: 8 5/8' @ 147 ft., cemented with 75 sacks.
Drilling Completed: Feb. 4, 1964
Drill Pipe Strap at 3725: Strap 3734.74
Board 3732.31
Difference 2.43

Electric Log: Schlumberger, Laterolog, Sonic.

FORMATION TOPS by Schlumberger

Elevation: 2870 KB

Top Anhydrite	2280	(+ 590)
Base Anhydrite	2324	(+ 546)
Heebner	3852	(- 982)
Toronto	3875	(-1005)
Lansing	3892	(-1022)
Dennis Ls.	4103	(-1233)
Stark Sh.	4121	(-1251)
Bethany Falls Ls.	4135	(-1265)
Base K/C	4186	(-1316)
Marmaton	4202	(-1332)

Pawnee	4296	(-1426)
Ft. Scott	4360	(-1490)
Cherokee Sh.	4388	(-1518)
Mississippian (Osage)	4450	(-1580)
Gilmore City	4586	(-1716)
Viola	4656	(-1786)
Arbuckle	4685	(-1815)
Total Depth	4704	(-1834)

STRUCTURAL POSITION

Structurally, No. 1 Eklna is the highest well in Gove County, being from 15 to 25 feet higher on the Heebner and other Pennsylvanian beds as compared to the abandoned producing wells in the Gove pool $1\frac{1}{2}$ miles east. Due to thinning in the lower Lansing-Kansas City section, the Pleasanton Shale and in Marmaton beds, it is from 25 to 35 feet higher on the Ft. Scott than abandoned wells in the Gove pool; additional thinning in the Cherokee section makes the well from 35 to 45 feet higher than the abandoned wells in the Gove pool.

The Mississippian dolomite pay section found in the abandoned Gove pool is missing in No. 1 Eklna, yet the Mississippian section is thicker than in wells in the Gove pool, making the Arbuckle slightly lower to flat with the reported Arbuckle tops in three wells in the Gove pool.

Further study of the stratigraphy of the area will be necessary in order to explain the variation of the Mississippian section in No. 1 Eklna as compared to other nearby wells.

LANSING SECTION

- 3894- 96 ('B' zone) Limestone, chalky, no show of oil. 11% porosity, 20% water saturation.
- 3998-4002 ("G" zone) Dolomite, gray, shaley, no show of oil. 14% porosity, 70% water saturation.
- 4002- 04 ("G" zone) Dolomite as above. 17% porosity, 58% water saturation.
- 4008- 11 ("H" zone) Limestone, oolitic, no odor, small show of dark, free oil, spotted dark stain.

- 4107- 10 Dennis Ls. ('L' zone) oolitic limestone, no odor, very small show of oil, slight staining, 7 to 8% porosity, 20% water saturation.

Schlumberger wire line test at 4108', open 2 hours, recovered 250 cc water.

- 4139- 44 Bethany Falls Ls. ("M" zone) Limestone, cherty, slightly dolomitic, no show of oil, 11 to 13% porosity, 38 to 40% water saturation.

PAWNEE SECTION

- 4298-4300 Limestone, oolitic, no odor, rare show of free oil, spotted dark stain. 12% porosity, 26% water saturation.

Schlumberger wire line test at 4299', open 1 hour, recovered 5,250 cc water. ICIP 1250#, FCIP 1250#.

FT. SCOTT SECTION

No shows of oil noted in the entire section.

CHEROKEE LIMESTONE SECTION

Alternating limestones and shales, no zones of porosity indicated by Schlumberger. There were occasional pieces of limestone with very small shows of free oil and staining. Exact depths of these small shows not identifiable by samples, drilling time or electric log.

MISSISSIPPIAN SECTION

- 4450- 58 Limestone, cherty, no odor, rare show of free oil and stain. No porosity.
- 4458- 62 White, fresh chert, no free oil, no odor, rare stains. 13 - 11% porosity, 68% water saturation.
- 4462- 84 Limestone, cherty, shaley in part, no shows of oil.
- 4484- 88 Chert, bluish, some white, weathered chert, no show of oil. 16% porosity, 62% water saturation.

No. 1 Eklna

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Reinhardt DST 4456 - 85: Open 1 hour, very weak, intermittent blow, recovered 5 feet of mud, no oil. ICIP 870#/30 min. FCIP 320#/30 min. Flow pressures zero.

- 4488-4550 Limestone, cherty, glauconitic and dolomitic at base.
- 4550- 86 Limestone, cream, dense slightly glauconitic and slightly dolomitic.
- 4486-4656 Limestone, medium to coarse crystalline, coarsely oolitic in part.

VIOLA SECTION

- 4656- 86 Dolomite, slightly limey at top, fine to medium crystalline, fair to good vugular porosity 4664-73, no show of oil.

ARBUCKLE SECTION

- 4686-4704 TD Dolomite, brown to gray medium to coarse crystalline, abundant chert, oolitic in part, scattered fair vugular porosity, no show of oil.

Because of the lack of shows of oil, No. 1 Eklna was plugged and abandoned.

Yours very truly,



LEE H. CORNELL,
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LHC/mlb
encls.