

32-15-11W

LEE H. CORNELL

Petroleum Geologist

TELEPHONE AMHERST 2-3921

ORPHEUM BUILDING

WICHITA, KANSAS. 67202

December 15, 1964

S and C Drilling, Inc.
Box 271
Hays, Kansas

Re: No. 7 Borell
SE NE NE Sec. 32-15S-11W
Russell County, Kansas

Gentlemen:

Drilling progress at the captioned well was observed from 2990' to 3490', total depth. One foot drilling time was kept from 2700' to total depth and five foot samples were saved from 2800' to total depth. All samples were examined at the well and discarded.

MISCELLANEOUS DATA

Contractor: S and C Drilling, Inc.
Surface Hole: Dec. 1, 1964
Surface Casing: 10 3/4" at 307, cemented with 205 sacks.
Rotary Drilling Completed: Dec. 13, 1964
No. of 9" Bits: Ten
Electric Log: Great Guns; Gamma, Neutron and Guard
Detail from: 1200' to 1630; and, 2800' to 3490'
Oil String: 7" at 3376, cemented with 175 sacks.
Centralizers: 5' above the shoe joint, at 3265, 3150 and 3000'

FORMATION TOPS (by Great Guns)

Elevation: 1832' KB

Anhydrite	698	+1134
Heebner	2873	-1041
Toronto	2894	-1062
Brown Lime	2967	-1135
Lansing	2981	-1149
Base K/C	3242	-1410
Cherty Conglomerate	3277	-1445
Arbuckle	3304	-1472
Total Depth	3489	-1657
Total Depth Rotary	3490	-1658

STRUCTURAL POSITION

On top of the Heebner No. 7 Borell is -1041, which is from 5 to 14 feet lower than other producing wells on the lease; the Arbuckle

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is -1472, which is from 10 to 19 feet lower than the highest wells on the lease and 4 feet higher than No. 4, which is the lowest well on the lease.

The Arbuckle was penetrated a total of 184 feet, with enough porosity to provide ample water disposal facilities.

TORONTO SECTION

- 2895- 97: Limestone, white, chalky spotted stain, no odor, no free oil. 12% porosity - 60 % water saturation. Zone of no value.

LANSING-KANSAS CITY SECTION

- 2981- 83: Limestone, oolitic and oolitic, slightly cherty. Slight odor, small show of free oil. Scattered fair to good staining. 12% porosity, 50% water saturation.

HALLIBURTON DST No. 1, 2972 - 3005: Open one hour, weak blow for 37 minutes. Recovered 10 feet of very slightly oil cut mud. ICIP 60#/30 mins. FCIP 40#/30 mins. IFP 30#. FFP 30#. Zone of no value.

- 3015- 22: Limestone, oolitic, no show of oil. 17 to 22% porosity, 20 to 33% water saturation. Zone of no value.
- 3066- 70: Limestone, sub-oolitic, chalky, no show. 15% porosity, 72% water saturation. Zone of no value.
- 3166- 70: Limestone, oolitic, no odor, no free oil, spotted staining. 9 to 13% porosity, 58 to 72% water saturation. Zone of no value.

CONGLOMERATE SECTION

- 3277-3304: Various colored cherts, oolitic in part, red, gray and green shales, some medium to large round to sub-round sand grains imbedded in green shale. No show of oil.

ARBUCKLE SECTION

- 3304- 17: Dolomite, medium to coarse crystalline, fair to good inter-crystalline porosity, good odor in 3315 circulating sample. Small show of free oil, good saturation. 12 to 16% porosity, 43 to 46% water saturation.

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HALLIBURTON DST No. 2, 3311 - 3317. Open 1 hour, good blow throughout, recovered 30 feet of heavy oil cut mud, 280 feet of clean oil, no water. ICIP 1070#/30 mins. FCIP 1072#/30 mins. IFP 15#, FFP 30#.

Note: The top 4 feet of the Arbuckle was drilled with a ^{drill}~~drill~~ bit and it was not possible to properly identify samples, which were too finely ground.

3317- 18: Green shale.

3318- 35: Dolomite as above with diminishing show of oil.


3335-3404: Dolomite, white medium to coarse crystalline, good porosity, no show of oil. 11 to 16% porosity.

3404- 90: Dolomite as above with slightly less porosity, sandy from 3446-56 and 3481-85. Average 9% porosity with thin streaks of 10 to 12% porosity.

It was recommended that the 7" casing be set at 3376', leaving 114 feet of open hole for water disposal.

It is recommended that the Arbuckle be perforated from 3304 - 33011 and completed natural if possible, or with a minimum mud acid treatment.

Yours very truly,

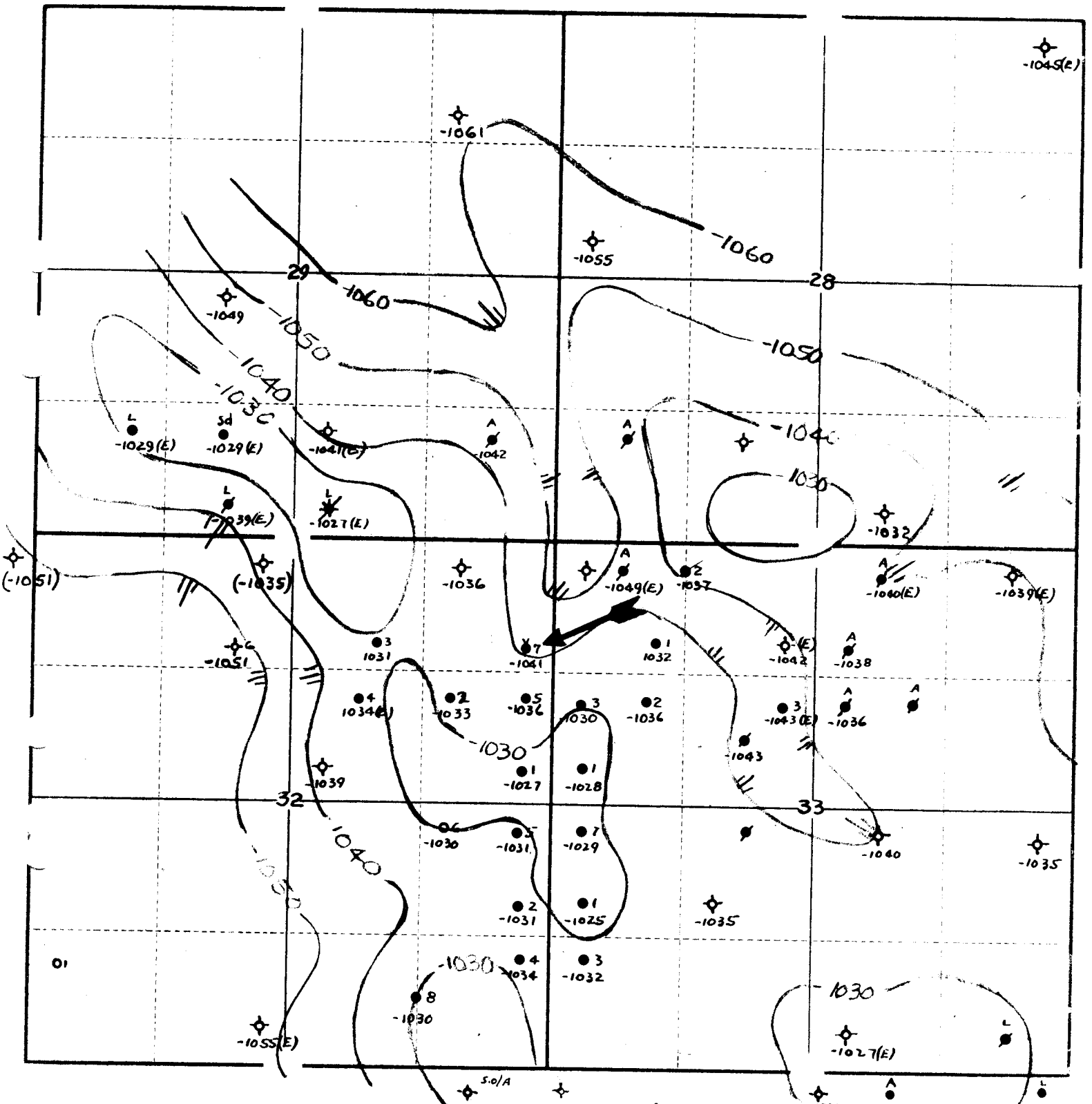


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Petroleum Geologist.

LHC/mlb
encl.

32-15-11W

Township 15 Range 11W County Russell State Kansas



Key

- -1029(E) = Electric Log
- -1031 = Time Log & Samples
- = No Top available
- ✱ (-1051) = Estimated Top

Top of the Heebner shale
Contour Interval - 10 ft.
By Lee H. Cornell

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