

Computer Inventoried

11-9-17W  
SW NW SW

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*Petroleum Geologist*  
PHONE AMHERST 4-3921  
706 ORPHEUM BUILDING  
WICHITA 2, KANSAS

May 13, 1963

Oil Property Management  
706 Orpheum Bldg.  
Wichita 2, Kansas

Re: Cornell, et al  
No. 2 Oswald  
SW NW SW Sec. 11-9S-17W  
Rooks County, Kansas

Gentlemen:

The following is my geological report on the above captioned well. One-foot drilling time was kept and five-foot samples saved from 2800' to total depth. All samples were examined at the well and were delivered to the Kansas Well Sample Bureau, washed, cut and re-examined. The washed cut was then delivered to the State Geological Survey Sample Library for storage.

Electric Log (Welex) measurements are used for all formation tops, sample descriptions, porosity calculations and drill stem tests.

MISCELLANEOUS DATA

Contractor: D & D Drilling Company, Wichita, Kansas.  
Surface Hole: April 26, 1963.  
Surface Casing: 8 5/8" @ 234', cemented with 175 sacks.  
Rotary Drilling Completed: May 6, 1963.  
Oil String: 5 1/2" set @ 3424', cemented with 125 sacks.  
Centralizers at: 3415', 3355', 3305', 3225' and 3135'.  
Elevation: 2009' KB; 2004' Ground.

FORMATION TOPS  
(By Welex)

Top Anhydrite	1270 ( + 739 )
Base Anhydrite	1305 ( + 704 )
Topeka	2884 ( - 875 )
Heebner	3098 ( -1089 )
Toronto	3123 ( -1114 )
Lansing	3142 ( -1133 )
Base K/C	3384 ( -1375 )
Marmaton S.S.	3393 ( -1384 )
Arbuckle	3424 ( -1415 )
Total Depth	3433 ( -1424 )
Rotary Total Depth	3434 ( -1425 )

STRUCTURAL POSITION

On top of the Lansing, No. 2 Oswald is 7 feet higher than No. 1 Oswald and 8 feet higher than No. 1 Westhusin, two locations to the north. On the Arbuckle, it is 3 feet higher than No. 1 Oswald and 13 feet higher than No. 1 Westhusin. Some of the structural advantage over No. 1 Oswald was lost in a slight thickening of middle and lower Lansing-Kansas City limestone beds.

The higher structural position of No. 2 Oswald as compared to No. 1 Oswald, proves the recent seismic work to be correct and indicates 5 or 6 additional good locations on the Oswald "A" lease.

TOPEKA SECTION

3068 - 3070 Limestone, fine crystalline, chalky, fair porosity, scattered staining, small show of free oil, no odor. 17% porosity, 42% water saturation.

Halliburton DST #1, 3055 - 3074: Open 1/2 hour, recovered 15 feet of mud, ICIP 1,026#/30 mins.;  
FCIP 992#/30 mins.;  
IFP 12#  
FFP 26#

Zone of no value.

Note: This zone does produce in some wells in the area and should be observed and possibly tested in future wells on the Oswald lease.

TORONTO SECTION

3125 - 3127 Limestone, chalky, no shows of oil. 17% porosity, 44% water saturation. Zone of no value.

LANSING SECTION

3177 - 3181 "B" zone. Limestone, crystalline, shall show of free oil, no odor, pinhole porosity with fair to good staining. 12% porosity, 67% water saturation. Zone should be tested before abandonment.

3240 - 3243 "G" zone. Limestone, oolitic, good odor, good show of free oil, good staining. 16% porosity, 40% water saturation.

- Halliburton DST #2, 3225 - 3248: Open 2 hours, weak blow 1 hour and 50 minutes, recovered 5 feet of oil, 30 feet of slightly oil cut mud and 60 feet of slightly oil cut, thin, mud. Zone should be tested before abandonment. ICIP 307#/30 mins.; FCIP 290#/30 mins.  
IFP 17#; FFP 17#
- 3279 - 3282 "H" zone. Circulation was lost for 19 hours 2 feet below this zone and no samples were recovered. 12 $\frac{1}{2}$ % porosity, 62% water saturation. Zone not recommended for testing unless a good show of oil is found in future wells.
- 3303 - 3306 ✓ "I" zone. Limestone, crystalline, fossiliferous, faint odor, small show of free oil, fair vugular porosity with good stain, 24% porosity, 42% water saturation. Zone should be tested before abandonment.  
Note: This is the "160 Foot" zone which is one of the better producing zones in the area.
- 3374 - 3377 "J" zone. Crystalline limestone, no odor, no free oil, no visible porosity, possible faint staining. 10% porosity, 59% water saturation. Zone of questionable value, not recommended for testing.
- 3351 - 3352 "K" zone. Limestone, crystalline, no odor, no free oil, some vugular porosity with fair staining. 13 $\frac{1}{2}$ % porosity, 30% water saturation. Zone should be tested before abandonment.
- 3373 - 3377 ✓ "L" zone. Limestone, medium to coarse crystalline, very faint odor, small show of free oil, fair to excellent vugular porosity, fair to excellent staining. 13% porosity, 46% water saturation. Recommend to perforate before abandonment.

MARMATON SANDSTONE SECTION

- 3393 - 3404 ✓ Sandstone, fine grained, angular, slight odor and good show of free oil, complete dark staining. From samples and electric log, the section appears to be shaley and poorly developed. 22 to 27% porosity, 32 to 65% water saturation. From samples and electric log there appears to be a 2 foot limestone section from 3391 to 3393 with a show of oil and 16% porosity and 24% water saturation. Zone not recommended for testing until the zone is further evaluated in No. 1 Oswald or in future wells.

11-9-17W  
SW NW SW

ARBUCKLE SECTION

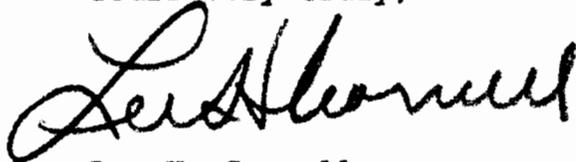
3424 - 3433 Dolomite, medium to coarse crystalline, slightly cherty, fair to good odor, fair show of free oil, fair staining. (Welex log did not reach Arbuckle section.) From samples, the Arbuckle section did not appear to be as well saturated as No. 1 Oswald, but the DST recovery was much better than No. 1 Oswald.

Halliburton DST #3, 3416 - 3433: Open 2 hours, weak, steady blow throughout, recovered 190 feet of clean oil and 60 feet of muddy oil, no water. ICIP 1,043#/ 30 mins.;  
FCIP 1,026#/ 30 mins.;  
IFP 8#  
FFP 85#

COMPLETION PROCEDURE

It is recommended that the well be completed in the Arbuckle and tested for a minimum of 30 days. If the well does not maintain a 25 bbl. daily allowable, it is recommended that the Lansing be tested, commencing with the "L" zone.

Yours very truly,



Lee H. Cornell,  
Petroleum Geologist.

LHC/mlb  
encls.

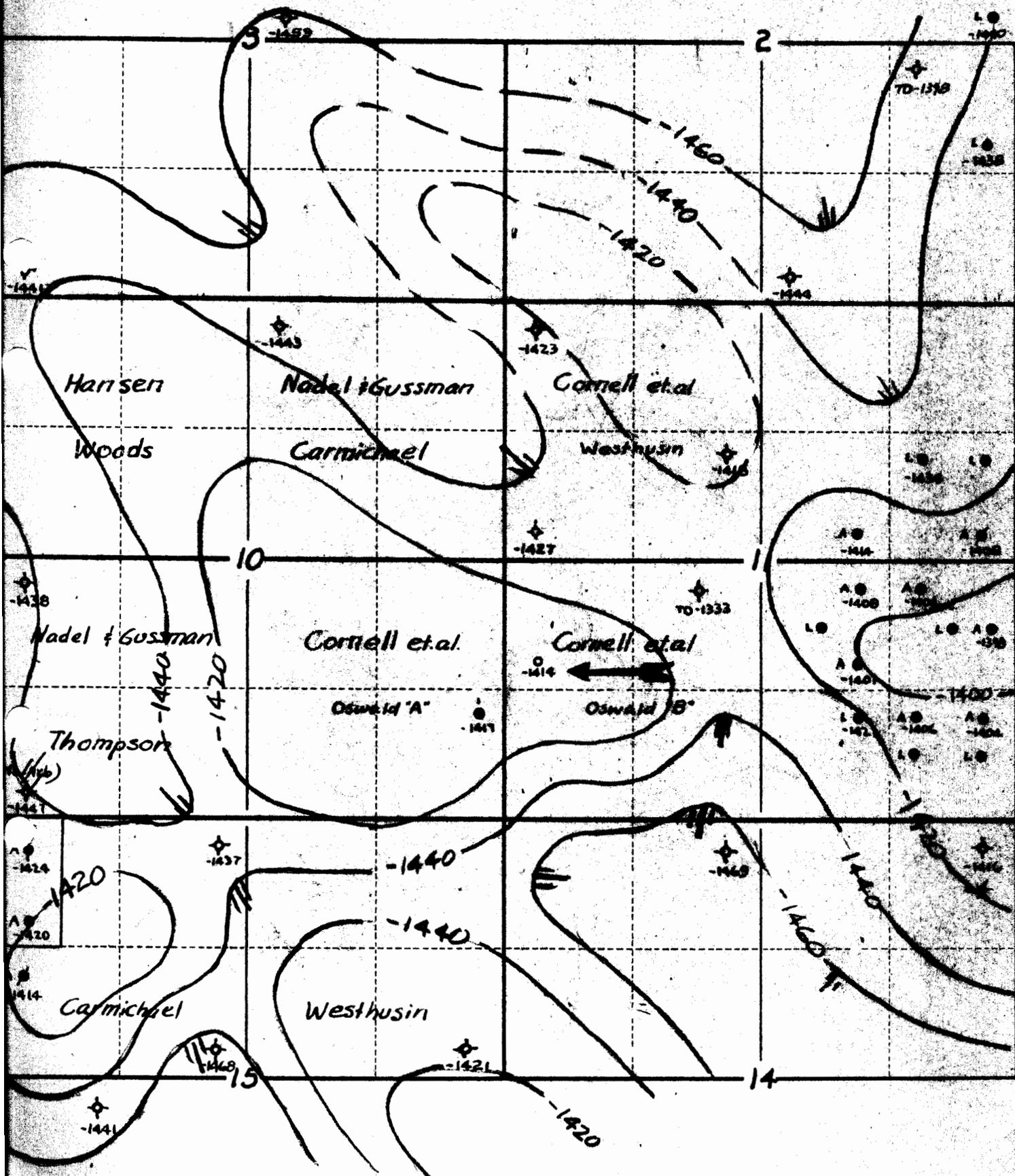


Cornell, et al  
Oswald #2

Top of the Arbuckle  
Contour Interval - 20 ft.

11-9-17W  
SW NW SW  
8-15-62

Township 9 S Range 17W County Rooks State Kansas



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SW NW SW

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Rooks County, Kansas

BIT RECORD

<u>No.</u>	<u>Make</u>	<u>Type</u>	<u>Depth</u>		<u>Footage</u>	<u>Hours</u>
1	Reed	YTL RR	234	- 1281	1047	9 3/4
2	Hughes	OSC RT	1281	1772	491	10 1/4
3	Hughes	OSC RR	1772	2192	420	13 1/2
4	Reed	YTL	2192	2505	313	13 1/4
5	Reed	YTL	2505	2890	385	19 1/2
6	Hughes	OSC	2890	3076	186	16 1/2
7	Security	M4N	3076	3250	174	16 1/2
8	Security	M4N	3250	3434	184	18 3/4

DAILY PROGRESS

April 26 Surface Hole  
April 27 TD 234 W.O.C.  
April 28 Drilling 570  
April 29 " 1850  
April 30 " 2410  
May 1 " 2750  
May 2 " 3040  
May 3 " 3170  
May 4 " 3260  
May 5 "" 3315  
May 6 TD 3434 DST #3

Lost circ. on May 1st at 2899' for 2 3/4 hrs.  
Lost circ. 9:49 A.M., May 4th at 3286'.  
Regained 5:00 A.M., May 5th.  
Total lost circ. time 19 hrs.