

Property of
Kansas Geological Society
540 Petroleum Bldg.
Wichita, Kansas

GEOLOGICAL REPORT

Company: Imperial Drilling Company, Inc.	SW SE NW 4 11S 23W
Farm: Osborn #1	Trego County, Kansas
Contractor: Imperial Drilling Company, Inc.	Elevation: 2306 R.B.
Pool: North Wakeeney	Rotary Total Depth: 3740'

Geological Data:

Samples were examined, by writer, from 3400 to total depth.

Formation Tops:

Top Heebner Shale	3500 -1194
Top Toronto Lime	3521 -1215
Top Lansing-K.C.	3536 -1230
Rotary Total Depth	3740 -1434

Toronto Lime 3521 -1215 Porosity and shows of oil.

3522-27 Tan vuggy fossiliferous, slightly cherty lime.
Fair show of free oil, light odor.

Lansing-K.C. 3536-1230 Porosity and shows of oil.

3537-42 White oolitic lime, light vugular and interoolitic porosity. Show of free oil and light odor. D.S.T. recovered oil and water in the south offset.

3548-58 Tan dense vugular lime, fair to good show of oil and fair odor. D.S.T. in south offset shows no B.H.P., nevertheless this zone shows good possibilities and should be perforated before the hole is abandon.

3572-86 Tan fossiliferous to dense limestone, good vugular and interfossiliferous porosity. 30% vari-colored chert, good show oil, fair odor. D.S.T.

————— D.S.T. 3562-79 Open 1 hour, gas to surface in 13 minutes.
Recovered 2333' gas out oil, no water. FFP 650#,
BHP 1160# in 15 minutes.

The lower part of this zone from 3579-86 was not tested, but from the sample it appeared comparable to the upper part of the zone that was included in the test.

3600-04 Tan fossiliferous lime with fair interfossiliferous porosity. Very faint odor and trace of of free oil.

Geological Report

-2-

#1 Osborn

This zone came in very weak in the samples but what few pieces that was found looked fairly good. This zone should be carefully checked on the Lane-Wells Log and perforated accordingly.

- 3615-22 Tan dense semi-oolitic limestone light vugular porosity, slight stains, no odor.
- 3627-34 White oolitic limestone, oolitic and light vugular porosity. Fair stains, free oil and light odor.
- 3641-46 Tan dense and oolitic limestone, oolitic and vugular porosity. Light show of oil and faint odor.

The two above zones were tested in the #1 Walker and #1 Surmeier. Salt water was recovered in both wells.

- 3680-87 Semi-oolitic to fossiliferous limestone, light vugular and fossiliferous porosity. Trace spotted live oil and dead black stains. No odor.

- 3699-3709 Tan to grey fossiliferous lime, vugular porosity. Show free oil, no odor. D.S.T

————— D.S.T. 3693-3711 Open 1 hour, weak blow 35 minutes. Recovered 30 feet OCM. BHP 160# in 15 minutes still building up.

- 3718-30 Tan dense limestone, good vugular porosity. Show of free oil, faint odor. D.S.T.

————— D.S.T. 3716-31 Open 45 minutes, weak blow 5 minutes. Recovered 6' mud. BHP 0# in 15 minutes.

- 3739-40 Tan grey limestone, light vugular to pinpoint porosity. Show of free oil, no odor.

5 1/2" casing was cemented on bottom at 3740 R.T.D. This bottom zone will be drilled in with cable tools.

IMPERIAL DRILLING COMPANY, INC.

By: Orlin R. Phelps
Orlin R. Phelps, Geologist