

GEOLOGICAL REPORT

~~Imperial Oil of Kansas, Inc.~~ <sup>KCC</sup>  
 Company: Imperial Oil of Kansas, Inc.  
 Farm: Nickelson "A" 4  
 Contractor: Imperial Oil of Kansas, Inc. Rig #2  
 Pool: South Holley

Graham County, Kansas  
 C SW ~~SE~~ <sup>NE</sup> Sec. 15-9S-24W  
 Elevation: 2499 K.B.  
 Rotary Total Depth: 4048'

Rotary Completed: 6-8-58

## Geological Data:

Samples were examined from 3600' to Rotary Total Depth.

## Formation Tops

<u>Sample Tops</u>			<u>Electric Log Tops</u>	
Anhydrite	2148	(+ 351)		
Heebner	3797	(-1298)	3796	(-1297)
Toronto	3821	(-1322)	3820	(-1321)
Lansing	3838	(-1339)	3836	(-1337)
Rotary Total Depth	4048	(-1549)	4047	(-1548)

## Porosity and Shows of Oil

- Toronto 3821 (-1339)  
 3821-25 White fine crystalline slightly fossiliferous cherty dense limestone. No oil show. Fair to poor porosity. Judged no value.
- Lansing 3838 (-1339)  
 3838-50 (Top Zone) White to cream chalky oolitic fine crystalline dense limestone. No oil show. Fair to poor porosity. Judged no value.
- 3865-73 (35' Zone) White to cream very cherty slightly fossiliferous limestone. Fair spotty show free oil. Fair fossiliferous porosity. Perforate.
- D.S.T. #1 3855-75 Open 2 hours. Recovered 195' heavy oil cut mud, BHP 1030#.
- 3880-84 (50' Zone) White to gray fine crystalline dense limestone. No oil show. Poor to very poor porosity. Judged no value.
- 3903-09 (70' Zone) Cream to white oolitic and fossiliferous limestone. Fair to good spotty show free oil. Fair to good pinpoint fossiliferous porosity. Perforate.
- D.S.T. #2 3894-3908 Open 1 hour. Recovered 480' gas, 120' heavy oil cut mud, 120' oil, BHP 1130#.
- 3912-18 (90' Zone) Cream to white oolitic limestone. Fair very spotty show dark free oil. Fair to good fossiliferous porosity. Judged no value.
- D.S.T. #3 3907-20 Open 1 hour. Recovered 690' salt water with specks of oil, BHP 1260#.
- 3920-28 (100' Zone) White to cream slightly chalky fine crystalline dense limestone. No oil show. Poor porosity. Judged no value.

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15-065-01616-0000

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Nickelson "A" 4

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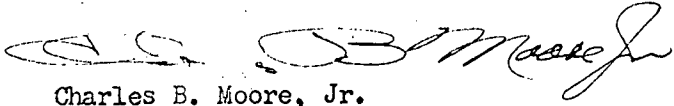
- 3963-70 (140' Zone) Cream to white fossiliferous to dense limestone. Fair to very spotty show light free oil. Fair scattered fossiliferous porosity. Perforate top 2'.
- D.S.T. #4 3957-80 Open 2 hours. Recovered 1245' gas, 200' oil cut mud, 120' salt water, BHP clock failed to function.
- 3985-92 (160' Zone) Cream fine crystalline fossiliferous limestone. Fair spotty show free oil. Fair fossiliferous porosity. Perforate.
- D.S.T. #5 3980-96 Open 1 hour. Recovered 60' heavy oil cut mud, 90' oil, IBHP 470#, FBHP 470#.
- 4004-10 (180' Zone) Cream fine crystalline fossiliferous limestone. Fair spotty show free oil. Fair fossiliferous porosity. Perforate.
- D.S.T. #6 4000-15 Open 1 hour. Recovered 960' gas, 60' very heavy oil cut mud, 180' oil, IBHP 800#, FBHP 770#.
- 4025-27 (200' Zone) White to gray fine crystalline dense limestone. Fair to poor very spotty show free oil. Fair to poor tight porosity. Judged no value.
- 4040-44 (220' Zone) Cream to tan shaly dense fossiliferous limestone. No show. Poor to very poor porosity. Judged no value.
- D.S.T. #7 4013-48 Open 1 hour. Recovered 12' mud, BHP 65#.

Rotary Total Depth 4048' (-1549).

5½" Production Casing set at 4048' on 6-8-58.

Centralizers set at 3754, 3780, 3852, 3890, 3872, 3930, 3972, 4042.

~~New Orleans City Center Service Oil Company~~  
IMPERIAL OIL COMPANY, INC.

  
Charles B. Moore, Jr.  
Geologist

CBM:pcs

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