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FERRELL BUILDING
GREAT BEND, KANSAS

SAMPLE ANALYSIS REPORT

by

V. Richard Hoover

R. ONEY-SIEGFRIED-THOMAS

and

WELCH & OLSSON DRILLING COMPANY, INC.

No. 1 Michaelis

SW SW SE Sec. 20, Twp. 16, Rge. 25W
20

Ness County, Kansas

February 3, 1956

Rooney-Siegfried-Thomas
Box 324
Great Bend, Kansas

Welch & Olsson Drilling Co., Inc.
203 Rule Building
Wichita, Kansas

Gentlemen:

The following is a Sample Analysis Report and Drilling Time Log on your No. 1 Michaelis, Wildcat, Ness County, Kansas.

All formation tops and porosity tops were determined from sample analysis and time log interpretations and are corrected to the rotary bushing measurements.

Samples and drilling time were examined from 3550' to total depth. The well was under geological supervision from 3900' to total depth.

WELL DESCRIPTION

Operator	: Rooney-Siegfried-Thomas	Commenced Drilling:	1/19/56
Farm	: Michaelis	Completed Drilling:	2/2/56
Well No.	: 1	Casing :	8 5/8" @ 157' w/150 sacks
Location	: SW SW SE 20-16-25W	Mud (Good) :	Starch Base
Elevation	: 2585 D. F. 2587 K. B.	Contractor :	Welch & Olsson Rig #2

FORMATION TOPS

Topeka	3592	(-1004)
Heebner	3861	(-1274)
Toronto	3879	(-1292)
Lansing-Kansas City	3901	(-1314)
Base Kansas City	4260	(-1673)
Fort Scott	4411	(-1824)
Conglomerate	4485	(-1898)
Mississippi	4491	(-1904)
Mississippi Dolomite	4520	(-1933)

FORMATION DESCRIPTION

TOPEKA 3592 (-1004): All zones of porosity within this section were void of any shows of oil.

HEEBNER 3861 (-1274): Black fissle shale.

TORONTO 3879 (-1292): Tan to cream, fine crystalline limestone in part cherty, fossiliferous, fair scattered porosity throughout, no shows of oil.

LANSING-KANSAS CITY 3901 (-1314): The following zone of porosity was noted within this section:

4013-35 Limestone, tan to buff, coarsely oolicastic, oolitic, good vugular porosity, trace buff opaque chert, no odor, no free oil, no staining.

BASE KANSAS CITY 4260 (-1673)

FORT SCOTT 4411 (-1824):

4411-36 Limestone, buff to grey, fine crystalline-dense, trace poor porosity; also, some white chalky-fossiliferous limestone; light staining, trace free oil in wet sample, no odor.

Drill Stem Test #1
Miller-Donelson Tool
Depth: 4413-39
Tool Open 30 minutes - Shut In 30 minutes
Blow: Weak for nine minutes, then died, flushed tool.
Recovery: 30' drilling mud, no shows of oil
Initial Flow Pressure: 0#, Final Flow Pressure: 0#
Bottom Hole Pressure: 900# (still building)

CONGLOMERATE 4485 (-1898): Chert, yellow, buff, orange, sub-translucent to opaque, no staining, no shows of oil.

MISSISSIPPI 4491 (-1904):

4491-4508 Chert, tan-buff, opaque, fairly fresh, sharp, trace dark staining throughout, trace free oil in wet sample, no odor, oil looks heavy and in part dead, trace tan to buff crystalline limestone.

Drill Stem Test #2
Miller-Donelson Tool
Depth: 4488-4503
Tool Open 30 minutes - Shut In 30 minutes
Blow: Weak for five minutes, then died, flushed tool
Recovery: 31' drilling mud
Initial Flow Pressure: 0#; Final Flow Pressure: 0#
Bottom Hole Pressure: 0#

4508-20 Limestone, tan-cream, coarsely crystalline limestone with above chert; also, trace green to grey shale, no shows of oil in limestone; staining still present in chert.

MISSISSIPPI DOLOMITE 4520 (-1933):

4520-30 Dolomite, tan-buff, fine crystalline, sucrosic, dense, tight, poor pinpoint porosity, good odor, show free oil in wet sample, fair staining.

MISSISSIPPI DOLOMITE - continued -

Drill Stem Test #3
Miller-Donelson Tool
Depth: 4503-4530
Tool Open 1 hour - Shut in 1 hour
Blow: Weak for twenty minutes, then died, flushed tool
Recovery: 30' drilling mud, no shows
Initial Flow Pressure: 0#; Final Flow Pressure: 0#
Bottom Hole Pressure: 1080#

4530-44 Dolomite, tan-buff, fine crystalline, sucrosic, dense, fairly tight, trace poor pinpoint porosity, good odor, increase in show of free oil, larger percent staining; also, some coarsely crystalline dolomite, trace tan to buff opaque, fresh, hard, chert.

Drill Stem Test #4
Miller-Donelson Tool
Depth: 4530-44
Tool Open 30 minutes - Shut in 1 hour
Blow: Weak for six minutes, then died; flushed tool, blew for two minutes, then died
Recovery: 30' drilling mud, no shows.
Initial Flow Pressure: 0#; Final Flow Pressure: 0#
Bottom Hole Pressure: 1300#

4544-52 Dolomite, tan-buff, fine crystalline sucrosic, increase in pinpoint porosity, fair saturation throughout, good odor, free oil in wet sample, increase in white opaque fresh chert.

4552-55 Dolomite, as above, more dense.

4555-65 Dolomite, fine crystalline, decrease in free oil; light odor, decrease in staining, trace white opaque, fresh chert; also, some white soft chalky limestone.

Drill Stem Test #5
Miller-Donelson Tool
Depth: 4544-65
Tool Open 1½ hours - Shut in 1 hour
Blow: Weak, steady throughout
Recovery: 230' salt water, no shows
Initial Flow Pressure: 0#; Final Flow Pressure: 120#
Bottom Hole Pressure: 1150#

4565-75 Dolomite, as above, very scattered staining, no odor, slight trace free oil in wet sample; fair to good porosity, definitely water bearing.

Total Depth: 4575' (-1988)

RECOMMENDATIONS AND COMMENTS

1. All formations to the top of the Fort Scott Limestone were void of any shows of oil.

2. There was a very light show of oil in the top 39' of the Fort Scott; Drill Stem Test #1 covered this section, the results being negative.

3. The Mississippi Chert and Limestone section had dark heavy shows of oil within the chert; this section was covered by Drill Stem Test #2, the results being negative.

4. The Mississippi Dolomite was encountered structurally 6' higher than the Rooney-Siegfried-Thomas #1 McClean, 1 mile east, and carried good shows of oil in the top 32'; however, the dolomite was tight, dense and had very poor porosity. Drill Stem Tests #3 and #4 covered this section, only drilling mud recovered on these tests, with no shows of oil.

5. The porous zone from 4555-60 appeared to be water bearing, this was verified by Drill Stem Test #5, which covered this section, the results being 230' salt water with no shows of oil.

6. The well was recommended to be plugged and abandoned at a total depth of 4575' on the above statement of facts.

Respectfully submitted,

V. Richard Hoover

V. Richard Hoover, Geologist

VRH/ds

Rooney-Siegfried-Thomas, Box 324, Great Bend, Ks.
and
Welsh & Olsson Drlg. Co., 203 Rule Bldg., Wichita, Ks.

No. 1 Michaelis
SW SW SE Sec. 20-16-25W
Ness County, Kansas

DRILLING TIME LOG

Depth From-To	Time	Remarks
3550-60	4 3 3 4 3 4 2 2 1 2	
70	3 3 3 3 3 3 2 3 3 3	
80	3 2 1 2 2 3 3 4 6 4	
90	2 3 4 3 2 3 2 3 2 2	
3600	3 2 3 4 2 4 3 3 2Sr 4SR	
10	4 4 4 4 5 4 3 4 4 4	
20	5 4 3 4 4 4 3 4 4 4	
30	3 4 4 2 2 1 1 1 1 2	
40	1 1 1 1 1 3 3 3 2 2	
50	1 1 2 1 1 1 1 1 1 1	
60	1 2 3 4 2 3 2 2 3 4	
70	3 4 4 3 4 3 2 2 2 2	
80	4 5 3 4 5 5 5 4 3 2	
90	3 2 3 2 3 5 5 4 4 5	
3700	4 3 2 1 2 2 2 1 1 1	
10	1 1 3 3 3 5 4 3 3 2	
20	1 3 2 2 2 2 3 3 3 4	
30	5 4 4 4 2 4 3 3 4 4	
40	3 2 3 4 4 2 3 3 3 4	
50	4 4 4 4 4 4 3 4 4 5	
60	5 5 6 3 2 3 5 6 5 5	
70	5 4 3 3 2 3 3 2 3 3	
80	4 6 4 3 3 4 5 7 5 6	
90	6 5 3 6 7 9 7 8 8 9	
3800	7 5 5 10 7 8 9 10 7 7	
10	2 3 3 3 4 4 6 6 7 10	
20	6 6 3 4 3 5 6 7 5 5	
30	6 4 3 4 4 4 4 5 6 6	
40	6 5 6 4 4 3 4 4 5 5	
50	5 6 5 6 8 6 7 6 6 4	
60	5 5 5 4 5 5 5 5 6 8	
70	8 7 6 7 8 9 9 8 6 6	Trip @ 3867'.
80	5 5 4 4 4 3 3 4 3 4	
90	5 6 4 4 3 3 3 6 6 6	
3900	6 5 5 7 7 4 4 5 4 4	
10	5 5 5 5 4 3 3 3 4 6	
20	4 3 3 3 3 4 4 3 4 7 SR	
30	8 10 8 6 7 4 6 5 4 8	
40	8 10 8 14 11 7 4 7 7 8	
50	6 7 8 7 9 8 11 8 9 5	
60	9 11 9 8 9 11 10 8 8 6	
70	8 5 5 6 5 6 9 11 12 12	
80	11 10 14 9 8 10 10 14 8 9	
90	10 10 12 12 7 8 11 9 9 9	
4000	8 9 9 11 13 11 12 13 12 13	

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DRILLING TIME LOG

Depth From-To	Time	Remarks
4000-10	10 9 11 11 13 12 10 11 12 13	
20	10 12 10 2 1 1 1 ½ ½ 1	
30	2 2 2 4 3 6 7 3 2 2	
40	1 ½ ½ ½ 3½ 10 10 11 11 13	
50	9 8 8 9 10 9 9 7 8 8	
60	9 10 11 11 8 6 6 5 5 6	Trip @ 4053'.
70	6 7 8 10 12 6 4 7 7 5	
80	8 6 5 5 5 5 5 6 6 6	
90	5 4 5 3 6 9 10 9 12 9	
4100	11 11 12 10 11 6 8 4 9 10	
10	4 4 7 5 7 6 5 5 8 9	
20	7 6 7 7 6 6 8 9 9 9	
30	8 9 10 10 8 9 8 4 4 7	
40	6 2 7 5 8 10 12 9 12 10	
50	10 10 11 11 10 10 10 11 10 9	
60	10 8 SSR 8 9 11 10 11 10 12	
70	12 8 8 6 7 10 12 13 13 12	
80	10 12 11 10 9 12 11 10 11 9	
90	11 13 12 15 13 9 10 6 6 6	
4200	9 18 16 8 7 6 15 16 15 12	
10	8 9 7 7 9 12 13 12 16 9	
20	9 9 8 15 10 8 9 8 9 6	Trip @ 4214'.
30	9 9 7 5 5 9 8 8 8 9	
40	6 5 6 5 4 4 5 5 4 4	
50	5 9 8 7 9 10 5 5 5 6	
60	8 8 6 7 5 8 8 8 8 8	
70	6 6 8 10 10 9 8 8 6 6	
80	6 5 9 9 8 9 8 10 9 7	
90	7 7 6 5 6 5 9 11 9 8	
4300	8 8 11 12 11 11 9 11 12 11	
10	12 12 9 5 5 10 11 13 14 11	
20	10 10 11 9 10 10 11 10 11 11	
30	12 12 11 11 10 9 9 10 9 9	
40	10 9 8 7 8 11 11 9 10 10	
50	9 10 10 10 10 11 12 10 11 11	
60	9 10 10 10 9 11 10 10 9 10	
70	10 10 9 8 9 9 10 10 10 10	
80	8 9 9 9 8 10 10 8 8 9	
90	8 9 9 14 17 18 20 12 13 12	Trip @ 4387'.
4400	12 10 10 11 11 10 9 11 8 8	
10	10 8 9 6 7 5 5 3 4 3	
20	6 6 7 7 10 10 9 11 12 11	
30	11 9 8 10 9 8 4 5 10 10	
40	7 6 5 12 11 10 9 8 7 6	Circ. for Samples & DST @4439'.
50	4 7 8 10 10 8 7 8 7 7	
60	5 8 8 7 8 9 7 8 7 9	
70	9 8 5 7 8 9 7 7 11 9	

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DRILLING TIME LOG

Depth From-To	Time	Remarks
4470-80	9 9 8 13 12 8 8 9 8 12	
90	10 9 11 10 11 10 9 7 5 6	
4500	4 8 8 8 7 9SR 11 8R 11 14	
10	14 10 11 9 6 6 7 6 8 8	Circ. for spls. @ 4503'.
20	9 10 11 8 7 8 11 9SR 10VSR 12	Circulate @ 4515'.
30	7 8 5 3 8 6 6 6 4 3	Circ. for spls. @ 4525' & 4530'.
40	7VSR 6 5 7 7 6 10 16 13 9	Circ. for spls. @ 4540'.
50	5 5 6SR 14SR 4 4 5 5SR 3 5	Circ. for spls. @ 4544'.
60	5 7 12 15 10 4 3 4 4 7	Circulate @ 4555'.
70	9 9 12 15 14 5 3 3 2 2	Circulate @ 4565'.
75	2 3 3 4 7	Circulate @ 4575'.
		Total Depth: 4575'.