

8-9s-25w  
ORIGINAL

REPORT COPY

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# GEOLOGICAL REPORT

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**RUSSELL OIL, INC.**  
15-065-23038

NO. 1 WAGGONER *NO. 1-8*  
330' FNL & 1210' FWL  
Section 8-9S-25W  
Graham County, Kansas

*N2 N2 NW*

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OPERATOR: Russell Oil, Inc.

WELL: No. 1 Waggoner  
API # 15-065-23,038-00-00

LOCATION: 330' from the North Line  
1210' from the West Line  
Section 8-9S-25W  
Graham County, Kansas

FIELD: Wildcat

CONTRACTOR: Southwind Drilling, Inc., Rig No. 1

DRILLING COMMENCED: 3-08-2005

DRILLING COMPLETED: 3-15-2005

DRILLING TIME: One (1) foot drilling time was recorded  
from 3500' to 4150' RTD.

SAMPLES: Samples were saved and examined from 3600'  
to 4150' RTD.

ELEVATIONS: 2576' Ground Level 2586' Kelly Bushing

MEASUREMENTS: All depths are measured from 2586' K.B.

CASING RECORD: 8 5/8" Surface Casing set @ 258' with 175 sxs. 60/40 poz

FORMATION TESTING: Two (2) tests were run by Trilobite Testing, Inc.  
Brandon Turley, Tester

MUD: Mud-Co. (Chemical Mud)

OPEN HOLE LOGS: Log-Tech (CNL-CDL, DIL)

PRODUCTION: D & A

## FORMATION TOPS:

| FORMATION          | SAMPLE | LOG   | DATUM  |
|--------------------|--------|-------|--------|
| ANHYDRITE          | 2283'  | 2284' | + 302' |
| BASE ANHYDRITE     | 2318'  | 2318' | + 268' |
| TOPEKA             | 3620'  | 3620' | -1034' |
| HEEBNER SHALE      | 3831'  | 3830' | -1244' |
| TORONTO            | 3853'  | 3854' | -1268' |
| LANSING            | 3867'  | 3870' | -1284' |
| MUNCIE CREEK       | 3984'  | 3983' | -1397' |
| STARK SHALE        | 4053'  | 4054' | -1468' |
| BASE KANSAS CITY   | 4094'  | 4095' | -1509' |
| ROTARY TOTAL DEPTH | 4150'  | 4150' | -1564' |
| LOG TOTAL DEPTH    | 4150'  | 4150' | -1564' |

## SAMPLE DESCRIPTIONS AND TEST DATA:

## TORONTO:

3854-3862 Limestone, tan and gray, very finely crystalline, chalky, slightly fossiliferous, white opaque chert, no shows of oil were noted.

## LANSING:

3870-3877 Limestone, white and tan, oolitic, finely crystalline, chalky, poor visible porosity, no shows of oil were noted.

3898-3906 Limestone, white and gray, oolitic and slightly fossiliferous, poor visible interparticle porosity, brown to black scattered staining and saturation, slightly chalky, light odor. (Covered by D.S.T. No. 1)

**FORMATION TEST NO. 1**

Lansing-K.C ('C' Zone)  
 Tested from 3890'-3911'

|  |         |                 |             |
|--|---------|-----------------|-------------|
|  |         | I.H.P.          | 1952#       |
| <i>Weak 1/4" blow, died in 13 min.</i> | 30 min. | I.F.P.          | 12# -16#    |
| <i>No blow back</i>                    | 30 min. | <u>I.S.I.P.</u> | <u>881#</u> |
| <i>No blow</i>                         | 30 min. | F.F.P.          | 17# -18#    |
| <i>No blow back</i>                    | 30 min. | F.S.I.P.        | <u>179#</u> |
|  |         | F.H.P.          | 1920#       |

(SEE PRESSURE CHARTS AT END OF REPORT)

RECOVERY: 5' Oil Cut Mud

TEMPERATURE: 111\*

CHLORIDES: N/A ppm (Recovery) 1,100 ppm (System)

3912-3920 Limestone, white and gray, finely crystalline, mostly dense, oolitic in part, rare scattered, spotted staining, poor visible porosity, chalky in part, no show of free oil, no odor.

3936-3940 Limestone, white and tan, finely crystalline, slightly oolitic, with poor visible interparticle porosity, very shaley, no shows of oil were noted.

3943-3948 Limestone, white and tan, finely crystalline, slightly oolitic, poor visible interparticle porosity, trace of scattered staining, very slight show of free oil on break, no odor. (Covered by D.S.T. No. 2)

**FORMATION TEST NO. 2**

Lansing-K.C ('F' Zone)  
 Tested from 3926'-3950'

|  |         |                 |              |
|--|---------|-----------------|--------------|
|  |         | I.H.P.          | 1982#        |
| <i>Weak 1/4" blow, died in 10 min.</i> | 30 min. | I.F.P.          | 13# -16#     |
| <i>No blow back</i>                    | 30 min. | <u>I.S.I.P.</u> | <u>1123#</u> |
| <i>No blow</i>                         | 30 min. | F.F.P.          | 17# -20#     |
| <i>No blow back</i>                    | 30 min. | F.S.I.P.        | <u>1097#</u> |
|  |         | F.H.P.          | 1929#        |

(SEE PRESSURE CHARTS AT END OF REPORT)

RECOVERY: 5' Mud with Oil Spots

TEMPERATURE: 111\*

CHLORIDES: N/A ppm (Recovery) 2,100 ppm (System)

3999-4005 Limestone, white and cream, dense, very finely crystalline, oolitic and fossiliferous, chalky, poor visible porosity, rare scattered staining, no show of free oil, no odor.

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- 4024-4031 Limestone, white and tan, dense, finely crystalline, chalky, slightly oolitic, poor visible porosity, rare scattered staining, no show of free oil, no odor.
- 4042-4052 Limestone, tan and gray, very finely crystalline, slightly oolitic, very poor visible interoolitic porosity, chalky, no shows of oil were noted.
- 4062-4072 Limestone, white and gray, very finely crystalline, chalky, dense, poor visible porosity, no shows of oil were noted.

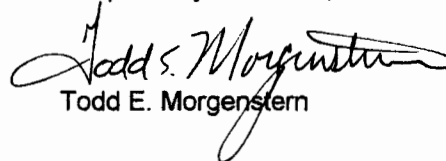
STRUCTURAL COMPARISION:

|                  | <b>Russell Oil<br/>Waggoner #1-8<br/>330' FNL &amp; 1210' FWL<br/>Sec. 8-9S-25W<br/>D&amp;A</b> | <b>Sage Drilling<br/>Bittel #1<br/>NE-SW-SW<br/>Sec. 5-9S-25W<br/>D&amp;A</b> | <b>Burch Drilling<br/>Kraus #1<br/>C-NE-NW<br/>Sec. 8-9S-25W<br/>D&amp;A</b> |
|------------------|---|---|--|
| ANHYDRITE        | + 302'  | + 295'  | + 306'   |
| BASE ANHYDRITE   | + 268'  | N/A   | N/A  |
| TOPEKA           | -1034'  | N/A   | N/A  |
| HEEBNER SHALE    | -1244'  | -1250'  | -1250'   |
| TORONTO          | -1268'  | -1272'  | -1272'   |
| LANSING          | -1284'  | -1286'  | -1287'   |
| STARK            | -1468'  | -1478'  | N/A  |
| BASE KANSAS CITY | -1509'  | -1522'  | -1523'   |

SUMMARY:

The No. 1 Waggoner was under geological supervision from 3500' to 4150' RTD. Due to the lack of reservoir development and negative results of two drill stem tests, it was recommended that this well be plugged and abandoned.

Respectfully submitted,

  
Todd E. Morgenstern