

**JAMES C. MUSGROVE**

Petroleum Geologist  
P.O. Box 1162  
Great Bend, KS 67530

Office (620) 792-7716

Res. Claflin (620) 587-3444

RJM Oil Company  
Rous "F" #1  
40' South & 30' West N/2-NE; Section 32-16s-11w  
Barton County, Kansas  
Page No. 1

15-009-24919-00-00

**5 1/2" Production Casing Set**

**Contractor:** Warren Drilling Company

**Commenced:** April 14, 2006

**Completed:** April 22, 2006

**Elevation:** 1896' K.B.; 1894' D.F.; 1887' G.L.

**Casing Program:** Surface; 8 5/8" @ 411'  
Production; 5 1/2" @ 3425'

**Samples:** Samples saved and examined 2600' to the Rotary Total Depth.

**Drilling Time:** One (1) foot drilling time recorded and kept 2600' to the Rotary Total Depth.

**Measurements:** All depths measured from the Kelly Bushing.

**Formation Testing:** None.

**Electric Log:** By Log Tech; Dual Induction, Dual Compensated Porosity Log, Microresistivity Log and Borehole Compensated Sonic Log.

<u>Formation</u>	<u>Log Depth</u>	<u>Sub-Sea Datum</u>
Anhydrite	748	+1148
Topeka	2647	-751
Heebner	2932	-1036
Toronto	2950	-1054
Douglas	2961	-1065
Douglas Sand	2978	-1082
Brown Lime	3029	-1133
Lansing	3049	-1153
Base Kansas City	3301	-1405
Arbuckle	3316	-1420
Reagan Sand	3376	-1480
Rotary Total Depth	3426	-1530
Log Total Depth	3428	-1532

(All tops and zones corrected to Electric Log measurements).

RECEIVED  
AUG 04 2006  
KCC WICHITA

**SAMPLE ANALYSIS, SHOWS OF OIL, TESTING DATA, ETC.****TOPEKA SECTION**

2860-2870' Limestone; gray, white, fossiliferous, granular, chalky, trace poor stain, no show of free oil or odor in fresh samples.

2875-2890' Limestone; cream, white, sub oomoldic, chalky, brown and golden brown stain, trace of free oil and no odor in fresh samples.

2900-2910 Limestone; cream, gray, finely crystalline, granular, chalky, scattered pinpoint porosity.

**TORONTO SECTION**

2950-2960' Limestone; cream, white, finely crystalline, fossiliferous, slightly chalky, brown spotty stain, no show of free oil and questionable odor in fresh samples.

**DOUGLAS SECTION**

2978-2996' Sand; tan, gray, very fine grained, sub rounded, friable, fair intergranular porosity, calcareous in part, fair golden brown stain and saturation, show of free oil and fair odor in fresh samples.

**LANSING SECTION**

3049-3054' Limestone; gray, white, oomoldic, fair oomoldic porosity, dark brown to brown stain, show of free oil and fair odor in fresh samples.

3076-3081' Limestone; cream, white, oolitic, chalky, brown to gray and dark brown stain, trace of free oil and faint odor in fresh samples.

3098-3104' Limestone; gray, fossiliferous, chalky, dull gray to brown edge staining, no show of free oil or odor in fresh samples.

3130-3140' Limestone; cream, gray, oomoldic, fair to good oomoldic porosity, dark brown stain, show of free oil and fair to good odor in fresh samples.

3140-3162' Limestone; gray, oolitic, oomoldic, good oomoldic porosity, no shows.

3196-3202' Limestone; cream, oolitic, sub oomoldic, scattered porosity, trace questionable stain, show of free oil or odor in fresh samples.

3220-3236' Limestone; tan, gray. Fossiliferous, few oomoldic, poor visible porosity, no shows.

3264-3272' Limestone; gray, tan, finely crystalline, fossiliferous, poorly developed porosity, trace light brown stain, no show of free oil or odor in fresh samples.

3296-3301' Limestone; tan, fossiliferous, medium crystalline, chalky, no shows.

**ARBUCKLE SECTION**

3316-3322' Dolomite; white, cream, finely crystalline, slightly sandy, poor visible porosity, trace spotty stain, no show of free oil and faint odor in fresh samples.

3322-3330' Dolomite; cream, white, clear, fine to medium crystalline, trace spotty brown stain, trace of free oil and faint odor in fresh samples.

3330-3340' Dolomite; as above, sandy, spotty stain, trace of free oil and faint odor in fresh samples

RECEIVED

AUG 04 2006

KCC WICHITA

- 3342-3350' Dolomite; white, tan, finely crystalline, sandy, fair intercrystalline porosity, brown golden brown stain, show of free oil and fair to good odor in fresh samples.
- 3350-3360' Dolomite; tan, white, finely crystalline, sucrosic, highly sandy, fair intercrystalline porosity, light brown and golden brown stain, show of free oil and good odor in fresh samples.
- 3360-3376' Dolomite; as above, plus loose unconsolidated quartz grains.

**REAGAN SECTION**

- 3376-3386' Sand; white, clear, sub rounded, friable, fair to good intergranular porosity, trace brown stain, show of free oil, plus trace dolomite, white, sucrosic, highly sandy, fair light brown stain and saturation, show of free oil and good odor in fresh samples.
- 3386-3400' Sand; white, clear, very fine grained, sub rounded to rounded, fair to good sorting, friable, fair to good intergranular porosity, trace brown and golden brown stain, show of free oil and good odor.
- 3400-3426' Sand; as above.

**Rotary Total Depth 3426 (-1530)**  
**Log Total Depth 3428 (-1532)**

**Recommendations:**

5 1/2" production casing was set and cemented at 3425' (one foot off bottom) and the following zones be tested in the Rouse "F" #1:

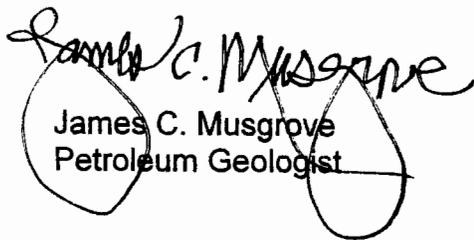
- |                 |           |           |
|-----------------|-----------|-----------|
| 1. Arbuckle     | 3343-3346 | perforate |
| 2. Arbuckle     | 3317-3320 | perforate |
| 3. Lansing 'G'  | 3131-3134 | perforate |
| 4. Lansing 'A'  | 3050-3053 | perforate |
| 5. Douglas Sand | 2980-2994 | perforate |

RECEIVED

AUG 04 2006

KCC WICHITA

Respectfully submitted;

  
James C. Musgrove  
Petroleum Geologist

