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Globe Operating

Ivan #1

5' North & 20' West, E/2-NE-SE; Section 20-31s-11w

Barber County, Kansas

Page No. 1

15-007-22958-00-00

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

**Contractor:** Southwind Drilling Company (Rig #2)

**Commenced:** January 2, 2006

**Completed:** January 11, 2006

**Elevation:** 1708' K.B.; 1706' D.F.; 1698' G.L.

**Casing Program:** Surface; 8 5/8" @ 360'  
Production; 5 1/2" @ 4785'

**Samples:** Samples saved and examined 2300' to the Rotary Total Depth.

**Drilling Time:** One (1) foot drilling time recorded and kept 2300' to the Rotary Total Depth.

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

**Formation Testing:** There were three (3) Drill Stem Tests ran by Superior Testers Enterprises Inc.

**Electric Log:** By Log Tech; Dual Induction, Compensated Density/Neutron, Sonic and Micro Log.

**Gas Detector:** By MBC Well Logging.

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<u>Formation</u>	<u>Log Depth</u>	<u>Sub-Sea Datum</u>
Elgin Sand	3551	-1843
Heebner	3673	-1965
Lower Douglas Sand	3795	-2087
Brown Lime	3869	-2161
Lansing	3883	-2175
Base Kansas City	4342	-2634
Mississippian	4449	-2741
Kinderhook Shale	4556	-2848
Viola	4701	-2993
Simpson Sand	4784	-3076
Rotary Total Depth	4788	-3080
Log Total Depth	4787	-3079

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

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

3552-3590' Sand; gray, light gray, very fine grained, few medium grained, sub rounded, friable, calcareous, micaceous, trace gas bubbles, no gas kick.

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3590-3610' Sand; as above, plus gray grayish green silty shale.

**DOUGLAS SECTION**

3690-3700' Sand; very fine grained, micaceous, poorly developed porosity, no shows.

3700-3730' Sand; as above, silty, poorly developed.

3730-3752' Sand; as above, few friable, questionable gas bubbles, no stain, no fluorescence, no gas "kick".

3793-3810' Sand; gray, light gray, fine to medium crystalline, sub rounded, friable, fair to good intergranular porosity, micaceous, trace gas bubbles, no stain, no fluorescence, no gas "kick".

3825-3852' Sand; as above, friable, friable to good intergranular porosity, no shows.

**LANSING SECTION**

3884-3890' Limestone; gray, white, fossiliferous, trace fossil casts to sub oomoldic porosity, no shows.

Limestone; gray, tan, fossiliferous, chalky, trace tan and white fossiliferous chert.

3896-3910' Limestone; tan, gray, finely crystalline, fossiliferous in part, poor visible porosity, no shows.

3918-3930' Limestone; buff/tan, fossiliferous, few oolitic, oomoldic in part, poorly developed fossil cast to oomoldic porosity, no shows.

3932-3938' Limestone; tan, gray, fossiliferous, chalky.

3944-3982' Limestone; as above, plus brown, tan, boney, opaque chert.

4002-4010' Limestone; tan, fossiliferous, scattered fossil cast porosity, chalky, no shows.

4014-4022' Limestone; as above.

4030-4036' Limestone; tan, brown, finely crystalline, fossiliferous, few granular, chalky in part, no shows.

4060-4066' Limestone; tan, fossiliferous, oolitic in part, chalky, plus gray, tan chert.

4084-4096' Limestone; tan, oolitic, sub oomoldic, scattered oomoldic porosity, no shows.

4109-4124' Limestone; tan, buff, oomoldic, fair to good oomoldic porosity (barren).

4139-4149' Limestone; tan, gray, slightly fossiliferous, chalky, scattered porosity, no shows.

4163-4174' Limestone; as above, plus gray, white, opaque chert.

4180-4200' Limestone; as above.

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- 4206-4214' Limestone; tan, brown, finely crystalline, slightly fossiliferous, cherty in part, no shows.
- 4230-4238' Limestone; brown, tan, fossiliferous, slightly cherty, poor visible porosity, no shows.
- 4254-4270' Limestone; gray, white, slightly fossiliferous, chalky, poor visible porosity, plus gray and white chert.
- 4286-4292' Limestone; tan, brown, finely crystalline, chalky, increasingly cherty, poor visible porosity, no shows.
- 4306-4316' Limestone; gray, white, chalky, few fossiliferous, dense, plus white and gray chert.

**MISSISSIPPIAN SECTION**

- 4449-4460' Chert; white, gray, semi-tripolitic, fair pinpoint to finely vuggy porosity, brown to golden brown to black stain, trace of free oil (500 unit gas kick).
- 4460-4470' Chert; white, clear, gray, boney, vitreous, black edge staining.
- 4470-4486' Chert; as above, brown to black edge staining, show of free oil and no door in fresh samples.

**Drill Stem Test #1 4425-4486'**

**Times: 30-45-60-60**

**Blow: Strong, gas to surface 30 seconds into final flow  
Gas gauged as follows;**

10 minutes	15,900 cfgpd
20 minutes	27,600 cfgpd
30 minutes	28,500 cfgpd
40 minutes	28,000 cfgpd
50 minutes	27,600 cfgpd
60 minutes	27,600 cfgpd

**Recovery: 30' oil and gas cut mud  
(5% oil, 95% mud)  
120' heavy oil cut watery mud  
(28% oil, 50% mud, 22% water)**

**Pressures: ISIP 913 psi  
FSIP 1102 psi  
IFP 180-103 psi  
FFP 99-120 psi  
HSH 2269-2288 psi**

- 4490-4510' Limestone; white, finely crystalline, fossiliferous/oolitic, chalky increasingly cherty, plus tan chert.
- 4510-4540' Limestone; gray, white, tan, fine to medium crystalline, chalky.
- 4540-4546' Chert; white, clear, boney, translucent, trace gray, black stain, no show of free oil or odor in fresh samples.
- 4546-4556' Limestone; white, gray, tan, fine to medium crystalline.

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**VIOLA SECTION**

- 4701-4712' Limestone; cream, white, fine to medium crystalline, chalky, trace tan, sucrosic, dolomite, few granular, fair porosity, no shows.
- 4712-4720' Limestone; and dolomite, as above, trace chert, tan gray, boney, trace gas bubbles.
- 4720-4744' Chert and limestone; as above.

**Drill Stem Test #2** **4709-4746'**

**Times:** 30-30-30-30

**Blow:** Weak, died in 12 minutes

**Recovery:** 15' mud

**Pressures:** ISIP 50 psi  
FSIP 45 psi  
IFP 25-28 psi  
FFP 31-33 psi  
HSH 2424-2341 psi

- 4744-4784' Limestone; and chert as above, no shows.

**SIMPSON SECTION**

- 4784-4788' Sand; clear, gray, quartzitic, fine to medium grained, sub rounded, few sub angular, friable, fair to good intergranular porosity, spotty brown stain, show of free oil and faint odor, samples broken (30 unit gas increase).

**Drill Stem Test #3** **4761-4788'**

**Times:** 30-45-45-60

**Blow:** Weak to strong  
Gas to surface 18 minutes final flow;  
Gas gauged as follows;  
20 minutes 10,700 cfgpd  
30 minutes 9,450 cfgpd  
40 minutes 7,980 cfgpd  
45 minutes 7,140 cfgpd

**Recovery:** 330' muddy frothy oil

**Pressures:** ISIP 1434 psi  
FSIP 1522 psi  
IFP 21-88 psi  
FFP 62-104 psi  
HSH 2444-2387 psi

Rotary Total Depth 4788 (-3080)  
Log Total Depth 4787 (-3079)

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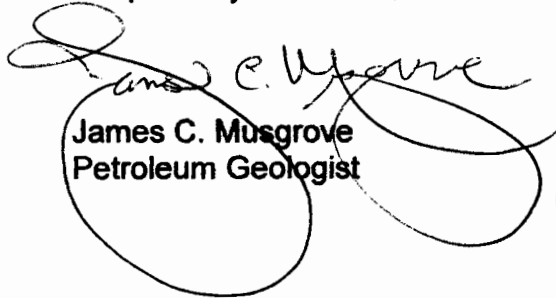
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**Recommendations:**

On the basis of the favorable structural position and the positive results of Drill Stem Test #1 and #3, it was recommended to set and cement 5 1/2" production casing at 4785' (3 foot off bottom) and the Ivan #1 be completed in the Simpson Sand by "open hole" completion methods. Before abandonment the following zones should be tested:

1. Mississippian 4468-4474
2. Mississippian 4462-4466
3. Mississippian 4450-4458

Respectfully submitted;

  
James C. Musgrove  
Petroleum Geologist

