

15-009-2483

15-19s-14w

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Globe Operating Inc.  
Dunekack #1  
33' North W/2-NW-SW; Section 15-19s-14w  
Barton County, Kansas  
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RECEIVED  
JUN 10 2005  
KCC WICHITA

**4 1/2" Production Casing Set**

- Contractor:** Discovery Drilling Company (Rig #2)
- Commenced:** April 12, 2005
- Completed:** April 20, 2005
- Elevation:** 1899' K.B.; 1897' D.F.; 1891' G.L.
- Casing Program:** Surface; 8 5/8" @ 840'  
Production; 4 1/2" @ 1850'
- Samples:** Samples saved and examined 1750' to the Rotary Total Depth.
- Drilling Time:** One (1) foot drilling time recorded and kept 175 to the Rotary Total Depth.
- Measurements:** All depths measured from the Kelly Bushing.
- Formation Testing:** There were four (4) Drill Stem Tests ran by Diamond Testing Co.
- Electric Log:** By Log Tech; Dual Induction Log and CNL/CDL.
- Gas Detector:** By MBC Well Logging.

<u>Formation</u>	<u>Log Depth</u>	<u>Sub-Sea Datum</u>
Anhydrite	830	+1069
Herington	1730	+167
Winfield	1783	+116
Towanda	1865	+34
Neva	2249	-350
Red Eagle	2311	-412
Tarkio	2600	-701
Topeka	2796	-897
Heebner	3726	-1227
Toronto	3148	-1249
Douglas	3163	-1264
Brown Lime	3218	-1319
Lansing	3233	-1334
Base Kansas City	3456	-1557
Conglomerate	3470	-1571
Conglomerate Sand	3481	-1582
Conglomerate Chert	3501	-1602
Rotary Total Depth	3560	-1661
Log Total Depth	3558	-1659

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

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

**HERINGTON SECTION**

- 1732-1750' Dolomite; tan, gray, finely crystalline, sucrosic, scattered pinpoint type porosity, trace gas bubbles, (110 unit gas kick).  
1750-1768' Dolomite; as above, shaley in part, (60 unit gas kick).

**WINFIELD SECTION**

- 1783-1793' Dolomite; gray, tan, finely crystalline, sucrosic, plus white chert, fair intercrystalline to vuggy type porosity, show of gas bubbles.  
1793-1820' Dolomite; as above, fair to good vuggy type porosity, trace gas bubbles.

**TOWANDA SECTION**

- 1866-1876' Dolomite; gray, sucrosic, spotty pinpoint porosity (poor samples).  
1886-1894' Limestone; white, gray, highly fossiliferous, fair to good fossil cast porosity, trace gas bubbles.

**NEVA SECTION**

- 2249-2260' Limestone; gray, white, fine to medium crystalline, slightly fossiliferous, few chalky, trace bright yellow fluorescence, poor visible porosity.

**RED EAGLE SECTION**

- 2311-2330' Limestone; white, gray, slightly fossiliferous, chalky, poor visible porosity, trace yellow fluorescence.

**FORAKER SECTION**

- 2354-2370' Limestone; tan, gray, granular, slightly chalky, fair to poor visible porosity, (poor samples) 90 unit gas kick???

**TOPEKA SECTION**

- 3056-3066' Limestone; gray, fossiliferous, finely crystalline, slightly cherty, fair porosity, trace brown to dark brown stain, show of free oil and questionable odor in fresh samples.  
3073-3079' Limestone; gray, fossiliferous/oomoldic, fair to good fossil cast to oomoldic porosity, good brown stain and saturation, fair show of free oil and no odor in fresh samples.

**TORONTO SECTION**

- 3148-3156' Limestone; white, cream, fine to medium crystalline, slightly fossiliferous, poorly developed porosity, trace brown stain, no show of free oil or odor in fresh samples.

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**LANSING SECTION**

- 3233-3240' Limestone; white, tan, finely crystalline, chalky, pinpoint type porosity, trace golden brown to light brown stain, trace of free oil and faint odor in fresh samples.
- 3249-3253' Limestone; as above.
- 3260-3266' Limestone; gray, white, slightly fossiliferous, chalky, trace black to gray stain, trace of free oil and faint odor in fresh samples.

**Drill Stem Test #1** **3223-3276'**

**Times:** 20-20-20-20

**Blow:** Weak

**Recovery:** 10' mud

**Pressures:** ISIP 67 psi  
FSIP 43 psi  
IFP 19-22 psi  
FFP 21-23 psi  
HSH 1598-1551 psi

- 3271-3280' Limestone; cream, gray, oolitic, chalky, black stain and saturation, no show of free oil or odor in fresh samples.
- 3290-3300' Limestone; gray, white and tan, oolitic/fossiliferous, fair porosity, brown to golden brown stain, show of free oil and fair odor in fresh samples, trace gray and white chert.

**Drill Stem Test #2** **3276-3307'**

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

**Blow:** Good

**Recovery:** 30' gas in pipe  
210' water

**Pressures:** ISIP 529 psi  
FSIP 537 psi  
IFP 31-26 psi  
FFP 79-124 psi  
HSH 1625-1559 psi

- 3310-3340' Limestone; brown to beige, oomoldic, fair to good oomoldic porosity (barren).
- 3364-3370' Limestone; gray, tan, fossiliferous/oomoldic, chalky, spotty brown stain, trace of free oil and faint odor in fresh samples.
- 3398-3406' Limestone; gray, cream, oolitic, fair porosity, brown to black and gray stain, show of free oil and faint odor in fresh samples.
- 3420-3424' Limestone; gray, white, oolitic, oomoldic, fair to poorly developed porosity, (barren).

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**CONGLOMERATE SECTION**

3481-3486' Sand; white, clear, medium grained, sub rounded, friable, trace stain, trace of free oil, plus loose unconsolidated quartz grains.

3501-3515' Chert; white, orange, red, few weathered porosity, trace black brown stain, trace sand, clear quartzitic, trace stain, no show of free oil or odor in fresh samples.

**Drill Stem Test #3 3452-3515'**

**Times:** 30-30-20-30

**Blow:** Weak

**Recovery:** 10' oil specked mud

**Pressures:** ISIP 41 psi  
FSIP 31 psi  
IFP 24-29 psi  
FFP 23-25 psi  
HSH 1740-1678 psi

3515-3558' Varied colored chert in matrix of red, blood red, rusty brown, soft to brittle shale, no shows.

**Rotary Total Depth** 3560 (-1661)  
**Log Total Depth** 3558 (-1659)

**Remarks:**

After Electric Log Analysis, it was decided to "straddle" test the Topeka formation.

**Drill Stem Test #4 3056-3090' (straddle test)**

**Times:** 20-40-5-X

**Blow:** Weak, died in 18 minutes

**Recovery:** 20' oil specked mud

**Pressures:** ISIP 1139 psi  
FSIP X psi  
IFP 21-33 psi  
FFP 29-39 psi  
HSH 1501-1475 psi

**Recommendations:**

On the basis of the Electric Log calculations and Sample Analysis, it was recommended that 4 1/2" production casing be set and cemented and the following zones be perforated in the Dunekack #1:

1. Herington/Krider 1757-1764 perforate
2. Herington/Krider 1731-1748 perforate

Respectfully submitted;

*James C. Musgrove*  
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Petroleum Geologist

