

20-19s-14w
SW SW SW

20-19-14w

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Grady Bolding Corp.
Leroy 'B' #1
SW-SW-SW; Section 20-19s-14w
Barton County, Kansas
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15-009-24935-00-00

5 1/2" Production Casing Set

Contractor: Vonfeldt Drilling Company (Rig #1)

Commenced: May 16, 2006

Completed: May 23, 2006

Elevation: 1910' K.B.; 1908' D.F.; 1905' G.L.

Casing Program: Surface; 8 5/8" @ 827'
Production; 5 1/2" @ 3633'

Samples: Samples saved and examined 2700' to the Rotary Total Depth.

Drilling Time: One (1) foot drilling time recorded and kept 2700' to the Rotary Total Depth.

Measurements: All depths measured from the Kelly Bushing.

Formation Testing: There were two (2) Drill Stem Tests ran by Diamond Testing Co.

Electric Log: By Log Tech; Dual Induction, Dual Compensated Porosity Log, Microresistivity Log.

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<u>Formation</u>	<u>Log Depth</u>	<u>Sub-Sea Datum</u>
Anhydrite	821	+1089
Topeka	2798	-888
Heebner	3131	-1221
Toronto	3147	-1237
Douglas	3162	-1252
Brown Lime	3217	-1307
Lansing	3227	-1317
Base Kansas City	3453	-1543
Conglomerate	3464	-1554
Arbuckle	3538	-1628
Rotary Total Depth	3630	-1720
Log Total Depth	3634	-1724

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

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

TOPEKA SECTION

2798-3131' There were several zones of well developed porosity encountered in the drilling of the Topeka Section but no shows of oil and/or gas was noted (see attached Geologist Report and Sample Log).

TORONTO SECTION

3147-3160' Limestone; cream, white, fossiliferous, chalky, trace brown spotty stain, no show of free oil or odor in fresh samples.

LANSING SECTION

3230-3288' Limestone; white, gray, chalky, scattered pinpoint porosity, gray and brown stain and saturation, show of free oil and faint odor in fresh samples.

3255-3260' Limestone; white, cream, slightly fossiliferous, chalky, trace poor stain, no show of free oil or odor in fresh samples.

3270-3278' Limestone; as above, oolitic, chalky, trace poor spotty stain, no show of free oil or odor in fresh samples.

Drill Stem Test #1 3218-3278'

Times: 15-15-15-15

Blow: Weak

Recovery: 5' mud

Pressures:	ISIP	315	psi
	FSIP	178	psi
	IFP	11-12	psi
	FFP	12-12	psi
	HSH	1576-1549	psi

3286-3294' Limestone; cream, white, finely crystalline, slightly cherty, few medium crystalline, few fossiliferous, gray to brown stain, show of free oil and faint odor in fresh samples.

3296-3310' Limestone; gray, white, oomoldic, fair oomoldic porosity, chalky, trace dull gray stain, trace of free oil and questionable odor in fresh samples.

3310-3342' Limestone; as above, trace white chert.

3364-3374' Limestone; cream, white, oomoldic, scattered oomoldic porosity, trace spotty brown stain, no show of free oil and questionable odor in fresh samples.

3381-3390' Limestone; white, oolitic, fossiliferous, trace poor stain, no show of free oil or odor in fresh samples.

3395-3406' Limestone; cream, white, oolitic, oomoldic, fair oomoldic porosity, no shows.

3435-3450' Limestone; white, gray, oomoldic, spotty black gray stain, no show of free oil and faint odor in fresh samples.

CONGLOMERATE SECTION

3464-3533' Varied colored chert and varied colored shale.

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ARBUCKLE SECTION

3533-3544' Dolomite; white, cream, medium crystalline, poor intercrystalline porosity, trace gray and black stain, no show of free oil and faint odor in fresh samples.

Drill Stem Test #2 **3450-3540' (log measurement 3454-3540)**

Times: 30-30-30-30

Blow: Weak

Recovery: 10' mud

Pressures: ISIP 32 psi
FSIP 24 psi
IFP 14-18 psi
FFP 17-19 psi
HSH 1747-1649 psi

3544-3555' Dolomite; white, cream, medium crystalline, fair intercrystalline porosity to good vuggy type porosity, brown to golden brown stain, show of free oil and faint to fair odor in fresh samples.

Drill Stem Test #3 **3450-3551' (log measurement 3454-3555)**

Times: 30-45-45-60

Blow: Strong

Recovery: 1365' gas in pipe
120' oil cut gassy mud
(20% gas, 20% oil, 60% mud)
180' muddy frothy oil
(20% gas, 30% oil, 50% mud)

Pressures: ISIP 630 psi
FSIP 611 psi
IFP 33-88 psi
FFP 95-148 psi
HSH 1743-1718 psi

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3555-3566' Dolomite; white, cream, medium to coarse crystalline, fair to good intercrystalline porosity, brown and golden brown stain, show of free oil and fair to good odor, trace iron pyrite.

3566-3586' Dolomite; as above, sandy.

3586-3600' Dolomite; white, gray, finely crystalline, slightly cherty, sandy in part.

3600-3610' Dolomite; as above, highly sandy, poor visible porosity.

3610-3620' Dolomite; gray, very finely crystalline, few sucrosic, slightly cherty in part and sandy in part.

3620-3634' Dolomite; as above, very fine to medium crystalline, few coarse grained quartz inclusions, no shows.

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Rotary Total Depth 3630 (-1720)
Log Total Depth 3634 (-1724)

Recommendations:

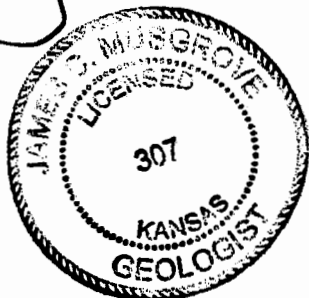
On the basis of the favorable structural position and positive results of Drill Stem Test #2, it was recommended by all parties involved to set and cement 5 ½" production casing at 3633' (one foot off bottom, log measurements) and the following zones be perforated in the Leroy 'B' #1:

1. Arbuckle 3548-3551 perforate

Respectfully submitted;

James C. Musgrove

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Petroleum Geologist



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