BENNETT & SCHULTE OIL COMPANY P.O. Box 329 Russell, Kansas 67665

K C C

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GEOLOGICAL REPORT

Calvert No. 3 100' W of NE-SW-NW, Section 5, Twp. 12 South, Rge. 20 West Ellis County, Kansas

APIH15-051-24 868

December 4, 1993

RECEIVED
STATE CORPORATION COMMISSION

JAN 2 1 1994

CONSERVATION DIVISION Wichita, Kansas Bennett & Schulte Oil Company P.O. Box 329 Russell, Kansas 67665

GEOLOGICAL REPORT:

Calvert No. 3

100' W of NE-SW-NW

5-12S-20W

Ellis County, Kansas

DRILLING CONTRACTOR:

Emphasis Oil Operations Rig No. 6

9

Russell, Kansas 67665

DRILLING COMMENCED:

November 27, 1993

DRILLING COMPLETED:

December 2, 1993

CASING RECORD:

 $8\ 5/8\ \text{set}$ at $208\,^{\circ}$ with $130\ \text{sx.}$

No Production Casing set.

DRILLING TIME:

By Geolograph.

1' intervals plotted and recorded

from 3100' to 3855' R.T.D.

SAMPLES:

10' intervals saved and examined

No logs were run on the Calvert No. 3.

from 3250' to 3855' R.T.D.

DRILL STEM TESTS:

1 By Trilobite Testing

Hays, Kansas

LOGS:

nayo, nanouo

Chemical Mud

Schmidtberger Mud Co.

Hays, Kansas

ELEVATION:

MUD TYPE:

American Elevations, Inc.

Kelly Bushing 2224' Ground Level 2219' Measurements from K.B.

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FORMATION TOPS (Sample Tops)

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FORMATION	DEPTH	MINUS DATUM
*Anhydrite	1628	+596
*Base-Anhydrite	1678	+546
Topeka	3268	-1044
Heebner	3494	-1270
Toronto	3511	-1287
Lansing-Kansas City	3528	-1304
Base-Kansas City	3779	-1555
Marmaton	3830	-1606
Rotary Total Depth	3855	-1631
*Drillers Tops		
Lithology: Zones of Interest		1
Topeka 3268-Top (-1044) 3271-76	LS;	White to buff, fine crystallline, dense to chalky, fossiliferous. No show.
3296-3302	LS;	Buff, good crystalline to granular porosity, slightly fossiliferous. No shows.
3420-26	LS;	White, broken fossil porosity with no show.
3437-42	LS;	White to buff, fossiliferous and slightly oolitic porosity, slightly chalky. No shows.
Toronto 2511 (-1287) 3512-14	LS;	White, poor crystalline porosity with a trace of stain. No free oil or odor.

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CONSERVATION DIVISION Wichita, Kansas Lithology: Page 2

Lansing-Kansas City	3528	(-1304)		
3528-30			LS;	White to buff, fine crystalline and dense. Trace of crystalline porosity with no show.
3565-70			LS;	White, crystalline and fossil porosity with scattered dark stain. Slight show of free oil, but no odor.
		Tested by	D.S.T. NO.	1
3590-94			LS;	Buff, chalky crystalline porosity with a trace of spotty stain. Cherty and pyritic. No free oil or odor.
3615–20			LS;	White, chalky fossil and slightly oolitic porosity. Trace of chert. No show.
3714-19			LS;	White, crystalline and slightly oolitic
(J Zone)				porosity with scattered light stain. Very slight show of free oil and no odor.
Base-Kansas City 37	779 (-15	55)		f
Marmaton 3830 (-160)6)			
3830-40	j		LS;	Buff, poor crystalline and granular porosity. Trace of large rounded Quartz grains. Marroon and brown shales. Traces of weathered chert. Very slight show of free oil, but no odor.

Rotary Total Depth 3855

DRILL STEM TEST

Drill Stem Test No. 1 3552-3580

Time: 30-30

Flows: 1st open - weak - died in 18 min.

2nd open - no blow

Recovery:

5 feet of mud

Pressures:

IHMP: 1773# IFP: 30# - 37# ISIP: 667# FFP: 37# - 37# FSIP: N.A. BHT: 102° F

FHMP: 1758#

Mud Properties:

Viscosity: 43 Weight: 9.0 Water loss: 8.0

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REMARKS AND RECOMMENDATIONS

The Bennett & Schulte Oil Co. Calvert No. 3 Lansing top of -1304 was 4 feet lower than the Calvert No. 1 (1 location North) and 2 feet lower than the Calvert No. 2 (Beacon Resources Deutscher No. 2 NW-NW-NW). The Lansing-Kansas City was tested 1 time with negative results. All other shows noted in this report were non-commercial shows.

The Marmaton datum of -1606 (Calvert No. 3) logged at 3830' was 14 feet lower than the Calvert No. 1 and 9 feet lower than the Calvert No. 2. A minor show of oil was logged in the 3830-40' section of the Marmaton. The show as well as the structural position were discussed and the decision to plug the Calvert No. 3 was in agreement by all involved.

DMS/das

Respectfully Submitted,

David M. Shumaker Petroleum Geologist