15-185-22799
Computer Inventoried

17-22s-11w

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GEOLOGICAL REPORT

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Bill Chew, Inc.

Klepper SE No. 3
C Nw Se Se
Sec. 17 22s-11w
Stafford County, Kansas

17-22-11w

Contractor ..... Duke Drilling Company, Rig 1

Date Commenced ..... September 12, 1991, Spud- 12:45 pm

Date Rotary Completed ..... September 16, 1991 at 3:05 pm

Total Depth ..... RTD = 3670', LTD = 3670'

Casing Record ..... Surface - 8-5/8" set at 264' KB
..... Cemented with 160 sx.

Elevations ..... Ground Level = 1822'
..... Kelly Bushing = 1827'
..... All Measurements taken from KB

Drilling Time Logged ..... 2700' to 3670' (RTD)

Samples Logged ..... 3050' to 3670' (RTD)

Open Hole Logs ..... Rosel: Dual Induction Log
Comp.Density/Neutron Log

Cased Hole Log .....

Gas Detector ..... None used

Mud Company ..... Duke Drilling Company

RECEIVED
STATE CORPORATION COMMISSION

OCT 16 1991

GEOLOGICAL FORMATION TOPS

FORMATION TOP	ELECTRIC LOG DEPTH	DRILLING TIME DEPTH	SUB-SEA DEPTH (E-LOG)
Anhydrite Top	554	558	+1273
Anhydrite Base	572	580	+1255
Topeka Ls	2776	2777	-949
Heebner Shale	3072	3076	-1245
Brown Ls	3211	3214	-1384
Lansing	3236	3237	-1409
Viola Chert	3500	3500	-1673
Simpson Shale	3522	3520	-1695
Simpson Sandstone	3526	3526	-1699
Arbuckle Dolomite	3574	3570	-1747
Total Depth	3670	3670	-1843

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INTERVALS CONTAINING HYDROCARBONS

Lansing	3278' to 3281' 3388' to 3390' 3399' to 3402'	3' thick 2' thick 3' thick	Oil Oil Oil

Samples from these limestone zones were poor and did not contain the porosity necessary to be commercial producers. These zones should be evaluated before abandonment.

Simpson Sandstone	3526' to 3545'	19' thick	Gas/ Oil

Samples from this sandstone were brown, well rounded and well sorted. The cuttings were friable and contained good intergranular porosity along with a good show of bleeding light oil and gas. The bottom 5 feet of this sand interval contained a brown/gray fair sorted, fair rounded larger grained sandstone that contained a fair show of oil. A good sweet odor was logged throughout this interval. This zone was straddle tested by DST #2.

Log analysis calculates the following averages:

Porosity ..... = .22
Deep Induction (ohms) .. = 7 to 10 ohm-m
Water Saturation ..... = .41 to .49 (using Rw=.08)

Arbuckle Dolomite	3574' to 3600'	26' thick	Gas/ Oil

Samples from this dolomite were brown, coarse crystalline with good intercrystalline porosity. A good show of bleeding gas and oil was observed in the top 26 feet of this section. The show decreased from 3610' to RTD. Good bleeding gas was noted throughout this interval. A very strong odor was noted throughout this interval. This zone was straddle tested by DST #1.

Log analysis calculates the following averages:

Porosity ..... = .16
Deep Induction (ohms) .. = 25 ohm-m
Water Saturation ..... = .50 (Using Rw=.16)

DRILL STEM TEST RESULTS

DST No. 1			
Interval: 3577' to 3600' (23' of anchor using straddle)			
Intervals tested: Upper Arbuckle Dolomite			
Period	**Time**	**Pressure**	**Description**
IHSP		1807	
IFP	30	30-31	Off bot. of bkt in 7 min.
ISIP	60	603	Still building.
FFP	45	45-41	Strong blow throughout.
FSIP	60	572	Still building.
FHSP		1796	BHT = 111 deg. F.
Recovery:	1500' Gas in the Pipe. 60' 10% Oil, 5% Gas, 85% Mud 20' 15% Oil, 50% Gas, 35% Mud		

DST No. 2			
Interval: 3528' to 3543' (15' of anchor using straddle)			
Intervals tested: Simpson Sandstone			
Period	**Time**	**Pressure**	**Description**
IHSP		1786	
IFP	30	31-31	1" blow to 6" blow in bucket.
ISIP	60	291	Still building.
FFP	60	31-31	Strong blow throughout.
FSIP	60	250	Still building.
FHSP		1775	
Recovery:	1810' Gas in the Pipe. 50' 25% Oil, 75% Mud. 2' Clean Gassy Oil		

KLEPPER SE NO. 3

LOG STRUCTURAL COMPARISON

Formation Tops	Klepper SE No. 3 C Nw Se Se 17 22s-11w Stafford County (Simp./Arb. Test)	Klepper SE No. 2 C W/2 Se Se 17 22s-11w Stafford County (Arbuckle well w/ Simpson BP) **
Anhydrite Top	+1273	+1269
Anhydrite Base	+1255	+1249
Topeka Ls	-949	-955
Heebner Shale	-1245	-1251
Brown Ls	-1384	-1389
Lansing	-1409	-1411
Viola Chert	-1673	-1675
Simpson Shale	-1695	-1690
Simpson Sandstone	-1699	-1693
Arbuckle Dolomite	-1747	-1738
Total Depth	-1843	-1841

** The elevation was corrected on the #2 well from 1828 KB to 1825 KB (These elevations are corrected).

SUMMARY

This well contained excellent sample shows in the Simpson Sandstone and Arbuckle Dolomite. Log analysis calculates both zones as bering hydrocarbons and 5-½" casing was set to test for production. This well was almost identical to the Klepper SE No. 2 (the south offset) except it was 6' lower on the Simpson and 9' lower on the Arbuckle top.

Submitted by,

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Geologist