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GEOLOGICAL REPORT

J B & E Oil Company
P.O. Box 190
Hays, Kansas 67601

Re: J B & E Oil Company
#1 Werth "H"
SW-SW-NW, Sec. 15-10S-26W
Sheridan County, Kansas

Gentlemen:

The following is the geological report for the above captioned test. Formation tops, zones of interest, and drill stem test intervals have been correlated with the open hole electric log. All measurements were taken from the Kelly Bushing, five feet above ground level. A copy of the drilling time/lithology log is included with this report.

CONTRACTOR: Emphasis Oil Operations
COMMENCED: 8-10-81
COMPLETED: 8-23-81
ELEVATION: 2597' K.B.; 2592' G.L.
DRILL STEM TEST: 1 - Superior Testers
ELECTRIC LOG: R.A. Guard & Sonic--Great Guns
CASING RECORD: surface--8-5/8 set @ 208'
production--4-1/2 set @ 4003'
STATUS: W.O.C.T.

RECEIVED
STATE REGULATION COMMISSION

DEC 21 1981

CONSERVATION DIVISION
Wichita, Kansas

FORMATION TOPS

<u>FORMATION</u>	<u>SAMPLE TOP</u>	<u>E. LOG TOP</u>	<u>SUBSEA (E. log)</u>
Anhydrite	2222	2223	+374
Base Anhydrite	2257	2257	+340
Howard	3546	3544	-947
Topeka	3609	3607	-1010
Queen Hill	3771	3768	-1171
Heebner	3824	3822	-1225
Toronto	3847	3845	-1248
Lansing	3864	3861	-1264
"D" zone	3903	3901	-1304
Lane	3985	3983	-1386
"J" zone	4044	4041	-1444
Base Kansas City	4093	4090	-1493
Total Depth	4120	4118	-1521

Rotary measurements were approximately two feet deeper than the electric log. All measurements used in the remainder of this report are from the electric log, unless otherwise noted.

LOCAL STRUCTURAL COMPARISON (Subsea)

	#1 Werth "H" SW-SW-NW Sec. 15-10S-26W	#1 Martin NW-SW-NE Sec. 16-10S-26W	#1 Troutman NW-SW-SW Sec. 10-10S-26W	#1 Werth C-SE-NE Sec. 15-10S-26W
Anhydrite	+374	+365	+366	+361
Heebner	-1225	-1222	-1223	-1234
Lansing	-1264	-1262	-1263	-1274
Base Kansas City	-1493	-1494	-1495	-1503

ZONES OF INTEREST

<u>INTERVAL</u>	<u>SAMPLE DESCRIPTION</u>
Topeka 3775-3778	White-tan, slightly oolitic-chalky LIMESTONE; scattered oolitic porosity; no show; electric log calculations (ELC)-slightly favorable; judged no value.
Toronto 3845-3854	White, fine-medium crystalline LIMESTONE; spotted inter-crystalline porosity; no show; ELC-slightly favorable-unfavorable; judged no value.
Lansing 3861-3869	Tan, fine crystalline, chalky-slightly dense LIMESTONE; poor visible porosity; ELC-unfavorable; judged no value.

3889-3893* Cream, oolitic LIMESTONE; fair-occasionally good interoolitic porosity; mostly saturated; good show of free oil; good odor; ELC-favorable; covered by DST #1; recommend testing.

3901-3918* White, fine-medium crystalline, slightly chalky-dense LIMESTONE; scattered intercrystalline & vugular porosity; spotted stain, partly tarry; fair show of free oil; weak odor; ELC-favorable; covered by DST #1; recommend testing.

DST #1 Interval: 3876-3924
Pressures: initial flow--103-113# in 30 min.
initial shut in--858# in 45 min.
final flow--113-134# in 30 min.
final shut in--697# in 30 min.
Recovery: 100' of mud with show of free oil

3940-3945* White, coarse crystalline, sparry LIMESTONE; poor-fair intercrystalline porosity; rare saturation; trace free oil; ELC-favorable; recommend testing prior to abandonment.

3998-4003 White, fine crystalline, slightly chalky-sucrosic LIMESTONE; scattered intercrystalline & vugular porosity; trace dark residual stain; ELC-unfavorable; judged no value.

4020-4026 Cream, chalky LIMESTONE; poor visible porosity; abundant residual tarry-dead oil stain; ELC-unfavorable; judged no value.

4041-4043 Cream, fine crystalline LIMESTONE; spotted poor intercrystalline porosity; trace dark stain; ELC-unfavorable; judged no value.

4059-4084 White, chalky LIMESTONE; poor visible porosity; no show; ELC-unfavorable; judged no value.

4080-4084 White, fine crystalline, slightly mealy LIMESTONE; spotted fair intercrystalline porosity; no show; ELC-unfavorable; judged no value.

*recommend testing

SUMMARY

This hole was under geological supervision from 3750 to 4020 (R.T.D.) Wet and dry samples were examined and analyzed from 3600 to R.T.D. An open hole electric log was run from 4118 (L.T.D.) to 2100. One drill stem test was run without conclusive results. Due to shows of oil in the sample analysis, favorable electric log calculations, and the proximity of this hole to present production, it was decided by the operator to run 4-1/2" production casing for further testing.

Respectfully submitted,

Curtis R Longpine

Curtis R. Longpine, Petroleum Geologist