

27- 04S- 22W

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GEOLOGICAL REPORT

BLACK DIAMOND OIL, INC.
SANSOM #1
NW/4 27-4-22
NORTON COUNTY, KANSAS

ORIGINAL

Gentlemen:

The following is the geological report for the above captioned test.

CONTRACTOR:	Discovery Drilling
COMMENCED:	7/11/01
COMPLETED:	7/19/01
ELEVATIONS:	2247' GL, 2255' KB
DRILL STEM TESTS:	Diamond Testing
ELECTRIC LOG:	ELI (Dual Induction, Sonic, Neutron Density)
CASING RECORD:	Surface: 8 5/8" @ 208' Production: 5 1/2" @ 3701'

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FORMATION TOPS
(Kelly Bushing Measurements)

FORMATION	DEPTH (SAMPLE)	SUBSEA
Anhydrite	1880	+369
Base Anhydrite	1910	+341
Topeka	3205	-952
Toronto	3432	-1182
Lansing-K.C.	3449	-1199
Base K.C.	3635	-1385
Gorham Sand	3684	-1433
Arbuckle	3695	-1443
R.T.D.	3702	

STRUCTURAL COMPARISON

Sansom #1 C-SE-NW Sec. 27-4-22	Sansom #1 C-NE-NW Sec. 27-4-22	Sperry #1 C-NE-NW Sec. 28-4-22
Topeka -958	-955	
Lansing-K.C. -1204	-1199	-1183
Gorham Sand -1438	-1435	
Arbuckle -1448	-1453	-1453

ZONES OF INTEREST

FORMATION	DESCRIPTION
Topeka 3207 (-954)	No shows seen.

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Toronto	3437 (-1184)	
	3437-41	Limestone, cream, fine- Crystalline, oolitic, Fossiliferous, spotted fair-good Vuggy porosity spotted stain To saturation, fair odor, Slight Show of free oil (Covered by DST #1).
Lansing K.C.	3454 (-1201)	
	3454-61	Limestone, white-cream, fine Crystalline, good inter-oolitic Porosity good stain to Saturation good odor, good Slight show of free oil. (Covered by DST #1).
DST #1	3148-3205	Blow: 1 st : Weak Blow ½". Blow 2 nd : Weak blow ½"-1". Recovery: 60' mud with Spots of oil 80' Muddy cut water. IF: 27-33 in 45 min. ISI: 1065 PSI in 45 min. FF: 46-58 PSI in 45 min. FSI: 972 PSI in 45 min.
	3484-91	Limestone, cream, fine-crystalline, Chalky to mealy, spotted vuggy Porosity, spotted dark stain, weak Odor trace free oil. (Judged no value).
	3520-23	Limestone, cream, fine-crystalline, Oolitic, slightly chalky spotted fair Inter-oolitic and vuggy porosity, Spotted stain to trace of saturation, Fair odor very slight show of free oil. (Judged no Value).

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	3564-67	Limestone, cream fine crystalline, oolitic, Fair to good inter-oolitic porosity, fair Stain to saturation, good odor, fair show Of free oil. (Test).
DST #2	3529-3573	Blow: 1 st : Weak Blow ¼". Blow 2 nd : Weak blow 1". Recovery: 20' free oil 35' muddy cut gassy oil. IF: 27-32 in 45 min. ISI: 1038 PSI in 45 min. FF: 33-36# PSI in 45 min. FSI: 997# in 45 min.
	3594-99	Limestone, cream, fine-crystalline fossiliferous Spotted fair vuggy porosity, spotted stain to trace of saturation, weak to fair odor, slight show of free oil (Covered by DST #3).
	3616-19	Limestone cream, fine-crystalline, fossiliferous Oolitic, fair crystalline and interoolitic porosity, fair light stain to saturation, good odor, slight show of free oil (Covered by DST #3).
DST #3	3568-3620	Blow: 1 st : Weak Blow dead 5 min. Blow 2 nd : No Blow. Recovery: 10' Drilling mud IF: 32-34 in 30 min. ISI: 743 PSI in 30 min. FF: Not Taken FSI: Not Taken
Base KC	3640 (-1387)	

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Marmaton 3672 (-1419)

3672-82 Limestone, cream, fine-crystalline, very
Slightly sandy, very spotted vuggy porosity,
Trace saturation-spotted stain, slight odor,
Slight show of free oil. (Covered by DST #4)

Gorham Sand 3688 (-1435)

3688-98 Sand, medium to coarse grained, white,
Dolomitic matrix, dense no porosity, no show.

Arbuckle 3698 (-1445)

3698-3705 Dolomite, cream, medium-crystalline, glauconite
Inclusions, slightly sandy, good vuggy
porosity, good stain-saturation strong odor,
Good show of free oil.

DST #4 3634-3699 Blow: 1st: Strong Blow, BOB in 18 minutes
Blow 2nd: Weak Blow, dead in 12 mins.
Recovery: 95' very slight oil cut muddy
Water.
250' Very slight oil cut muddy
water.
IF: 46-87 in 30 min.
ISI: 669 PSI in 45 min.
FF: 123-218 PSI in 30 min.
FSI: 624 PSI in 45 min.

DST #5 3695-3702 Blow: 1st: Weak surges
Blow 2nd: Weak Blow, dead in 1 min.
Recovery: 60' clean oil
35' muddy oil
95' total recovery
IF: 30-34 in 30 min.
ISI: 910 PSI in 30 min.
FF: 40-47 PSI in 5 min.
FSI: Not Taken

LTD 3705 (-1452)

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SUMMARY

This well was under geological supervision from 3400' to 3705' T.D. Wet and dry samples were examined from 3200 to T.D. Five drill stem tests were ran in the Toronto, L-KC and Arbuckle. An open hole electric log was ran at T.D. Based on the above mentioned shows of oil and the favorable structural position relative to nearby wells, 5 ½" production casing was set for further testing.

Original Signed by:

Kenneth Vehige
Geologist