

COPY

1 - 22 - 14W

Computer Inventoried

DRILLERS LOG

HALL #1, API#15-185-22,738
100' NW of SW SE SW 1-22-14W
Stafford County, Kansas

by B-7 Inc.

spud 11-19-1990

comp. 11-28-1990

D + A

0' to 455' Sand
455' to 535' Sand & Shale
535' to 1210' Sand & Shale
1210' to 1815' Sand & Shale
1815' to 2004' Lime & Shale
2004' to 2185' Lime & Shale
2185' to 2459' Lime & Shale
2459' to 2672' Shale & Lime
2672' to 2925' Shale & Lime
2925' to 3160' Lime & Shale
3160' to 3465' Shale & Lime
3465' to 3590' Lime & Shale
3590' to 3710' Shale & Lime
3710' to 3770' Shale
3770' to 3778' Arbuckle
3778' to 3796' Arbuckle
3796' to 3840' Arbuckle
3840' Rotary Total Depth

FORMATION TOPS:

FORMATION	SAMPLE	LOG	DATUM
ANHYDRITE	N/A	801'	+1135
HEEBNER	3284'	3284'	-1348
TORONTO	3308'	3305'	-1369
DOUGLAS	3321'	3322'	-1386
BROWN LIME	3409'	3412'	-1476
LANSING	3420'	3422'	-1486
BASE K.C.	3640'	3642'	-1706
VIOLA	3673'	3675'	-1739
SIMPSON	3716'	3719'	-1783
ARBUCKLE	3764'	3769'	-1833
ROTARY TOTAL DEPTH	3842'	****	-1904
LOG TOTAL DEPTH	****	3842'	-1906

SAMPLE DESCRIPTIONS AND TEST DATA:

(All depths have been corrected to log measurements.)

LANSING-KANSAS CITY:

3422-3430	Limestone, tan, gray and white, very finely crystalline, fossiliferous, slightly oolitic, chalky, with fair intercrystalline and fossiliferous porosity, no shows of oil were noted.
3442-3446	Limestone, gray and white, finely crystalline, slightly fossiliferous, chalky, with fair intercrystalline and fossiliferous porosity, slight show of dead oil, rare staining.
3464-3470	Limestone, white and gray, finely crystalline, fossiliferous, very chalky, no shows of oil were noted.

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LANSING-KANSAS CITY: (Cont.)

- 3490-3498 Limestone, gray, light gray and white, finely crystalline, slightly fossiliferous, oolitic, chalky, no shows of oil noted.
- 3582-3588 Limestone, white and light gray, very finely crystalline, slightly dense, fossiliferous, oolitic and oolitic, with fair oolitic porosity, chalky, very slight spotted stain, very slight show of free oil, no odor.
- 3602-3608 Limestone, white and gray, finely crystalline, slightly dense, fossiliferous, some rare pinpoint porosity, chalky, rare spotted stain and saturation, very slight show of free oil, no odor.
- 3631-3636 Limestone, gray and white, finely crystalline, dense, very chalky, with rare scattered staining, no shows of oil were noted, no odor.

VIOLA

- 3675-3686 Limestone, white, cream and gray, dense, cherty, mostly fresh, with rare fractured staining, no shows of oil were noted.
- 3687-3718 Chert, white, cream and bone, mostly fresh fractured, slightly weathered, with fair fractured staining, show of free oil, light odor.

ARBUCKLE

- 3769-3773 Dolomite, gray and tan, very finely crystalline, slightly oolitic and oolitic, with fair inter-crystalline porosity, very slight show of free oil, light odor. (Covered by D.S.T. No. 1)

FORMATION TEST NO. 1

3768-3773

Weak blow	45 min.	I.H.P.	2017#
		I.F.P.	30#-30#
Weak blow	45 min.	I.S.I.P.	837#
	45 min.	F.F.P.	36#-38#
	45 min.	F.S.I.P.	Invalid
		F.H.P.	1983#

RECOVERY: 60' slightly oil cut mud.

TEMPERATURE: 109°

ARBUCKLE: (Cont.)

3774-3778 Dolomite, tan and gray, finely crystalline, slightly rhombic, with fair intercrystalline and pinpoint vugular porosity, slightly oolitic and oolitic, good dark staining and saturation, good show of dark, heavy, free oil, fair odor. (Covered by D.S.T No. 2)

FORMATION TEST NO. 2

3772-3778

Weak blow	45 min.	I.H.P.	2010#
		I.F.P.	30#-30#
Weak blow	45 min.	I.S.I.P.	787#
	45 min.	F.F.P.	Clocks Stopped
	45 min.	F.S.I.P.	Clocks Stopped
		F.H.P.	1986#

RECOVERY: 100' water cut mud. (20% water, 80% mud)

CHLORIDES: 22,000 P.P.M.

TEMPERATURE: 110°

3779-3788 Dolomite, tan and white, fine to medium crystalline, rhombic, with fair to good intercrystalline and pinpoint vugular porosity, fair to good dark staining and saturation, good show of heavy, dark free oil, fair odor. (Covered by D.S.T. No. 3)

FORMATION TEST NO. 3

3778-3788

Good blow	45 min.	I.H.P.	2007#
		I.F.P.	80#-160#
Fair blow	45 min.	I.S.I.P.	1067#
	45 min.	F.F.P.	160#-184#
	45 min.	F.S.I.P.	1017#
		F.H.P.	1981#

RECOVERY: 180' muddy water.
180' water.

CHLORIDES: 22,000 P.P.M.

TEMPERATURE: 115°

3793-3798 Dolomite, white and gray, fine to medium crystalline, rhombic, with good intercrystalline porosity, rare spotted staining, no shows of free oil were noted, no odor.

ARBUCKLE: (Cont.)

3803-3812 Dolomite, as above, chalky, with no shows of oil noted.