

# Martin K. Dubois

Consulting Geologist

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September 28, 1984

## GEOLOGIC REPORT

Jennings Drilling Company

#2 Frey

40'NW of C SW SW NW 18-8S-22E

Leavenworth County, Kansas

### Daily Progress:

9-24 Move on, rig up, set 7" surface casing @ 44'  
9-25 Drill out beneath surface @ 3:00 a.m.  
9-26 820' drilling  
9-27 TD 1320' @ 6:30 a.m., ran open hole logs, set 4 1/2" production casing @ 1280'

### Service Companies:

Contractor: McGown Drilling Company

Logging: Great Guns

Cementing: Consolidated Cement

### Formation Tops (E-Log):

<u>Formations</u>	JDC #2 Frey	Structural Relation to
	SW SW NW	REMCO #1 Hentzelman
	18-8S-22E	SE SE NE
	GL 858	<u>13-8S-21E</u>
B. Kansas City	469 (+389)	+2
Cherokee	715 (+143)	+3
Coal Marker	1078 (-220)	+4
Cherokee SS.	1090 (-232)	+2
Upper McLouth SS.	1162 (-304)	-1
Lower McLouth SS.	1196 (-338)	+1
Burgess SS.	1242 (-384)	+9
Miss. St. Louis	1260 (-402)	+20
Miss. Spergen	1271 (-413)	
RTD	1302 (-444)	

### Oil Shows (E-Log Depths):

1090-1098 Lower Cherokee Sandstones  
1107-1118 Sandstone, white, fine grained, well sorted, well rounded, quartzose, poor porosity, no fluorescence, trace of cut, trace of tarry oil.

- 1162-1176      Upper McLouth Sandstone  
Sandstone, fine grained, subrounded, well sorted, quartzose,  
good porosity, good show of free gassy oil, good cut, circulated  
oil on pits.
- 1196-1224      Lower McLouth Sandstone  
Sandstone, fine grained, subrounded, well sorted, good porosity,  
good cut, good show free gassy oil, circulated oil  
on pits.
- 1242-1260      Burgess Sandstone  
Sandstone, fine to medium grained, subangular, moderately  
sorted, fair to good porosity, slight show of very heavy tarry  
oil.

Summary and Recommendation:

Production casing was set to further test shows of oil in both the upper and lower McLouth sandstones. It is recommended to perforate the Lower McLouth sandstone from 1202 (-344) to 1214 (-356), electric log depths. The Upper McLouth sandstone should remain behind pipe at this time. Eventually, the upper sand should be perforated from 1170 (-312) to 1174 (-316). The recommended perforation intervals for both sands should be below the gas cap encountered in nearby wells.

Respectfully Submitted,



Daniel T. Johnson  
Geologist

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## DRILLING PROGNOSIS

WELL NAME: Jennings Drilling Co. #2 Frey DATE: 9/6/84  
LOC.: Appx SW SW NW 18-8S-22E ELEV.: 860 GL (Est)  
PROPOSED T.D.: 1300' SPUD DATE: 9/18/84

Formation	Depth	Drill times:
Haskel	49	
Lansing	147	
Cherokee	717	Samples: <u>Save 10' washed samples from 650' to</u>
Coal Marker	1082	<u>TD. Use Jennings' sample box</u>
U. McLouth	1172	
L. McLouth	1198	Mud Type: <u>Chemical</u> Mud Up: <u>1050</u>
Burgess	1251	Maintain: Vis. <u>34-36</u> Wt. <u>&lt;9.4</u> Wt.Ls. <u>&lt;14</u>
Miss.	1275	Remarks: <u>Mix 1 1/2 sks. caustic, 1 1/2 sks soda</u>
TD	1300	<u>ash, 2 sks. tanathin, gel for 34-36 Vis (appx. 20</u>
		<u>Gas Detector: <u>None</u> sks.)</u>

Hole Size Casing Depth Logging: Open hole logs are likely to be  
7" 50'\* run. Compensated Neutron-Density,  
(\*set 7" in first limestone) Dual Induction

Geologist: Dan Johnson Phone: 316-221-0428 (offc)  
316-221-1480 (home)  
Call Point: 600' Stop Point: 1160'

Daily Drilling Reports: Call John Jennings 913-842-0817 (home) or  
913-749-1581 (office) prior to 9:00 a.m. with morning report

Remarks: Make note on geograph of depth of all connections, nature  
of any downtime, and mud weight and viscosity at least twice a tower  
(after mudup).