

Computer Inventoried

10-9s-20E

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ORIGINAL

K C C

GEOLOGISTS REPORT

AUG 21 1996

for

15-103-21261  
Horizontal Dev. + Prod.

GARRETT #1

SW1/4,SW1/4,NW1/4, sec 10, T9S,R20E  
LEAVENWORTH COUNTY, KANSAS

by

GEORGE E PETERSEN C.P.G.  
DEACON GEOLOGY INC



professional geologists

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CONSERVATION DIVISION  
Wichita, Kansas

**GEOLOGISTS REPORT**

**GARRETT #1**

ORIGINAL

Sept. 20,1994: Set surface.

Sept. 21,1994: Called to well @ 4:30 P.M.,on loc at 6:00P.M. ,Drig at 1050 ft.

Sept. 22,1994: Released from location at 11:30 A.M. upon completion of logging.

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**ELEVATION: 925 GL (all measurements are from GL)**

**FORMATION TOPS    SAMPLE DEPTH    LOG DEPTH    DATUM    THICKNESS**

FORMATION TOPS	SAMPLE DEPTH	LOG DEPTH	DATUM	THICKNESS
Base KC	641	648	+284	
Marmaton	788	----	+137	
Cherokee	883	880	+45	493'
Coal marker	1292	1293	-368	4'
U McLouth Sd	1346	1346	-421	5'
M McLouth Sd		1351	-426	4'
L McLouth Sd		1355	-430	7'
Burgess Sd		1362	-437	8'
Mississlppi Lm	1372	1373	-448	

Sample returns were examined microscopically from a drilled depth of 750 feet to TD for the presence of visible hydrocarbons. Formation tops and thicknesses were picked from the drilling time log, sample returns and the Neutron / Density Porosity Log.

**CHEROKEE GROUP:**

Clean unnamed sand units were noted between 1126 and 1149 and also between 1157 and 1172. There were no indications that any hydrocarbons are present in these intervals in this well. A strong show of gas was observed in a coal fragment from the coal found at 1214 to 1216. This coal appears to be too thin to warrant a completion attempt; however, if the coal is found to thicken in any surrounding wells then consideration should be given to testing this interval. There were no other intervals above the McLouth Sands that warrant any further consideration or description.

The McLouth Sand interval was topped at a log and sample depth of 1346(-421).

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Although the sand was divided into an upper , middle , and lower unit, on the logs the sand will be described as one body for this report. The unit is an interbedded sand and shale sequence with the sand being a medium to coarse, clear to white subrounded to rounded quartz sand. The samples and the logs indicated good porosity. There was a good show of medium brown free oil and a good to strong petroleum odor present . There was a moderate show of free oil on the pits during the drilling of this interval.

Log calculations were prepared on location by Mr. Glenn Schmiedler of Log Tech Inc. using the following values:  $M=1.8$ ,  $R_w=.2$ .

Interval	Porosity	Rt	Sw%
1348-50	15%	15	60%
1352-54	17%	18	50%
1354-56	15%	20	53%
1356-58	16%	35	36%
1358-60	14%	35	43%
1360-62	10%	10	100%

There was a gas effect shown on the log between 1348-50 and between 1352-54. The interbedded shales will cause higher water saturation values due to water that is bonded to the clay platlets of the shale. This log signature compares very closely to those from wells in the Samson field just to the north which have been good producers of oil and some gas.

The Burgess Sand had a thickness of approximately 8 feet but had very low porosity values and only a slight show of very tar like oil. The sand is a coarse grained , subrounded clear quartz sand. There is no potential for production of hydrocarbons from this interval in this well.

#### MISSISSIPPI LIME:

The Mississippi Lime was reached at a depth of 1372(-447). Sample returns from the upper portion of the drilled interval were a light to medium brown lime which had a vuggy porosity that was filled with medium to dark brown oil. This oil show became darker and more tar like with increasing depth. There was a strong odor and a show of oil on the pits; however the oil may have been from the McClouth Sands. The lower portion of the drilled interval contained large amounts of tripolitic chert, showed little visible porosity, and no oil shows.

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**CONCLUSIONS AND RECOMMENDATIONS:**

Due to the good oil shows and the availability of logs from the wells in the Samson field in the next section to the north for comparison, this well appears to have the potential to produce commercial quantities of oil along with some gas from the McLouth interval. The Burgess did not have sufficient porosity or shows to warrant testing .

The shows in the Mississippi were good ; however, there has been no successful attempts to date to produce from the upper lime in this area.

Should additional information be required , please contact me.

Respectfully submitted,



**George E . Petersen C.P.G.**

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