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GEOLOGISTS REPORT

for

Walker #1-86

4780' FSL, 3140' FEL, Sec. 8, T9S, R20E

Jefferson County, Kansas

February 1986

by

George E. Petersen C.P.G.S.

DEACON GEOLOGY INC.

professional geologists

GEOLOGISTS REPORT

Walker #1-86

February 27, 1986: Released from location @ 8PM.

Elevation: 953 G.L. (Topo)

FORMATION TOPS	DEPTH	DATUM	THICKNESS
Base KC	668	+285	---
Marmaton	810	+143	90'
Cherokee	900	+53	506'
"McLouth Sd."	1,362	-409	18'
Mississippian Lm.	1,406	-453	---
RTD	1,420		
LTD	1,417		

Sample returns were examined from a drilled depth of 700 feet to T.D. for the presence of visible hydrocarbons. Formation tops and intervals for this report were picked from sample returns, the drilling time log and the Neutron-Density Porosity Log. There was no visible evidence of oil or oil staining in any of the geologic units above the "McLouth Sands"; however, there may be gas present in some of the middle Cherokee Sands.

CHEROKEE GROUP:

There were clean sand intervals found between 1110 and 1120, 1164 and 1180, and 1184 to 1194. The upper sand has low porosity; however, the other two have log responses which indicate good porosity values. None of these sands have been tested in this area to date. The mud up point in these wells has generally been 1200 feet and therefore it is probable that any gas effect which may be present will have been masked by fluid invasion into the zone. A thorough log analysis should be performed on these zones prior to abandonment of the well.

The undifferentiated "McLouth Sands" were topped at a log

depth of 1362 feet (-409). This unit is a coarse grained, subrounded clear to tan quartz sand. There was a good show of medium to dark brown oil and a strong odor present throughout the interval. A trace of pyrite cementation was observed in the samples and this could cause higher Sw values to be calculated if the pyrite is present in any quantity.

Log calculations were prepared on location by Log-Tech Inc. personnel using the following values: M=1.8, Rw= .2.

Interval	Ø	Rt	Sw
1362-64	14	10	82
64-66	17	18	52
66-68	18	15	54
68-70	18	10	68
1370-72	16	14	60
72-74	12	14	80
74-76	10	9	100
76-78	9	8	100

Although there was no actual cross-over effect noted on the logs and the Sw values appear to be rather high, this well appears to have the potential to produce commercial quantities of gas.

MISSISSIPPIAN LIME:

The Mississippian Lime was reached at a drilled depth of 1406 feet (-453). Sample returns consisted of a white to light-tan semi-lithographic limestone. There was a show of dark brown heavy oil on fracture faces and in pinpoint porosity. There are no plans to attempt production from the drilled portion of the Mississippian in this well.

CONCLUSIONS AND RECOMMENDATIONS:

The "McLouth Sand" interval in this well appears to have the potential to produce commercial quantities of gas. The

middle and upper Cherokee Sands should also be tested before abandonment of this well.

There was a strong cross-over shown at the top of the Mississippian where a thin white very tightly cemented sand was found in the samples. After re-examination of the samples, the log and the drilling time, it was concluded that the upper portion of the logging tool was just beginning to take readings and therefore there is very little probability of gas being present in this interval. It is important that from this point on that a little more of the Mississippian be drilled to allow for the logging tools to see the top of the Mississippian even though there may be 10 or more feet of shale between the lime and the base of the McLouth.

As has been stated in reports for wells previously drilled, it is essential that surveyed elevations and locations be obtained for well sites to allow for more acccurate mapping of the geology.

Should additional information be required, please contact me.

Respectfully submitted,

George E. Petersen C.P.G.S.

DEACON GEOLOGY INC.

mrp/GEP