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GEOLOGISTS REPORT

for

J. Dunn #1-85

SE4, SE4, Sec. 33, T8S, R20E

Jefferson County, Kansas

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by

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DEACON GEOLOGY INC.



professional geologists

GEOLOGISTS REPORT

J. Dunn #1-85

July 17, 1985: On location 10AM, drlg. at 1285'.

July 18, 1985: Released from location at 10AM.

Elevation: 1086 G.L. (Topo)

FORMATION TOPS	Log Depth	Datum	Thickness
Hushpuckney Sh.	795	+291	---
Marmaton Gp.	907	+179	115'
Cherokee Sh.	1,022	+64	492'
"McLouth Sd."	1,476	-390	26'
Mississippian Lm.	1,514	-428	---
RTD	1,566		
LTD	1,566		

Sample returns were examined from a drilled depth of 800' to T.D. for the presence of visible hydrocarbons. Formation tops and intervals for this report were picked from sample returns, drilling time log, and the Neutron-Density Porosity Log. There was no visible evidence of the presence of hydrocarbons in any of the geologic units above the "McLouth Sand" with the exception of gas bubbling from a black shale in the 1440-1450 sample. It is expected that many of the sands in the Cherokee above the "McLouth Sand" may carry some gas.

CHEROKEE GROUP:

There were several sand intervals present in the Cherokee Section which had good porosity and gave some indication of a possible gas effect on the Neutron-Density Porosity Log. There was no visible evidence of oil staining, free oil or fluorescence in any of these sands.

The "McLouth Sand" was reached at a log depth of 1476' (-390). This unit is a fine to medium, subrounded, poorly sorted, tan sand with heavy oil staining, a sharp fleeting odor, and some free light brown oil. Application of trichlorethane yielded

streaming cuts of oil and bright yellow fluorescence under black light. The sand had an approximate thickness of 26 feet. A good cross-over was noted on the logs between 1476 and 1478, 1479 to 1489 and 1490 to 1496. This indicates that gas is present in these intervals. The lower two to three feet of the sand is a very coarse clear quartz sand containing heavy black oil.

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

Interval	ϕ	Rt	Sw
1476-78	11	11	100
78-80	10	12	100
80-82	13	10	80
82-84	13	14	70
84-86	14	10	75
86-88	14	16	65
88-90	12	22	63
90-92	10	14	90
92-94	14	12	80
94-96	16	18	52
96-98	18	16	53
98-1500	22	23	37

This well should produce commercial quantities of gas along with water and possibly some oil. Sw values are probably lower than indicated by the calculations. There is no way at present to compensate accurately for the shale effect in these calculation.

MISSISSIPPIAN LIME:

The top of the Mississippian Lime was reached at a log depth of 1514' (-428). Sample returns consisted of white tripolitic chert and tan very coarsely crystalline to fragmental limestone. There was a show of heavy black oil on the limestone and in pinpoint porosity. There was a good odor and application of

trichlorethane yielded bright streaming cuts and fluorescence. The samples indicated that the oil show is probably confined to the upper portion of the drilled interval. Calculations were not prepared for this report but a preliminary look indicated that Sw values between 1518 and 1522 would be in the low 30% range.

Based on the shows of oil in the samples and the high Rt values it is very possible that oil may be produced from the upper part of the formation. There is also some indications on the log of a possible gas effect in the Mississippian Lime.

This interval should be tested before final abandonment of the well.

CONCLUSIONS AND RECOMMENDATIONS:

This well should produce commercial quantities of gas along with some oil and water from the "McLouth Sand". There is also the potential for some oil and gas production from the upper Mississippian Lime. Other sands within the Cherokee should be tested before abandoning the well.

It becomes increasingly important that the well locations be surveyed in for both location and elevation to insure that the wellsite data can be accurately interpreted. Failure to initiate these practices will yield erroneous formation tops and subsequently lead to errors in subsurface mapping which will in turn increase the chances of nonproductive well locations being picked.

Should additional information be required please contact me.

Respectfully submitted,

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