



OILFIELD RESEARCH LABORATORIES

536 NORTH HIGHLAND - CHANUTE, KANSAS 66720 - PHONE (316) 431-2650

October 22, 1979

Beckett Oil Company
620 East Carpenter
Iola, Kansas 66749

Gentlemen:

Enclosed herewith are the results of tests run on the rotary core taken from the Miller Lease, Well No. 5, Allen County, Kansas, and submitted to our laboratory on October 8, 1979.

The core was sampled and sealed in plastic bags by a representative of the client.

Your business is greatly appreciated.

Very truly yours,

OILFIELD RESEARCH LABORATORIES

Benjamin R. Pearman
Benjamin R. Pearman

SAM/tem
6 c to Iola, Kansas

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GENERAL INFORMATION & SUMMARY

Company Beckett Oil Company Lease Miller Well No. 5

Location NE $\frac{1}{4}$ SE $\frac{1}{4}$

Section 36 Twp. 24S Rge. 17E County Allen State Kansas

Name of Sand	-	Squirrel
Top of Core	-	808.5
Bottom of Core	-	818.0
Top of Sand	-	809.2
Bottom of Sand	-	818.0
Total Feet of Permeable Sand	-	3.1
Total Feet of Floodable Sand	-	

Distribution of Permeable Sand:
Permeability Range
Millidarcys

	Feet	Cum. Ft.
0 - 5	1.5	1.5
50 - 80	1.6	3.1

Average Permeability Millidarcys	-	23.3
Average Percent Porosity	-	14.7
Average Percent Oil Saturation	-	48.3
Average Percent Water Saturation	-	33.7
Average Oil Content, Bbls./A. Ft.	-	559.
Total Oil Content, Bbls./Acre	-	3,189.
Average Percent Oil Recovery by Laboratory Flooding Tests	-	
Average Oil Recovery by Laboratory Flooding Tests, Bbls./A. Ft.	-	
Total Oil Recovery by Laboratory Flooding Tests, Bbls./Acre	-	
Total Calculated Oil Recovery, Bbls./Acre	-	
Packer Setting, Feet	-	
Viscosity, Centipoises @	-	
A. P. I. Gravity, degrees @ 60 °F	-	
Elevation, Feet	-	

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LOG

Name Beckett Oil Company Lease Miller Well No. 5

<u>Depth Interval, Feet</u>	<u>Description</u>
808.5 - 809.2	Dark gray shale.
809.2 - 810.3	Brown slightly carbonaceous shaly sandstone.
810.3 - 810.7	Brown shaly sandstone.
810.7 - 813.2	Light brown sandy shale.
813.2 - 814.0	Light brown very shaly sandstone.
814.0 - 814.9	Dark brown sandstone.
814.9 - 816.7	Light brown slightly shaly sandstone.
816.7 - 817.3	Gray shale.
817.3 - 818.0	Light brown very shaly sandstone.

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RESULTS OF SATURATION & PERMEABILITY TESTS

TABLE 1-B

Company Beckett Oil Company Lease Miller Well No. 5

Sample No.	Depth, Feet	Effective Porosity Percent	Percent Saturation			Oil Content Bbls. / A Ft.	Perm., Mill.	Feet of Sand		Total Oil Content	Perm. Capacity Ft. X md.
			Oil	Water	Total			Ft.	Cum. Ft.		
1	809.6	11.0	50	31	81	427	Imp.	1.1	1.1	470	0.00
2	810.4	12.9	34	60	94	340	3.3	0.4	1.5	136	1.32
3	813.6	13.9	35	49	84	377	Imp.	0.8	2.3	302	0.00
4	814.3	15.3	57	32	89	677	72.	0.9	3.2	609	64.80
5	815.6	16.1	49	25	74	612	2.0	1.1	4.3	673	2.20
6	816.5	19.4	63	15	78	948	5.8	0.7	5.0	664	4.06
7	817.5	14.7	42	40	82	479	Imp.	0.7	5.7	335	0.00

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SUMMARY OF PERMEABILITY & SATURATION TESTS

TABLE III

Company	Lease	Miller	Well No.
Beckett Oil Company		Miller	5
	Depth Interval, Feet	Feet of Core Analyzed	Average Permeability, Millidarcys
	809.2 - 818.0	3.1	23.3
			Permeability Capacity Ft. x Md.
			72.38
	Depth Interval, Feet	Average Percent Porosity	Average Percent Water Saturation
	809.2 - 818.0	14.7	33.7
	5.7	48.3	559
			Average Oil Content Bbl./A. Ft.
			3,189
			Total Oil Content Bbls./Acre