



# OILFIELD RESEARCH LABORATORIES

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

May 31, 1979

Kansas Crude Company  
820 Meadowbrook  
Iola, Kansas 66749

Gentlemen:

Enclosed herewith are the results of tests run on the rotary core samples taken from the Cummings B Lease, Well No. 16, Woodson County, Kansas, and submitted to our laboratory on May 23, 1979.

These core samples were sampled and the samples 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

BRP:cgb

5 c to Iola, Kansas

- REGISTERED ENGINEERS -

CORE ANALYSIS - WATER ANALYSIS - REPRESSURING ENGINEERING - SURVEYING & MAPPING - PROPERTY EVALUATION & OPERATION

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## GENERAL INFORMATION & SUMMARY

Company Kansas Crude Company Lease Cummings B Well No. 16

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

Section 18 Twp. 25S Rge. 16E County Woodson State Kansas

Name of Sand	Lower Squirrel
Top of Core	983.0
Bottom of Core	995.0
Top of Sand	983.0
Bottom of Sand	995.0
Total Feet of Permeable Sand	10.0
Total Feet of Floodable Sand	

**Distribution of Permeable Sand:**  
Permeability Range  
Millidarcys

	Feet	Cum. Ft.
0 - 20	3.0	3.0
20 - 40	2.0	5.0
40 - 80	3.0	8.0
80 & Above	2.0	10.0

Average Permeability Millidarcys	48.3
Average Percent Porosity	17.5
Average Percent Oil Saturation	50.5
Average Percent Water Saturation	25.6
Average Oil Content, Bbls./A. Ft.	706.
Total Oil Content, Bbls./Acre	8,476.
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 -

Company Kansas Crude Company Lease Cummings B Well No. 16

<u>Depth Interval, Feet</u>	<u>Description</u>
983.0 - 985.0	Very dark brown sandstone.
985.0 - 986.0	Dark brown and gray slightly shaly sandstone.
986.0 - 988.0	Very dark brown sandstone.
988.0 - 989.0	Brown and gray shaly sandstone.
989.0 - 990.0	Gray sandy shale.
990.0 - 991.0	Dark brown and gray laminated sandstone and shale.
991.0 - 992.0	Very Dark brown sandstone.
992.0 - 993.0	Brown and gray laminated sandstone and shale.
993.0 - 994.0	Dark brown slightly shaly sandstone.
994.0 - 995.0	Brown carbonaceous sandstone.

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## RESULTS OF SATURATION & PERMEABILITY TESTS

**TABLE 1-B**

Company Kansas Crude Company Lease Cummings B Well No. 16

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	983.5	18.3	51	14	65	724	77.	1.0	1.0	724	77.00
2	984.5	19.5	50	17	67	756	43.	1.0	2.0	756	43.00
3	985.5	19.7	58	12	70	886	13.	1.0	3.0	886	13.00
4	986.5	19.3	58	13	71	868	92.	1.0	4.0	868	92.00
5	987.5	20.4	48	22	70	760	73.	1.0	5.0	760	73.00
6	988.5	14.0	35	50	85	380	Imp.	1.0	6.0	380	0.00
7	989.5	11.1	12	80	92	103	Imp.	1.0	7.0	103	0.00
8	990.5	18.7	55	18	73	798	13.	1.0	8.0	798	13.00
9	991.5	19.3	58	14	72	868	115.	1.0	9.0	868	115.00
10	992.5	18.7	52	16	68	754	36.	1.0	10.0	754	36.00
11	993.5	18.8	68	20	88	992	21.	1.0	11.0	992	21.00
12	994.5	12.4	61	31	92	587	0.20	1.0	12.0	587	0.20

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## SUMMARY OF PERMEABILITY & SATURATION TESTS

TABLE III

Company	Lease	Well No.					
Kansas Crude Company	Cummings B	16					
Depth Interval, Feet	Feet of Core Analyzed	Average Permeability, Millidarcys	Permeability Capacity Ft. x Md.	Average Percent Porosity	Average Percent Oil Saturation	Average Percent Water Saturation	Total Oil Content Bbls./Acre
983.0 - 995.0	10.0	48.3	483.20				
983.0 - 995.0	12.0			17.5	50.5	25.6	706
							8,476