



OILFIELD RESEARCH LABORATORIES

536 NORTH HIGHLAND - CHANUTE, KANSAS - PHONE HE1-2650

August 3, 1966

Jackson Brothers
514 North Main
Eureka, Kansas

Gentlemen:

Enclosed herewith are the results of tests run on the Rotary core taken from the Olsen Lease, Well No. 5-B, Greenwood County, Kansas, and submitted to our laboratory on July 30, 1966.

This core was sampled and the samples sealed in plastic bags by a representative of Oilfield Research Laboratories.

The core of the section extending from 2410.4 to 2420.0 feet was lost during the cutting of same. As a result, we analyzed only 4.6 feet of sand. Inasmuch as there are only four samples, we did not think it necessary to include a write-up for this core.

Very truly yours,

OILFIELD RESEARCH LABORATORIES

Carl L. Pate

CLP:rf

6 c.

Oilfield Research Laboratories

GENERAL INFORMATION & SUMMARY

Company Jackson Brothers Lease Olsen Well No. 5-B

Location SE SE SE

Section 11 Twp. 25S Rge. 8E County Greenwood State Kansas

Name of Sand - - - - - Bartlesville

Top of Core - - - - - 2393.0

Bottom of Core - - - (Recovered) - - - 2410.4

Top of Sand - - - - - 2405.5

Bottom of Sand - - - - - ?

Total Feet of Permeable Sand - - (Analyzed) - - - 2.1

Total Feet of Floodable Sand - - (Analyzed) - - - 1.4

Distribution of Permeable Sand:
Permeability Range
Millidarcys

Feet

Cum. Ft.

Average Permeability Millidarcys - - - - - 2.2

Average Percent Porosity - - - - - 16.9

Average Percent Oil Saturation - - - - - 26.2

Average Percent Water Saturation - - - - - 59.4

Average Oil Content, Bbls./A. Ft. - - - - - 346.

Total Oil Content, Bbls./Acre - - (For core recovered) - - - 1,589.

Average Percent Oil Recovery by Laboratory Flooding Tests - - - - - 8.0

Average Oil Recovery by Laboratory Flooding Tests, Bbls./A. Ft. - - - - - 117.

Total Oil Recovery by Laboratory Flooding Tests, Bbls./Acre - - - - - 164.

Total Calculated Oil Recovery, Bbls./Acre - - - - -

Packer Setting, Feet - - - - -

Viscosity, Centipoises @ - - - - -

A. P. I. Gravity, degrees @ 60 °F - - - - -

Elevation, Feet - - - - -

OILFIELD RESEARCH LABORATORIES

Company Jackson Brothers Lease Olsen Well No. 5-B

<u>Depth Interval</u> <u>Feet</u>	<u>Description</u>
2393.0 - 2405.5	- Sandy Shale.
2405.5 - 2407.0	- Light brown shaly sandstone.
2407.0 - 2407.3	- Gray shaly sandstone.
2407.3 - 2409.0	- Light brown shaly sandstone.
2409.0 - 2410.4	- Light brown slightly shaly sandstone.
2410.4 - 2420.0	- Loss.

Oilfield Research Laboratories

RESULTS OF SATURATION & PERMEABILITY TESTS

TABLE 1-B

Company Jackson Brothers

Lease Olsen

Well No. 5-B

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	2406.1	16.0	25	65	90	310	Imp.	1.5	1.5	465	0.00
2	2407.5	18.3	27	57	84	383	0.69	0.7	2.2	268	0.48
3	2408.5	15.1	25	64	89	293	Imp.	1.0	3.2	293	0.00
4	2409.5	18.5	28	51	79	402	3.0	1.4	4.6	563	4.20

Oilfield Research Laboratories

SUMMARY OF PERMEABILITY & SATURATION TESTS

TABLE III

Company		Lease		Well No.	
Jackson Brothers		Olsen		5-B	
Depth Interval, Feet	Feet of Core Analyzed	Average Permeability, Millidarcys	Permeability Capacity Ft. x Md.		
2405.5 - 2410.4	2.1	2.2	4.68		
Depth Interval, Feet	Feet of Core Analyzed	Average Percent Porosity	Average Percent Water Saturation	Average Oil Content Bbl./A. Ft.	Total Oil Content Bbls./Acre
2405.5 - 2410.4	4.6	16.9	26.2	59.4	1,589

Oilfield Research Laboratories

RESULTS OF LABORATORY FLOODING TESTS

TABLE IV

Company		Jackson Brothers		Lease		Olsen		Well No.		5-B	
Sample No.	Depth, Feet	Effective Porosity Percent	Original Oil Saturation		Oil Recovery		Residual Saturation		Volume of Water Recovered cc*	Effective Permeability mDarcy**	Initial Fluid Production Pressure Lbs./Sq./In.
			%	Bbls./A. Ft.	%	Bbls./A. Ft.	% Oil	% Water			
1	2406.1	15.6	23	278	0	0	23	70	0	Imp.	-
2	2407.5	17.8	24	332	0	0	24	66	0	Imp.	-
3	2408.5	15.4	22	263	0	0	22	70	0	Imp.	-
4	2409.5	18.9	28	410	8	117	20	72	8	0.20	50

Notes: cc—cubic centimeter.

*—Volume of water recovered at the time of maximum oil recovery.

**—Determined by passing water through sample which still contains residual oil.

Oilfield Research Laboratories
RESULTS OF WATER DIFFERENTIATION TESTS
TABLE VI

Company Jackson Brothers Lease Olsen Well No. 5-B

Sample No.	Depth, Feet	Chloride Content of Brine in Sand ppm	Percent Water Saturation Connate Drilling & Foreign Total
1	2406.1	92,200	
2	2407.5	82,650	
3	2408.5	85,100	
4	2409.5	69,900	

Note: ppm — parts per million