

OILFIELD RESEARCH LABORATORIES

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

May 7, 1980

Rantoul Energy Corporation
Box 516
Hutchinson, Kansas 67501

Gentlemen:

Enclosed herewith is the report of the analysis of the rotary core taken from the Jackman Lease, Well No. 5, Franklin County, Kansas, and submitted to our laboratory on April 3, 1980.

Your business is greatly appreciated.

Very truly yours,

OILFIELD RESEARCH LABORATORIES



Sanford A. Michel

SAM/tem

5 c to Hutchinson, Kansas

Oilfield Research Laboratories

GENERAL INFORMATION & SUMMARY

Company Rantoul Energy Corporation Lease Jackman Well No. 5

Location -

Section 7 Twp. 18S Rge. 21E County Franklin State Kansas

Elevation, Feet

Name of Sand	Squirrel
Top of Core	600.0
Bottom of Core	608.0
Top of Sand	600.0
Bottom of Sand	606.1
Total Feet of Permeable Sand	3.3
Total Feet of Floodable Sand	0.0

Distribution of Permeable Sand: Permeability Range Millidarcys	Feet	Cum. Ft.
0 - 1	1.1	1.1
1 - 5	2.2	3.3

Average Permeability Millidarcys	1.8
Average Percent Porosity	16.2
Average Percent Oil Saturation	28.3
Average Percent Water Saturation	58.3
Average Oil Content, Bbls./A. Ft.	344.
Total Oil Content, Bbls./Acre	1,583.
Average Percent Oil Recovery by Laboratory Flooding Tests	0
Average Oil Recovery by Laboratory Flooding Tests, Bbls./A. Ft.	0
Total Oil Recovery by Laboratory Flooding Tests, Bbls./Acre	0
Total Calculated Oil Recovery, Bbls./Acre	0

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The core was sampled and the samples sealed in plastic bags by a representative of the client. Fresh water mud was used as a drilling fluid. The core was reported to be from a non-virgin area.

Since the core did not respond to flooding susceptibility testing, no calculated recovery is given.

FORMATION CORED

The detailed log of the formation cored is as follows:

<u>Depth Interval, Feet</u>	<u>Description</u>
600.0 - 601.2	Grayish brown shaly sandstone.
601.2 - 601.9	Gray sandy shale.
601.9 - 603.0	Brown shaly sandstone.
603.0 - 604.0	Brown and gray laminated sandstone and shale.
604.0 - 604.8	Gray sandy shale.
604.8 - 606.1	Brown shaly sandstone.
606.1 - 608.0	Gray sandy shale.

RESULTS OF SATURATION & PERMEABILITY TESTS

TABLE 1-B

Rantoul Energy Corporation

Lease Jackman

Company

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	600.5	18.3	25	43	68	355	1.8	1.2	426	2.16	
2	602.5	11.7	40	54	94	363	0.61	1.1	399	0.67	
3	603.5	16.6	12	74	86	155	3.1	1.0	155	3.10	
4	605.5	17.6	34	64	98	464	Imp.	1.3	603	0.00	

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SUMMARY OF PERMEABILITY & SATURATION TESTS

TABLE III

Company		Rantoul Energy Corporation		Lease	Jackman	Well No.	5			
Depth Interval, Feet	Depth Interval, Feet	Feet of Core Analyzed	Feet of Core Analyzed	Average Permeability, Millidarcys	Permeability Capacity Ft. x Md.	Average Percent Oil Saturation	Average Percent Water Saturation	Average Percent Porosity	Average Oil Content Bbl./A. Ft.	Total Oil Content Bbl./Acre
600.0 - 606.1	600.0 - 606.1	3.3	3.3	1.8	5.93	28.3	58.3	16.2	344	1,583

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RESULTS OF LABORATORY FLOODING TESTS

TABLE IV

Company Rantoul Energy Corporation Lease Jackman Well No. 5

Sample No.	Depth, Feet	Effective Porosity Percent	Original Oil Saturation		Oil Recovery		Residual Saturation		Volume of Water Recovered cc*	Effective Permeability Millidarcys**	Initial Fluid Production Pressure Lbs./Sq./In.
			%	Bbls./A. Ft.	%	Bbls./A. Ft.	% Oil	% Water			
1	600.5	18.0	26	363	0	0	26	50	0	Imp.	-
2	602.5	12.1	39	366	0	0	39	57	0	Imp.	-
3	603.5	17.0	11	145	0	0	11	76	0	Imp.	-
4	605.5	17.6	34	464	0	0	34	64	0	Imp.	-

Notes: cc—cubic centimeter.

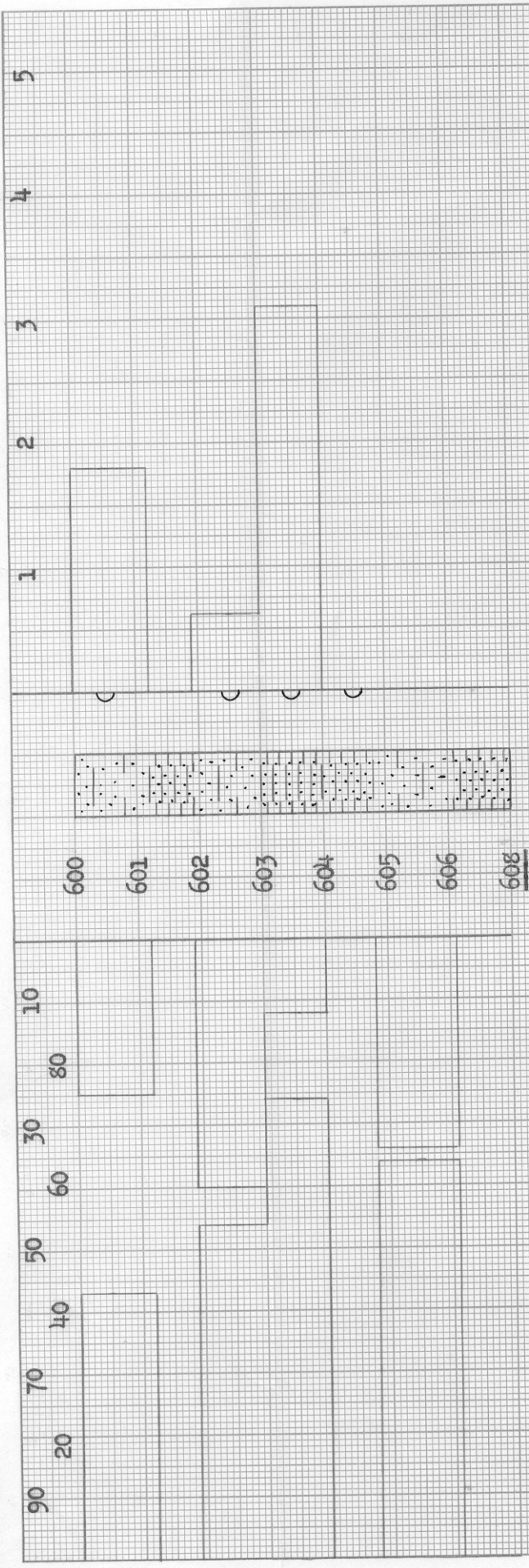
*—Volume of water recovered at the time of maximum oil recovery.

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

PERMEABILITY, IN MILLIDARCY

OIL SAT., PERCENT

WATER SAT., PERCENT



KEY:

SHALY SANDSTONE

LAMINATED SANDSTONE AND SHALE

SANDY SHALE

○ IMPERMEABLE TO WATER

RANTOUL ENERGY CORP.

JACKMAN LEASE

WELL NO. 5

FRANKLIN COUNTY, KANSAS

DEPTH INTERVAL, FEET	FEET OF CORE ANALYZED	AVERAGE PERCENT POROSITY	AVG. OIL SATURATION PERCENT	AVG. WATER SATURATION PERCENT	AVERAGE PERMEABILITY, MILLIDARCY	CALCULATED OIL RECOVERY BELS./ACRE
600.0 - 606.1	4.6	16.2	28.3	58.3	1.8	--