OILFIELD RESEARCH LABORATORIES

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

January 9, 1981

Rantoul Energy Corporation
Box 516
Hutchinson, Kansas 67501

Gentlemen:

Enclosed herewith is the report of the analysis of the rotary core taken from the Judson-Tullous Lease, Well No. 33-C, located in Franklin County, Kansas and submitted to our laboratory on November 14, 1980.

Your business is greatly appreciated.

Very truly yours,

OILFIELD RESEARCH LABORATORIES

Sanford A. Michel

SAM/kas

5 c to Hutchinson, Kansas

Oilfield Research Laboratories

GENERAL INFORMATION & SUMMARY

Company Rantoul Energy Corporation Lease Judson-Tullous Well No. 33-C

Location -

Section 22 Twp. 17S Rge. 21E County Franklin State Kansas

Elevation, Feet - -

Name of Sand	Peru
Top of Core	480.0
Bottom of Core	491.4
Top of Sand	480.0
Bottom of Sand	491.4
Total Feet of Permeable Sand	7.6
Total Feet of Floodable Sand	

Distribution of Permeable Sand: Permeability Range Millidarcys	Feet	Cum. Ft.
0 - 3	3.6	3.6
8 - 12	2.8	6.4
15 & Above	1.2	7.6

Average Permeability Millidarcys	6.7
Average Percent Porosity	17.2
Average Percent Oil Saturation	29.3
Average Percent Water Saturation	60.4
Average Oil Content, Bbls./A. Ft.	382.
Total Oil Content, Bbls./Acre	4,359.
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.

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

Since the core did not respond to flooding susceptability tests, no calculated recovery is given.

FORMATION CORED

The detailed log of the formation cored is as follows:

Depth Interval, Feet	Description
480.0 - 481.8	Light brown slightly calcareous shaly sandstone.
481.8 - 483.0	Light brown slightly calcareous sandstone.
483.0 - 486.8	Light brown and gray laminated slightly calcareous sandstone and shale.
486.8 - 488.6	Light brown slightly calcareous sandstone.
488.6 - 491.4	Grayish light brown shaly slightly calcareous sandstone.

Oilfield Research Laboratories

RESULTS OF SATURATION & PERMEABILITY TESTS

TABLE 1-B

Company Rantoul Energy Corporation Lease Judson-Tullous Well No. 33-C

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	480.5	20.4	10	65	75	158	8.2	1.0	1.0	158	8.20
2	481.6	19.0	25	59	84	369	0.87	0.8	1.8	295	0.70
3	482.5	17.5	21	63	84	285	17.	1.2	3.0	342	20.40
4	483.5	17.7	18	61	79	247	2.0	1.0	4.0	247	2.00
5	484.4	14.4	30	67	97	335	Imp.	1.0	5.0	335	0.00
6	485.5	16.1	35	63	98	437	0.74	1.0	6.0	437	0.74
7	486.5	17.9	28	61	89	389	1.0	0.8	6.8	311	0.80
8	487.5	19.3	34	59	93	509	10.	1.0	7.8	509	10.00
9	488.5	16.1	40	53	93	500	10.	0.8	8.6	400	8.00
10	489.5	16.0	37	61	98	459	Imp.	1.0	9.6	459	0.00
11	490.7	15.9	39	55	94	481	Imp.	1.8	11.4	866	0.00

Oilfield Research Laboratories

SUMMARY OF PERMEABILITY & SATURATION TESTS

TABLE III

Company Rantoul Energy Corporation Lease Judson-Tullous Well No. 33-C

Depth Interval, Feet	Feet of Core Analyzed	Average Permeability, Millidarcys	Permeability Capacity Ft. x Md.
480.0 - 491.4	7.6	6.69	50.84

Depth Interval, Feet	Feet of Core Analyzed	Average Percent Porosity	Average Percent Oil Saturation	Average Percent Water Saturation	Average Oil Content Bbl./A. Ft.	Total Oil Content Bbls./Acre
480.0 - 491.4	11.4	17.2	29.3	60.4	382	4,359

Oilfield Research Laboratories

RESULTS OF LABORATORY FLOODING TESTS

TABLE IV

Company Rantoul Energy Corporation Lease Judson-Tullous Well No. 33-C

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	Bbls./A. Ft.			
1	480.5	20.5	10	159	0	0	10	77	159	456	6.75	20
2	481.6	18.8	25	365	0	0	25	70	365	9	0.15	25
3	482.5	17.6	21	287	0	0	21	75	287	14	1.05	50
4	483.5	18.2	17	240	0	0	17	76	240	80	0.75	25
5	484.4	14.5	30	337	0	0	30	67	337	0	Imp.	-
6	485.5	16.6	34	438	0	0	34	64	438	0	Imp.	-
7	486.5	17.5	29	394	0	0	29	63	394	0	Imp.	-
8	487.5	19.0	35	516	0	0	35	60	516	0	Imp.	-
9	488.5	16.2	40	503	0	0	40	54	503	0	Imp.	-
10	489.5	15.9	37	456	0	0	37	61	456	0	Imp.	-
11	490.7	16.3	38	481	0	0	38	57	481	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.

WATER SAT., PERCENT →

← OIL SAT., PERCENT

90 20 70 40 50 60 30 80 10

480
481
482
483
484
485
486
487
488
489
490
491

PERMEABILITY, IN MILLIDARCYS

EFFECTIVE PERMEABILITY TO WATER, IN MILLIDARCYS

2 4 6 8 10

17 →

KEY:

CALCAREOUS SANDSTONE

SHALY CALCAREOUS SANDSTONE

LAMINATED CALCAREOUS SANDSTONE AND SHALE

IMPERMEABLE TO WATER

RANTOUL ENERGY CORP.

JUDSON - TULLOUS LEASE WELL NO. 33 - C

FRANKLIN COUNTY, KANSAS

DEPTH INTERVAL, FEET	FEET OF CORE ANALYZED	AVERAGE PERCENT POROSITY	AVG. OIL SATURATION PERCENT	AVG. WATER SATURATION PERCENT	AVERAGE PERMEABILITY, MILLIDARCYS	CALCULATED OIL RECOVERY BBLS. / ACRE
480.0 - 491.4	11.4	17.2	29.3	60.4	6.69	------

OILFIELD RESEARCH LABORATORIES
CHANUTE, KANSAS
JANUARY, 1981

KK