



OILFIELD RESEARCH LABORATORIES

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February 14, 1980

Hazlett Oil Company
c/o Lee Wilkins
P.O. Box 707
Chanute, Kansas 66720

Gentlemen:

Enclosed herewith is the report of the analysis of the rotary core taken from the Rubow II Lease, Well No. 1, Wilson County, Kansas, and submitted to our laboratory on January 21, 1980.

Your business is greatly appreciated.

Very truly yours,

OILFIELD RESEARCH LABORATORIES

Sanford M. Michel

SAM/kas
5 c to Chanute, Kansas

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GENERAL INFORMATION & SUMMARY

Company Hazlett Oil Company Lease Rubow II Well No. 1

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

Section 14 Twp. 27S Rge. 16E County Wilson State Kansas

Elevation, Feet - - - - -

Name of Sand - - - - -

Bartlesville

Top of Core - - - - -

1009.0

Bottom of Core - - - - -

1027.0

Top of Sand - - - - -

1009.0

Bottom of Sand - - - - -

1016.7

Total Feet of Permeable Sand - - - - -

6.7

Total Feet of Floodable Sand - - - - -

0

Distribution of Permeable Sand:
Permeability Range
Millidarcys

Feet

Cum. Ft.

0 - 1

2.9

2.9

1 - 5

3.0

5.9

5 - 10

0.8

6.7

Average Permeability Millidarcys - - - - -

2.4

Average Percent Porosity - - - - -

14.0

Average Percent Oil Saturation - - - - -

32.8

Average Percent Water Saturation - - - - -

44.9

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

355.

Total Oil Content, Bbls./Acre - - - - -

2,734.

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. Fresh water mud was used as a drilling fluid. The core was reported to be from a virgin area.

Since the core did not respond to floodpot 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>
1009.0 - 1011.0	Light brown very shaly sandstone.
1011.0 - 1013.8	Light brown shaly sandstone.
1013.8 - 1016.7	Light brown very shaly sandstone.
1016.7 - 1027.0	Dark gray shale.

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RESULTS OF SATURATION & PERMEABILITY TESTS

TABLE 1-B

Company Hazlett Oil Company Lease Rubow II Well No. 1

Sample No.	Depth, Feet	Effective Porosity Percent	Percent Saturation			Oil Content Bbbs. / A Ft.	Perm., Mill.	Feet of Sand		Total Oil Content	Perm. Capacity Ft. X md.
			Oil	Water	Total			Ft.	Cum. Ft.		
1	1009.5	13.7	33	49	82	351	Imp.	1.0	1.0	351	0.00
2	1010.5	14.8	30	43	73	345	0.87	1.0	2.0	345	0.87
3	1011.5	13.6	28	52	80	295	5.0	1.0	3.0	295	5.00
4	1012.5	14.9	37	38	75	428	3.9	1.0	4.0	428	3.90
5	1013.5	14.2	40	35	75	441	5.2	0.8	4.8	353	4.16
6	1014.5	13.9	25	51	76	270	0.63	1.2	6.0	324	0.76
7	1015.5	13.3	35	49	84	361	1.0	1.0	7.0	361	1.00
8	1016.5	13.1	39	36	75	396	0.47	0.7	7.7	277	0.33

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SUMMARY OF PERMEABILITY & SATURATION TESTS

TABLE III

Company	Lease	Well No.				
Hazlett Oil Company	Rubow II	1				
Depth Interval, Feet	Feet of Core Analyzed	Average Permeability, Millidarcys	Permeability Capacity Ft. x Md.			
1009.0 - 1016.7	6.7	2.4	16.02			
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	
1009.0 - 1016.7	7.7	14.0	32.8	44.9	355	2,734

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RESULTS OF LABORATORY FLOODING TESTS

TABLE IV

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	1009.5	13.9	33	356	0	0	33	50	356	0	Imp.	-
2	1010.5	14.8	30	344	0	0	30	43	344	0	Imp.	-
3	1011.5	13.7	28	298	0	0	28	52	298	0	Imp.	-
4	1012.5	15.1	37	434	0	0	37	38	434	0	Imp.	-
5	1013.5	14.0	40	434	0	0	40	35	434	0	Imp.	-
6	1014.5	14.0	25	272	0	0	25	51	272	0	Imp.	-
7	1015.5	13.2	35	358	0	0	35	49	358	0	Imp.	-
8	1016.5	13.3	39	403	0	0	39	36	403	0	Imp.	-

Hazlett Oil Company
Lease Rubow II
Well No. 1

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.