

● CORE ANALYSIS ● WATER REPRESSURING ENGINEERING ● WATER ANALYSIS ● FLOODING WATER TREATMENT ● SURVEYING

OILFIELD RESEARCH LABORATORIES

700 NORTH MISSION
OKMULGEE, OKLAHOMA
PHONE: 4444

- REGISTERED ENGINEERS -

Chanute, Kansas

536 N. HIGHLAND
CHANUTE, KANSAS
PHONE: HE 1-2650

June 30, 1962

Mr. W. R. Gross
Box 510
El Dorado, Kansas

Dear Sir:

Enclosed herewith are the results of tests run on the Rotary core taken from the Bartgis Lease, Well No. 1, Cowley County, Kansas, and submitted to our laboratory on June 26, 1962.

This core was sampled and the samples were sealed in cans by a representative of our laboratory.

Your business is greatly appreciated.

Very truly yours,

OILFIELD RESEARCH LABORATORIES

Benjamin R. Pearman
Benjamin R. Pearman

BRP:bl

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Oilfield Research Laboratories

GENERAL INFORMATION & SUMMARY

Company <u>W. R. Gross</u>	Lease <u>Bartgis</u>	Well No. <u>1</u>
Location <u>SW, SE</u>		
Section <u>8</u> Twp. <u>34S</u> Rge. <u>8E</u>	County <u>Cowley</u>	State <u>Kansas</u>
Name of Sand <u>Limestone</u>		Pawnee
Top of Core		2079.0
Bottom of Core		2094.0
Top of Sand <u>Limestone</u>		2082.3
Bottom of Sand <u>Limestone</u>		2094.0
Total Feet of Permeable Sand <u>Limestone</u>		5.0
Total Feet of Floodable Sand		-
Distribution of Permeable Sand <u>Limestone</u>		
Permeability Range Millidarcys	Feet	Cum. Ft.
0 - 1.0	5.0	5.0
Average Permeability Millidarcys		0.42
Average Percent Porosity		9.5
Average Percent Oil Saturation		31.8
Average Percent Water Saturation		42.9
Average Oil Content, Bbls./A. Ft.		220.
Total Oil Content, Bbls./Acre		2,586.
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

PAWNEE LIMESTONE

Depth Interval, <u>Feet</u>	<u>Description</u>
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2079.0 - 2081.5	- Shale.
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2081.5 - 2082.3	- Gray limestone.
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2082.3 - 2094.0	- Grayish brown sandy limestone.
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2094.0 - 2236.0	- Drilled.
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TOP OF SECOND CORE (CATTLEMAN SANDSTONE?)

2236.0 - 2239.0	- Sandy shale.
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2239.0 - 2264.0	- Shale.
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RESULTS OF SATURATION & PERMEABILITY TESTS

TABLE 1-B

Company W. R. Gross			Lease Bartgis			Well No. 1					
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	2082.5	7.7	13	58	71	78	Imp.	0.5	0.5	39	0.00
2	2083.2	8.0	41	54	95	254	0.35	1.0	1.5	254	0.35
3	2084.2	8.4	41	52	93	267	0.35	1.0	2.5	267	0.35
4	2085.2	12.7	18	42	60	177	0.42	1.0	3.5	177	0.42
5	2086.2	8.6	41	48	89	273	Imp.	1.0	4.5	273	0.00
6	2087.2	4.0	22	42	64	68	Imp.	1.0	5.5	68	0.00
7	2088.2	11.6	25	47	72	225	Imp.	1.0	6.5	225	0.00
8	2089.2	13.7	26	43	69	276	Imp.	1.0	7.5	276	0.00
9	2090.2	12.7	42	34	76	414	0.75	1.0	8.5	414	0.75
10	2091.2	12.6	20	33	53	195	0.24	1.0	9.5	195	0.24
11	2092.2	3.5	59	32	91	160	Imp.	1.0	10.5	160	0.00
12	2093.2	9.1	26	38	64	183	Imp.	1.3	11.8	238	0.00
								Total	- - -	- 2,586	

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SUMMARY OF PERMEABILITY & SATURATION TESTS

TABLE III

Company <u>W. R. Gross</u>		Lease <u>Bartgis</u>		Well No. <u>1</u>	
Depth Interval, Feet	Feet of Core Analyzed	Average Permeability, mDarcy	Permeability Capacity P. x Md.		
2082.3 - 2087.7	3.0	0.37	1.12		
2087.7 - 2094.0	2.0	0.50	0.99		
2082.3 - 2094.0	5.0	0.42	2.11		

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 Bbl./Acre
2082.3 - 2087.7	5.5	8.3	30.8	48.5	214	1,078
2087.7 - 2094.0	6.3	10.5	32.6	37.9	239	1,508
2082.3 - 2094.0	11.8	9.5	31.8	42.9	220	2,586