



OILFIELD RESEARCH LABORATORIES

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

August 16, 1966

Brazos Oil & Gas Company
P.O. Box 22468
Houston, Texas 77027

Attn: Mr. G. P. Huston

Gentlemen:

Enclosed herewith are the results of tests run on the Rotary core taken from the Roessner Lease, Well No. 1, Franklin County, Kansas, and submitted to our laboratory on August 9, 1966.

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

Permeability samples could not be obtained for the entire lime section from 590.0 to 593.6.

Your business is greatly appreciated.

Very truly yours,

OILFIELD RESEARCH LABORATORIES

Benjamin R. Pearman
Benjamin R. Pearman

BRP:rf

8 c. - Houston, Texas
1 c. - Chanute, Kansas

Oilfield Research Laboratories

GENERAL INFORMATION & SUMMARY

Company Brazos Oil & Gas Company Lease Roessner Well No. 1

Location 460' WEL & 460' SNL. SE $\frac{1}{4}$

Section 19 Twp. 17S Rge. 21E County Franklin State Kansas

Name of Sand	- - - - -	Squirrel
Top of Core	- - - - -	590.0
Bottom of Core	- - - - -	625.5
Top of Sand	- - - - -	590.0
Bottom of Sand	- - - - -	606.7
Total Feet of Permeable Sand	- - (Tested) - - - - -	8.6
Total Feet of Floodable Sand	- - (Tested) - - - - -	0.0

Distribution of Permeable Sand:
Permeability Range
Millidarcys

Feet

Cum. Ft.

0 - 3	2.0	2.0
11 - 50	4.4	6.4
50 & above	2.2	8.6

Average Permeability Millidarcys	- - - - -	28.3
Average Percent Porosity	- - - - -	15.0
Average Percent Oil Saturation	- - - - -	29.0
Average Percent Water Saturation	- - - - -	44.5
Average Oil Content, Bbls./A. Ft.	- - - - -	426.
Total Oil Content, Bbls./Acre	- - - - -	3,664.
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	- - - - -	
Packer Setting, Feet	- - - - -	
Viscosity, Centipoises @	- - - - -	
A. P. I. Gravity, degrees @ 60 °F	- - - - -	
Elevation, Feet	- - - - -	

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-LOG-

Company Brazos Oil & Gas Company Lease Roessner Well No. 1

Depth Interval, Description
Feet

590.0 - 593.6 - Gray, vuggy limestone.

593.6 - 596.6 - Sandy shale.

596.6 - 602.0 - Light brown, shaly sandstone.

602.0 - 603.5 - Gray sandy limestone.

603.5 - 606.7 - Brown, slightly shaly sandstone.

606.7 - 625.5 - Sandy shale.

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RESULTS OF SATURATION & PERMEABILITY TESTS

TABLE 1-B

Company Brazos Oil & Gas Company Lease Roessner 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			Ft.	Cum. Ft.		
1	590.5	5.2				-	1.0	1.0		-
2	591.5	5.7				-	1.0	2.0		-
3	592.5	5.5				Imp.	1.6	3.6		0.00
4	597.1	18.2	25	47	72	2.6	1.0	4.6	353	2.60
5	598.1	18.1	28	46	74	0.23	1.0	5.6	392	0.23
6	599.1	19.3	31	54	85	13.	1.0	6.6	464	13.00
7	600.1	18.8	32	48	80	25.	1.0	7.6	466	25.00
8	601.1	15.9	28	39	67	11.	1.4	9.0	483	15.40
9	603.8	18.0	32	45	77	38.	1.0	10.0	446	38.00
10	605.1	22.6	33	40	73	69.	1.0	11.0	579	69.00
11	606.2	21.6	24	40	64	67.	1.2	12.2	481	80.40

SUMMARY OF PERMEABILITY & SATURATION TESTS

TABLE III

Company	Brazos Oil & Gas Company		Lease	Roessner		Well No.	
	Depth Interval, Feet	Feet of Core Analyzed		Average Permeability, Millidarcys	Permeability Capacity, Ft. x Md.		
	590.0 - 593.6	1.6		0.0	0.00		
	596.6 - 606.7	8.6		28.3	243.63		
	590.0 - 606.7	8.6		28.3	243.63		
	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
	590.0 - 593.6	3.6	5.5	-	-	-	-
	596.6 - 606.7	8.6	19.0	29.0	44.5	426	3,664
	590.0 - 606.7	12.2	15.0				

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RESULTS OF LABORATORY FLOODING TESTS

TABLE IV

Company			Brazos Oil & Gas Company			Lease			Roessner			Well No.			1		
Sample No.	Depth, Feet	Effective Porosity Percent	Original Oil Saturation		Oil Recovery		Residual Saturation			Volume of Water Recovered cc ^a	Effective Permeability Millidarcys ^{cc}	Initial Field Production Pressure Lbs./Sq./In.					
			%	Bbls./A. Ft.	%	Bbls./A. Ft.	% Oil	% Water	Bbls./A. Ft.								
7	600.1	19.3	31	464	0	0	31	61	464	136	2.60	10					
9	603.8	18.0	33	460	0	0	33	48	460	0	Imp.	-					
11	606.2	21.2	24	394	0	0	24	62	394	15	0.300	30					

Notes: cc—cubic centimeter.

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

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