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

December 17, 1979

Gator Oil Company
2326 S. Congress Avenue
Suite 1-B
West Palm Beach, Florida 33406

Gentlemen:

Enclosed herewith is the report of the analysis of the rotary core taken from the Thorne Lease, Well No. 1, Chautauqua County, Kansas, and submitted to our laboratory on November 30, 1979.

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

As requested, several samples were subjected to floodpot testing. The results of these tests are presented on Table IV, and V and on the coregraph.

Your business is greatly appreciated.

Very truly yours,

OILFIELD RESEARCH LABORATORIES

Benjamin R. Pearman

Benjamin R. Pearman

BRP/tem
4 c to West Palm Beach, Florida
1 c to Caney, Kansas

Oilfield Research Laboratories

GENERAL INFORMATION & SUMMARY

Company Gator Oil Company Lease Thorne Well No. 1

Location 220' FWL & 1100' FSL SW

Section 8 Twp. 34S Rge. 13E County Chautauqua State Kansas

Name of Sand	Redd
Top of Core	606.0
Bottom of Core	620.8
Top of Sand	606.0
Bottom of Sand	620.8
Total Feet of Permeable Sand	14.4
Total Feet of Floodable Sand (Analyzed)	2.5

Distribution of Permeable Sand: Permeability Range Millidarcys	Feet	Cum. Ft.
0 - 10	4.1	4.1
15 - 50	3.8	7.9
50 - 150	4.5	12.4
150 & Above	2.0	14.4

Average Permeability Millidarcys	67.1
Average Percent Porosity	16.7
Average Percent Oil Saturation	24.6
Average Percent Water Saturation	55.1
Average Oil Content, Bbls./A. Ft.	368.
Total Oil Content, Bbls./Acre	5,306.
Average Percent Oil Recovery by Laboratory Flooding Tests	13.8
Average Oil Recovery by Laboratory Flooding Tests, Bbls./A. Ft.	122.
Total Oil Recovery by Laboratory Flooding Tests, Bbls./Acre	306.
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

Name Gator Oil Company Lease Thorne Well No. 1

Depth Interval, Feet	Description
606.0 - 607.0	Brown sandstone.
607.0 - 607.6	Brown shaly sandstone.
607.6 - 608.0	Gray shale.
608.0 - 614.8	Brown sandstone.
614.8 - 618.3	Brown shaly sandstone.
618.3 - 620.8	Brown sandstone.

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RESULTS OF SATURATION & PERMEABILITY TESTS

TABLE 1-B

Company Gator Oil Company Lease Thorne 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	606.5	18.3	24	48	72	341	15.	1.0	1.0	341	15.00
2	607.5	9.5	25	63	88	184	1.3	0.6	1.6	110	0.78
3	608.3	14.5	45	50	95	506	20.	1.0	2.6	506	20.00
4	609.3	18.3	26	48	74	369	43.	1.0	3.6	369	43.00
5	610.3	18.8	22	53	75	321	188.	1.0	4.6	321	188.00
6	611.3	20.7	24	52	76	385	175.	1.0	5.6	385	175.00
7	612.5	22.1	27	44	71	463	123.	1.0	6.6	463	123.00
8	613.4	20.6	26	47	73	416	103.	1.0	7.6	416	103.00
9	614.4	17.8	42	43	85	580	90.	0.8	8.4	464	72.00
10	615.4	13.4	24	39	63	250	2.7	1.2	9.6	300	3.24
11	616.4	11.2	13	76	89	112	7.0	1.0	10.6	112	7.00
12	617.4	8.2	7	88	95	45	0.82	1.3	11.9	585	1.07
13	618.5	20.8	22	52	74	355	110.	0.7	12.6	248	77.00
14	619.5	19.9	26	56	82	401	113.	1.0	13.6	401	113.00
15	620.5	19.1	24	61	85	356	31.	0.8	14.4	285	24.80

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SUMMARY OF PERMEABILITY & SATURATION TESTS

TABLE III

Company Gator Oil Company Lease Thorne Well No. 1

Depth Interval, Feet	Feet of Core Analyzed	Average Permeability, Millidarcys	Permeability Capacity Ft. x Md.
606.0 - 620.8	14.4	67.1	965.89

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
606.0 - 620.8	14.4	16.7	24.6	55.1	368	5,306

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RESULTS OF LABORATORY FLOODING TESTS

TABLE IV

Company Gator Oil Company Lease Thorne Well No. 1

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.			
3	608.3	15.0	45	524	15	174	30	68	350	201	4.00	20
6	611.3	21.0	25	407	0	0	25	72	407	373	5.93	20
9	614.4	17.8	42	580	10	138	32	60	442	136	2.75	25
13	618.5	19.9	22	340	2	31	20	76	309	165	3.15	20

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.

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SUMMARY OF LABORATORY FLOODING TESTS

TABLE V

Company Gator Oil Company Lease Thorne Well No. 1

Depth Interval, Feet	608.0 - 619.0
Feet of Core Analyzed	2.5
Average Percent Porosity	17.2
Average Percent Original Oil Saturation	41.6
Average Percent Oil Recovery	13.8
Average Percent Residual Oil Saturation	27.8
Average Percent Residual Water Saturation	67.8
Average Percent Total Residual Fluid Saturation	95.6
Average Original Oil Content, Bbls./A. Ft.	490.
Average Oil Recovery, Bbls./A. Ft.	122.
Average Residual Oil Content, Bbls./A. Ft.	368.
Total Original Oil Content, Bbls./Acre	1,226.
Total Oil Recovery, Bbls./Acre	306.
Total Residual Oil Content, Bbls./Acre	920.
Average Effective Permeability, Millidarcys	3.36
Average Initial Fluid Production Pressure, p.s.i.	21.6

NOTE: Only those samples which recovered oil were used in calculating the above averages.