

OILFIELD RESEARCH LABORATORIES

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

January 11, 1980

Diamond Oil Producers, Inc.
114 South Depot
Cherryvale, Kansas 67335

Gentlemen:

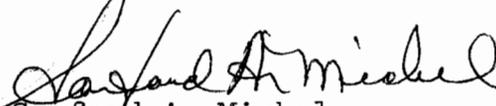
Enclosed herewith are the results of tests run on the rotary core taken from the Gay Lease, Well No. 4, Montgomery County, Kansas and submitted to our laboratory on December 24, 1979.

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

Your business is greatly appreciated.

Very truly yours,

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Sanford A. Michel

SAM/tem
5 c to Cherryvale, Kansas

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GENERAL INFORMATION & SUMMARY

Company Diamond Oil Producers, Inc. Lease Gay Well No. 4

Location -

Section 34 Twp. 33S Rge. 14E County Montgomery State Kansas

Name of Sand	-	Wayside
Top of Core	-	654.0
Bottom of Core	-	664.6
Top of Sand	-	654.0
Bottom of Sand	-	664.6
Total Feet of Permeable Sand	-	9.7
Total Feet of Floodable Sand	-	

Distribution of Permeable Sand:
Permeability Range
Millidarcys

	Feet	Cum. Ft.
0 - 4	4.9	4.9
14 - 35	4.8	9.7

Average Permeability Millidarcys	-	11.8
Average Percent Porosity	-	16.4
Average Percent Oil Saturation	-	40.2
Average Percent Water Saturation	-	53.1
Average Oil Content, Bbls./A. Ft.	-	515.
Total Oil Content, Bbls./Acre	-	5,458.
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

Name Diamond Oil Producers, Inc. Lease Gay Well No. 4

<u>Depth Interval,</u> <u>Feet</u>	<u>Description</u>
654.0 - 658.8	Brown sandstone.
658.8 - 660.7	Brown slightly shaly sandstone.
660.7 - 663.7	Brown shaly sandstone.
663.7 - 664.6	Brown and gray laminated sandstone and shale.

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RESULTS OF SATURATION & PERMEABILITY TESTS

TABLE I-B

Company Diamond Oil Producers, Inc. Lease Gay Well No. 4

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	654.5	19.4	53	42	95	798	14.	1.0	1.0	798	14.00
2	655.5	18.0	42	48	90	587	24.	1.0	2.0	587	24.00
3	656.5	17.1	27	67	94	358	15.	1.0	3.0	358	15.00
4	657.5	16.3	27	63	90	341	35.	1.0	4.0	341	35.00
5	658.5	17.9	50	37	87	694	23.	0.8	4.8	555	18.40
6	659.5	16.3	41	57	98	519	3.9	1.0	5.8	519	3.90
7	660.5	16.2	46	50	96	578	3.2	0.9	6.7	520	2.88
8	661.5	16.0	46	49	95	571	0.92	1.0	7.7	571	0.92
9	662.5	14.9	43	51	94	497	0.26	1.0	8.7	497	0.26
10	663.5	14.4	30	64	94	335	0.26	1.0	9.7	335	0.26
11	664.5	13.5	40	53	93	419	Imp.	0.9	10.6	377	0.00

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SUMMARY OF PERMEABILITY & SATURATION TESTS

TABLE III

Company	Lease	Well No.	4			
Diamond Oil Producers, Inc.	Gay					
Depth Interval, Feet	Feet of Core Analyzed	Average Permeability, Millidarcys	Permeability Capacity Fl. x Md.			
654.0 - 664.6	9.7	11.8	114.62			
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	
654.0 - 664.6	10.6	16.4	40.2	53.1	515	5,458