



OILFIELD RESEARCH LABORATORIES

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

December 13, 1979

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. 5, Montgomery County, Kansas, and submitted to our laboratory on December 5, 1979.

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

Your business is greatly appreciated.

Very truly yours,

OILFIELD RESEARCH LABORATORIES

Benjamin R. Pearman
Benjamin R. Pearman

BRP/tem
5 c to Cherryvale, Kansas

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GENERAL INFORMATION & SUMMARY

Company Diamond Oil Producers, Inc Lease Gay Well No. 5
 Location 495' WEL & 825' NSL N $\frac{1}{2}$ SE $\frac{1}{4}$
 Section 34 Twp. 33S Rge. 14E County Montgomery State Kansas
 Name of Sand - - - - - Wayside
 Top of Core - - - - - 662.0
 Bottom of Core - - - - - 673.7
 Top of Sand - - - - - 662.0
 Bottom of Sand - - - - - 673.7
 Total Feet of Permeable Sand - - - - - 10.3
 Total Feet of Floodable Sand - - - - -
 Distribution of Permeable Sand:

Permeability Range Millidarcys	Feet	Cum. Ft.
0 - 1	4.3	4.3
1 - 2	2.0	6.3
2 - 4	3.0	9.3
4 & Above	1.0	10.3

 Average Permeability Millidarcys - - - - - 1.8
 Average Percent Porosity - - - - - 14.9
 Average Percent Oil Saturation - - - - - 25.8
 Average Percent Water Saturation - - - - - 62.2
 Average Oil Content, Bbls./A. Ft. - - - - - 301.
 Total Oil Content, Bbls./Acre - - - - - 3,527.
 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. 5

Depth Interval,
Feet

Description

662.0 - 672.3

Light brown sandstone laminated with thin streaks of gray barren sandstone, barren sandstone becoming more predominate with depth.

672.3 - 673.7

Gray barren sandstone laminated with thin streaks of shale.

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RESULTS OF SATURATION & PERMEABILITY TESTS

TABLE 1-B

Company Diamond Oil Producers, Inc. Lease Gay Well No. 5

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	662.5	10.0	74	21	574	5.0	1.0	1.0	574	5.00
2	663.5	17.7	31	50	426	1.8	1.0	2.0	426	1.80
3	664.5	16.1	25	63	312	2.1	1.0	3.0	312	2.10
4	665.5	17.6	34	53	470	3.9	1.0	4.0	470	3.90
5	666.5	19.7	38	42	581	2.4	1.0	5.0	581	2.40
6	667.5	15.2	16	80	189	0.70	1.0	6.0	189	0.70
7	668.5	16.6	29	62	374	0.28	1.0	7.0	374	0.28
8	669.5	14.7	13	80	148	1.0	1.0	8.0	148	1.00
9	670.5	14.8	17	74	195	0.98	1.0	9.0	195	0.98
10	671.5	13.5	18	77	186	0.40	1.3	10.3	186	0.40
11	672.5	13.6	8	86	84	Imp.	0.7	11.0	59	0.00
12	673.5	12.4	2	93	19	Imp.	0.7	11.7	13	0.00

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SUMMARY OF PERMEABILITY & SATURATION TESTS

TABLE III

Company	Diamond Oil Producers, Incorporated		Lease	Gay	Well No.	
Depth Interval, Feet	Feet of Core Analyzed	Average Permeability, Millidarcys	Permeability Capacity Ft. x Md.			
662.0 - 673.7	10.3	1.8	18.56			
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
662.0 - 673.7	11.7	14.9	25.8	62.2	301	3,527