

OILFIELD RESEARCH LABORATORIES

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- REGISTERED ENGINEERS -

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January 5, 1959

Schermernhorn Oil Corporation
P. O. Box 287
Tulsa, Oklahoma

Gentlemen:

Enclosed herewith are the results of tests run on the 3" Rotary core taken from the Wiggans "D" Lease, Well No. 19-G, Wilson County, Kansas, and submitted to our laboratory on December 27, 1958.

On the basis of the core data, it is evident that an efficient water-flood, within the vicinity of this well, will recover approximately 2,640 barrels of oil per acre from the 9.1 feet of floodable pay sand analyzed, provided the sand will take water satisfactorily. In calculating this recovery the following factors and assumptions were employed:

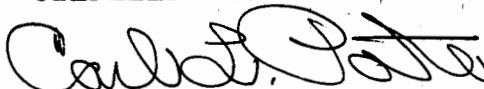
Original formation volume factor	1.07
Present formation volume factor	1.03
Irreducible water saturation, percent	30.0
Primary oil recovery	none
Present oil saturation, percent	67.4
Oil saturation at abandonment, percent	33.0
Percent porosity	22.4
Net feet of floodable pay sand	9.1
Performance factor (permeability distribution & sweep efficiency)	0.50

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

Your business is greatly appreciated.

Yours very truly,

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Carl L. Pate

CLP:jh

Oilfield Research Laboratories

GENERAL INFORMATION & SUMMARY

Company Schermerhorn Oil Corp. Lease Wiggans "D" Well No. 19-G

Location 660' North of South Line & 330' West of East Line, SW $\frac{1}{4}$

Section 17 Twp. 28S Rge. 17E County Wilson State Kansas

Name of Sand - - - - - Bartlesville

Top of Core - - - - - 943.0

Bottom of Core - - - - - 969.0

Top of Sand - - - - - 944.6

Bottom of Sand - - - - - 955.0

Total Feet of Permeable Sand - - - - - 10.4

Pay
Total Feet of Floodable Sand - - - - - 9.1

Distribution of Permeable Sand:
Permeability Range
Millidarcys

Feet

Cum. Ft.

Effective
Average/Permeability Millidarcys - - - - - 0.627

Average Percent Porosity - - - - - 19.8

Average Percent Oil Saturation - - - - - 35.0

Average Percent Water Saturation - - - - - 34.8

Average Oil Content, Bbls./A. Ft. - - - - - 546.

Total Oil Content, Bbls./Acre - - - - - 9,555.

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 - - - - - 2,640.

Total Calculated Oil Recovery, Bbls./Acre - - - - -

Packer Setting, Feet - - - - -

Viscosity, Centipoises @ - - - - -

A. P. I. Gravity, degrees @ 60 °F - - - - -

Elevation, Feet - - (Assumed Datum) - - - - - 915.6

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LOGCompany Schermerhorn Oil Corp. Lease Wiggans "D" Well No. 19-G

<u>Depth Interval, Feet</u>	<u>Description</u>
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943.0 - 943.3	- Brown fine grained micaceous laminated shaley sandstone.
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943.3 - 950.0	- Brown fine grained micaceous sandstone.
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950.0 - 951.0	- Brown fine grained micaceous slightly shaley sandstone.
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951.0 - 951.3	- Brown fine grained micaceous laminated shaley sandstone.
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951.3 - 955.0	- Brown fine grained micaceous slightly shaley sandstone.
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955.0 - 957.0	- Brown fine grained micaceous shaley sandstone.
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957.0 - 958.4	- Brown laminated shaley sandstone.
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958.4 - 960.5	- Dark carbonaceous shaley sandstone.
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960.5 - 962.2	- Dark shale.
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962.2 - 964.0	- Gray sandy shale.
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964.0 - 969.0	- Dark shale (discarded at well).
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RESULTS OF PERMEABILITY TESTS
TABLE I

Company Schermerhorn Oil Corporation Lease Wiggans "D" Well No. G-19

Sample No.	Depth Feet	Permeability Millidarcys	Feet of Core		Permeability Capacity Ft. x Md.
			Ft.	Cum. Ft.	
1	943.5	13.			
2	944.5	37.			
3	945.1	87.			
4	946.5	2.6			
5	947.5	32.			
6	948.5	11.			
7	949.5	49.			
8	950.5	20.			
9	951.5	28.			
10	952.5	35.			
11	953.5	35.			
12	954.5	22.			
13	955.5	30.			
14	956.5	35.			
15	957.5	0.43			
16	958.5	23.			
17	959.5	1.1			

RESULTS OF SATURATION & PERMEABILITY TESTS

TABLE 1

Company Schermerhorn Oil Corp.			Lease Wiggins "D"			Well No.			19-G		
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.		
				Oil	Total						
1	943.1	12.3	21	59	80	201	Imp.	0.3	0.3	60	
2	944.1	22.6	42	25	67	730	0.173	1.3	1.6	956	
3	945.1	21.6	42	30	72	704	0.222	1.0	2.6	704	
4	946.1	22.9	41	24	65	728	1.73	1.0	3.6	728	
5	947.1	23.8	38	30	68	702	0.200	1.0	4.6	702	
6	948.1	21.2	30	33	63	494	0.712	1.0	5.6	494	
7	949.1	23.3	34	33	67	615	1.10	1.4	7.0	862	
8	950.1	18.2	25	47	72	353	Imp.	1.0	8.0	353	
9	951.1	10.7	10	72	82	83	Imp.	0.3	8.3	25	
10	952.1	21.2	35	29	64	576	0.605	1.3	9.6	749	
11	953.1	21.6	39	29	68	654	0.400	1.0	10.6	654	
12	954.1	16.0	39	40	79	485	0.508	1.4	12.0	679	
13	955.1	15.6	38	31	69	460	Imp.	0.6	12.6	276	
14	956.1	21.3	36	24	60	595	Imp.	1.4	14.0	832	
15	957.1	15.0	29	46	75	338	Imp.	0.6	14.6	203	
16	958.1	16.4	30	50	80	382	Imp.	0.8	15.4	306	
17	959.1	17.2	31	42	73	414	Imp.	1.2	16.6	497	
18	960.1	17.9	38	39	77	528	Imp.	0.9	17.5	472	
								Total	- - -	9,555	

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SUMMARY OF PERMEABILITY & SATURATION TESTS

TABLE III - B

Company	Schermerhorn Oil Corporation	Lease	Wiggins "D"	Well No.	19-G	
Depth Interval, Feet		Feet of Core Analyzed	Effective Average Permeability, Millidarcys	Permeability Capacity, Ft. x Md.		
943.3 - 950.0		6.7	0.691			
951.3 - 955.0		3.7	0.513			
943.3 - 955.0		10.4	0.627			
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
943.0 - 950.0	7.0	22.2	37.1	30.5	644	4,506
950.0 - 960.5	10.5	18.2	33.6	37.7	480	5,049
943.0 - 960.5	17.5	19.8	35.0	34.8	546	9,555