

OIL FIELD RESEARCH LABORATORIES  
CHANUTE, KANSAS

February 8, 1951

Susmie Oil Company  
Box 1894  
Wichita, Kansas

Attention: Mr. O. A. Sutton

Gentlemen:

Enclosed herewith is the report of the partial analysis made on the small Cable Tool core taken from your Maynard Lease, Well No. 8, Woodson County, Kansas, and submitted to our laboratory on January 27, 1951.

In calculating the recovery for the sand within the vicinity of this well, an allowance was made for oil lost during coring, and it was assumed that the true water saturation of the sand is 20 percent and that the sand will take water satisfactorily.

Very truly yours,

OIL FIELD RESEARCH LABORATORIES

Clayton A. Nattier

CAN:bb  
c.c. to Mr. G. M. Smith

24-23-16E

8  
Maynard

SUSHIO OIL COMPANY  
CORE ANALYSIS REPORT

MAYNARD LEASE

WELL NO. 8

WOODSON COUNTY, KANSAS

OIL FIELD RESEARCH LABORATORIES

CHANUTE, KANSAS

FEBRUARY 9, 1951

# Oil Field Research Laboratories

## GENERAL INFORMATION & SUMMARY

Company Sunco Oil Company Lease Maynard Well No. 8  
 Location 660' West of East Line & 80' North of South Line, N½, SW¼  
 Section 24 Twp. 23S Rge. 16E County Woodson State Kansas

Name of Sand	Squirrel
Top of Core	939.30
Bottom of Core	956.50
Top of Sand	941.60
Bottom of Sand	951.30
Total Feet of Permeable Sand	2.75

Distribution of Permeable Sand: Permeability Range Millidarcys	Feet	Cum. Ft.
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Average <sup>Effective</sup> Permeability Millidarcys	1.89
Average Percent Porosity	19.97
Average Percent Oil Saturation	42.36
Average Percent Water Saturation	35.74
Average Oil Content, Bbls./A. Ft.	663.
Total Oil Content, Bbls./Acre	2,254.
Average Percent Oil Recovery by Laboratory Flooding Tests	7.38
Average Oil Recovery by Laboratory Flooding Tests, Bbls./A. Ft.	121.
Total Oil Recovery by Laboratory Flooding Tests, Bbls./Acre	334.
Total Calculated Oil Recovery, Bbls./Acre	1,300.
Packer Setting, Feet	-
Viscosity, Centipoises @	
A. P. I. Gravity, degrees @ 60 °F	

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CHANUTE, KANSAS

LOG

<u>Company</u>	<u>Susmie Oil Company</u>	<u>Lease</u>	<u>Maynard</u>	<u>Well No.</u>	<u>8</u>
<u>Depth Interval,</u> <u>Feet</u>	<u>Description</u>				
939.30 - 941.05	- Gray shale.				
941.05 - 941.60	- Gray sandy calcareous shale.				
941.60 - 941.80	- Brown fine grained micaceous calcareous slightly shaley sandstone.				
941.80 - 942.40	- Brown fine grained slightly laminated micaceous shaley sandstone.				
942.40 - 943.20	- Laminated shaley sandstone.				
943.20 - 943.80	- Brown fine grained micaceous sandstone.				
943.80 - 944.00	- Laminated sandy shale.				
944.00 - 944.15	- Brown fine grained micaceous sandstone.				
944.15 - 944.45	- Laminated sandy shale.				
944.45 - 945.90	- Dark brown fine grained micaceous sandstone.				
945.90 - 946.10	- Sandy shale.				
946.10 - 946.40	- Shaley sandstone.				
946.40 - 946.60	- Dark brown fine grained micaceous sandstone.				
946.60 - 947.90	- Laminated sandy shale.				
947.90 - 950.80	- Gray sandy shale.				
950.80 - 951.30	- Brown fine grained micaceous slightly shaley sandstone.				
951.30 - 952.70	- Gray sandy shale.				
952.70 - 953.10	- Gray shale.				
953.10 - 953.70	- Brown fine grained micaceous slightly shaley sandstone.				
953.70 - 956.50	- Gray shale.				

**Oil Field Research Laboratories**

**RESULTS OF SATURATION TESTS**

**TABLE III**

Company Susmie Oil Co. Lease Maynard Well No. 8

Sat. No.	Depth, Feet	Effective Porosity Percent	Percent Saturation			Oil Content, Bbls./A. Ft.	Feet of Core		Total Oil Content Bbls./Acre
			Oil	Water	Total		Ft.	Cum. Ft.	
2	942.08	17.1	43.9	43.4	87.3	582	0.60	0.60	350
F-4	944.09	17.5	49.6	--	--	672	0.35	0.95	236
5	945.18	23.3	44.6	29.6	84.2	906	1.45	2.40	1170
6	946.18	15.4	35.4	50.5	85.9	423	0.30	2.70	127
F-6A	946.55	22.2	40.4	--	--	696	0.20	2.90	139
F-11	951.12	17.5	34.1	--	--	463	0.50	3.40	<u>232</u>
							<b>Total</b>	<b>-----</b>	<b>2,254</b>

Oil Field Research Laboratories

SUMMARY OF SATURATION TESTS

TABLE IV

Company Sussex Oil Co. Lease Maynard Well No. 8

Depth Interval, Feet	Feet of Core Analyzed	Average Percent Porosity	Average Percent Oil Saturation	Average Percent Water Saturation	Average Oil Content Bbls./A. Ft.	Total Oil Content Bbls./Acre
941.80-951.30	3.40	19.97	42.36	35.74	663	2.254

**Oil Field Research Laboratories**  
**RESULTS OF LABORATORY FLOODING TESTS**

TABLE V

Company Susmie Oil Co. Lease Raynard Well No. 8

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.
			Percent	Bbls./A. Ft.	Percent	Bbls./A. Ft.	% Oil	% Water	Bbls./A. Ft.			
2A	942.20	16.8	44.6	581	5.6	73	39.0	55.1	508	25.	0.464	20
4	944.09	17.5	49.6	672	0.0	0	49.6	31.0	672	0.5	0.0387	50
5A	944.90	22.6	45.6	807	10.0	177	35.6	57.3	630	159.	2.74	10
6A	946.55	22.2	40.4	696	2.1	36	38.3	45.4	660	29.	1.16	25
11	951.12	17.5	34.1	463	3.9	53	30.2	45.1	410	24.	1.38	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.

**Oil Field Research Laboratories**  
**SUMMARY OF LABORATORY FLOODING TESTS**

**TABLE VI**

Company Sunco Oil Co. Lease Maynard Well No. 8

Depth Interval, Feet	941.80 - 951.30
Feet of Core Analyzed	2.75
Average Percent Porosity	20.47
Average Percent Original Oil Saturation	42.91
Average Percent Oil Recovery	7.38
Average Percent Residual Oil Saturation	35.53
Average Percent Residual Water Saturation	53.75
Average Percent Total Residual Fluid Saturation	69.28
Average Original Oil Content, Bbls./A. Ft.	687.
Average Oil Recovery, Bbls./A. Ft.	121.
Average Residual Oil Content, Bbls./A. Ft.	566.
Total Original Oil Content, Bbls./Acre	1890.
Total Oil Recovery, Bbls./Acre	334.
Total Residual Oil Content, Bbls./Acre	1556.
Average Effective Permeability, Millidarcys	1.89
Average Initial Fluid Production Pressure, p.s.i.	18.8

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