

15-17-22E
June 29, 1949

Deep Rock Oil Corporation
Tulsa, Oklahoma

Attention: Mr. T. F. Lawry

Gentlemen:

Enclosed herewith is the report of the partial analysis made on the No. 6 Baker barrelcore taken from the Sheehy Lease, Well No. G-17, Miami County, Kansas, and submitted to our laboratory on June 20, 1949.

In calculating the recovery for the sand within the vicinity of this well no allowance was made for oil lost during coring and, of course, it is assumed that the sand is not pressured up.

Very truly yours,

OIL FIELD RESEARCH LABORATORIES

Carl L. Pate

CLP:bb
c.c. to Mr. Neil Henderson

Sheehy G-17

DEEP ROCK OIL CORPORATION

CORE ANALYSIS REPORT

SHEEHY LEASE

WELL NO. G-17

MIAMI COUNTY, KANSAS

OIL FIELD RESEARCH LABORATORIES

CHANDLER, KANSAS

JUNE 22, 1949

Oil Field Research Laboratories

GENERAL INFORMATION & SUMMARY

Company Deep Rock Oil Corporation Lease Shooby Well No. 2-17

Location 660' North of South line and 990' East of West Line

Section 15 Twp. 17N Rge. 22E County Miami State Kansas

Name of Sand	Squirrel
Top of Core	343.00
Bottom of Core	366.80
Top of Sand	354.60
Bottom of Sand	366.75
Total Feet of Permeable Sand	8.60

Distribution of Permeable Sand: Permeable Range Millidarcys	Feet	Cum. Ft.
_____	_____	_____

Average Effective Permeability, Millidarcys	5.81
Average Percent Porosity	20.12
Average Percent Oil Saturation	32.04
Average Percent Water Saturation	-
Average Oil Content, Bbls./A. Ft.	514.
Total Oil Content, Bbls./Acre	5,241.
Average Percent Oil Recovery by Laboratory Flooding Tests	10.29
Average Oil Recovery by Laboratory Flooding Tests, Bbls./A. Ft.	168.
Total Oil Recovery by Laboratory Flooding Tests, Bbls./Acre	1,442.
Total Calculated Oil Recovery, Bbls./Acre	1,300.

Packer Setting, Feet 355.50

Viscosity, Centipoises @

A. P. I. Gravity, degrees @ 60 °F

Note: The above averages are for that part of the sand section extending from the packer setting to the top of the cement plug.

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GENERAL INFORMATION & SUMMARY

Company	_____	Well No.	_____
Location	_____		
Section	_____	County	_____
State	_____		
Name of Sand	_____		
Top of Core	_____		
Bottom of Core	_____		
Top of Sand	_____		
Bottom of Sand	_____		
Total Feet of Permeable Sand	_____		
Distribution of Permeable Sand: Permeable Range Millidarcys	_____		
Feet	_____		
Cum. Ft.	_____		

Average Permeability, Millidarcys	_____
Average Percent Porosity	_____
Average Percent Oil Saturation	_____
Average Percent Water Saturation	_____
Average Oil Content, Bbls./A. Ft.	_____
Total Oil Content, Bbls./Acre	_____
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	_____

Note: The above data are for the purpose of the sand section extending from the packer setting to the top of the cement plug.

OIL FIELD RESEARCH LABORATORIES

LOG

Company Deep Rock Oil Corporation Lease Shachy Well No. Q-17

<u>Depth Interval,</u> <u>Feet</u>	<u>Description</u>
343.00 - 346.20	- Light brown fine grained slightly calcareous sandstone.
346.20 - 346.75	- Light brown fine grained calcareous sandstone.
346.75 - 347.30	- Limestone.
347.30 - 351.80	- Light brown fine grained calcareous micaceous sandstone.
351.80 - 354.60	- Light brown fine grained slightly laminated micaceous sandstone.
354.60 - 356.00	- Brown fine grained slightly calcareous micaceous sandstone.
356.00 - 356.20	- Limestone.
356.20 - 357.55	- Brown fine grained slightly calcareous micaceous sandstone.
357.55 - 358.40	- Limestone.
358.40 - 361.50	- Brown fine grained slightly calcareous micaceous sandstone.
361.50 - 363.10	- Brown fine grained slightly shaley calcareous sandstone.
363.10 - 366.75	- Brown fine grained slightly laminated slightly calcareous micaceous sandstone.
366.75 - 366.80	- Gray conglomeratic shale.

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SHOT RECOMMENDATION

Company Deep Rock Oil Corporation Lease Sheehy Well No. G-17

<u>Depth Interval,</u> <u>Feet</u>	<u>Feet of</u> <u>Sand</u>	<u>Size of Shell,</u> <u>Inches</u>	<u>qts./ft.</u>	<u>Total qts.</u>
360.50 - 365.50	5	4	2.5	12.5

Recommended Packer Setting - 355.50 feet

RESULTS OF SATURATION TESTS

TABLE III

Well No. 9-17

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.	
F-2	353.90	23.2	17.2	-	-	310	1.10	1.10	341
F-3	354.90	19.0	44.9	-	-	562	1.40	2.50	926
F-5	357.10	21.9	29.9	-	-	508	1.35	3.85	635
F-6	358.50	21.1	42.4	-	-	595	0.55	4.40	382
F-7	359.40	21.3	44.5	-	-	742	0.80	5.20	594
F-8	360.10	21.2	44.3	-	-	728	0.80	6.00	382
F-9	361.00	21.5	35.7	-	-	595	0.95	6.95	565
F10	362.10	18.7	20.1	-	-	292	1.05	8.00	306
F11	363.00	8.4	9.5	-	-	62	0.55	8.55	34
F12	364.00	21.5	32.9	-	-	548	1.60	10.15	876
F13	365.30	20.9	27.4	-	-	444	1.10	11.25	489
F14	366.30	19.3	28.0	-	-	418	0.95	12.20	<u>327</u>
								Total - -	6,177

RESULTS OF SATURATION TESTS

TABLE III

Well No. 9-17

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.	
F-2	353.90	23.2	17.2	-	-	310	1.10	1.10	341
F-3	354.90	19.0	44.9	-	-	662	1.40	2.50	926
F-5	357.10	21.9	29.9	-	-	508	1.35	3.85	635
F-6	358.50	21.1	42.4	-	-	695	0.55	4.40	382
F-7	359.40	21.3	44.5	-	-	742	0.80	5.20	594
F-8	360.10	21.2	44.3	-	-	728	0.80	6.00	382
F-9	361.00	21.5	35.7	-	-	595	0.95	6.95	565
F10	362.10	18.7	20.1	-	-	292	1.05	8.00	306
F11	363.00	8.4	9.5	-	-	62	0.55	8.55	34
F12	364.00	21.5	32.9	-	-	548	1.60	10.15	876
F13	365.30	20.9	27.4	-	-	444	1.10	11.25	489
F14	366.30	19.3	28.0	-	-	418	0.95	12.20	327
								Total - -	6,177

Oil Field Research Laboratories

SUMMARY OF SATURATION TESTS

TABLE IV

Company Deep Rock Oil Corporation Lease Shesby Well No. Q-17

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
353.50-357.55	3.85	21.22	31.74	-	508	1,932
358.40-366.75	8.35	19.59	31.61	-	506	4,225
355.50-366.75	10.20	20.12	32.04	-	514	5,261

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RESULTS OF LABORATORY FLOODING TESTS

TABLE V

Company Deep Rock Oil Corporation Lease Shady Well No. 8-17

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.			
2	353.90	23.2	17.2	510	0.0	0	17.2	79.5	310	76	9.89	8
3	354.90	19.0	44.9	662	20.0	295	24.9	71.2	347	194½	5.34	10
5	357.10	21.9	29.9	508	8.0	85	24.9	73.9	423	160	10.89	10
6	358.50	21.1	42.4	695	18.9	310	23.5	72.2	386	144½	7.90	10
7	359.40	21.5	44.5	742	22.7	378	21.8	75.3	364	157	8.25	10
8	360.10	21.2	44.3	728	18.5	304	25.6	71.9	424	114½	6.13	10
9	361.00	21.5	35.7	595	8.5	128	27.4	68.7	457	207	6.22	15
10	362.10	18.7	20.1	292	0.0	0	20.1	75.3	292	4	0.169	40
11	362.00	8.4	9.5	62	0.0	0	9.5	79.3	62	17	0.475	20
12	364.00	21.5	32.9	548	8.7	145	24.2	72.0	405	167	5.95	15
13	365.30	20.9	27.4	444	2.9	47	24.5	64.5	397	12	0.766	25
14	366.30	19.3	28.0	418	3.5	52	24.5	74.5	366	6½	0.406	25

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 VI

Company	Deep Rock Oil Corporation			Lease	Sheehy	Well No.	G-17
Depth Interval, Feet							
Feet of Core Analyzed	353.50 - 357.55			358.40 - 366.75			355.50 - 366.75
Average Percent Porosity	2.75			6.75			8.60
Average Percent Original Oil Saturation	20.44			21.02			21.05
Average Percent Oil Recovery	37.58			35.81			34.95
Average Percent Residual Oil Saturation	12.65			10.62			10.29
Average Percent Residual Water Saturation	24.91			24.59			24.66
Average Percent Total Residual Fluid Saturation	72.55			70.96			71.45
Average Original Oil Content, Bbls./A. Ft.	97.46			95.55			96.11
Average Oil Recovery, Bbls./A. Ft.	587.			576.			570.
Average Residual Oil Content, Bbls./A. Ft.	192.			175.			168.
Total Original Oil Content, Bbls./Acre	395.			401.			402.
Total Oil Recovery, Bbls./Acre	1,613.			3,886.			4,903.
Total Residual Oil Content, Bbls./Acre	528.			1,179.			1,442.
Average Effective Permeability, Millidarcys	1,065.			2,707.			3,461.
Average Initial Fluid Production Pressure, p.s.i.	0.00			4.82			5.81
	10.0			15.7			14.4

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