Roselle RC-43 4-21-2E

July 31, 1950

Deep Rock Oil Corporation
Atlas Life Building
Tulsa, Oklahoma

Attention: Mr. T. F. Lowry

Gentlemen:

Enclosed herewith is the report of the partial analysis made on the Keystone barrel core taken from the Roselle Lease, Well No. RC-43, Anderson County, Kansas, and submitted to our laboratory on July 15, 1950.

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 36.0 percent, and that the well is not pressured up.

Very truly yours,

OIL FIELD RESEARCH LABORATORIES

Carl L. Pete

CLP:ce
c.c. to Mr. Neil Henderson
Mr. Jack McQueeney

DEEP ROCK OIL CORPORATION

CORE ANALYSIS REPORT

ROSELLE LEASE WELL NO. RC-43

ANDERSON COUNTY, KANSAS

OIL FIELD RESEARCH LABORATORIES

CHANUTE, KANSAS

JULY 31, 1950

Oil Field Research Laboratories

GENERAL INFORMATION & SUMMARY

Company Deep Rock Oil Corporation Lease Roselle Well No. RC-43

Location 330' south of north line and 990' west of east line

Section 4 Twp. 21 Rge. 21 County Anderson State Kansas

Name of Sand	Squirrel
Top of Core	639.60
Bottom of Core	668.00
Top of Sand	643.80
Bottom of Sand	666.30
Total Feet of Permeable Sand Analyzed	9.39

Distribution of Permeable Sand:

Permeability Range Millidarcys	Feet	Cum. Ft.

Effective Average Permeability, Millidarcys	3.29
Average Percent Porosity	18.02
Average Percent Oil Saturation	41.88
Average Percent Water Saturation	-
Average Oil Content, Bbls./A. Ft.	809.
Total Oil Content, Bbls./Acre	6,951.
Average Percent Oil Recovery by Laboratory Flooding Tests	18.45
Average Oil Recovery by Laboratory Flooding Tests, Bbls./A. Ft.	279.
Total Oil Recovery by Laboratory Flooding Tests, Bbls./Acre	2,618.
Total Calculated Oil Recovery, Bbls./Acre	2,200.
Packer Setting, Feet	647.0
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.

OIL FIELD RESEARCH LABORATORIES

LOG

Company Deep Rock Oil Corporation Lease Roselle Well No. RC-43

Depth Interval, Feet	Description
639.60 - 639.84	Finely laminated sandy shale.
639.84 - 640.30	Brown fine grained micaceous slightly shaley sandstone.
640.30 - 640.65	Finely laminated sandy shale.
640.65 - 641.10	Brown fine grained laminated micaceous shaley sandstone.
641.10 - 642.10	Finely laminated sandy shale.
642.10 - 642.40	Brown fine grained laminated micaceous shaley sandstone.
642.40 - 642.60	Laminated sandstone and shale.
642.60 - 643.62	Brown fine grained slightly laminated micaceous shaley sandstone.
643.62 - 643.80	Gray shale.
643.80 - 644.37	Brown fine grained micaceous sandstone.
644.37 - 644.75	Gray shale.
644.75 - 644.90	Laminated sandstone and shale.
644.90 - 645.30	Brown fine grained laminated micaceous shaley sandstone.
645.30 - 646.82	Gray shale.(broken).
646.82 - 647.80	Brown fine grained slightly laminated micaceous shaley sandstone.
647.80 - 648.20	Finely laminated sandstone and shale.
648.20 - 648.65	Brown fine grained micaceous sandstone.
648.65 - 648.90	Finely laminated sandstone and shale.
648.90 - 649.20	Brown fine grained micaceous sandstone.
649.20 - 650.62	Finely laminated sandstone and shale.
650.62 - 651.20	Brown fine grained micaceous sandstone.
651.20 - 651.75	Gray shale.

651.75 - 653.45 - Brown fine grained micaceous sandstone.

653.45 - 654.15 - Brown fine grained finely laminated micaceous shaley sandstone.

654.15 - 654.25 - Finely laminated sandstone and shale.

654.25 - 655.33 - Brown fine grained micaceous sandstone.

655.33 - 655.60 - Finely laminated sandstone and shale.

655.60 - 656.50 - Brown fine grained laminated micaceous shaley sandstone.

656.50 - 658.30 - Brown fine grained micaceous sandstone.

658.30 - 659.10 - Brown fine grained laminated micaceous shaley sandstone.

659.10 - 659.70 - Brown fine grained micaceous sandstone.

659.70 - 660.21 - Laminated sandstone and shale.

660.21 - 660.43 - Brown fine grained micaceous sandstone.

660.43 - 664.10 - Gray shale.

664.10 - 664.78 - Brown fine grained micaceous sandstone.

664.78 - 665.30 - Laminated sandstone and shale.

665.30 - 666.30 - Brown fine grained micaceous sandstone.

666.30 - 668.00 - Gray shale.

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SHOT RECOMMENDATION

Company Deep Rock Oil Corporation Lease Roselle Well No. RS-43

Depth Interval, Feet	Feet of Sand	Size of Shell Inches	Qts./Ft.	Total Quarts
652.0 - 665.0	13.0	2½	2.0	26.0

Recommended Packer Setting - 647.0 feet
Note: Plug hole back to - 666.0 feet

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RESULTS OF SATURATION TESTS

TABLE III

Company Deep Rock Oil Corporation Lease Roselle Well No. RC-43

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.	
1	640.15	18.9	34.1	-	-	300	0.46	0.46	230
2	640.95	16.2	29.7	-	-	373	0.45	0.91	168
3	642.25	14.5	27.5	-	-	309	0.30	1.21	93
4	643.25	16.0	32.4	-	-	402	0.92	2.13	370
5	643.97	20.0	42.0	-	-	551	0.57	2.70	371
6	645.10	16.9	36.1	-	-	473	0.30	3.00	142
7	647.45	13.7	34.9	-	-	371	0.98	3.98	364
8	648.35	19.7	59.8	-	-	914	0.45	4.43	411
9A	649.12	20.2	46.2	-	-	724	0.30	4.73	217
10	651.00	22.5	44.9	-	-	787	0.58	5.31	457
11	652.00	20.2	38.3	-	-	600	0.85	6.16	510
12	652.80	21.3	40.2	-	-	665	0.85	7.01	565
13	653.67	16.5	34.7	63.7	98.4	444	0.70	7.71	311
14	654.60	20.7	52.0	-	-	835	1.08	8.79	902
15	655.80	14.2	33.1	-	-	365	0.90	9.69	329
16	656.70	19.7	49.4	-	-	754	0.50	10.19	378
17	657.35	17.4	47.8	-	-	646	0.70	10.89	453
18	657.95	18.1	47.1	-	-	662	0.60	11.49	397
19	658.60	18.2	46.4	-	-	655	0.80	12.29	524

Oil Field Research Laboratories

RESULTS OF SATURATION TESTS

TABLE III

Company Deep Rock Oil Corporation Lease Roselle Well No. RC-43

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.	
20	659.50	18.7	85.7	-	-	808	0.60	12.89	485
24	664.35	17.6	32.9	-	-	449	0.68	13.57	306
25	665.15	14.2	28.7	-	-	316	0.52	14.09	164
A	666.25	15.7	28.6	-	-	351	1.00	15.09	351
								Total - -	8,496

Oil Field Research Laboratories

SUMMARY OF SATURATION TESTS

TABLE IV

Company Deep Rock Oil Corporation Lease Rosalie Well No. RC-43

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
639.84-647.80	3.98	16.73	34.92	-	437	1,738
648.20-659.70	8.91	18.95	44.98	-	666	5,938
664.10-666.20	2.80	15.50	30.05	-	348	821
647.00-666.00	11.61	16.02	41.88	-	599	6,951

Oil Field Research Laboratories

RESULTS OF LABORATORY FLOODING TESTS

TABLE V

Company Deep Rock Oil Corporation Lease Rosalie Well No. RR-43

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.			
1	640.15	18.9	34.1	500	4.4	65	29.7	68.9	435	20	1.37	35
2	640.95	16.2	29.7	373	1.9	24	27.8	71.0	349	3	0.215	45
3	642.25	14.5	27.5	309	0.0	0	27.5	71.1	309	0	0.0023	50
4	643.25	16.0	32.4	402	6.7	83	25.7	71.5	319	0	0.032	50
5	643.97	20.0	42.0	651	17.1	265	24.9	75.8	386	30	1.295	25
6	645.10	16.9	36.1	473	0.0	0	36.1	61.9	473	0	Imp.	50 +
7	647.45	15.7	34.9	371	0.0	0	34.9	65.0	371	0	Imp.	50 +
8	648.35	19.7	59.8	914	32.6	498	27.2	68.9	416	115	2.33	15
9A	649.12	20.2	46.2	724	18.3	287	27.9	69.8	437	68	2.90	20
10	651.00	22.6	44.9	787	17.3	303	27.6	67.8	484	35	2.56	40
11	652.00	20.2	38.3	600	12.3	193	26.0	72.5	407	96	3.04	15
12	652.80	21.3	40.2	665	14.8	245	25.4	71.7	420	177	11.12	15
13A	653.90	16.9	34.0	446	7.3	96	26.7	71.7	350	14	0.630	40
14	654.60	20.7	52.0	835	31.1	499	20.9	75.2	336	88	5.27	15
15	655.80	14.2	33.1	365	0.0	0	33.1	64.4	365	0	Imp.	50 +
16	656.70	19.7	49.4	754	26.8	409	22.6	74.6	345	35	1.28	20
17	657.35	17.4	47.8	646	21.0	284	26.8	71.4	362	23	1.47	25
18	657.95	18.1	47.1	662	20.0	281	27.1	70.8	381	184	4.66	10
19	658.60	18.2	46.4	655	21.4	302	25.0	72.2	353	15	0.879	30
20	659.50	18.7	55.7	808	30.9	448	24.8	69.8	360	87	3.99	15
24	664.35	17.6	32.9	449	5.6	76	27.3	61.3	373	47	1.63	20
25	665.15	14.2	28.7	316	0.0	0	28.7	66.7	316	0	Imp.	50 +
A	666.25	15.7	28.8	351	2.4	29	26.4	68.3	322	17	0.747	30

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 Deep Rock Oil Corporation Lease Roselle Well No. RC-43

Depth Interval, Feet	639.84 - 644.37	648.20-659.70	664.10-666.30	648.20-666.00
Feet of Core Analyzed	2.40	8.01	1.68	9.39
Average Percent Porosity	17.84	19.51	16.49	19.09
Average Percent Original Oil Saturation	34.59	46.26	30.47	44.00
Average Percent Oil Recovery	7.68	20.94	3.69	18.45
Average Percent Residual Oil Saturation	26.71	25.32	26.78	25.55
Average Percent Residual Water Saturation	71.50	71.61	65.47	70.71
Average Percent Total Residual Fluid Saturation	98.21	96.93	92.25	96.26
Average Original Oil Content, Bbls./A. Ft.	475.	700.	391.	656.
Average Oil Recovery, Bbls./A. Ft.	112.	318.	48.	279.
Average Residual Oil Content, Bbls./A. Ft.	363.	382.	343.	377.
Total Original Oil Content, Bbls./Acre	1,139.	5,609.	657.	6,160.
Total Oil Recovery, Bbls./Acre	268.	2,546.	81.	2,618.
Total Residual Oil Content, Bbls./Acre	871.	3,063.	576.	3,542.
Average Effective Permeability, Millidarcys	0.622	3.65	1.100	3.29
Average Initial Fluid Production Pressure, p.s.i.	38.8	21.7	25.0	22.1

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