

WALTER D. WELLS, JR.

CORE ANALYSIS REPORT

McGOWEN LEASE

WELL NO. CT-C

NEOSHO COUNTY, KANSAS

OILFIELD RESEARCH LABORATORIES

538 N. HIGHLAND

CHANUTE, KANSAS

OILFIELD RESEARCH LABORATORIES

- REGISTERED ENGINEERS -

700 NORTH MISSION
OKMULGEE, OKLAHOMA
PHONE: SK 6-4444

Chanute, Kansas

536 N. HIGHLAND
CHANUTE, KANSAS
PHONE: HE 1-2650

October 3, 1963

Walter D. Wells, Jr.
804 South Coast Building
Houston 2, Texas

Dear Sir:

Enclosed herewith are the results of tests run on the Rotary core taken from the McGowen Lease, Well No. CT-C, Neosho County, Kansas, and submitted to our laboratory on September 26, 1963.

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

Your business is greatly appreciated.

Very truly yours,

OILFIELD RESEARCH LABORATORIES

John L. Pate
John L. Pate

JLP:rf

- 3 c. - Dallas, Texas
- 2 c. - Houston, Texas
- 1 c. - Chanute, Kansas

Oilfield Research Laboratories

GENERAL INFORMATION & SUMMARY

Company Walter D. Wells, Jr. Lease McGowen Well No. CT-C

Location SW $\frac{1}{4}$

Section 15 Twp 28S Rge 19E County Neosho State Kansas

Name of Sand - - - - - Lower Bartlesville

Top of Core - - - - - 622.5

Bottom of Core - - - - - 659.0

Top of Sand - - - - - 623.0

Bottom of Sand - - - - - 659.0

Total Feet of Permeable Sand - - - - - 29.4

Total Feet of Floodable Sand - - - - - -

Distribution of Permeable Sand:
Permeability Range
Millidarcys

Feet

Cum. Ft.

0 - 5	9.9	9.9
5 - 10	7.4	17.3
10 & above	12.1	29.4

Average Permeability Millidarcys - - - - - 12.9

Average Percent Porosity - - - - - 17.6

Average Percent Oil Saturation - - - - - 39.0

Average Percent Water Saturation - - - - - 44.6

Average Oil Content, Bbls./A. Ft. - - - - - 535.

Total Oil Content, Bbls./Acre - - - - - 16,956.

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 - - - - -

OILFIELD RESEARCH LABORATORIES

-LOG-

Company Walter D. Wells, Jr. Lease McGowen Well No. CT-C

Depth Interval, Feet	Description
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622.5 - 623.0	Brown shale.
623.0 - 629.7	Light brown, slightly shaly sandstone.
629.7 - 630.5	Brownish gray sandy shale.
630.5 - 632.3	Light brown, slightly shaly sandstone.
632.3 - 632.5	Gray siltstone.
632.5 - 635.1	Brown, slightly shaly sandstone.
635.1 - 635.6	Gray siltstone.
635.6 - 637.0	Grayish brown, slightly carbonaceous sandstone.
637.0 - 645.0	Brown, slightly shaly sandstone.
645.0 - 647.5	Gray, slightly calcareous sandstone.
647.5 - 649.8	Brown, slightly shaly sandstone.
649.8 - 650.3	Gray siltstone.
650.3 - 656.1	Brown, slightly shaly sandstone.
656.1 - 659.0	Grayish light brown, slightly shaly sandstone.

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RESULTS OF SATURATION & PERMEABILITY TESTS

TABLE 1-B

Company Walter D. Wells, Jr. Lease McGowen Well No. CT-C

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	Total			Ft.	Cum. Ft.		
1	623.1	14.9	26	60	86	300	1.1	0.6	0.6	180	0.66
2	624.1	17.6	35	54	89	477	3.4	1.0	1.6	477	3.40
3	625.1	18.5	29	54	83	416	11.	1.0	2.6	416.	11.00
4	626.1	16.9	24	55	79	314	6.7	1.0	3.6	314	6.70
5	627.1	16.4	30	48	78	381	5.5	1.2	4.8	457	6.60
6	628.7	18.3	36	52	88	511	11.	1.3	6.1	665	14.30
7	629.5	18.3	42	43	85	596	5.5	0.6	6.7	358	3.30
8	630.7	16.2	34	52	86	426	7.0	0.7	7.4	298	4.90
9	631.8	17.3	38	43	81	509	2.8	1.1	8.5	560	3.08
10	632.6	17.6	43	42	85	586	9.3	0.8	9.3	469	7.44
11	633.8	15.3	34	48	82	404	1.2	1.0	10.3	404	1.20
12	634.7	14.4	28	61	89	313	18.	0.8	11.1	250	14.40
13	635.8	16.6	46	43	89	592	.66	0.7	11.8	415	0.46
14	636.8	16.2	51	35	86	640	1.7	0.7	12.5	448	1.19
15	637.7	19.2	55	22	77	818	21.	1.1	13.6	900	23.10
16	638.6	18.0	39	43	82	544	5.9	1.0	14.6	544	5.90
17	639.7	16.4	52	36	88	661	2.5	1.1	15.7	728	2.75
18	640.8	16.9	51	34	85	668	2.7	1.0	16.7	668	2.70
19	641.6	17.0	54	33	87	712	8.8	1.1	17.8	784	9.68
20	642.8	17.1	48	37	85	636	.88	1.0	18.8	636	0.88
21	643.8	17.5	46	36	82	624	.75	1.0	19.8	624	0.75
22	644.7	17.9	42	37	79	584	1.1	0.7	20.5	408	0.77
23	645.8	15.5	48	42	90	576	Imp.	1.3	21.8	750	0.00
24	647.8	17.9	41	41	82	519	17.	0.6	22.4	311	10.20
25	648.6	18.6	32	43	75	461	17.	1.0	23.4	461	17.00
26	649.6	17.0	36	43	79	474	17.	0.7	24.1	334	11.90
27	651.7	18.9	35	43	78	513	20.	1.7	25.8	871	34.00
28	653.6	20.9	41	40	81	665	Fractured	1.0	26.8	665	-

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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	Total			Ft.	Cum. Ft.		
29	654.6	18.8	51	41	92	744	9.4	1.0	27.8	744	9.40
30	655.5	20.6	45	41	86	720	43.	1.0	28.8	720	43.00
31	656.4	20.5	30	52	82	477	70.	0.9	29.7	429	63.00
32	657.5	12.5	7	82	89	68	24.	1.0	30.7	68	24.00
33	658.4	21.5	36	48	84	600	42.	1.0	31.7	600	42.00
								Total-----		16,956	

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SUMMARY OF PERMEABILITY & SATURATION TESTS

TABLE III

Company Walter D. Wells, Jr. Lease McGowen Well No. CT-C

Depth Interval, Feet	Feet of Core Analyzed	Average Permeability, Millidarcys	Permeability Capacity Ft. x Md.
623.1 - 634.7	11.1	6.9	76.98
635.8 - 655.5	15.4	11.3	173.68
656.4 - 658.4	2.9	44.5	129.00
623.1 - 658.4	29.4	12.9	379.66

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
623.1 - 634.7	11.1	16.9	33.2	50.8	436	4,848
635.8 - 655.5	17.7	17.9	45.1	38.3	623	11,011
656.4 - 658.4	2.9	18.1	24.2	60.9	378	1,097
623.1 - 658.4	31.7	17.6	39.0	44.6	535	16,956