



OILFIELD RESEARCH LABORATORIES

536 NORTH HIGHLAND - CHANUTE, KANSAS - PHONE HE1-2650

August 19, 1967

Sanders-Thoureen, Inc.
P.O. Box 260
Lake Worth, Florida 33460

Gentlemen:

Enclosed herewith are the results of tests run on the Rotary core taken from the Inge Lease, Well No. 0-98, Elk County, Kansas, and submitted to our laboratory on August 17, 1967.

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

Your business is greatly appreciated.

Very truly yours,

OILFIELD RESEARCH LABORATORIES

Carl L. Pate

CLP:rf

2 c. - Lake Worth, Florida
2 c. - Chicago, Illinois
2 c. - Bartlesville, Okla.

Oilfield Research Laboratories

GENERAL INFORMATION & SUMMARY

Company Sanders-Thoureen, Inc. Lease Inge Well No. 0-98

Location 990' SNL & 1100' WEL, SE/4

Section 34 Twp. 31S Rge. 12E County Elk State Kansas

Name of Sand - - - - - Stray

Top of Core - - - - - 671.0

Bottom of Core - - - - - 696.0

Top of ^{Pay}Sand - - - - - 677.6

Bottom of ^{Pay}Sand - - - - - 686.4

Total Feet of Permeable Sand - - - - - 17.6

Total Feet of Floodable Sand - - - - -

Distribution of Permeable Sand:
Permeability Range
Millidarcys

Feet

Cum. Ft.

0 - 25	6.3	6.3
25 - 50	3.9	10.2
50 - 100	3.4	13.6
100 & above	4.0	17.6

Average Permeability Millidarcys - - - - - 69.7

Average Percent Porosity - - - - - 23.0

Average Percent Oil Saturation - - - - - 26.0

Average Percent Water Saturation - - - - - 46.9

Average Oil Content, Bbls./A. Ft. - - - - - 462.

Total Oil Content, Bbls./Acre - - - - - 8,124.

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

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Company Sanders-Thoureen, Inc. Lease Inge Well No. 0-98

Depth Interval, Description
<u>Feet</u>

671.0 - 673.4 - Gray, laminated, sandy shale.

673.4 - 674.3 - Gray shaly sandstone.

674.3 - 677.6 - Grayish brown, fine grained, shaly sandstone.

677.6 - 680.4 - Brown, fine grained sandstone.

680.4 - 681.8 - Brown, fine grained, laminated, shaly sandstone.

681.8 - 686.4 - Brown, fine grained sandstone.

686.4 - 687.8 - Hard, grayish brown, carbonaceous, slightly calcareous sandstone.

687.8 - 688.6 - Light brown, fine grained sandstone.

688.6 - 691.0 - Brownish gray, carbonaceous sandstone.

691.0 - 692.5 - Gray shale.

692.5 - 693.8 - Gray, laminated, sandy shale.

693.8 - 694.2 - Coal.

694.2 - 696.0 - Gray, laminated sandstone and shale.

RESULTS OF SATURATION & PERMEABILITY TESTS

TABLE 1-B

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	674.1	19.6	9	82	91	137	8.8	0.9	0.9	123	7.92
2	675.1	23.9	17	51	68	315	25.	1.3	2.2	410	32.50
3	676.1	21.2	26	54	80	428	15.	1.0	3.2	428	15.00
4	677.1	18.5	6	90	96	86	11.	1.0	4.2	86	11.00
5	678.1	24.2	31	42	73	582	22.	1.0	5.2	582	22.00
6	679.1	22.0	43	30	73	734	21.	1.0	6.2	734	21.00
7	680.1	26.1	37	30	67	749	26.	0.8	7.0	599	20.80
8	681.1	22.9	32	44	76	568	59.	1.4	8.4	795	82.60
9	682.1	22.2	33	44	77	568	39.	0.8	9.2	454	31.20
10	683.1	27.5	31	27	58	661	90.	1.0	10.2	661	90.00
11	684.1	24.8	37	37	74	712	39.	1.0	11.2	712	39.00
12	685.1	17.2	40	34	74	534	341.	1.0	12.2	534	341.00
13	686.1	25.3	45	35	80	883	307.	0.8	13.0	706	245.50
14	687.1	15.4	21	36	57	251	5.0	1.4	14.4	351	7.00
15	688.1	26.5	17	58	75	350	340.	0.8	15.2	280	27.20
16	689.1	28.4	18	66	84	341	78.	1.0	16.2	341	78.00
17	690.1	27.4	11	70	81	234	111.	1.4	17.6	328	155.35
								Total	-----	8,124	

SUMMARY OF PERMEABILITY & SATURATION TESTS

Company	Sanders-Thoureen, Inc.	Lease	Inge	Well No.	0-98
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Depth Interval, Feet	Feet of Core Analyzed	Average Permeability, Millidarcys	Permeability Capacity Ft. x Md.
673.4 - 677.6	4.2	15.8	66.42
677.6 - 686.4	8.8	101.5	893.10
686.4 - 691.0	4.6	58.2	267.55
673.4 - 691.0	17.6	69.7	1,227.07

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
673.4 - 677.6	4.2	21.1	14.8	59.1	249.	1,047
677.6 - 686.4	8.8	23.5	36.2	35.9	656	5,777
686.4 - 691.0	4.6	23.8	16.6	56.7	283	1,300
673.4 - 691.0	17.6	23.0	26.0	46.9	462	8,124