

GEORGE A. HOFFMAN

CORE ANALYSIS REPORT

NELSON LEASE

WELL NO. 31

ALLEN COUNTY, KANSAS

*Location in tract
14 26!
+ date: 1/14*

OILFIELD RESEARCH LABORATORIES

536 N. HIGHLAND

CHANUTE, KANSAS



OILFIELD RESEARCH LABORATORIES

536 NORTH HIGHLAND - CHANUTE, KANSAS 66720 - PHONE (316) 431-2650

September 12, 1979

George A. Hoffman
P.O. Box 537
Henderson, Kentucky 42420

Gentlemen:

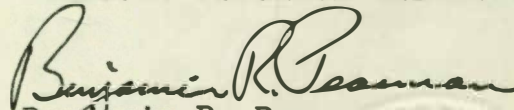
Enclosed herewith are the results of tests run on the rotary core taken from the Nelson Lease, Well No. 31, Allen County, Kansas, and submitted to our laboratory on September 7, 1979.

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

Your business is greatly appreciated.

Very truly yours,

OILFIELD RESEARCH LABORATORIES


Benjamin R. Pearman

BRP:km
5 c to Henderson, Kentucky



Sec. 21 Twp. 26 Rge. 21E

-KCC

Oilfield Research Laboratories

GENERAL INFORMATION & SUMMARY

Company George A. Hoffman Lease Nelson Well No. 31

Location 400' FNL & 500' FEL NW 1/4

Section 26 Twp 26S Rge 21E County Allen State Kansas

Name of Sand - - - - - Bartlesville

Top of Core - - - - - 672.0

Bottom of Core - - - - - 700.0

Top of Sand - - - - - 672.0

Bottom of Sand - - - - - 699.6

Total Feet of Permeable Sand - - - - - 27.6

Total Feet of Floodable Sand - - - - -

Distribution of Permeable Sand:

Permeability Range
Millidarcys

Feet

Cum. Ft.

0 - 1

11.3

11.3

1 - 5

9.0

20.3

5 - 10

1.9

22.2

10 - 20

5.4

27.6

Average Permeability Millidarcys - - - - - 4.2

Average Percent Porosity - - - - - 18.1

Average Percent Oil Saturation - - - - - 41.2

Average Percent Water Saturation - - - - - 34.7

Average Oil Content, Bbls./A. Ft. - - - - - 578.

Total Oil Content, Bbls./Acre - - - - - 15,943.

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 - - - - -

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LOG

Company George A. Hoffman Lease Nelson Well No. 31

<u>Depth Interval, Feet</u>	<u>Description</u>
672.0 - 673.0	Light brown and gray laminated sandstone and shale.
673.0 - 673.9	Light brown shaly sandstone.
673.9 - 691.2	Dark brown carbonaceous sandstone.
691.2 - 693.7	Brown slightly carbonaceous sandstone.
693.7 - 694.6	Brown carbonaceous sandstone.
694.6 - 696.7	Brown slightly carbonaceous sandstone.
696.7 - 698.1	Grayish brown very shaly conglomeratic sandstone.
698.1 - 699.6	Dark brown slightly carbonaceous sandstone.
699.6 - 700.0	Gray sandy shale.

RESULTS OF SATURATION & PERMEABILITY TESTS

TABLE I-B

Company George A. Hoffman Lease Nelson Well No. 31

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	672.5	14.4	25	55	80	279	0.77	1.0	1.0	279	0.77
2	673.5	11.4	31	64	95	274	0.17	0.9	1.9	247	0.15
3	674.5	18.9	37	29	66	543	3.1	1.1	3.0	597	3.41
4	675.5	19.7	49	25	74	749	0.78	1.0	4.0	749	0.78
5	676.5	19.3	57	24	81	854	0.69	1.0	5.0	854	0.69
6	677.5	17.8	53	30	83	732	0.78	1.0	6.0	732	0.78
7	678.5	17.7	51	33	84	700	0.33	1.0	7.0	700	0.33
8	679.5	18.5	47	32	79	675	1.5	1.0	8.0	675	1.50
9	680.5	19.1	55	33	88	815	1.6	1.0	9.0	815	1.60
10	681.5	15.0	54	40	94	628	0.68	1.0	10.0	628	0.68
11	682.5	20.6	53	22	75	847	1.9	1.0	11.0	847	1.90
12	683.5	16.1	42	34	76	525	0.64	1.0	12.0	525	0.64
13	684.5	19.7	34	30	64	520	2.3	1.0	13.0	520	2.30
14	685.5	20.1	45	25	70	702	1.0	1.0	14.0	702	1.00
15	686.5	17.2	29	45	74	387	0.20	1.0	15.0	387	0.20
16	687.5	18.8	37	30	67	540	2.8	1.0	16.0	540	2.80
17	688.5	17.8	51	26	77	704	3.0	1.0	17.0	704	3.00
18	689.5	18.9	34	32	66	499	4.7	1.0	18.0	499	4.70
19	690.5	19.4	42	24	66	632	6.0	1.2	19.2	758	7.20
20	691.5	18.7	37	32	69	537	11.	0.8	20.0	430	8.80
21	692.5	19.9	37	34	71	571	16.	1.0	21.0	571	16.00
22	693.5	19.9	41	27	68	633	8.7	0.7	21.7	443	6.09
23	694.5	19.1	39	34	73	578	4.9	0.9	22.6	520	4.41
24	695.5	20.4	47	32	79	744	11.	1.4	24.0	1042	15.40
25	696.5	21.0	38	28	66	619	12.	0.7	24.7	433	8.40
26	697.5	12.1	9	73	82	85	0.22	1.4	26.1	119	0.31
27	698.5	18.6	43	33	76	621	17.	0.9	27.0	559	15.30
28	699.5	17.2	46	27	73	614	12.	0.6	27.6	368	7.20

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SUMMARY OF PERMEABILITY & SATURATION TESTS

TABLE III

Company George A. Hoffman Lease Nelson Well No. 31

Depth Interval, Feet	Feet of Core Analyzed	Average Permeability, Millidarcys	Permeability Capacity Ft. x Md.
672.0 - 691.2	19.2	1.8	34.43
691.2 - 699.6	8.4	9.8	81.91
672.0 - 699.6	27.6	4.2	116.34

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
672.0 - 691.2	19.2	18.0	43.5	33.0	597	11,458
691.2 - 699.6	8.4	18.2	35.9	38.3	534	4,485
672.0 - 699.6	27.6	18.1	41.2	34.7	578	15,943