



OILFIELD RESEARCH LABORATORIES

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

August 26, 1976

George A. Hoffman
Box 537
Henderson, Kentucky 42420

Dear Sir:

Enclosed herewith are the results of tests run on the Rotary core samples taken from the Nelson Lease, Well No. H-10, Allen County, Kansas, and submitted to our laboratory on August 19, 1976.

This core is from a virgin territory and was sampled by a representative of the client.

Your business is greatly appreciated.

Very truly yours,

OILFIELD RESEARCH LABORATORIES

Carl L. Pate

CLP:bl
4 c to Henderson, Kentucky
1 c to Erie, Kansas

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GENERAL INFORMATION & SUMMARY

Company George A. Hoffman Lease Nelson Well No. H-10

Location 1500' FWL & 350' FSL

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

Name of Sand	- - - - -	Bartlesville
Top of Core	(Received) - - - - -	650.0
Bottom of Core	(Received) - - - - -	670.0
Top of Sand	- - - - -	650.0
Bottom of Sand	- - - - -	670.0
Total Feet of Permeable Sand	- - - - -	20.0
Total Feet of Floodable Sand	- - - - -	

Distribution of Permeable Sand: Permeability Range Millidarcys	Feet	Cum. Ft.
0 - 1	5.0	5.0
1 - 5	4.0	9.0
5 - 10	7.0	16.0
10 - 15	1.0	17.0
15 & above	3.0	20.0

Average Permeability Millidarcys	- - - - -	6.8
Average Percent Porosity	- - - - -	19.6
Average Percent Oil Saturation	- - - - -	42.0
Average Percent Water Saturation	- - - - -	35.6
Average Oil Content, Bbls./A. Ft.	- - - - -	647.
Total Oil Content, Bbls./Acre	- - - - -	12,934.
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	- - - - -	

LOGCompany George A. Hoffman Lease Nelson Well No. H-10

<u>Depth Interval,</u> <u>Feet</u>	<u>Description</u>
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650.0 - 651.0 - Gray finely laminated shaly sandstone.

651.0 - 654.0 - Light brown very shaly sandstone.

654.0 - 657.0 - Brown fine grained sandstone.

657.0 - 661.0 - Dark fine grained slightly carbonaceous sandstone.

661.0 - 665.0 - Dark fine grained carbonaceous sandstone.

665.0 - 666.0 - Dark fine grained sandstone.

666.0 - 670.0 - Dark sandstone containing some coal seams.

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RESULTS OF SATURATION & PERMEABILITY TESTS

TABLE 1-B

Company George A. Hoffman Lease Nelson Well No. H-10

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	650.5	16.7	29	63	92	376	0.43	1.0	1.0	376	0.43
2	651.5	17.4	34	48	82	459	5.1	1.0	2.0	459	5.10
3	652.5	18.0	36	42	78	503	5.3	1.0	3.0	503	5.30
4	653.5	15.9	29	57	86	358	6.5	1.0	4.0	358	6.50
5	654.5	21.8	58	26	84	981	25.	1.0	5.0	981	25.00
6	655.5	18.4	39	43	82	557	13.	1.0	6.0	557	13.00
7	656.5	17.7	36	41	77	494	9.3	1.0	7.0	494	9.30
8	657.5	17.5	46	36	82	625	0.62	1.0	8.0	625	0.62
9	658.5	19.6	48	30	78	730	1.0	1.0	9.0	730	1.00
10	659.5	23.2	44	21	65	792	5.1	1.0	10.0	792	5.10
11	660.5	21.5	57	19	76	951	5.9	1.0	11.0	951	5.90
12	661.5	17.3	37	38	75	497	0.70	1.0	12.0	497	0.70
13	662.5	19.4	44	39	83	662	0.69	1.0	13.0	662	0.69
14	663.5	19.4	55	33	88	828	1.3	1.0	14.0	828	1.30
15	664.5	21.7	48	28	86	808	5.3	1.0	15.0	808	5.30
16	665.5	21.8	37	27	64	626	0.75	1.0	16.0	626	0.75
17	666.5	20.9	42	31	73	681	25.	1.0	17.0	681	25.00
18	667.5	19.6	43	27	70	654	19.	1.0	18.0	654	19.00
19	668.5	21.5	42	37	79	701	2.0	1.0	19.0	701	2.00
20	669.5	23.3	36	27	63	651	4.1	1.0	20.0	651	4.10

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SUMMARY OF PERMEABILITY & SATURATION TESTS

TABLE III

Company George A. Hoffman Lease Nelson Well No. H-10

Depth Interval, Feet	Feet of Core Analyzed	Average Permeability, Millidarcys	Permeability Capacity Ft. x Md.
650.0 - 657.0	7.0	9.2	64.63
657.0 - 670.0	13.0	5.5	71.46
650.0 - 670.0	20.0	6.8	136.09

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
650.0 - 657.0	7.0	18.0	37.3	45.6	533	3,728
657.0 - 670.0	13.0	20.5	44.5	30.2	708	9,206
650.0 - 670.0	20.0	19.6	42.0	35.6	647	12,934