

OILFIELD RESEARCH LABORATORIES

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

July 8, 1980

Tucker Oil Company
Rural Route #4
Independence, Kansas 67301

Gentlemen:

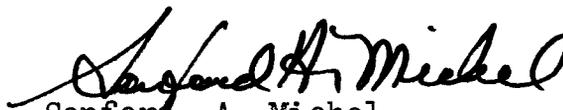
Enclosed herewith are the results of tests run on the rotary core taken from the Hairman Lease, Well No. 9, Montgomery County, Kansas, and submitted to our laboratory on June 23, 1980.

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


Sanford A. Michel

SAM/tem

3 c to Independence, Kansas

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GENERAL INFORMATION & SUMMARY

Company Tucker Oil Company Lease Hairman Well No. 9
 Location 165' FWL & 751' NSL SW $\frac{1}{4}$
 Section 23 Twp. 34S Rge. 14E County Montgomery State Kansas

Elevation, Feet	
Name of Sand	Wiser
Top of Core	804.0
Bottom of Core	815.3
Top of Sand	804.0
Bottom of Sand	814.4
Total Feet of Permeable Sand	9.0

Distribution of Permeable Sand: Permeability Range Millidarcys	Feet	Cum. Ft.
0 - 5	3.6	3.6
10 - 20	3.2	6.8
20 - 25	1.0	7.8
125 & Above	1.2	9.0

Average Permeability Millidarcys	25.1
Average Percent Porosity	14.1
Average Percent Oil Saturation	24.1
Average Percent Water Saturation	57.8
Average Oil Content, Bbls./A. Ft.	263.
Total Oil Content, Bbls./Acre	2,737.

LOGName Tucker Oil Company Lease Hairman Well No. 9

<u>Depth Interval, Feet</u>	<u>Description</u>
804.0 - 805.2	Brown slightly calcareous sandstone.
805.2 - 807.7	Hard grayish brown very calcareous sandstone.
807.7 - 811.9	Brown slightly calcareous sandstone.
811.9 - 814.0	Grayish brown shaly sandstone.
814.0 - 814.4	Gray very shaly sandstone.
814.4 - 815.3	Gray sandy shale.

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RESULTS OF SATURATION & PERMEABILITY TESTS

TABLE 1-B

Tucker Oil Company

Lease Hairman

Well No. 9

Company

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	804.5	17.7	24	55	79	330	127.	1.2	1.2	396	152.40
2	805.5	11.3	29	53	92	254	1.4	1.0	2.2	254	1.40
3	806.8	5.2	21	56	97	85	Imp.	1.0	3.2	85	0.00
4	807.5	7.6	23	60	93	136	1.0	0.5	3.7	68	0.50
5	808.3	18.5	24	55	79	345	17.	1.0	4.7	345	17.00
6	809.5	9.8	34	56	90	259	11.	1.0	5.7	259	11.00
7	810.5	14.8	33	46	79	379	23.	1.0	6.7	379	23.00
8	811.7	18.0	26	55	81	363	13.	1.2	7.9	436	15.60
9	812.4	18.1	21	58	79	295	1.5	1.1	9.0	325	1.65
10	813.5	16.1	15	72	87	187	3.6	1.0	10.0	187	3.60
11	814.3	10.6	1	92	93	8	Imp.	0.4	10.4	3	0.00

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SUMMARY OF PERMEABILITY & SATURATION TESTS

TABLE III

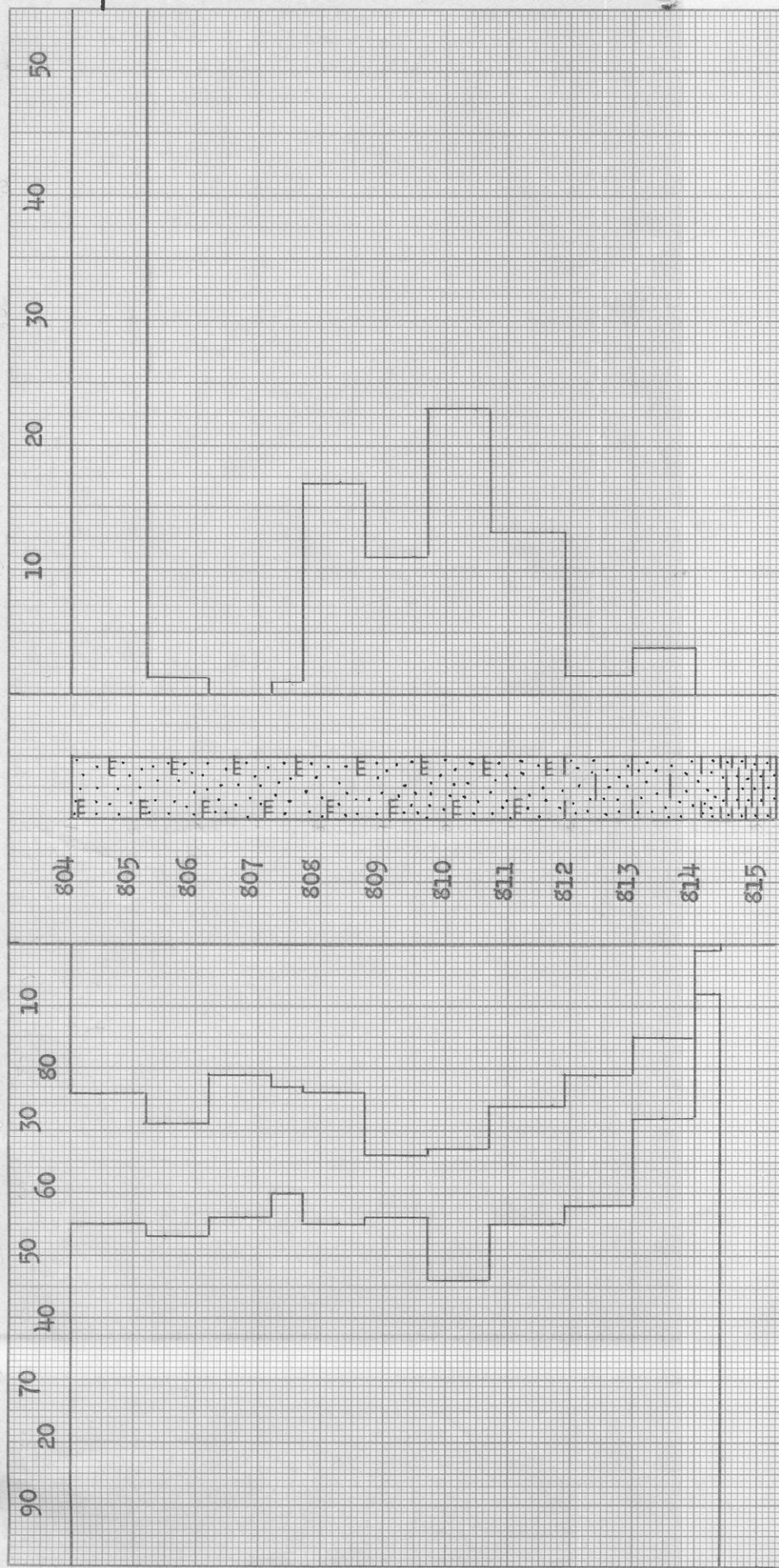
Company Tucker Oil Company Lease Hairman Well No. 9

Depth Interval, Feet	Feet of Core Analyzed	Average Permeability, Millidarcys	Permeability Capacity Ft. x Md.
804.0 - 814.4	9.0	25.1	226.15

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
804.0 - 814.4	10.4	14.1	24.1	57.8	263	2,737

PERMEABILITY, IN MILLIDARCYS

WATER SAT., PERCENT ← OIL SAT., PERCENT →



KEY:

 CALCAREOUS SANDSTONE
 SHALY SANDSTONE
 SANDY SHALE

TUCKER OIL COMPANY
 HAIRMAN LEASE
 MONTGOMERY COUNTY, KANSAS
 WELL NO. 9

DEPTH INTERVAL. FEET OF CORE. AVERAGE. AVG. OIL. AVG. WATER. AVERAGE

KEY:



CALCAREOUS SANDSTONE



SHALY SANDSTONE



SANDY SHALE

TUCKER OIL COMPANY

FAIRMAN LEASE

WELL NO. 9

MONTGOMERY COUNTY, KANSAS

DEPTH INTERVAL, FEET	FEET OF CORE ANALYZED	AVERAGE		AVG. OIL		AVG. WATER		AVERAGE	
		POROSITY PERCENT	SATURATION PERCENT	SATURATION PERCENT	SATURATION PERCENT	SATURATION PERCENT	PERMEABILITY MILLIDARCS		
804.0 - 814.4	10.4	14.1	24.1	57.8	25.1				

OILFIELD RESEARCH LABORATORIES
CHANUTE, KANSAS
JULY, 1980

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