

OILFIELD RESEARCH LABORATORIES

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

February 15, 1980

Global Oil Company
c/o McCune Engineering
P.O. Box 3283
Lawrence, Kansas 66044

Gentlemen:

Enclosed herewith are the results of tests run on the rotary core taken from the Hines Lease, Well No. 1, Miami County, Kansas, and submitted to our laboratory on February 11, 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/kas
5 c to Lawrence, Kansas

- REGISTERED ENGINEERS -

CORE ANALYSIS - WATER ANALYSIS - REPRESSURING ENGINEERING - SURVEYING & MAPPING - PROPERTY EVALUATION & OPERATION

Oilfield Research Laboratories
GENERAL INFORMATION & SUMMARY

Company Global Oil Company Lease Hines Well No. 1

Location 1500' EWL & 165' SNL NW $\frac{1}{4}$

Section 29 Twp. 17S Rge. 22E County Miami State Kansas

Elevation, Feet	1000.0
Name of Sand	Wayside
Top of Core	467.0
Bottom of Core	478.6
Top of Sand	467.0
Bottom of Sand	478.6
Total Feet of Permeable Sand	9.8

Distribution of Permeable Sand: Permeability Range Millidarcys	Feet	Cum. Ft.
0 - 35	2.7	2.7
50 - 75	2.1	4.8
150 - 155	2.5	7.3
175 & Above	2.5	9.8

Average Permeability Millidarcys	105.7
Average Percent Porosity	17.9
Average Percent Oil Saturation	45.9
Average Percent Water Saturation	30.7
Average Oil Content, Bbls./A. Ft.	635.
Total Oil Content, Bbls./Acre	6,224.

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LOG

Name Global Oil Company Lease Hines Well No. 1

Depth Interval,
Feet

Description

467.0 - 468.7

Dark brown calcareous sandstone.

468.7 - 469.4

Calcareous conglomeratic shale.

469.4 - 475.3

Dark brown calcareous sandstone.

475.3 - 476.4

Gray limestone.

476.4 - 478.6

Dark brown calcareous sandstone.

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RESULTS OF SATURATION & PERMEABILITY TESTS

TABLE I-B

Company Global Oil Company Lease Hines Well No. 1

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	467.4	17.0	30	50	80	396	30.	1.0	1.0	396	30.00
2	468.5	16.6	45	48	93	580	18.	0.7	1.7	406	12.60
3	469.6	19.2	34	43	77	506	52.	1.1	2.8	557	57.20
4	471.1	20.7	50	29	79	803	153.	1.5	4.3	1,205	229.50
5	472.4	16.0	53	25	78	658	151.	1.0	5.3	658	151.00
6	473.9	19.0	49	26	75	722	178.	1.3	6.6	939	231.40
7	475.2	18.7	47	24	71	682	74.	1.0	7.6	682	74.00
8	477.3	15.9	50	24	74	617	21.	1.0	8.6	617	21.00
9	478.5	15.8	52	16	68	637	191.	1.2	9.8	764	229.20

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SUMMARY OF PERMEABILITY & SATURATION TESTS

TABLE III

Company	Lease	Hines	Well No.				
Depth Interval, Feet	Feet of Core Analyzed	Average Permeability, Millidarcys	Permeability Capacity Ft. x Md.	Average Percent Oil Saturation	Average Percent Water Saturation	Average Oil Content Bbl./A. Ft.	Total Oil Content Bbls./Acre
467.0 - 478.6	9.8	105.7	1035.90				
467.0 - 478.6	9.8			45.9	30.7	635	6,224

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RESULTS OF WATER DIFFERENTIATION TESTS
TABLE VI

Company Global Oil Company Lease Hines Well No. 1

Sample No.	Depth, Feet	Chloride Content of Brine in Sand ppm	Percent Water Saturation		
			Connate	Drilling & Foreign	Total
1	467.4	20,361			
2	468.5	27,724			
3	469.6	22,221			
4	471.1	24,115			
5	472.4	29,947			
6	473.9	23,254			
7	475.2	26,017			
8	477.3	25,598			
9	478.5	40,408			

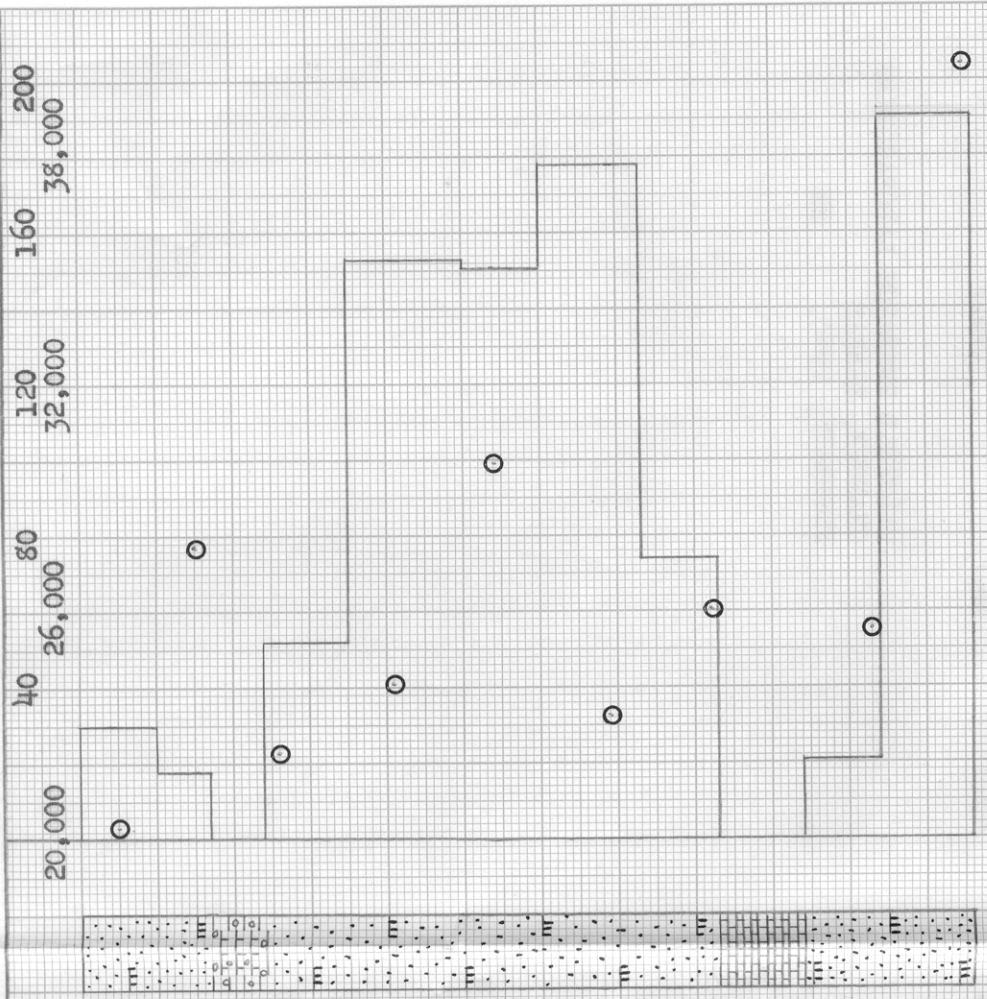
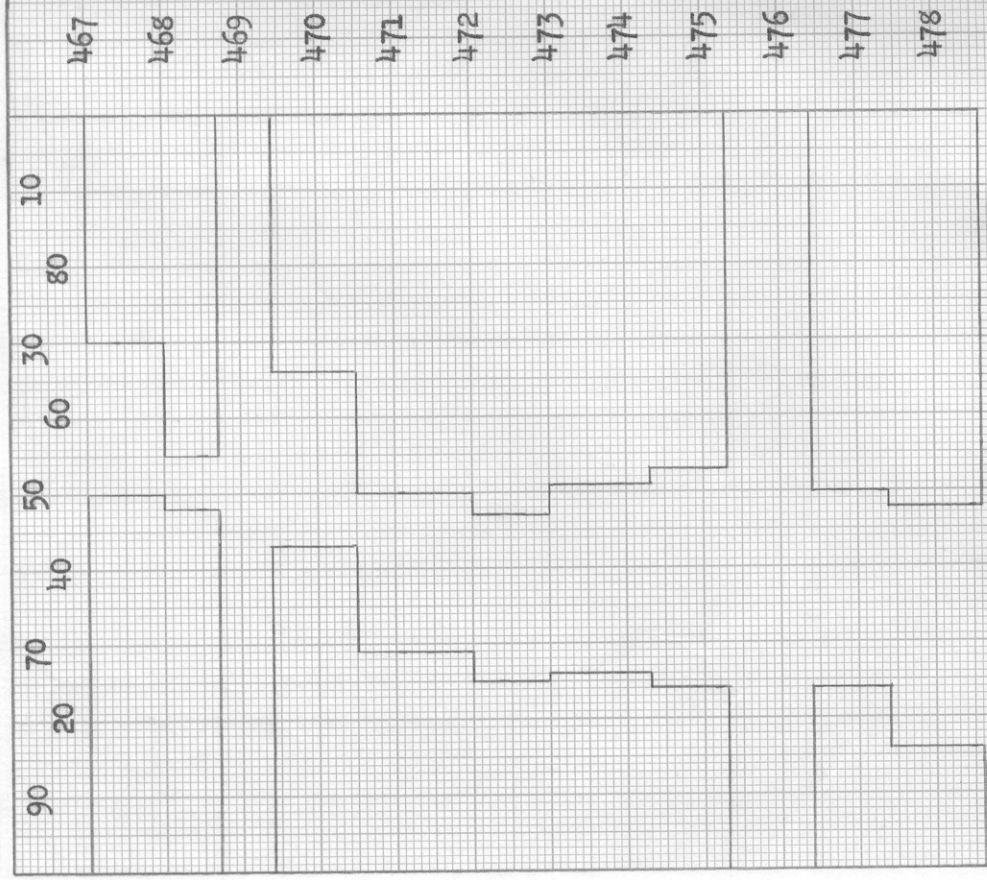
Note: ppm — parts per million

WATER SAT., PERCENT

OIL SAT., PERCENT

PERMEABILITY, IN MILLIDARCYS

CHLORIDE CONTENT OF BRINE IN SAND, PPM



467 468 469 470 471 472 473 474 475 476 477 478

PERM. (mD)

CHLORIDE (PPM)

KEY:

CALCAREOUS SANDSTONE

CALCAREOUS CONGLOMERATIC SHALE

LIMESTONE

GLOBAL OIL COMPANY

HINES LEASE

WELL NO. 1

MIAMI COUNTY, KANSAS

DEPTH INTERVAL, FEET	FEET OF CORE ANALYZED	AVERAGE PERCENT POROSITY	AVG. OIL SATURATION PERCENT	AVG. WATER SATURATION PERCENT	AVERAGE PERMEABILITY, MILLIDARCYS
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467.0 - 478.6

9.8

17.9

45.9

30.7

105.7

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CHANUTE, KANSAS
FEBRUARY, 1980. HR