

OILFIELD RESEARCH LABORATORIES

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

October 27, 1982

Hillenburg Oil Company
Box 94
Bronson, Kansas 66716

Gentlemen:

Enclosed herewith is the report of the analysis of the rotary core taken from the Martin Lease, Well No. 5, located in Bourbon County, Kansas and submitted to our laboratory on October 19, 1982.

Your business is greatly appreciated.

Very truly yours,

OILFIELD RESEARCH LABORATORIES


Sanford A. Michel

SAM/tem

- REGISTERED ENGINEERS -

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

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GENERAL INFORMATION & SUMMARY

Company Hillenburg Oil Company Lease Martin Well No. 5
 Location 2,195' ENL. & 330' FEL
 Section 18 Twp. 26S Rge. 22E County Bourbon State Kansas

Elevation, Feet

Name of Sand..... Cattleman

Top of Core 414.0

Bottom of Core 416.7

Top of Sand 415.0

Bottom of Sand 416.7

Total Feet of Permeable Sand 1.7

Total Feet of Floodable Sand 0.0

Distribution of Permeable Sand: Permeability Range Millidarcys	Feet	Cum. Ft.
0 - 0.36	1.7	1.7

Average Permeability Millidarcys 0.29

Average Percent Porosity 15.2

Average Percent Oil Saturation 57.6

Average Percent Water Saturation 22.9

Average Oil Content, Bbls./A. Ft. 677.

Total Oil Content, Bbls./Acre 1,151.

Average Percent Oil Recovery by Laboratory Flooding Tests 0

Average Oil Recovery by Laboratory Flooding Tests, Bbls./A. Ft. 0

Total Oil Recovery by Laboratory Flooding Tests, Bbls./Acre 0

Total Calculated Oil Recovery, Bbls./Acre 0

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The core was sampled and the samples sealed in plastic bags by a representative of the client. Fresh water mud was used as a drilling fluid. The core was reported to be from a virgin area.

Since the core did not respond to flooding susceptibility tests, no calculated recovery is given.

FORMATION CORED

The detailed log of the formation cored is as follows:

<u>Depth Interval, Feet</u>	<u>Description</u>
414.0 - 415.0	Gray shale.
415.0 - 416.0	Grayish brown (salt and pepper) very shaly sandstone.
416.0 - 416.2	Gray shale.
416.2 - 416.7	Grayish brown very shaly sandstone.

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RESULTS OF SATURATION & PERMEABILITY TESTS

TABLE 1-B

Company Hillenburg Oil Company Lease Martin Well No. 5

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	415.5	15.3	62	12	74	736	0.35	1.2	1.2	883	0.42
2	416.5	14.7	47	49	96	536	0.13	0.5	1.7	268	0.07

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SUMMARY OF PERMEABILITY & SATURATION TESTS

TABLE III

Company	Hillenburg Oil Company			Lease	Martin	Well No.	5
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	
415.0 - 416.7	1.7	15.2	57.6	22.9	677	1,151	

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RESULTS OF LABORATORY FLOODING TESTS

TABLE IV

Hillenburg Oil Company			Lease		Martin		Well No.		5		
Sample No.	Depth, Feet	Effective Porosity Percent	Original Oil Saturation		Oil Recovery		Residual Saturation		Volume of Water Recovered cc*	Effective Permeability Millidarcys**	Initial Fluid Production Pressure Lbs./Sq./In.
			%	Bbls./A. Ft.	%	Bbls./A. Ft.	% Oil	% Water			
1	415.5	15.6	61	738	0	0	61	13	0	Imp.	-
2	416.5	14.8	47	540	0	0	47	50	0	Imp.	-

Notes: cc—cubic centimeter.

*—Volume of water recovered at the time of maximum oil recovery.

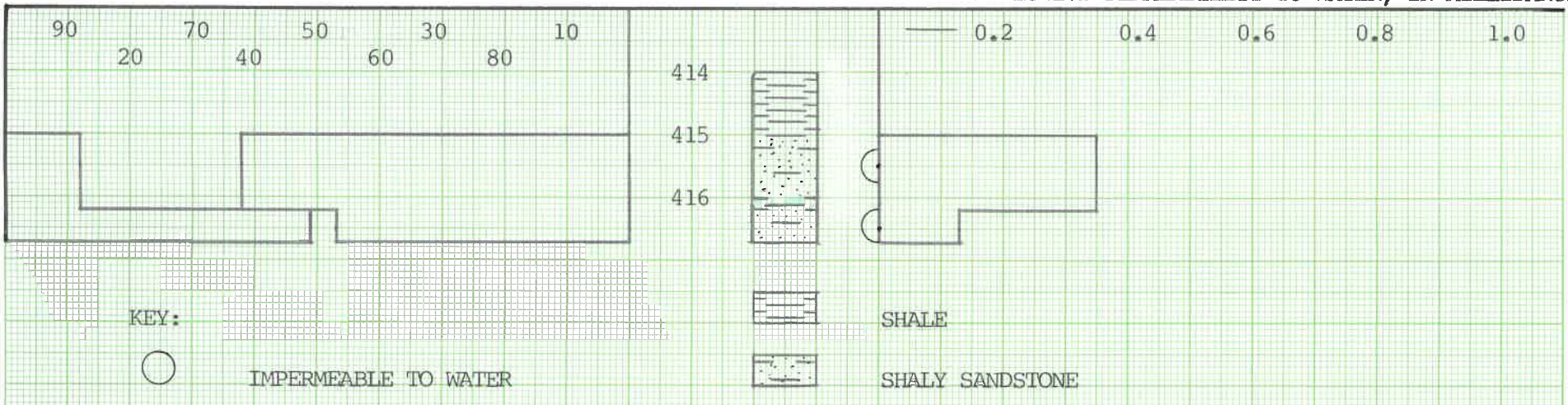
**—Determined by passing water through sample which still contains residual oil.

WATER SAT., PERCENT

OIL SAT., PERCENT

PERMEABILITY, IN MILLIDARCYS

EFFECTIVE PERMEABILITY TO WATER, IN MILLIDARCYS



HILLENBURG OIL COMPANY

MARTIN LEASE

BOURBON COUNTY, KANSAS

WELL NO. 5

DEPTH INTERVAL, FEET	FEET OF CORE ANALYZED	AVERAGE PERCENT POROSITY	AVG. OIL SATURATION PERCENT	AVG. WATER SATURATION PERCENT	AVERAGE PERMEABILITY, MILLIDARCYS	CALCULATED OIL RECOVERY BBLs. / ACRE
415.0 - 416.7	1.7	15.2	57.6	22.9	0.29	-

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CHANUTE, KANSAS
OCTOBER, 1982

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