

OILFIELD RESEARCH LABORATORIES

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

April 16, 1981

Hillenburg Oil Company
P. O. Box 94
Bronson, Kansas 66716

Gentlemen:

Enclosed herewith are the results of tests run on the rotary core taken from the Humphrey Lease, Well No. 65, located in Bourbon County, Kansas.

The core was sampled and sealed in plastic bags by a representative of the client and was submitted to our laboratory on April 9, 1981.

Your business is greatly appreciated.

Very truly yours,

OILFIELD RESEARCH LABORATORIES

A handwritten signature in cursive script, reading "Sanford A. Michel". The signature is written in black ink and is positioned above the typed name.

Sanford A. Michel

SAM/kas

5 c to Bronson, Kansas

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GENERAL INFORMATION & SUMMARY

Company Hillenburg Oil Co. Lease Humphrey Well No. 65
 Location _____
 Section 36 Twp. 24S Rge. 21E County Bourbon State Kansas

Elevation, Feet
 Name of Sand..... -
 Top of Core 614.0
 Bottom of Core 631.4
 Top of Sand 614.0
 Bottom of Sand 631.4
 Total Feet of Permeable Sand 17.4

Distribution of Permeable Sand:
 Permeability Range
 Millidarcys

	Feet	Cum. Ft.
1 - 10	6.5	6.5
10 - 20	2.8	9.3
20 - 35	6.1	15.4
50 - 60	2.0	17.4

Average Permeability Millidarcys 20.9
 Average Percent Porosity 18.6
 Average Percent Oil Saturation 39.5
 Average Percent Water Saturation..... 49.3
 Average Oil Content, Bbls./A. Ft. 570.
 Total Oil Content, Bbls./Acre 9,926.

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LOG

Name Hillenburg Oil Company Lease Humphrey Well No. 65

<u>Depth Interval, Feet</u>	<u>Description</u>
614.0 - 620.8	Light brown sandstone.
620.8 - 624.1	Light brown and gray laminated sandstone and shale.
624.1 - 627.2	Brown sandstone.
627.2 - 627.8	Brown shaly sandstone.
627.8 - 630.4	Brown and gray laminated sandstone and shale.
630.4 - 631.4	Brown sandstone.

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RESULTS OF SATURATION & PERMEABILITY TESTS

TABLE 1-B

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	614.5	17.4	45	48	93	607	12.	1.0	607	12.00	
2	615.6	19.3	32	50	82	479	34.	1.0	479	34.00	
3	616.5	21.9	27	57	84	459	58.	1.0	459	58.00	
4	617.4	17.3	34	61	95	456	11.	1.0	456	11.00	
5	618.5	20.0	35	58	93	543	32.	1.0	543	32.00	
6	619.5	22.2	39	53	92	672	54.	1.0	672	54.00	
7	620.6	17.4	34	59	93	459	12.	0.8	367	9.60	
8	621.6	14.3	39	57	96	433	6.3	1.3	563	8.19	
9	622.6	18.0	55	36	91	768	9.2	1.0	768	9.20	
10	623.4	18.2	41	49	90	579	8.5	1.0	579	8.50	
11	624.5	17.6	18	51	69	246	24.	1.0	246	24.00	
12	625.5	21.7	57	36	93	960	27.	1.0	960	27.00	
13	626.5	20.0	53	40	93	822	21.	1.1	904	23.10	
14	627.5	18.3	54	43	97	767	6.3	0.6	460	3.78	
15	628.5	16.5	46	47	93	589	1.7	1.0	589	1.70	
16	629.5	17.5	33	50	83	448	8.7	1.6	717	13.92	
17	630.6	19.4	37	41	78	557	34.	1.0	557	34.00	

Company Hillenburg Oil Co. Lease Humphrey Well No. 65

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SUMMARY OF PERMEABILITY & SATURATION TESTS

TABLE III

Company		Lease		Well No.			
Hillenburg Oil Co.		Humphrey		65			
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
614.0 - 631.4	17.4	20.9	363.99	39.5	49.3	570	9,926
614.0 - 631.4	17.4			18.6			

WATER SAT.,
PERCENT

90
70
20
40
50
60
30
80
10

OIL SAT.,
PERCENT

10
80
30
60
50
40
70
20

PERMEABILITY, IN MILLIDARCYS

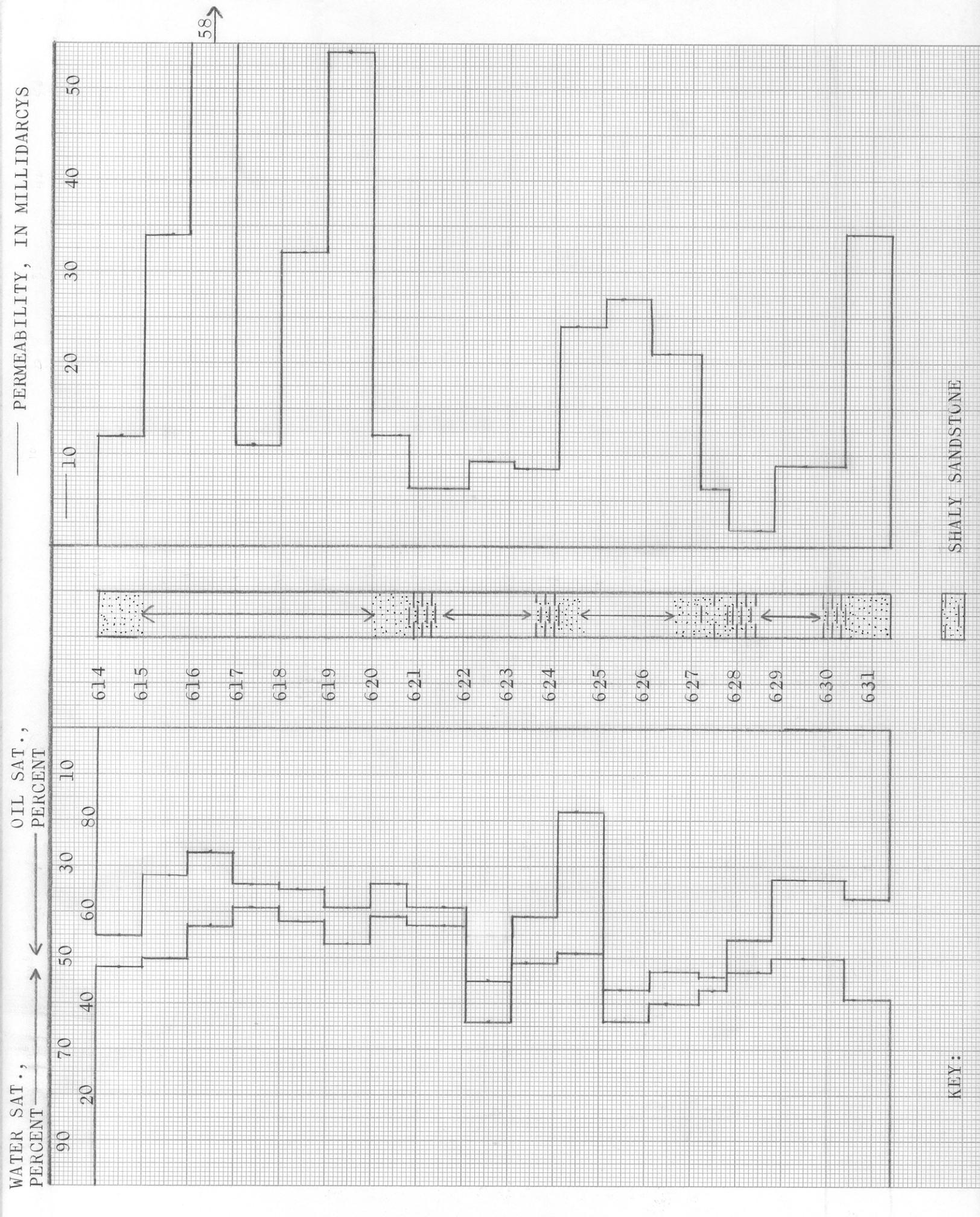
10
20
30
40
50

58

614 615 616 617 618 619 620 621 622 623 624 625 626 627 628 629 630 631

KEY:

SHALY SANDSTONE



KEY:



SANDSTONE



SHALY SANDSTONE



LAMINATED SANDSTONE AND SHALE

HILLENBURG OIL COMPANY

HUMPHREY LEASE

WELL NO. 65

BOURBON COUNTY, KANSAS

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

614.0 - 631.4

17.4

18.6

39.5

49.3

20.9

OILFIELD RESEARCH LABORATORIES
 CHANUTE, KANSAS
 APRIL, 1981

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