

OILFIELD RESEARCH LABORATORIES

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

April 8, 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. 64, 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 2, 1981.

Your business is greatly appreciated.

Very truly yours,

OILFIELD RESEARCH LABORATORIES

Sanford A. Michel

SAM/kas

5 c to Bronson, Kansas

- REGISTERED ENGINEERS -

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

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GENERAL INFORMATION & SUMMARY

Company Hillenburg Oil Co. Lease Humphrey Well No. 64
 Location _____
 Section 36 Twp. 24S Rge. 21E County Bourbon State Kansas

Elevation, Feet

Name of Sand

Bartlesville

Top of Core

620.0

Bottom of Core

631.5

Top of Sand

620.0

Bottom of Sand

631.2

Total Feet of Permeable Sand

11.2

Distribution of Permeable Sand:
Permeability Range
Millidarcys

Feet

Cum. Ft.

0 - 10

4.8

4.8

10 - 25

3.5

8.3

25 - 40

2.9

11.2

Average Permeability Millidarcys

15.7

Average Percent Porosity

17.8

Average Percent Oil Saturation

56.6

Average Percent Water Saturation

32.1

Average Oil Content, Bbls./A. Ft.

780.

Total Oil Content, Bbls./Acre

8,734.

OILFIELD RESEARCH LABORATORIESLOGName Hillenburg Oil Co. Lease Humphrey Well No. 64

<u>Depth Interval, Feet</u>	<u>Description</u>
620.0 - 621.1	Brown slightly shaly sandstone.
621.1 - 626.7	Dark brown sandstone.
626.7 - 627.8	Dark brown shaly sandstone.
627.8 - 628.6	Dark brown sandstone.
628.6 - 631.2	Black carbonaceous shaly sandstone.
631.2 - 631.5	Gray laminated sandstone and shale.

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RESULTS OF SATURATION & PERMEABILITY TESTS

TABLE 1-B

Company Hillenburg Oil Company Lease Humphrey Well No. 64

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	620.5	16.1	47	48	95	587	8.3	1.1	1.1	646	9.13
2	621.5	19.9	74	23	97	1142	31.	0.9	2.0	1028	27.90
3	622.5	18.5	62	26	88	890	39.	1.0	3.0	890	39.00
4	623.6	17.7	55	29	84	755	20.	1.0	4.0	755	20.00
5	624.5	22.7	46	23	69	810	21.	1.0	5.0	810	21.00
6	625.5	18.3	51	42	93	724	26.	1.0	6.0	724	26.00
7	626.6	17.3	62	34	96	832	13.	0.7	6.7	582	9.10
8	627.5	15.5	53	34	87	637	5.5	1.1	7.8	701	6.05
9	628.5	17.4	46	26	72	621	19.	0.8	8.6	497	15.20
10	629.4	16.7	62	31	93	803	0.74	1.0	9.6	803	0.74
11	630.6	16.6	63	33	96	811	0.89	1.6	11.2	1298	1.42

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SUMMARY OF PERMEABILITY & SATURATION TESTS

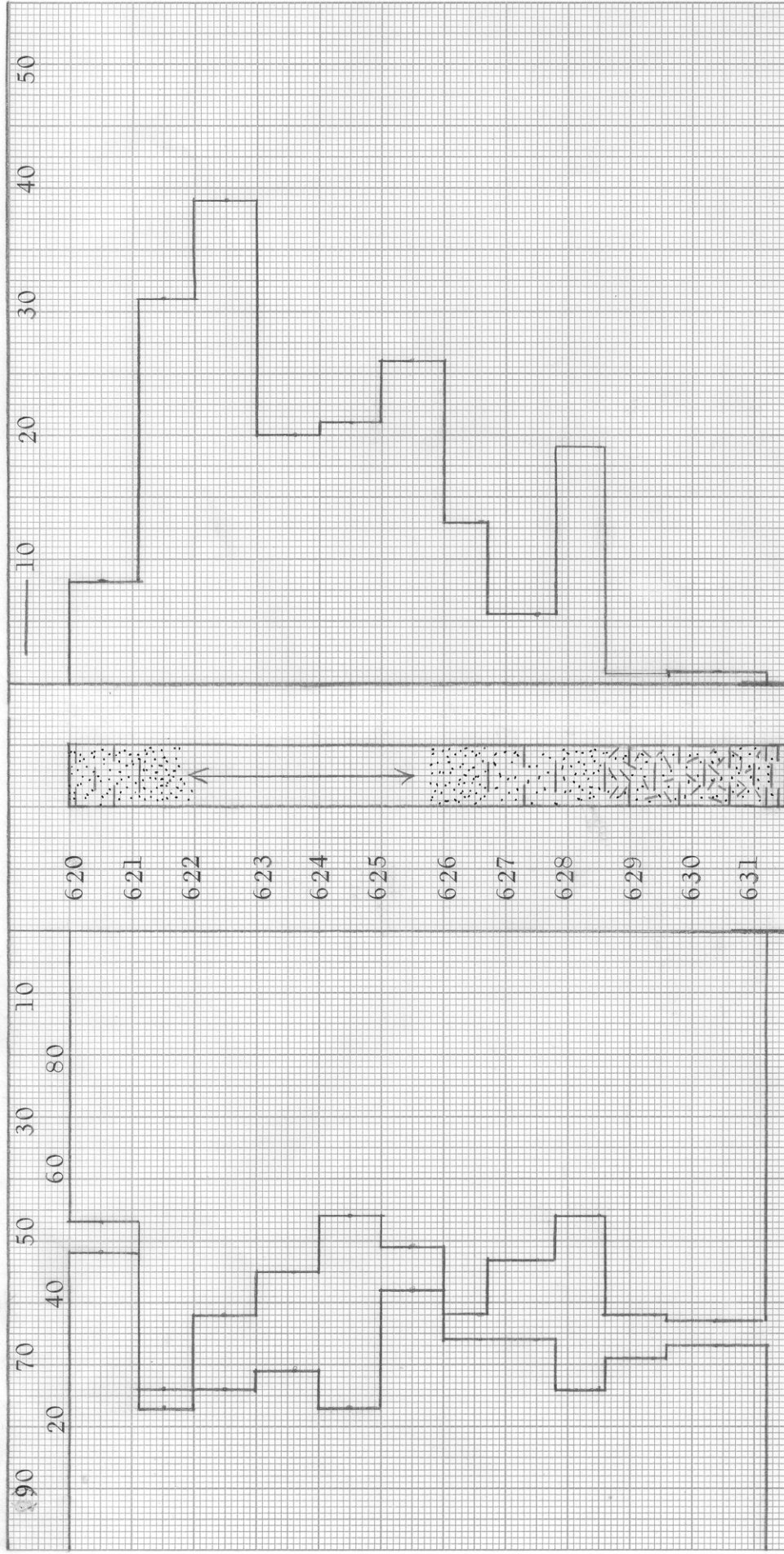
TABLE III

Company		Lease		Well No.		64	
Hillenburg Oil Co.		Humphrey					
Depth Interval, Feet	Feet of Core Analyzed	Average Permeability, Millidarcys	Permeability Capacity Ft. x Md.				
620.0 - 626.7	6.7	22.7	152.13				
626.7 - 631.2	4.5	5.2	23.41				
620.0 - 631.2	11.2	15.7	175.54				
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	
620.0 - 626.7	6.7	18.6	56.1	32.4	811	5,435	
626.7 - 631.2	4.5	16.5	57.3	31.6	733	3,299	
620.0 - 631.2	11.2	17.8	56.6	32.1	780	8,734	

WATER SAT.,
PERCENT

OIL SAT.,
PERCENT

PERMEABILITY, IN MILLIDARCYS



KEY:



SANDSTONE



SHALY CARBONACEOUS SANDSTONE

SHALY SANDSTONE

LAMINATED SANDSTONE AND SHALE

HILLENBURG OIL COMPANY

HUMPHREY LEASE

BOURBON COUNTY, KANSAS

WELL NO. 64

DEPTH INTERVAL

FEET OF CORE

AVERAGE

AVG. OIL

AVG. WATER

AVG. PERCENT

HILLENBURG OIL COMPANY

HUMPHREY LEASE

WELL NO. 64

BOURBON COUNTY, KANSAS

DEPTH INTERVAL, FEET	FEET OF CORE ANALYZED	AVERAGE PERCENT POROSITY	AVG. OIL SATURATION PERCENT	AVG. WATER SATURATION PERCENT	AVERAGE PERMEABILITY, MILLIDARCYS
620.0 - 626.7	6.7	18.6	56.1	32.4	22.7
626.7 - 631.2	4.5	16.5	57.3	31.6	5.2
620.0 - 631.2	11.2	17.8	56.6	32.1	15.7

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CHANUTE, KANSAS
APRIL, 1981

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