

November 8, 1982

Patrick Development Corporation c/o Kerry Patrick 10009 Howe Drive Leawood, Kansas 66206

Gentlemen:

Attached hereto are the results of tests run on the rotary core taken from the Johnson Lease, Well No. PDC-15, located in the Northeast ½ of Section 31, T-26S, R-17E, Woodson County, Kansas.

The core was sampled and sealed in plastic bags by a representative of the client and submitted to our laboratory on November 4, 1982.

Your business is greatly appreciated.

Very truly yours,

OILFIELD RESEARCH LABORATORIES

Sanford A. Michel

SAM/rmc

5 c to Leawood, Kansas

## OILFIELD RESEARCH LABORATORIES

Company Patrick Development Corporation Lease Johnson Well No. PDC-15

Depth Interval, Feet	Description
•	LOWER SQUIRREL SANDSTONE
829.0 - 829.9	Brown sandstone.
829.9 - 830.4	Gray sandy shale.
830.4 - 830.7	Grayish brown shaly sandstone.
830.7 - 832.3	Gray slightly sandy shale.
832.3 - 832.6	Brown slightly shaly sandstone.
832.6 - 833.3	Grayish brown very shaly sandstone.
833.3 - 835.0	Gray slightly sandy shale.
835.0 - 835.4	Brown very shaly sandstone.
835.4 - 836.2	Gray slightly sandy shale.
836.2 - 836.5	Grayish brown very shaly sandstone.
836.5 - 837.2	Gray slightly sandy shale.
837.2 - 838.1	Grayish brown very shaly sandstone.
838.1 - 838.6	Grayish brown shaly sandstone.
838.6 - 839.4	Gray shale.
839.4 - 839.7	Grayish brown shaly sandstone.
839.7 - 840.0	Gray shale.
840.0 - 840.5	Alternate layers gray shale and brown sandstone.
840.5 - 841.6	Gray shale.
841.6 - 841.8	Grayish brown very shaly sandstone.

841.8 - 844.0 Gray shale.

## Oilfield Research Laboratories

## **RESULTS OF SATURATION & PERMEABILITY TESTS**

TABLE 1

Company _	Patrick Development Corporation Lease Johnson Well No. PDC-15							
Sample	Depth,	Porosity	Percent Saturation			Oil Content	Permeability,	
No.	Feet	Percent	Oil	Water	Total	Bbls. / A. Ft.	Millidarcys	
	220.2	10.6		22	7.0	F 2.4	122	
1 2 3	829.3 830.5	18.6 11.6	37 8	33 83	70 91	534 72	123. 4.6	
3 4	832.4 833.2	11.3 11.8	28 41	68 54	96 95	246 375	6.0 Imp.	
5	835.2	10.0	40 18	52 73	92 91	310 152	Imp.	
6 7	836.4 837.8	10.9 14.8	51	33	84	586	0.87	
8 9	838.5 839.5	17.0 14.5	40 42	27 30	67 72	528 473	3.2	
10 11	840.4 841.7	11.2 15.4	45 40	38 38	83 78	391 478	Imp. Imp.	