



OILFIELD RESEARCH LABORATORIES

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

March 31, 1981

H. G. Forbes Oil
P. O. Box 528
Eureka, Kansas 67045

Gentlemen:

Enclosed herewith are the results of tests run on the rotary core taken from the Mustard Lease, Well No. 20, located in Greenwood County, Kansas.

The core was sampled and sealed in plastic bags by a representative of the client and was submitted to our laboratory on March 20, 1981.

Your business is greatly appreciated.

Very truly yours,

OILFIELD RESEARCH LABORATORIES

Sanford A. Michel

SAM/kas

5 c to Eureka, Kansas

Oilfield Research Laboratories

GENERAL INFORMATION & SUMMARY

Company H. G. Forbes Oil Lease Mustard Well No. 20

Location _____
 Section 12 Twp. 26S Rge. 9E County Greenwood State Kansas

Elevation, Feet

Name of Limestone

Mississippi Limestone

Top of Core 2173.0

Bottom of Core 2194.0

Top of Limestone 2184.0

Bottom of Limestone 2190.7

Total Feet of Permeable Limestone 4.0

Distribution of Permeable Permeability Range Millidarcys	Feet	Cum. Ft.
0 - 1	2.0	2.0
1 & Above	2.0	4.0

Average Permeability Millidarcys 1.9

Average Percent Porosity 7.5

Average Percent Oil Saturation 40.0

Average Percent Water Saturation 34.6

Average Oil Content, Bbls./A. Ft. 254.

Total Oil Content, Bbls./Acre 1,701.

OILFIELD RESEARCH LABORATORIES

LOG

Name H. G. Forbes Oil Lease Mustard Well No. 20

<u>Depth Interval,</u> <u>Feet</u>	<u>Description</u>
2173.0 - 2184.0	Gray very shaly limestone.
2184.0 - 2190.7	Grayish light brown shaly limestone.
2190.7 - 2194.0	Gray very shaly limestone.

Oilfield Research Laboratories

RESULTS OF SATURATION & PERMEABILITY TESTS

TABLE 1-B

Company H. G. Forbes Oil Lease Mustard Well No. 20

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	2184.8	9.9	51	18	69	392	4.5	1.0	1.0	392	4.50
2	2185.5	8.6	61	33	94	407	2.7	1.0	2.0	407	2.70
3	2186.4	10.1	46	19	65	360	0.25	1.0	3.0	360	0.25
4	2187.6	7.9	50	27	77	306	0.26	1.0	4.0	306	0.26
5	2188.5	6.6	18	42	60	92	Imp.	1.0	5.0	92	0.00
6	2189.7	3.5	13	61	74	35	Imp.	1.0	6.0	35	0.00
7	2190.5	4.9	41	45	86	156	Imp.	0.7	6.7	109	0.00

Oilfield Research Laboratories

SUMMARY OF PERMEABILITY & SATURATION TESTS

TABLE III

Company		Lease		Well No.	
H. G. Forbes Oil		Mustard		20	
Depth Interval, Feet	Feet of Core Analyzed	Average Permeability, Millidarcys	Permeability Capacity Ft. x Md.		
2184.0 - 2190.7	4.0	1.9	7.71		
Depth Interval, Feet	Feet of Core Analyzed	Average Percent Porosity	Average Percent Oil Saturation	Average Oil Content Bbl./A. Ft.	Total Oil Content Bbls./Acre
2184.0 - 2190.7	6.7	7.5	40.0	254	1,701

WATER SAT., PERCENT ——— PERMEABILITY, IN MILLIDARCYS

OIL SAT., PERCENT ——— PERCENT



KEY:

SHALY LIMESTONE

H. G. FORBES OIL

WELL NO. 20

MUSTARD LEASE

GREENWOOD COUNTY, KANSAS

DEPTH INTERVAL, FEET	FEET OF CORE ANALYZED	AVERAGE POROSITY PERCENT	AVERAGE OIL SATURATION PERCENT	AVERAGE WATER SATURATION PERCENT	AVERAGE PERMEABILITY, MILLIDARCYS
2184.0 - 2190.7	6.7	7.5	40.0	34.6	1.9

H. G. FORBES OIL

MUSTARD LEASE

WELL NO. 20

GREENWOOD COUNTY, KANSAS

DEPTH INTERVAL, FEET	FEET OF CORE ANALYZED	AVERAGE		AVG. OIL		AVG. WATER		AVERAGE	
		PERCENT	POROSITY	PERCENT	SATURATION	PERCENT	SATURATION	PERMEABILITY,	PERMEABILITY,
								MILLIDARCYS	
2184.0 - 2190.7	6.7	7.5		40.0		34.6		1.9	

OILFIELD RESEARCH LABORATORIES
CHANUTE, KANSAS
MARCH, 1981

PDC