

# OILFIELD RESEARCH LABORATORIES

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

December 9, 1980

Willis Parrish  
R. R. 3  
Iola, Kansas 66749

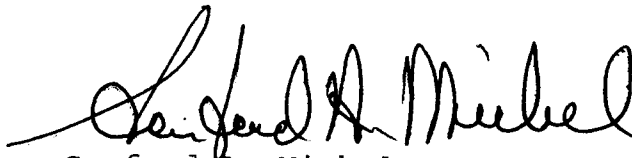
Gentlemen:

Enclosed herewith is the report of the analysis of the rotary core taken from the Parrish Lease, Well No. 3, located in Allen County, Kansas and submitted to our laboratory on November 5, 1980.

Your business is greatly appreciated.

Very truly yours,

OILFIELD RESEARCH LABORATORIES

  
Sanford A. Michel

SAM/mkf

5 c to Iola, Ks.

# Oilfield Research Laboratories

## GENERAL INFORMATION & SUMMARY

Company Willis Parrish Lease Parrish Well No. 3

Location \_\_\_\_\_

Section 11 Twp 25S Rge 18E County Allen State Kansas

Elevation, Feet	-
Name of Sand	Upper Squirrel
Top of Core	666.0
Bottom of Core	676.0
Top of Sand	666.0
Bottom of Sand	675.6
Total Feet of Permeable Sand	9.6
Total Feet of Floodable Sand	0.0

Distribution of Permeable Sand: Permeability Range Millidarcys	Feet	Cum. Ft.
0 - 5	3.6	3.6
5 - 10	6.0	9.6

Average Permeability Millidarcys	5.2
Average Percent Porosity	14.3
Average Percent Oil Saturation	55.6
Average Percent Water Saturation	28.0
Average Oil Content, Bbls./A. Ft.	612.
Total Oil Content, Bbls./Acre	5875.
Average Percent Oil Recovery by Laboratory Flooding Tests	0.0
Average Oil Recovery by Laboratory Flooding Tests, Bbls./A. Ft.	0.0
Total Oil Recovery by Laboratory Flooding Tests, Bbls./Acre	0.0
Total Calculated Oil Recovery, Bbls./Acre	0.0

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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 semi-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,</u> <u>Feet</u>	<u>Description</u>
666.0 - 675.6	Brown slightly calcareous shaly sandstone.
675.6 - 676.0	Brown slightly calcareous very shaly sandstone.

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**RESULTS OF SATURATION & PERMEABILITY TESTS**

**TABLE 1-B**

Company Willis Parrish Lease Parrish Well No. 3

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			Ft.	Cum. Ft.		
1	666.5	13.6	56	33	591	2.6	1.0	1.0	591	2.60
2	667.5	13.9	60	31	647	4.1	1.0	2.0	647	4.10
3	668.4	13.2	65	20	666	1.5	1.0	3.0	666	1.50
4	669.5	13.9	58	28	625	7.4	1.0	4.0	625	7.40
5	670.5	13.4	52	24	541	6.0	1.0	5.0	541	6.00
6	671.5	13.5	51	23	534	10.	1.0	6.0	534	10.00
7	672.5	16.5	44	32	563	5.4	1.0	7.0	563	5.40
8	673.4	16.0	54	31	670	5.7	1.0	8.0	670	5.70
9	674.5	14.3	57	25	632	6.8	1.0	9.0	632	6.80
10	675.5	14.3	61	36	677	1.4	0.6	9.6	406	0.84



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## RESULTS OF LABORATORY FLOODING TESTS

TABLE IV

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				Bbls./A. Ft.
1	666.5	14.1	55	602	0	0	55	35	602	0	Imp.	-
2	667.5	14.0	60	652	0	0	60	31	652	0	Imp.	-
3	668.4	13.4	65	676	0	0	65	22	676	0	Imp.	-
4	669.5	13.5	59	618	0	0	59	29	618	0	Imp.	-
5	670.5	13.6	52	549	0	0	52	25	549	0	Imp.	-
6	671.5	13.5	51	534	0	0	51	44	534	21	0.30	45
7	672.5	16.0	45	559	0	0	45	33	559	0	Imp.	-
8	673.4	16.4	54	687	0	0	54	32	687	0	Imp.	-
9	674.5	14.2	57	628	0	0	57	27	628	0	Imp.	-
10	675.5	14.5	61	686	0	0	61	36	686	0	Imp.	-

Company Willis Parrish
Lease Parrish
Well No. 3

Notes: cc—cubic centimeters.

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

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

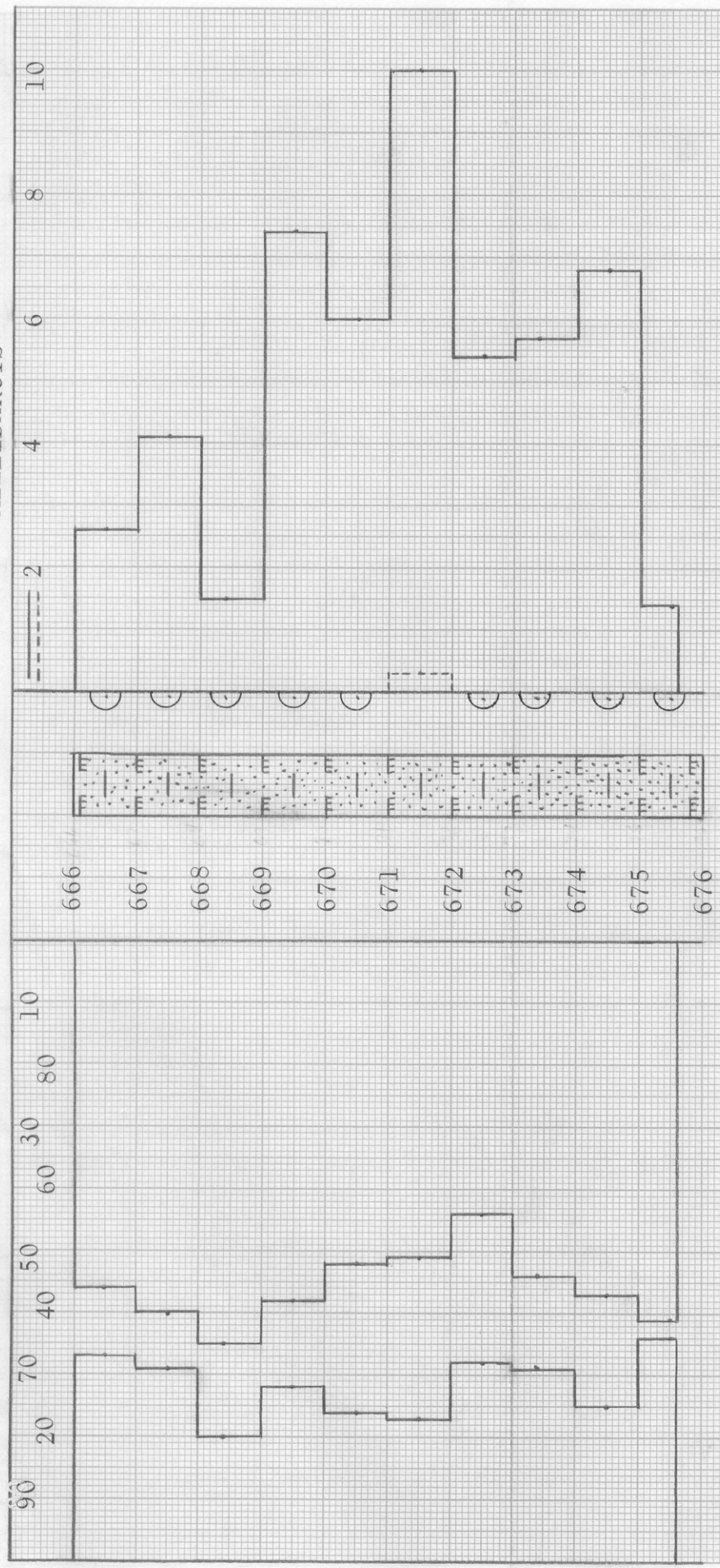
10 X 10 TO THE CENTI METER #25 X 38 CM.  
KEUFFEL & ESSER CO. MADE IN U.S.A.

WATER SAT.,  
PERCENT

OIL SAT.,  
PERCENT

47 1512

PERMEABILITY, IN MILLIDARCS  
EFFECTIVE PERMEABILITY TO WATER, IN  
MILLIDARCS



KEY:



SHALY CALCAREOUS SANDSTONE



IMPERMEABLE TO WATER

# WILLIS PARRISH

PARRISH LEASE  
WELL NO. 3A  
ALLEN COUNTY, KANSAS

DEPTH INTERVAL FEET OF CORE AVERAGE WATER AVERAGE PERMEABILITY

DEPTH INTERVAL, FEET	FEET OF CORE ANALYZED	AVERAGE PERCENT POROSITY	AVG. OIL SATURATION PERCENT	AVG. WATER SATURATION PERCENT	AVERAGE PERMEABILITY, MILLIDARCS	CALCULATED OIL RECOVERY BBLs. / ACRE
666.0 - 675.6	9.6	14.3	55.6	28.0	5.2	-----

OILFIELD RESEARCH LABORATORIES  
CHANUTE, KANSAS  
DECEMBER, 1980

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