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

August 18, 1981

Gary Dover
19839 Floyd
Stilwell, Kansas 66085

Gentlemen:

Enclosed herewith is the report of the analysis of the rotary core taken from the Wilkinson Lease, Well No. 2, located in Crawford County, Kansas and submitted to our laboratory on August 7, 1981.

Your business is greatly appreciated.

Very truly yours,

OILFIELD RESEARCH LABORATORIES

Sanford A. Michel
by. A.D.

Sanford A. Michel

SAM/kas

5 c to Stilwell, Kansas

Oilfield Research Laboratories

GENERAL INFORMATION & SUMMARY

Company Gary Dover Lease Wilkinson Well No. 2

Location 300' FNL & 125' FEL - NE¼

Section 8 Twp. 28S Rge. 22E County Crawford State Kansas

Elevation, Feet	
Name of Sand	Tucker
Top of Core	582.0
Bottom of Core	602.0
Top of Sand	582.0
Bottom of Sand	602.0
Total Feet of Permeable Sand	8.5
Total Feet of Floodable Sand	0.0

Distribution of Permeable Sand: Permeability Range Millidarcys	Feet	Cum. Ft.
5 - 10	2.5	2.5
10 - 15	1.0	3.5
20 - 30	2.8	6.3
30 & Above	2.2	8.5

Average Permeability Millidarcys	19.0
Average Percent Porosity	15.3
Average Percent Oil Saturation	30.6
Average Percent Water Saturation	51.3
Average Oil Content, Bbls./A. Ft.	386.
Total Oil Content, Bbls./Acre	7,719.
Average Percent Oil Recovery by Laboratory Flooding Tests	0.
Average Oil Recovery by Laboratory Flooding Tests, Bbls./A. Ft.	0.
Total Oil Recovery by Laboratory Flooding Tests, Bbls./Acre	0.
Total Calculated Oil Recovery, Bbls./Acre	0.

The core was sampled and the samples sealed in plastic bags by a representative of the client. Air and water were used as a drilling fluid. The core was reported to be from a virgin area. As requested by the client, only samples 13 - 20 were subjected to flooding susceptibility tests. Since samples 13 - 20 did not respond to flooding susceptibility, no calculated recovery is given.

FORMATION CORED

The detailed log of the formation cored is as follows:

Depth Interval, Feet	Description
582.0 - 594.5	Gray and light brown laminated shale and sandstone.
594.5 - 600.5	Brown sandstone.
600.5 - 602.0	Grayish light brown shaly sandstone.

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RESULTS OF SATURATION & PERMEABILITY TESTS

TABLE 1-B

Company Gary Dover Lease Wilkinson Well No. 2

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	582.5	15.7	38	39	77	463	7.2	1.0	1.0	463	7.20
2	583.4	14.7	25	54	79	285	Imp.	1.0	2.0	285	0.00
3	584.6	13.0	26	56	82	262	Imp.	1.0	3.0	262	0.00
4	585.3	13.6	35	31	66	369	Imp.	1.0	4.0	369	0.00
5	586.4	14.0	22	58	80	239	Imp.	1.0	5.0	239	0.00
6	587.5	13.8	24	63	87	257	Imp.	1.0	6.0	257	0.00
7	588.5	15.0	7	81	88	82	Imp.	1.0	7.0	82	0.00
8	589.6	14.2	35	53	88	386	Imp.	1.0	8.0	386	0.00
9	590.5	14.1	14	65	79	153	Imp.	1.0	9.0	153	0.00
10	591.6	12.4	18	72	90	173	Imp.	1.0	10.0	173	0.00
11	592.5	9.9	8	89	97	61	Imp.	1.0	11.0	61	0.00
12	593.5	10.7	13	70	83	108	Imp.	1.0	12.0	108	0.00
13	594.4	12.7	56	33	89	552	Imp.	0.5	12.5	276	0.00
14	595.6	18.4	41	37	78	585	32.	1.2	13.7	702	38.40
15	596.5	18.2	38	38	76	537	26.	1.0	14.7	537	26.00
16	597.5	18.7	42	38	80	609	31.	1.0	15.7	609	31.00
17	598.5	19.1	59	30	89	874	21.	1.0	16.7	874	21.00
18	599.6	18.8	48	29	77	700	13.	1.0	17.7	700	13.00
19	600.4	18.3	23	46	69	327	22.	0.8	18.5	262	17.60
20	601.5	18.4	43	41	84	614	6.3	1.5	20.0	921	9.45

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SUMMARY OF PERMEABILITY & SATURATION TESTS

TABLE III

Company Gary Dover Lease Wilkinson Well No. 2

Depth Interval, Feet	Feet of Core Analyzed	Average Permeability, Millidarcys	Permeability Capacity Ft. x Md.
582.0 - 594.5	1.0	7.2	7.20
594.5 - 602.0	7.5	20.6	154.45
582.0 - 602.0	8.5	19.2	161.65

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
582.0 - 594.5	12.5	13.4	23.4	59.8	249	3,114
594.5 - 602.0	7.5	18.6	42.6	37.0	614	4,605
582.0 - 602.0	20.0	15.3	30.6	51.3	386	7,719

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RESULTS OF LABORATORY FLOODING TESTS

TABLE IV

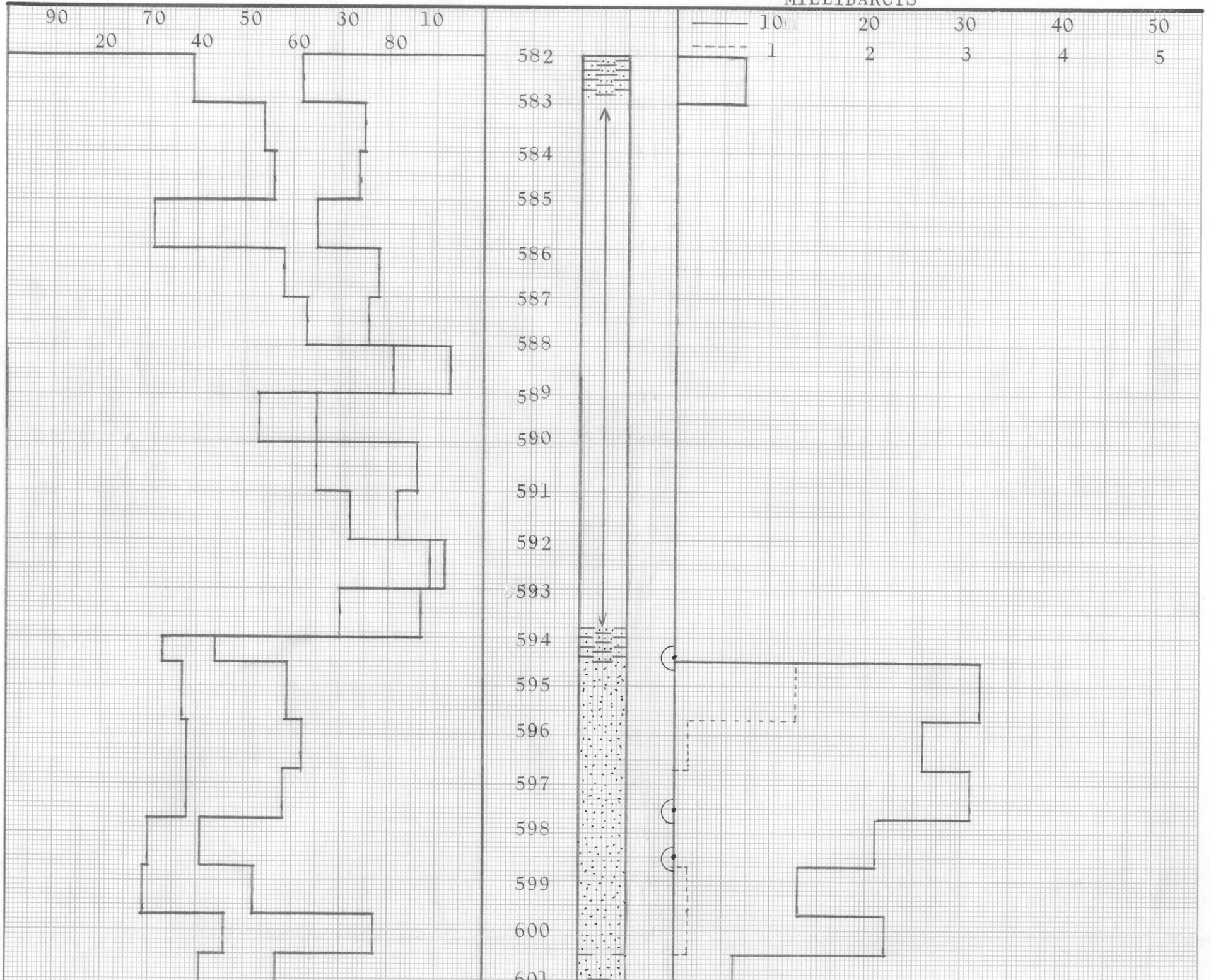
Company Gary Dover Lease Wilkinson Well No. 2

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.			
13	594.4	12.8	56	556	0	0	56	44	556	0	Imp.	-
14	595.6	18.5	41	588	0	0	41	56	588	74	1.27	30
15	596.5	18.3	38	539	0	0	38	50	539	12	0.15	50
16	597.5	18.2	43	607	0	0	43	39	607	0	Imp.	-
17	598.5	19.0	59	870	0	0	59	31	870	0	Imp.	-
18	599.6	18.7	48	696	0	0	48	37	696	8	0.15	50
19	600.4	18.4	23	328	0	0	23	56	328	10	0.15	50
20	601.5	18.5	43	617	0	0	43	42	617	0	Imp.	-

Notes: cc—cubic centimeter.

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

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


WATER SAT., PERCENT
OIL SAT., PERCENT
90
70
50
30
10
20
40
60
80
PERMEABILITY, IN MILLIDARCYS
EFFECTIVE PERMEABILITY TO WATER, IN MILLIDARCYS
10
20
30
40
50
1
2
3
4
5
582
583
584
585
586
587
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589
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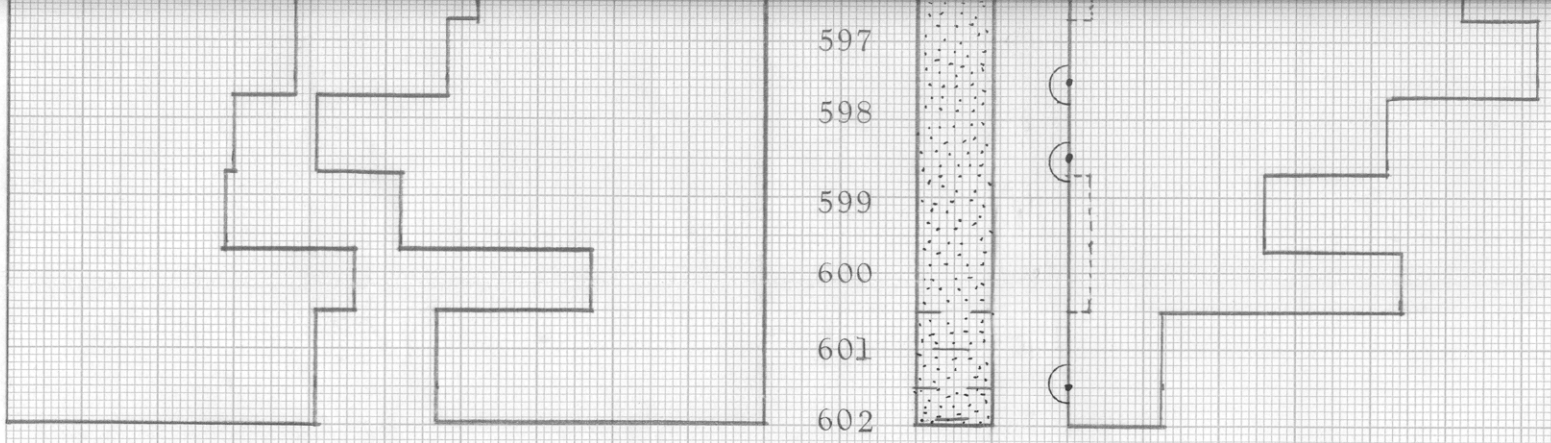

KEY:

SANDSTONE

SHALY SANDSTONE

LAMINATED SANDSTONE AND SHALE

IMPERMEABLE TO WATER

GARY DOVER

WILKINSON LEASE — WELL NO. 2

CRAWFORD COUNTY, KANSAS

DEPTH INTERVAL, FEET	FEET OF CORE ANALYZED	AVERAGE PERCENT POROSITY	AVG. OIL SATURATION PERCENT	AVG. WATER SATURATION PERCENT	AVERAGE PERMEABILITY, MILLIDARCYS	CALCULATED OIL RECOVERY BBLS. / ACRE
582.0 - 594.5	12.5	13.4	23.4	59.8	7.2	
594.5 - 602.0	7.5	18.6	42.6	37.0	20.6	
582.0 - 602.0	20.0	15.3	30.6	51.3	19.2	-

OILFIELD RESEARCH LABORATORIES
CHANUTE, KANSAS
AUGUST, 1981

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