

OILFIELD RESEARCH LABORATORIES

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

April 28, 1981

L & L Oil Company
P. O. Box 13
Benedict, Kansas 66714

Gentlemen:

Enclosed herewith is the report of the analysis of the rotary core taken from the Glenn Strange Lease, Well No. 2, located in Neosho County, Kansas and submitted to our laboratory on April 17, 1981.

Your business is greatly appreciated.

Very truly yours,

OILFIELD RESEARCH LABORATORIES

Sanford A. Michel

SAM/mkf

5 c to Benedict, Ks.

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GENERAL INFORMATION & SUMMARY

Company L & L Oil Company Lease Glenn Strange Well No. 2
 Location W $\frac{1}{2}$ SW $\frac{1}{4}$
 Section 18 Twp 28S Rge. 19E County Neosho State Kansas

Elevation, Feet - - - - -

Name of Sand - - - - -	Bartlesville
Top of Core - - - - -	711.0
Bottom of Core - - - - -	720.3
Top of Sand - - - - -	711.0
Bottom of Sand - - - - -	720.3
Total Feet of Permeable Sand - - - - -	6.0
Total Feet of Floodable Sand - - - - -	0.0

Distribution of Permeable Sand: Permeability Range Millidarcys	Feet	Cum. Ft.
0 - 25	3.4	3.4
35 - 70	2.6	6.0

Average Permeability Millidarcys - - - - -	23.1
Average Percent Porosity - - - - -	14.8
Average Percent Oil Saturation - - - - -	33.8
Average Percent Water Saturation - - - - -	44.6
Average Oil Content, Bbls./A. Ft. - - - - -	408.
Total Oil Content, Bbls./Acre - - - - -	3,791.
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. Fresh water mud was used as a drilling fluid.. The core was reported to be from a non-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, Feet</u>	<u>Description</u>
711.0 - 712.5	Grayish light brown slightly calcareous shaly sandstone.
712.5 - 714.1	Light brown slightly calcareous sandstone.
714.1 - 714.7	Brown slightly calcareous sandstone.
714.7 - 716.5	Grayish light brown slightly calcareous shaly sandstone.
716.5 - 717.9	Light brown slightly calcareous sandstone.
717.9 - 719.0	Brown slightly calcareous slightly carbonaceous sandstone.
719.0 - 720.3	Light brown slightly calcareous slightly carbonaceous shaly sandstone.

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RESULTS OF SATURATION & PERMEABILITY TESTS

TABLE 1-B

Company L & L Oil Company Lease Glenn Strange 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	711.5	9.8	22	44	66	167	Imp.	1.5	1.5	251	0.00
2	712.7	14.5	22	46	68	248	68.	0.7	2.2	174	47.60
3	713.5	17.8	50	23	73	691	6.0	0.9	3.1	622	5.40
4	714.5	16.8	52	31	83	678	21.	0.6	3.7	407	12.60
5	715.5	12.2	28	56	84	265	Imp.	1.8	5.5	477	0.00
6	716.7	15.5	18	69	87	216	35.	0.8	6.3	173	28.00
7	717.5	19.6	40	32	72	608	3.7	0.6	6.9	365	2.22
8	718.6	16.9	42	44	86	551	38.	1.1	8.0	606	41.80
9	719.5	16.9	42	41	83	551	0.55	1.3	9.3	716	0.72

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SUMMARY OF PERMEABILITY & SATURATION TESTS

TABLE III

Company	L & L Oil Company	Lease	Glenn Strange	Well No.	2
Depth Interval, Feet	Feet of Core Analyzed	Average Permeability, Millidarcys	Permeability Capacity Ft. x Md.		
711.0 - 720.3	6.0	23.1	138.34		
Depth Interval, Feet	Feet of Core Analyzed	Average Percent Porosity	Average Percent Water Saturation	Average Oil Content Bbl./A. Ft.	Total Oil Content Bbls./Acre
711.0 - 720.3	9.3	14.8	33.8	44.6	3,791

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RESULTS OF LABORATORY FLOODING TESTS

TABLE IV

Well No. 2

Lease Glenn Strange

L & L Oil Company

Company

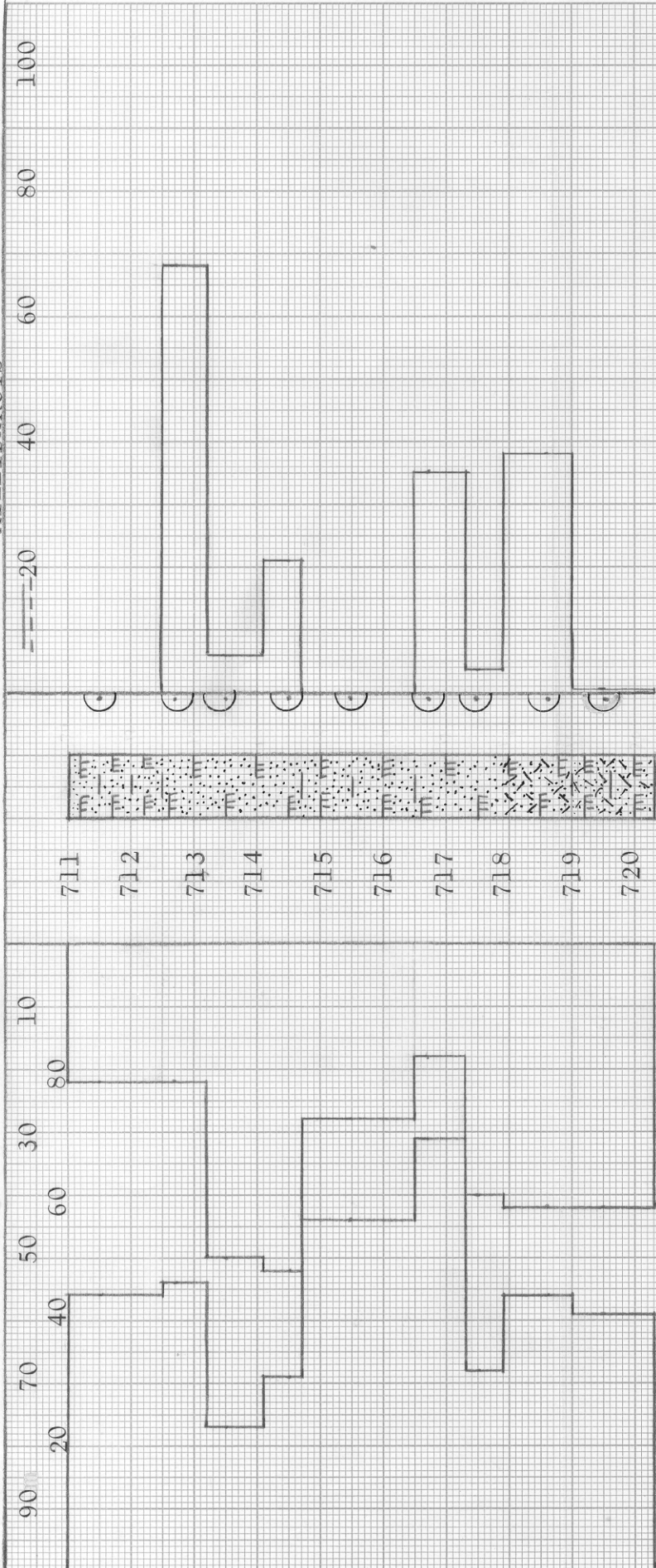
Sample No.	Depth, Feet	Effective Porosity Percent	Original Oil Saturation		Oil Recovery		Residual Saturation			Volume of Water Recovered cc*	Effective Permeability Millidarcys**	Initial Fluid Production Pressure Lbs./Sq./In.
			%	Bbls./A. Ft.	%	Bbls./A. Ft.	% Oil	% Water	Bbls./A. Ft.			
1	711.5	10.0	21	163	0	0	21	47	163	0	Imp.	-
2	712.7	14.7	21	239	0	0	21	48	239	0	Imp.	-
3	713.5	17.7	51	700	0	0	51	24	700	0	Imp.	-
4	714.5	16.6	53	683	0	0	53	32	683	0	Imp.	-
5	715.5	12.0	29	270	0	0	29	57	270	0	Imp.	-
6	716.7	15.6	17	206	0	0	17	71	206	0	Imp.	-
7	717.5	19.1	41	608	0	0	42	33	608	0	Imp.	-
8	718.6	17.0	41	541	0	0	41	46	541	0	Imp.	-
9	719.5	16.8	43	560	0	0	43	42	560	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 —————> ————— PERMEABILITY, IN MILLIDARCYS
 - - - - - EFFECTIVE PERMEABILITY TO WATER, IN MILLIDARCYS



KEY:



CALCAREOUS SANDSTONE



SHALY CALCAREOUS SANDSTONE



CARBONACEOUS SHALY CALCAREOUS SANDSTONE



IMPERMEABLE TO WATER

L & L OIL COMPANY

GLENN STRANGE LEASE

WELL NO. 2

NEOSHO COUNTY, KANSAS

DEPTH INTERVAL, FEET	FEET OF CORE ANALYZED	AVERAGE PERCENT	AVG. OIL SATURATION PERCENT	AVG. WATER SATURATION PERCENT	AVERAGE PERMEABILITY, MILLIDARCYS	CALCULATED OIL RECOVERY, RBIS / ACRE

L & L OIL COMPANY

GLENN STRANGE LEASE

WELL NO. 2

NEOSHO 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
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711.0 - 720.3	9.3	14.8	33.8	44.6	23.1	-
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OILFIELD RESEARCH LABORATORIES
CHANUTE, KANSAS
APRIL, 1981

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