

# OILFIELD RESEARCH LABORATORIES

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

July 28, 1980

KLI Petroleum Corporation  
808 Southeast Sixth Street  
Evansville, Indiana 47708

Gentlemen:

Enclosed herewith are the results of tests run on the rotary core taken from the Shirley Lease, Well No. K-2, Allen County, Kansas, and submitted to our laboratory on July 1, 1980.

The core was sampled and sealed in plastic bags by a representative of the client.

Your business is greatly appreciated.

Very truly yours,

OILFIELD RESEARCH LABORATORIES

  
Sanford A. Michel

SAM/kas  
3 c to Evansville, Indiana

- REGISTERED ENGINEERS -

CORE ANALYSIS - WATER ANALYSIS - REPRESSURING ENGINEERING - SURVEYING & MAPPING - PROPERTY EVALUATION & OPERATION

# Oilfield Research Laboratories

## GENERAL INFORMATION & SUMMARY

Company           KLI PETROLEUM CORPORATION           Lease           SHIRLEY           Well No.           K-2            
 Location           1100' EWL and 1000' NSL            
 Section           29           Twp.           26S           Rge.           21E           County           Allen           State           Kansas          

Elevation, Feet . . . . .	
Name of Sand . . . . .	Squirrel Sand
Top of Core . . . . .	537.0
Bottom of Core . . . . .	557.4
Top of Sand . . . . .	537.0
Bottom of Sand . . . . .	557.4
Total Feet of Permeable Sand . . . . .	15.2

Distribution of Permeable Sand: Permeability Range Millidarcys	Feet	Cum. Ft.
0 - 4	6.1	6.1
4 - 8	7.4	13.5
14 & above	1.7	15.2

Average Permeability Millidarcys . . . . .	5.5
Average Percent Porosity . . . . .	14.9
Average Percent Oil Saturation . . . . .	22.2
Average Percent Water Saturation . . . . .	66.1
Average Oil Content, Bbls./A. Ft. . . . .	264.
Total Oil Content, Bbls./Acre . . . . .	5,388.

## OILFIELD RESEARCH LABORATORIES

LOGName KLI PETROLEUM CORPORATION Lease Shirley Well No. K-2

<u>Depth Interval, Feet</u>	<u>Description</u>
537.0 - 538.2	Light brown shaly sandstone.
538.2 - 538.8	Brown shaly sandstone.
538.8 - 541.0	Grayish brown shaly sandstone.
541.0 - 543.2	Gray very shaly sandstone.
543.2 - 546.1	Brown shaly sandstone.
546.1 - 546.7	Brown sandstone.
546.7 - 549.0	Brown shaly sandstone.
549.0 - 550.1	Brown sandstone.
550.1 - 550.9	Brown very shaly sandstone.
550.9 - 557.4	Grayish brown very shaly sandstone.

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RESULTS OF SATURATION & PERMEABILITY TESTS

TABLE 1-B

Company KLI PETROLEUM CORPORATION Lease SHIRLEY Well No. K-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			Ft.	Cum. Ft.		
1	537.5	15.5	12	73	144	4.4	1.2	1.2	173	5.28
2	538.4	16.1	33	59	412	2.9	0.6	1.8	247	1.74
3	539.3	13.3	12	81	124	3.5	1.2	3.0	149	4.20
4	540.4	14.4	37	60	413	5.2	1.0	4.0	413	5.20
5	541.3	13.6	14	80	148	Imp.	1.0	5.0	148	0.00
6	542.3	14.5	4	90	45	Imp.	1.2	6.2	54	0.00
7	543.5	16.3	36	45	455	5.3	1.0	7.2	455	5.30
8	544.7	16.8	42	39	547	6.3	1.0	8.2	547	6.30
9	545.6	18.3	29	47	412	7.5	0.9	9.1	371	6.75
10	546.4	15.8	26	71	319	14.	0.6	9.7	191	8.40
11	547.6	15.5	26	67	313	6.8	1.3	11.0	407	8.84
12	548.3	17.7	35	53	481	4.5	1.0	12.0	481	4.50
13	549.8	17.6	30	40	410	21.	1.1	13.1	451	23.10
14	550.8	15.1	35	41	410	0.32	0.8	13.9	328	0.25
15	551.8	13.6	16	63	169	1.4	1.1	15.0	186	1.54
16	552.9	13.6	9	73	95	Imp.	1.0	16.0	95	0.00
17	553.7	13.4	12	85	125	Imp.	1.0	17.0	125	0.00
18	554.6	12.8	20	73	199	Imp.	1.0	18.0	199	0.00
19	556.1	12.0	14	83	130	0.63	1.4	19.4	182	0.88
20	557.1	12.1	18	71	169	1.1	1.0	20.4	186	1.10

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## SUMMARY OF PERMEABILITY & SATURATION TESTS

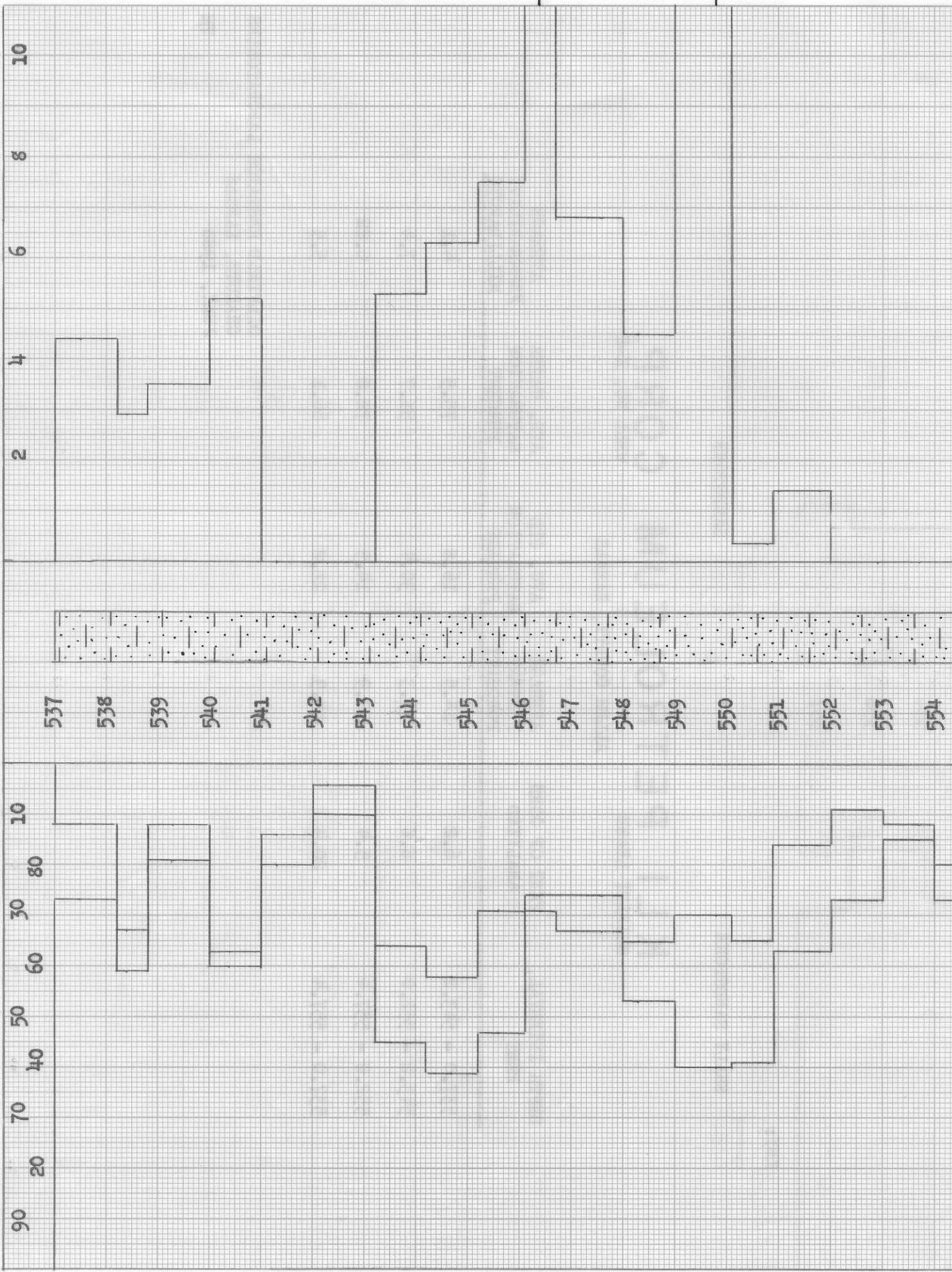
TABLE III

Company	Lease	SHIRLEY	Well No.	K-2	
	KLI PETROLEUM CORPORATION				
Depth Interval, Feet	Feet of Core Analyzed	Average Permeability, Millidarcys	Permeability Capacity Ft. x Md.		
537.0 - 543.2	4.0	4.1	16.42		
543.2 - 552.0	8.8	7.4	64.98		
552.0 - 557.4	2.4	0.82	1.98		
537.0 - 557.4	15.2	5.5	83.38		
Depth Interval, Feet	Feet of Core Analyzed	Average Percent Oil Saturation	Average Percent Water Saturation	Average Oil Content Bbl./A. Ft.	Total Oil Content Bbls./Acre
537.0 - 543.2	6.2	14.5	16.8	191	1,184
543.2 - 552.0	8.8	16.3	30.4	388	3,417
552.0 - 557.4	5.4	12.9	14.9	146	787
537.0 - 557.4	20.4	14.9	22.2	264	5,388

WATER SAT., PERCENT

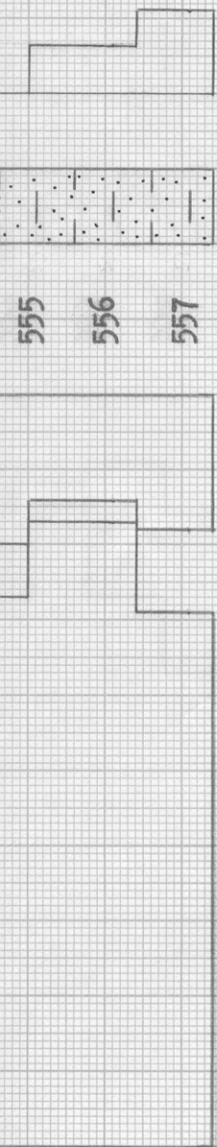
OIL SAT., PERCENT

PERMEABILITY, IN MILLIDARCYS



14

21



KEY:



SHALY SANDSTONE



SANDSTONE

# KLI PETROLEUM CORP.

SHIRLEY LEASE  
WELL NO. K-2

ALLEN COUNTY, KANSAS

DEPTH INTERVAL, FEET	FEET OF CORE ANALYZED	AVERAGE POROSITY PERCENT	AVG. OIL SATURATION PERCENT	AVG. WATER SATURATION PERCENT	AVERAGE PERMEABILITY MILLIDARCS
537.0 - 543.2	6.2	14.5	16.8	75.5	4.1
543.2 - 552.0	8.8	16.3	30.4	51.7	7.4
552.0 - 557.4	5.4	12.9	14.9	78.8	0.82
537.0 - 557.4	20.4	14.9	22.2	66.1	5.5