

OILFIELD RESEARCH LABORATORIES

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August 13, 1959

3-34-14E
Texas Natural & Layton Oil Company
P. O. Box 263
Independence, Kansas

Gentlemen:

Attached hereto are the results of tests run on the Cable Tool core taken from the White Lease, Well No. 4-A2, Montgomery County, Kansas, and submitted to our laboratory by Mr. R. J. Cozad on August 8, 1959.

Your business is greatly appreciated.

Very truly yours,

OILFIELD RESEARCH LABORATORIES

A-42
White
Carl L. McElrea
Carl L. McElrea

CLM:cs

5 c.

Oilfield Research Laboratories

GENERAL INFORMATION & SUMMARY

Company Texas Natural & Layton Oil Co. Lease White Well No. 4-A2

Location SE $\frac{1}{4}$

Section 3 Twp. 34S Rge. 14E County Montgomery State Kansas

Name of Sand	- - - - -	Wayside
Top of Core	- - - - -	630.0
Bottom of Core	- - - - -	659.2
Top of Sand	- - - - -	631.5
Bottom of Sand	- - - - -	?
Total Feet of Permeable Sand	- - - - -	18.7
Total Feet of Floodable Sand	- - - - -	-

Distribution of Permeable Sand:
Permeability Range
Millidarcys

Feet

Cum. Ft.

0 - 4	7.5	7.5
4 - 8	5.2	12.7
8 & above	6.0	18.7

Average Permeability Millidarcys	- - - - -	8.7
Average Percent Porosity	- - - - -	17.2
Average Percent Oil Saturation	- - - - -	
Average Percent Water Saturation	- - - - -	
Average Oil Content, Bbls./A. Ft.	- - - - -	
Total Oil Content, Bbls./Acre	- - - - -	
Average Percent Oil Recovery by Laboratory Flooding Tests	- - - - -	
Average Oil Recovery by Laboratory Flooding Tests, Bbls./A. Ft.	- - - - -	
Total Oil Recovery by Laboratory Flooding Tests, Bbls./Acre	- - - - -	
Total Calculated Oil Recovery, Bbls./Acre	- - - - -	
Packer Setting, Feet	- - - - -	
Viscosity, Centipoises @	- - - - -	
A. P. I. Gravity, degrees @ 60 °F	- - - - -	
Elevation, Feet	- - - - -	

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LOG

Company Texas Natural & Layton Oil Co. Lease White Well No. 4-A2

Depth Interval, Description
Feet

630.0 - 631.5 - Gray sandy shale.

631.5 - 651.0 - Brown shaley sandstone.

651.0 - 659.2 - Brown to dark shaley sandstone.

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RESULTS OF PERMEABILITY AND POROSITY TESTS
TABLE I A

Company Texas Natural & Layton Oil Co. Lease White Well No. 4-A2

Sample No.	Depth, Feet	Permeability Millidarcys	Feet of Core		Permeability Capacity Ft. x Md.	Percent Porosity
			Ft.	Cum. Ft.		
1	633.5	3.4	1.0	1.0	3.40	16.9
2	634.5	2.5	1.0	2.0	2.50	16.5
3	635.5	4.0	1.0	3.0	4.00	17.2
4	636.5	0.94	1.0	4.0	0.94	14.6
5	637.5	9.9	1.0	5.0	9.90	19.8
6	638.5	Imp.	1.0	6.0	0.00	-
7	639.5	Imp.	1.0	7.0	0.00	-
8	640.6	Imp.	1.0	8.0	0.00	-
9	641.5	Imp.	1.0	9.0	0.00	-
10	642.5	30.	1.0	10.0	30.00	20.3
11	643.4	1.2	1.0	11.0	1.20	16.8
12	644.5	5.5	1.0	12.0	5.50	20.0
13	645.5	1.4	1.0	13.0	1.40	17.6
14	646.5	23.	1.0	14.0	23.00	20.5
15	647.5	14.	1.0	15.0	14.00	18.7
16	648.4	2.2	1.0	16.0	2.20	16.3
17	649.4	30.	1.0	17.0	30.00	21.5
18	650.5	Imp.	1.0	18.0	0.00	-
19	651.6	Imp.	1.4	19.4	0.00	-
20	653.3	3.4	1.5	20.9	5.10	15.6
21	654.5	Imp.	1.1	22.0	0.00	-
22	655.4	5.1	0.8	22.8	4.08	16.2
23	656.2	11.	1.0	23.8	11.00	15.8
24	657.5	6.2	1.3	25.1	8.06	13.9
25	658.7	5.6	1.1	26.2	6.16	13.9

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SUMMARY OF PERMEABILITY & POROSITY TESTS

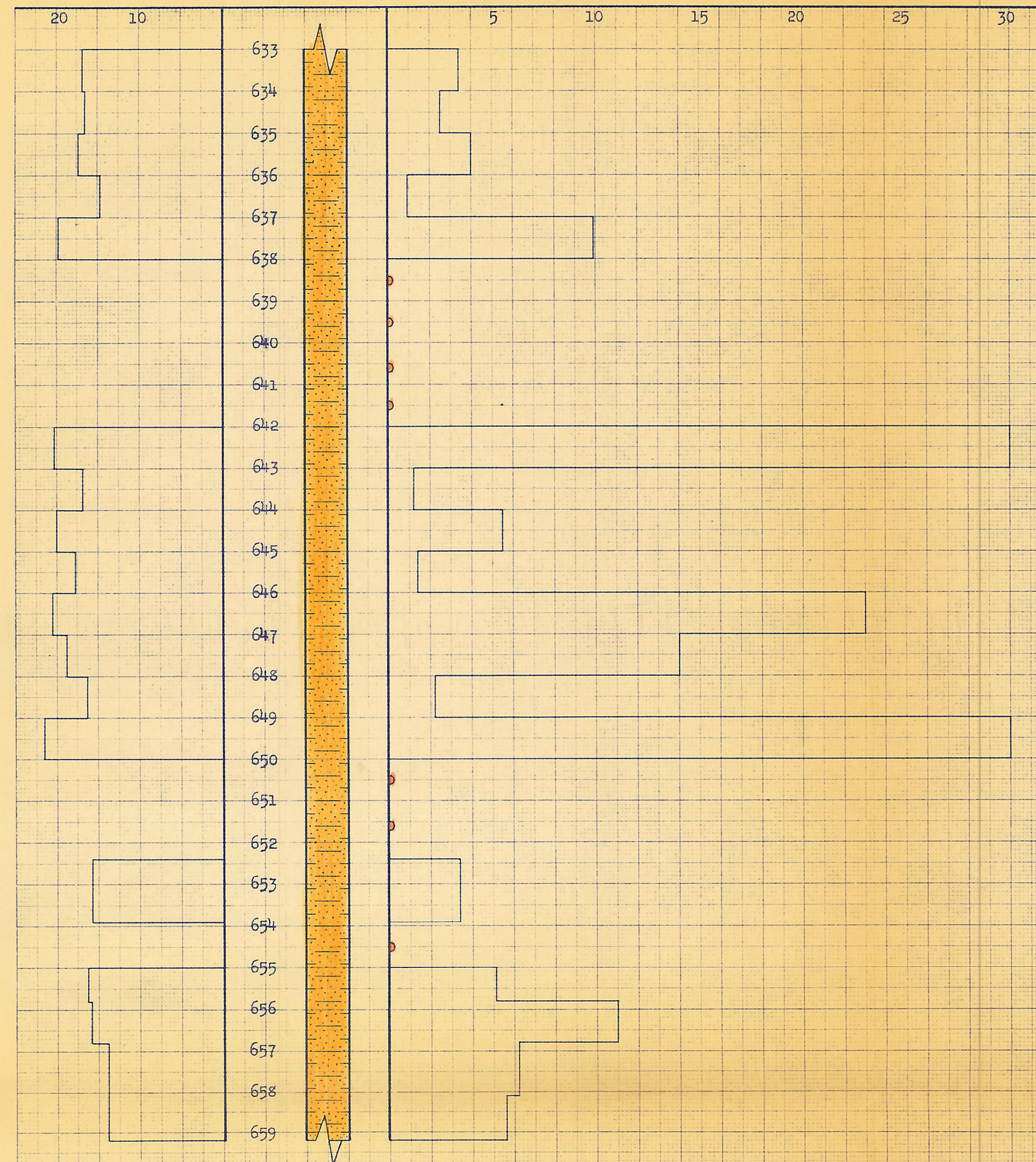
TABLE II A

Company Texas Natural & Layton Oil Co. Lease White Well No. 4-A2

Depth Interval, Feet	Feet of Core Analyzed	Average Air Permeability, Millidarcys	Average Effective Permeability, Millidarcys	Permeability Capacity Ft. x Md.	Average Percent Porosity
633.0 - 638.0	5.0	4.2	-	20.74	17.0
642.0 - 650.0	8.0	13.4	-	107.30	19.0
652.4 - 659.2	5.7	6.0	-	34.40	15.0
633.0 - 659.2	18.7	8.7	-	162.44	17.2

POROSITY,
PERCENT

AIR PERMEABILITY, IN MILLIDARCYS



KEY:

SHALEY SANDSTONE

IMPERMEABLE TO AIR

TEXAS NATURAL & LAYTON OIL COMPANY

WHITE LEASE

MONTGOMERY COUNTY, KANSAS

WELL NO. 4-A2

OILFIELD RESEARCH LABORATORIES
CHANUTE, KANSAS
AUGUST, 1959