



OILFIELD RESEARCH LABORATORIES

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March 16, 1981

Great Plains Energy
Mel Vickman
Suite 7A, 5801 North Sheraton Road
Chicago, Illinois 60660

Gentlemen:

Enclosed herewith are the results of tests run on the rotary core taken from the Clark Lease, Well No. 2, located in Montgomery County, Kansas.

The core was sampled and sealed in plastic by a representative of the client and was submitted to our laboratory on March 10, 1981.

Your business is greatly appreciated.

Very truly yours,

OILFIELD RESEARCH LABORATORIES

Sanford A. Michel

SAM/kas

5 c to Chicago, Illinois

Oilfield Research Laboratories

GENERAL INFORMATION & SUMMARY

Company Great Plains Energy Lease Clark Well No. 2

Location _____

Section 29 Twp. 32S Rge. 17E County Montgomery State Kansas

Elevation, Feet	-
Name of Sand	Cattleman
Top of Core	678.0
Bottom of Core	704.4
Top of Sand	678.0
Bottom of Sand	703.4
Total Feet of Permeable Sand	8.0

Distribution of Permeable Sand: Permeability Range Millidarcys	Feet	Cum. Ft.
0 - 1	3.0	3.0
1 - 5	2.6	5.6
35 & Above	2.4	8.0

Average Permeability Millidarcys	14.8
Average Percent Porosity	13.8
Average Percent Oil Saturation	24.0
Average Percent Water Saturation	54.4
Average Oil Content, Bbls./A. Ft.	256.
Total Oil Content, Bbls./Acre	3,348.

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LOGName Great Plains Energy Lease Clark Well No. 2

<u>Depth Interval, Feet</u>	<u>Description</u>
678.0 - 679.8	Light brown shaly sandstone.
679.8 - 680.4	Gray sandy shale.
680.4 - 683.7	Light brown and gray laminated sandstone and shale.
683.7 - 684.4	Gray sandy shale.
684.4 - 689.5	Light brown shaly sandstone.
689.5 - 693.2	Gray sandy shale.
693.2 - 695.6	Light brown sandstone.
695.6 - 696.1	Gray sandy shale.
696.1 - 703.0	Gray laminated sandstone and shale.
703.0 - 703.4	Light brown shaly sandstone.
703.4 - 704.4	Gray sandy shale.

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RESULTS OF SATURATION & PERMEABILITY TESTS

TABLE 1-B

Company Great Plains Energy Lease Clark 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	678.4	14.1	23	54	77	252	0.40	1.0	1.0	252	0.40
2	679.4	15.4	19	59	78	227	1.6	0.8	1.8	182	1.28
3	680.6	13.8	18	53	71	193	3.1	0.7	2.5	135	2.17
4	681.5	14.2	29	50	79	320	Imp.	0.6	3.1	192	0.00
5	682.6	9.9	15	60	75	115	Imp.	1.0	4.1	115	0.00
6	683.4	8.9	24	70	94	166	Imp.	1.0	5.1	166	0.00
7	684.5	12.9	33	61	94	330	0.36	1.0	6.1	330	0.36
8	685.5	15.2	33	50	83	389	0.52	1.0	7.1	389	0.52
9	686.5	15.4	32	51	83	382	Imp.	1.0	8.1	382	0.00
10	687.6	12.8	31	61	92	308	Imp.	1.0	9.1	308	0.00
11	688.5	14.4	10	42	52	112	1.0	0.6	9.7	67	0.60
12	689.3	14.8	20	59	79	230	1.1	0.5	10.2	115	0.55
13	693.7	15.7	16	44	60	195	54.	1.0	11.2	195	54.00
14	694.4	16.9	25	41	66	328	43.	1.0	12.2	328	43.00
15	695.5	16.5	21	52	73	269	39.	0.4	12.6	108	15.60
16	703.3	10.9	25	62	87	211	Imp.	0.4	13.0	84	0.00

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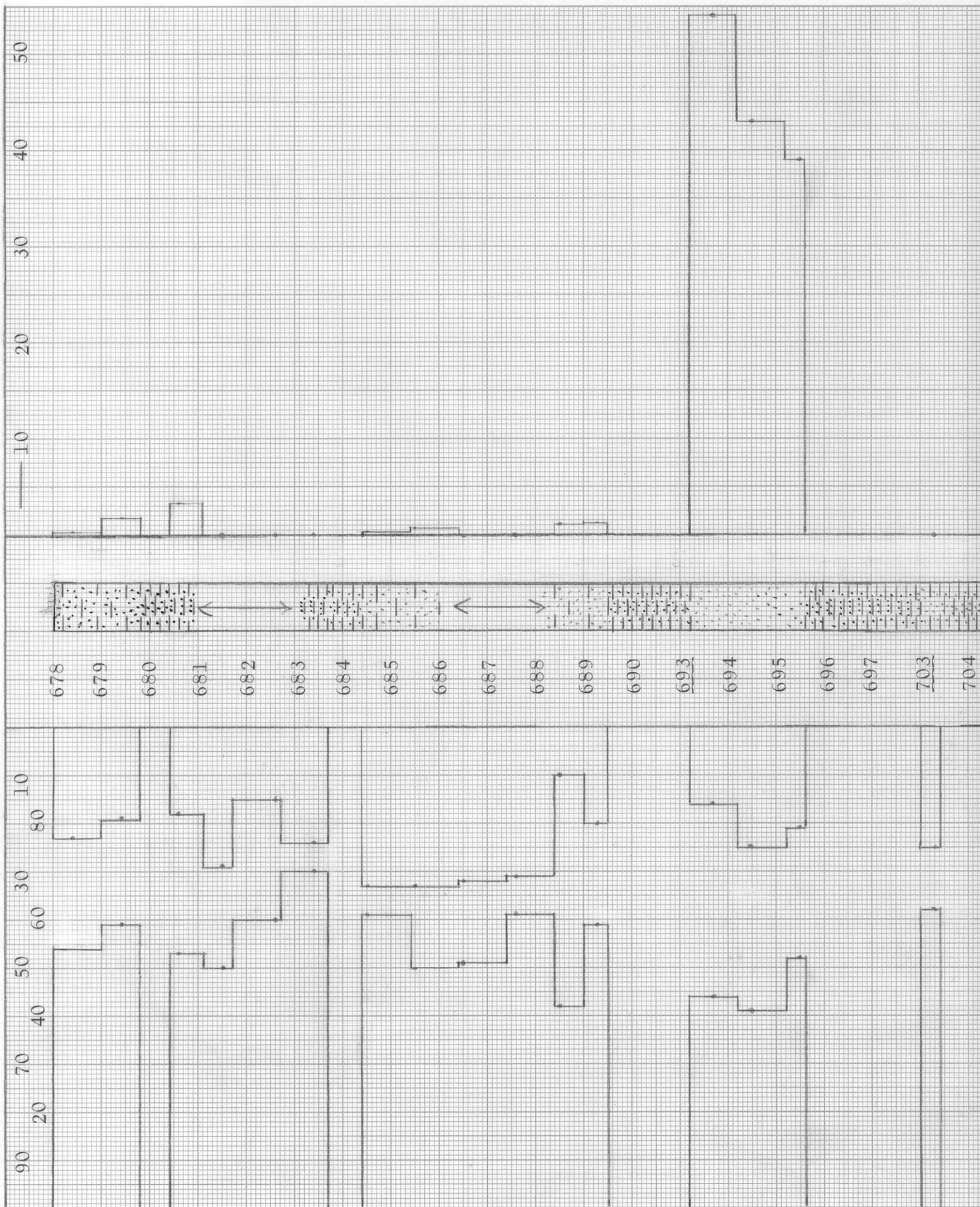
SUMMARY OF PERMEABILITY & SATURATION TESTS

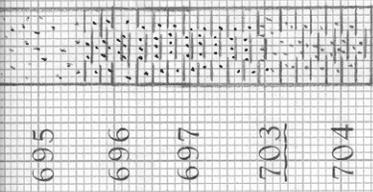
TABLE III

Company	Great Plains Energy	Lease	Clark	Well No.	
				2	
Depth Interval, Feet	Depth Interval, Feet	Feet of Core Analyzed	Average Permeability, Millidarcys	Permeability Capacity, Ft. x Md.	
678.0 - 689.5	678.0 - 689.5	5.6	1.1	5.88	
693.2 - 703.4	693.2 - 703.4	2.4	46.9	112.60	
678.0 - 703.4	678.0 - 703.4	8.0	14.8	118.48	
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
678.0 - 689.5	10.2	13.3	24.7	258	2,633
693.2 - 703.4	2.8	15.6	21.2	255	715
678.0 - 703.4	13.0	13.8	24.0	256	3,348

— PERMEABILITY, IN MILLIDARCYS

WATER SAT., PERCENT →
OIL SAT., PERCENT ←





KEY:

 SANDSTONE

 SHALY SANDSTONE

 SANDY SHALE

 LAMINATED SANDSTONE AND SHALE

GREAT PLAINS ENERGY

CLARK LEASE

WELL NO. 2

MONTGOMERY COUNTY, KANSAS

DEPTH INTERVAL, FEET	FEET OF CORE ANALYZED	AVERAGE POROSITY PERCENT	AVG. OIL SATURATION PERCENT	AVG. WATER SATURATION PERCENT	AVERAGE	
					PERMEABILITY, MILLIDARCYS	PERMEABILITY, MILLIDARCYS
678.0 - 689.5	10.2	13.3	24.7	56.5	1.1	1.1
693.2 - 703.4	2.8	15.6	21.2	46.6	46.9	46.9
678.0 - 703.4	13.0	13.8	24.0	54.4	14.8	14.8

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 CHANUTE, KANSAS
 MARCH, 1981