

OILFIELD RESEARCH LABORATORIES

536 NORTH HIGHLAND - CHANUTE, KANSAS - PHONE HE1-2650

April 17, 1968

Mr. E. J. Dunigan, Jr.
Box 261
Pampa, Texas 79065

Gentlemen:

Enclosed herewith are the results of tests run on the Rotary core taken from the Earl Davidson Lease, Well No. 2, Woodson County, Kansas, and submitted to our laboratory on April 13, 1968.

This core is from a virgin territory and was sampled and the samples were sealed in tin cans by a representative of Oilfield Research Laboratories.

Your business is greatly appreciated.

Very truly yours,

OILFIELD RESEARCH LABORATORIES

Carl L. Pate

CLP:bjo

3 c. - Pampa, Texas
2 c. - Chanute, Kansas

Oilfield Research Laboratories

GENERAL INFORMATION & SUMMARY

Company	<u>E. J. Dunigan, Jr.</u>		Lease	<u>Earl Davidson</u>		Well No.	<u>2</u>
Location	<u>C, SL, SE, SE</u>						
Section	<u>6</u>	Twp	<u>25S</u>	Rge.	<u>16E</u>	County	<u>Woodson</u> State <u>Kansas</u>
Name of Sand	- - - - -						Lower Squirrel
Top of Core	- - - - -						958.0
Bottom of Core	- - - - -						979.0
Top of Sand	- (Cored) - - - - -						958.0
Bottom of Sand	- (Analyzed) - - - - -						971.5
Total Feet of Permeable Sand	- - - - -						13.1
Total Feet of Floodable Sand	- - - - -						
Distribution of Permeable Sand:							
Permeability Range		Feet		Cum. Ft.			
Millidarcys							
0 - 50		5.2		5.2			
50 - 75		2.1		7.3			
75 - 100		3.9		11.2			
100 & above		1.9		13.1			
Average Permeability Millidarcys - - - - -							68.7
Average Percent Porosity - - - - -							21.3
Average Percent Oil Saturation - - - - -							55.8
Average Percent Water Saturation - - - - -							19.9
Average Oil Content, Bbls./A. Ft. - - - - -							923.
Total Oil Content, Bbls./Acre - - - - -							12,079.
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 - - - - -							

- LOG -

Company E. J. Dunigan, Jr. Lease Earl Davidson Well No. 2

Depth	Interval	Description
<u>Feet</u>	<u>Feet</u>	

958.0	- 963.9	- Dark brown slightly laminated shaly sandstone.
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963.9	- 964.3	- Brown shaly sandstone.
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964.3	- 970.5	- Dark brown slightly laminated shaly sandstone.
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970.5	- 971.5	- Dark carbonaceous sandstone.
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971.5	- 972.9	- Dark carbonaceous shaly sandstone.
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972.9	- 974.8	- Gray & dark carbonaceous shaly sandstone.
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974.8	- 979.0	- Sandy shale.
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RESULTS OF SATURATION & PERMEABILITY TESTS

TABLE 1-B

Company E. J. Dunigan, Jr. Lease Earl Davidson Well No. 2

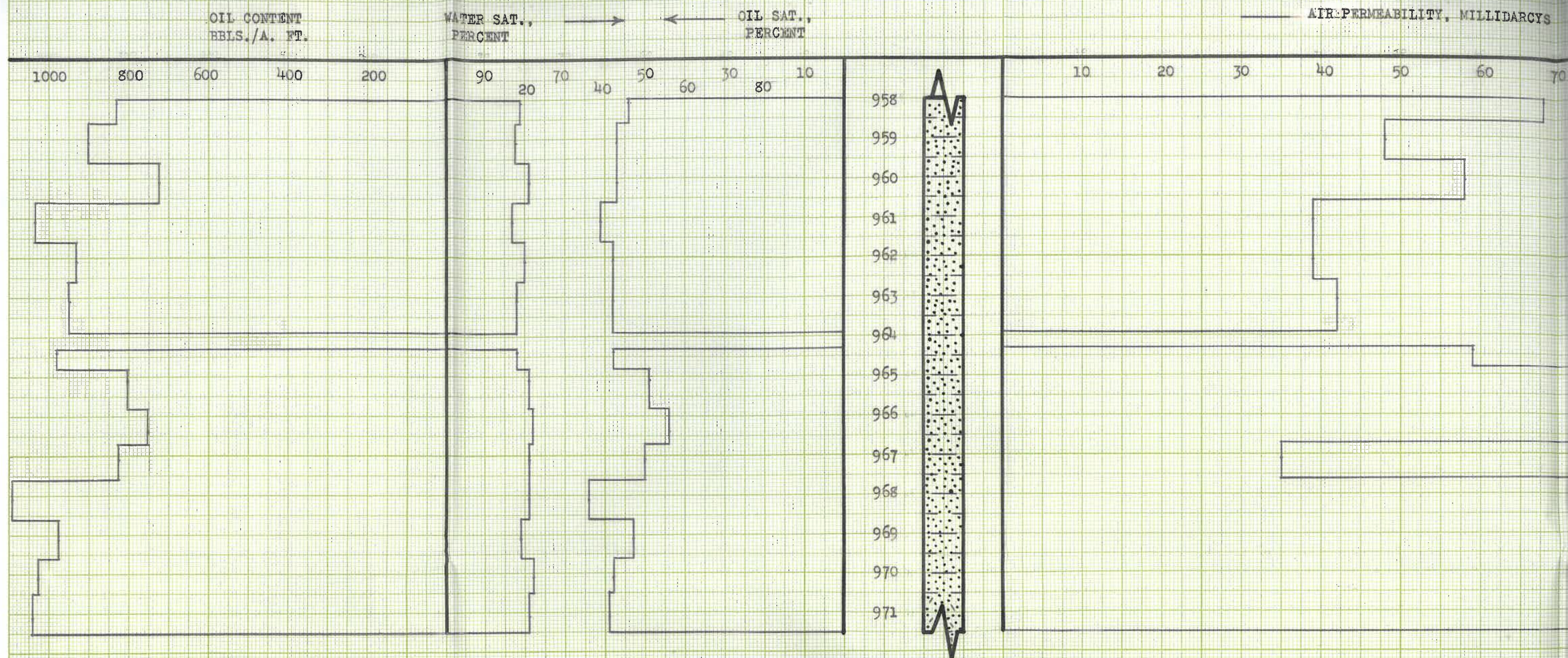
Sample No.	Depth, Feet	Effective Porosity Percent	Percent Saturation			Oil Content Bbls. / A Ft.	Perm., Mill.	Feet of Sand		Total Oil Content	Perm. Capacity Ft. X md.
			Oil	Water	Total			Ft.	Cum. Ft.		
1	958.1	19.8	54	19	73	830	68.	0.6	0.6	501	40.80
2	959.1	20.4	57	18	75	902	48.	1.0	1.6	902	48.00
3	960.1	16.4	57	21	78	726	58.	1.0	2.6	726	58.00
4	961.1	21.9	61	17	78	1037	39.	1.0	3.6	1037	39.00
5	962.1	20.7	58	20	78	932	39.	1.0	4.6	932	39.00
6	963.1	21.1	58	18	76	949	42.	1.3	5.9	1233	54.60
7	964.4	21.8	58	18	76	981	59.	0.5	6.4	490	29.50
8	965.1	21.1	49	21	70	802	96.	1.0	7.4	802	96.00
9	966.4	22.0	44	22	66	751	92.	0.9	8.3	676	82.80
10	967.1	21.3	50	21	71	827	35.	0.9	9.2	745	31.50
11	968.1	22.0	64	21	85	1093	77.	1.0	10.2	1093	77.00
12	969.1	23.7	53	19	72	975	107.	1.0	11.2	975	95.30
13	970.1	22.8	58	22	80	1027	127.	0.9	12.1	924	114.30
14	971.1	22.8	59	21	80	1043	94.	1.0	13.1	1043	94.00

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SUMMARY OF PERMEABILITY & SATURATION TESTS

TABLE III

Company	E. J. Dunigan, Jr.		Lease	Earl Davidson		Well No.	2
Depth Interval, Feet	Feet of Core Analyzed	Average Percent Porosity	Average Percent Oil Saturation	Average Permeability, Millidarcys	Permeability Capacity Ft. x Md.	Average Oil Content Bbl./A. Ft.	Total Oil Content Bbls./Acre
958.0 - 964.8	6.4	20.2	57.8	48.3	308.90	910.	5,821.
964.8 - 971.5	6.7	22.3	54.0	88.2	590.90	934.	6,258.
958.0 - 971.5	13.1	21.3	55.8	68.7	899.80	923.	12,079.



E. J. DUNIGAN, JR.

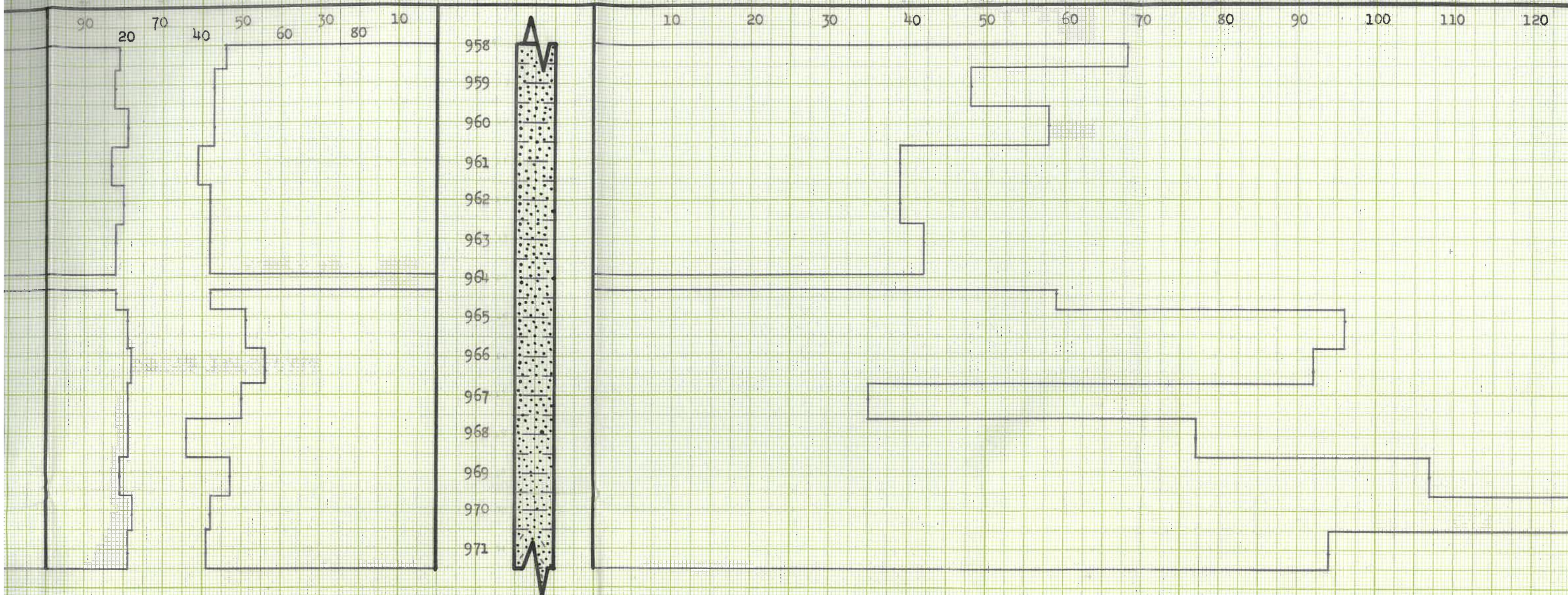
EARL DAVIDSON LEASE WELL NO. 2
WOODSON COUNTY, KANSAS

DEPTH INTERVAL FEET	FEET OF CORE ANALYZED	AVERAGE POROSITY PERCENT	AVG. OIL SATURATION PERCENT	AVG. WATER SATURATION PERCENT	AVG. OIL CONTENT BBLs./A. FT.	TOTAL OIL CONTENT BBLs./ACRE	AVG. AIR PERMEABILITY MILLIDARCYS
958.0 - 964.8	6.4	20.2	57.8	18.7	910.	5,821.	48.3
964.8 - 971.5	6.7	22.3	54.0	21.0	934.	6,258.	88.2
958.0 - 971.5	13.1	21.3	55.8	19.9	923.	12,079.	68.7

WATER SAT.,
PERCENT

OIL SAT.,
PERCENT

AIR PERMEABILITY, MILLIDARCYS



CARBONACEOUS SHALY SANDSTONE

SHALY SANDSTONE

E. J. DUNIGAN, JR.

EARL DAVIDSON LEASE WELL NO. 2
WOODSON COUNTY, KANSAS

DEPTH INTERVAL FEET	FEET OF CORE ANALYZED	AVERAGE POROSITY PERCENT	AVG. OIL SATURATION PERCENT	AVG. WATER SATURATION PERCENT	AVG. OIL CONTENT BBLs./A. FT.	TOTAL OIL CONTENT BBLs./ACRE	AVG. AIR PERMEABILITY MILLIDARCYS
958.0 - 964.8	6.4	20.2	57.8	18.7	910.	5,821.	48.3
964.8 - 971.5	6.7	22.3	54.0	21.0	934.	6,258.	88.2
958.0 - 971.5	13.1	21.3	55.8	19.9	923.	12,079.	68.7

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CHANUTE, KANSAS
APRIL, 1968

KEUFFEL & ESSER CO.
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