Kansas Cores

PETROLEUM RESERVOIR ENGINEERING

WICHITA, KANSAS

COMPANY Walters Drilling DATE 11-4-62

WELL Dickman #4 ANALYST IS

FIELD

COUNTY Ness STATE Kansas

PERMEABILITY MILLIDARCYS O—O

400 300 200 100 0

POROSITY—% X—X

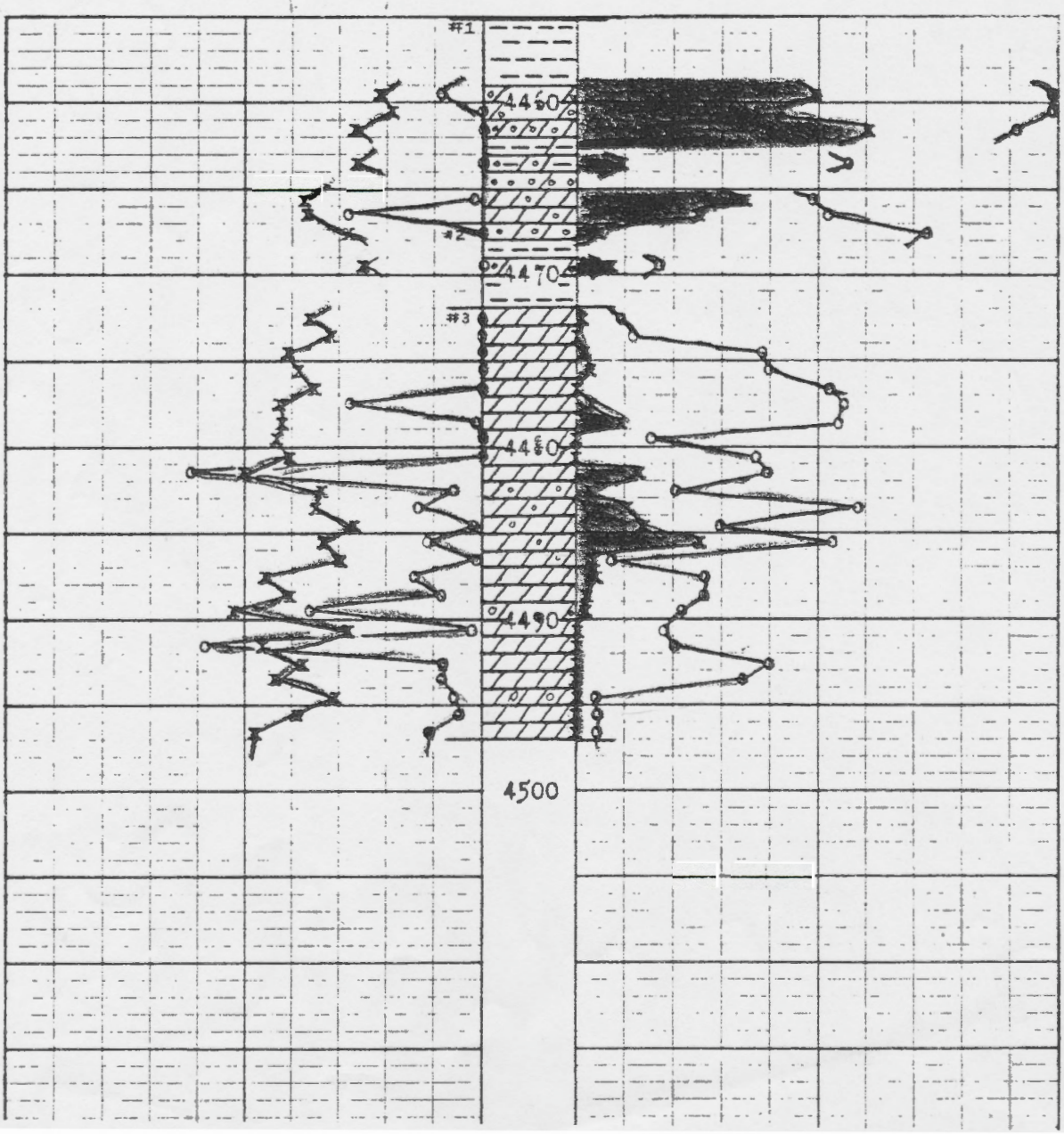
20 10 0

CONNATE WATER % SATURATION O—O

0 70 60 50 40

OIL % PORE SATURATION X—X

0 10 20



Kansas Cores

PETROLEUM RESERVOIR ENGINEERING

CORE ANALYSIS

1026 NORTH LIGHTNER
WICHITA, KANSAS

Nov. 4, 1962

Re: CORE ANALYSIS REPORT
Walters Drilling Co.
Dickman #4
Ness County, Kansas

Walters Drilling Co.
510 Orpheum Bldg.
Wichita, Kansas

Gentlemen:

The cores from your well, Dickman #4, Ness County, Kansas have been analysed for permeability, porosity, and residual saturation of oil and water. The data will be found tabulated on the following pages and indicated on the coregraph. The data averages and recovery figures will be found at the end of this report.

The following is a short discussion of the section cored and analysed.

4459' to 4467' - Oil Productive

The upper portion of the Mississippian formation from this section was composed of a very cherty dolomite and chert, as reflected by the low porosities. The lower 3' had better porosities with some permeability. While the water and oil percentages indicate the zone to be oil productive, the lack of any permeability except in 3' would indicate that even after acidizing, this zone would not be commercially oil productive.

4477' to 4497' - Water Productive

A soft water bearing dolomite was found throughout this section, with some scattered staining in part. While the apparent water contact was found at the first permeability at 4478', it could be higher than this due to the lack of any permeability above.

4478
2497
7981

Yours very truly,

KANSAS CORES

Ivan L. Stuber

Ivan L. Stuber

Attachments
cc: 5 copies to Walters Drlg. Co., Wichita, Kansas
1 copy to KANSAS CORES, Wichita, Kansas

Kansas Cores

PETROLEUM RESERVOIR ENGINEERING
WICHITA, KANSAS

WELL Dickman #4 COUNTY Ness STATE Kansas

COMPANY Walters Drilling DATE 11-4-62 FILE No. S-317

FIELD TYPE CORES Diamond ANALYST IS

ANALYSIS DATA AND INTERPRETATIONS

SAMPLE No.	DEPTH	PERMEABILITY MILLIDARCYS		POROSITY %	SATURATION WATER % PORE SPACE	SATURATION OIL % PORE SPACE	PROBABLE PRODUCTION	REMARKS
		HORIZONTAL	VERTICAL					
1	4459 60	42.3	32.6	11.0	29.2	24.9	Oil	
2	4460 61	0.0	0.0	9.7	26.7	20.6	No Perm	
3	4461 62	0.0	0.0	13.4	34.4	30.2	No Perm	
4	4463 64	0.0	0.0	13.7	52.5	4.8	No Perm	
5	4465 66	7.2	1.6	18.7	55.8	17.2	Oil	
6	4466 67	140	110	18.5	54.0	12.6	Oil	
7	4467 68	0.0	0.0	14.4	44.0	1.9	No Perm	
8	4469 70	0.0	0.0	13.6	72.4	3.5	No Perm	
9	4472 73	0.0	0.0	18.2	75.6	0.2	No Perm	
10	4473 74	0.0	0.0	16.0	74.3	0.0	No Perm	
11	4474 75	0.0	0.0	20.4	61.1	0.8	No Perm	
12	4475 76	0.0	0.0	19.6	60.2	1.1	No Perm	
13	4476 77	0.0	0.0	17.6	54.1	0.0	No Perm	
14	4477 78	140	105	21.3	52.6	1.2	Water	
15	4478 79	4.0	0.0	21.0	53.3	4.3	Water	
16	4479 80	0.0	0.0	22.2	72.7	0.0	No Perm	
17	4480 81	0.0	0.0	20.0	61.8	0.0	No Perm	
18	4481 82	310	180	25.2	60.2	6.4	Water	
19	4482 83	35.2	34.8	16.6	69.8	1.4	Water	

• depth core/log
• Heterogenous distribution of permeability

depth OK

—1980 log - 1982

—1982

Re: CORE DESCRIPTION
Walters Drilling Co.
Dieckman #4
Ness County, Kansas

CORE #1

4455' to 4467' Cut 12' Rec. 12'

	4455-59:	4'	Dark grey shale, slightly conglomeritic in part
3' poss. pay	4459-62:	3'	Hard brown dense dolomite and cherty dolomite with streaks of green chert, fossiliferous: Good stain and odor, bleeding
	62-63:	1'	Hard green shale with trace shaley dolomite: No show
	63-64:	1'	Green shale & chert with some cherty dolomite: Streaked stain
	64-65:	1'	Green chert, trace dolomite: Trace stain
2' pay	65-67:	2'	Soft brown slightly cherty dolomite: Good stain and odor

CORE #2

4467' to 4472' Cut 5' Rec. 5'

1'?	4467-68:	1'	Hard grey-green chert & cherty dolomite: Trace stain
	68-69:	1'	Hard green shale
1'?	69-70:	1'	Hard green chert & cherty dolomite: Spotted stain
	70-72:	2'	Hard green shale

CORE #3

4472' to 4497' Cut 25' Rec. 25'

5'	4472-77:	5'	Soft green dolomite: Very slight stain in part
		5'	Hard crystalline dolomite with some soft dense dolomite at bottom: Trace streaked stain in part
		6'	Hard vugular cherty to crystalline grey to brown dolomite: Some staining, fair odor
		1'	Hard fine crystalline to vugular dolomite: No show
		8'	Soft vugular spongy dolomite with some large quartz crystals in part: No stain or odor