

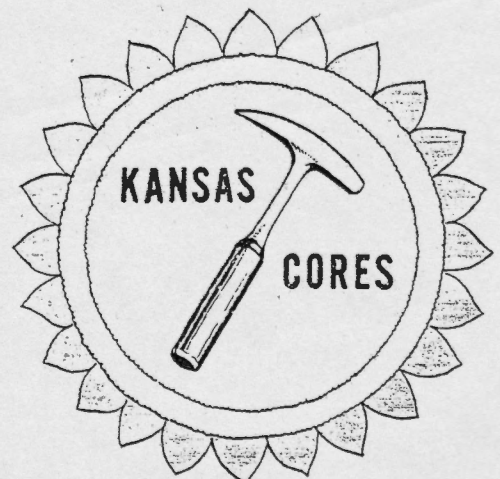
COMPANY WALTERS DRILLING

WELL L. TILLEY #1

LOCATION 6 SW SE 3-17-24W

COUNTY NESS

STATE KANSAS



PETROLEUM RESERVOIR ENGINEERING

CORE ANALYSIS

Kansas Cores

PETROLEUM RESERVOIR ENGINEERING WICHITA, KANSAS

COMPANY Walters Drilling

DATE 7-20-62

WELL L. Tilley #1

ANALYST IS

FIELD _____

COUNTY Now

STATE Kansas

The analyses and interpretations are based on material brought to Kansas Cores by the client, and such data and interpretations are accessible only to that company which the client represents. Kansas Cores makes no warranty and makes no guarantee for the interpretations and opinions of the data. Our opinions of an analysis are placed at the discretion of the operator.

PERMEABILITY MILLIDARCYs 

80 60 40 20 0

POROSITY-% ~~X~~

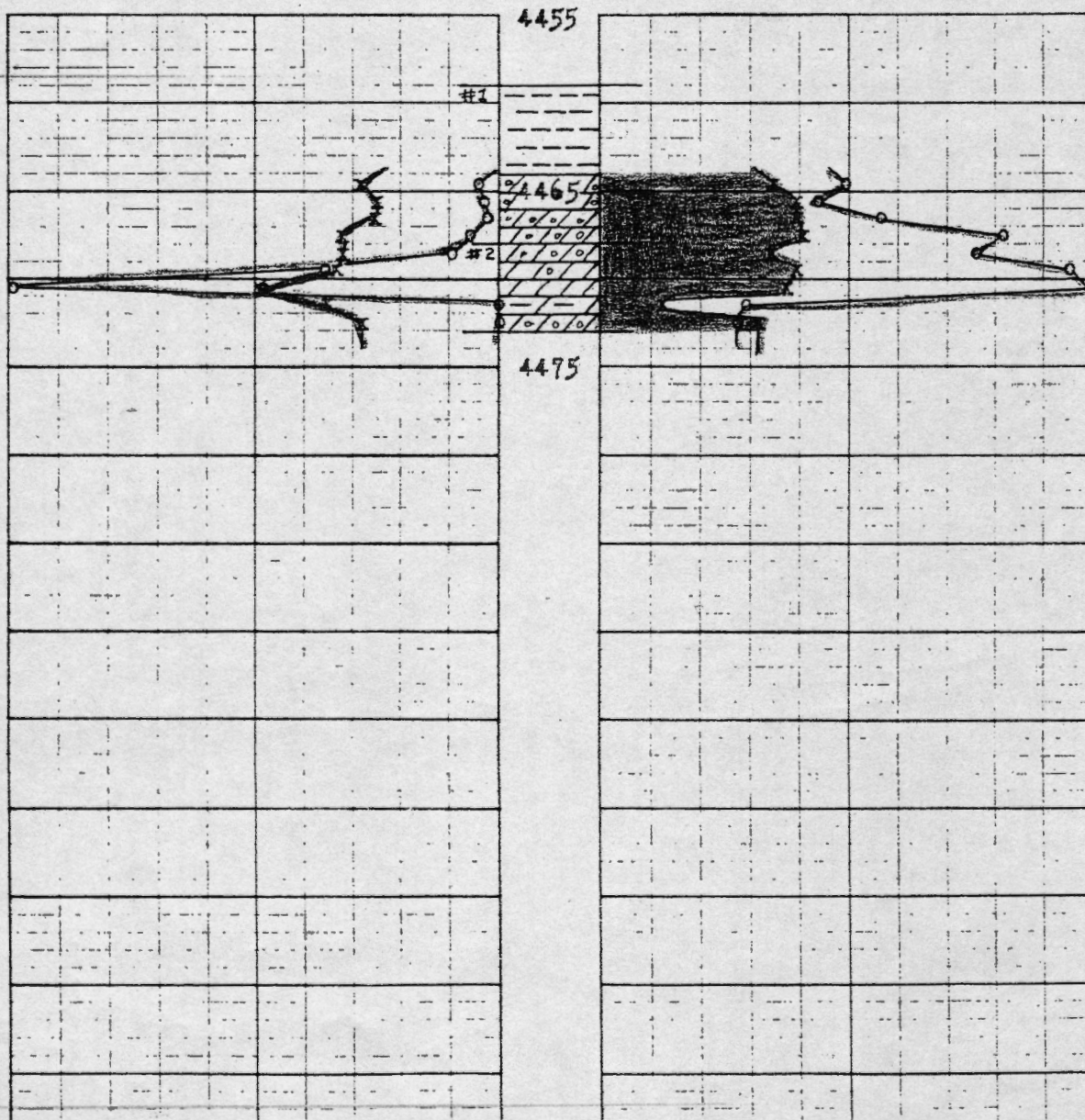
20 10 0

CONNATE WATER % SATURATION

0 70 60 50 40 

OIL % PORE SATURATION ~~X~~

10 20



PETROLEUM RESERVOIR ENGINEERING

CORE ANALYSIS

July 20, 1962

1026 NORTH LIGHTNER
WICHITA, KANSAS

Re: CORE ANALYSIS REPORT
Walters Drilling Co.
L. Tilley #1
Mess Co., Kansas

Walters Drilling Co.
510 Orpheum Bldg.
Wichita, Kansas

Gentlemen:

The cores from your well, L. Tilley #1, 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.

4464' to 4471' - Oil Productive

This upper section of the Mississippian formation was composed mainly of a hard, cherty dolomite, with some soft brown vugular dolomite in streaks. Good oil percentages were measured, along with low waters. The porosities varied with the dolomite content, and the permeabilities also reflected the cherty nature of the samples. Good, commercial oil production can be expected from this zone.

Yours very truly,

KANSAS CORES

Ivan L. Stuber
Ivan L. Stuber

Attachments

cc: 4 copies to Walters Drlg. Co., Wichita, Kansas
1 copy to KANSAS CORES, Wichita, Kansas

Re: CORE DESCRIPTION

Walters Drlg. Co.

L. Tilley #1

Ness Co., Kansas

CORE #1

4459' to 4468'

Cut 9'

Rec. 9'

- 5' Soft slick green shale
- 2' Hard grey dense cherty dolomite with some large inclusions of pyrite: Good slightly spotted stain, good odor
- 2' Hard cherty grey to brown dolomite with some dark brown vugular dolomite, vugs full of oil: Good stain and odor

CORE #2

4468' to 4473'

Cut 5'

Rec. 5'

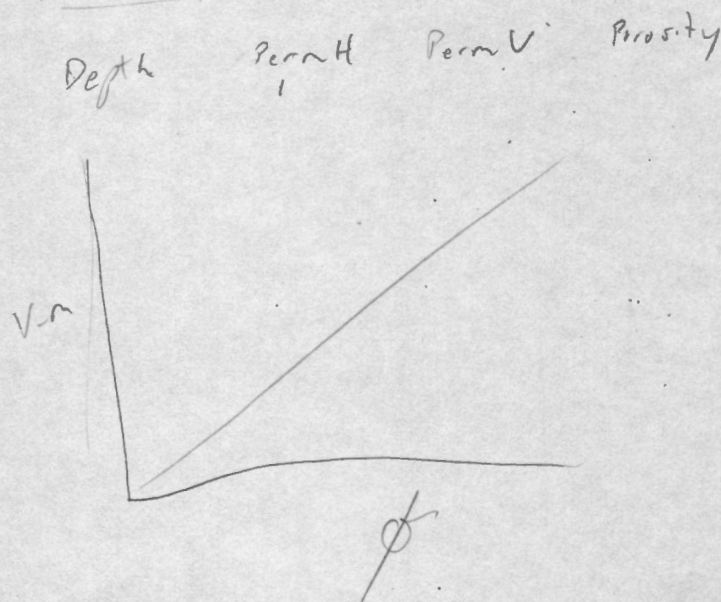
- 1' Hard cherty slightly vugular dolomite: Good stain
- 2' Soft brown vugular dolomite, slightly cherty and pyritic top 1': Good stain and odor
- 1' Soft grey-green dense dolomitic shale with thin streaks and inclusions of soft light brown dolomite: Streaked stain
- 1' Hard dark brown slightly vugular cherty dolomite, fractured: Good slightly streaked stain, good odor

**PETROLEUM RESERVOIR ENGINEERING
WICHITA, KANSAS**

WELL L. Tilley #1 COUNTY Ness STATE Kansas
 COMPANY Walters Drilling DATE 7-20-62 FILE NO. S-508
 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	4464 65	3.7	1.8	14.3	55.6	17.2	Oil	
2	4465 66	2.4	0.2	12.7	58.5	19.5	Oil	
3	4466 67	1.7	1.5	12.9	52.0	19.9	Oil	
4	4467 68	6.9	3.6	16.1	39.1	20.3	Oil	
5	4468 69	9.5	6.7	15.9	42.0	16.6	Oil	
6	4469 70	34.1	26.9	16.6	32.5	19.7	Oil	
7	4470 71	210	210	24.1	30.0	18.6	Oil	
8	4471 72	0.0	0.0	17.7	65.2	5.9	No Perm	
9	4472 73	0.0	0.0	14.1	66.0	15.7	No Perm	Fractures



DATA AVERAGES AND OIL RECOVERY FIGURES

Pete Amstutz Dickinson

DEPTH	4464'-4473'			(without core data) 21'
FEET OF PRODUCTION FORMATION OF SECTION ANALYZED <i>204</i>	7			
AVERAGE PERMEABILITY IN MILLIDARCYS	38.3			
AVERAGE POROSITY, PER CENT	16.1			13 1/2% 15% AT III elect log
AVERAGE TOTAL WATER % OF PORE SPACE	44.2			
AVERAGE RESIDUAL OIL % OF PORE SPACE	18.8			
AVERAGE CONNATE WATER CALCULATED % OF PORE SPACE	35.4			39.2%
ESTIMATED FORMATION VOLUME FACTOR — USED IN CALCULATING RECOVERABLE OIL	1.18			
PRODUCTIVE CAPACITY — PRODUCTIVE FEET X AVERAGE PERMEABILITY IN MILLIDARCYS	268			
RECOVERABLE OIL BY WATER DRIVE — BBLs. PER ACRE FOOT	470			
RECOVERABLE OIL BY GAS EXPANSION — BBLs. PER ACRE FOOT	282*			106 BBLs. (20%) = 20% of oil in place

*From original bottom hole pressure to zero

lower 10' of transition zone = 806/2 = 53 BBLs per acre foot. Peto