F-61

CORE LABORATORIES, INC.
Petroleum Reservoir Engineering
DALLAS, TEXAS

PRELIMINARY CORE ANALYSIS RESULTS

Company KEWANEE OIL COMPANY | Formation MISSISSIPPIAN | Date Report 1-6-58
Well KLINE NO. 1 | Cores DIAMOND | File CP-1-3130/CP-6-921
Field HALLETT | Drilling Fluid WATER BASE MUD | Engineers DONOHOE
County HODGEMAN | State KANSAS | Elev. - | Location SEC 15-22S-25W

Lithological Symbols and Abbreviations

SAND SD. | SHALE SH. | LIME LM. | DOLOMITE DOL. | CHERT CH. | CONGLOMERATE CONG. | ANHYDRITE ANHY. | FRACTURED FRAC.

SAMPLE NUMBER	DEPTH FEET	PERMEABILITY MILLIDARCYS MAX.	90°	POROSITY PERCENT	RESIDUAL SATURATION PER CENT PORE OIL	TOTAL WATER	LITHOLOGY	REMARKS
1	4580.0-81.0	457	117	20.1	27.0	39.4	Dol.	Lmy., V-H-Fract., pp Vugs.
	(1)4581.0-85.8						Dol.	Lmy., V-H-Fract., pp Vugs.
2	4585.8-87.5	0.7	0.7	15.8	16.1	35.4	Dol.	Lmy., pp Vugs.
	(1)4587.5-89.8						Dol.	Lmy., pp Vugs.
3	4589.8-91.0	<0.1	<0.1	18.2	13.3	59.5	Lime	
4	91.0-92.2	3.3	1.9	18.1	23.5	46.5	Dol.	Lmy., pp Vugs.
5	92.2-93.5	1.4	1.0	12.1	28.8	44.9	Dol.	Lmy.
6	4593.5-94.0	<0.1	<0.1	2.3	0.0	57.3	Lime	VF
	(1)4594.0-95.0						Lime	VF

(1) Not analyzed by request of client.

Distribution as per attached list.

Data mailed from the Oklahoma City laboratory. Phone Ja 5-7421.

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CORE LABORATORIES, INC.
Petroleum Reservoir Engineering
DALLAS, TEXAS

PRELIMINARY CORE ANALYSIS RESULTS

Company KEWANEE OIL COMPANY | Formation MISSISSIPPIAN | Date Report 1-7-58
Well KLINE NO. 1 | Cores DIAMOND | File CP-1-3130/CP-6-921
Field HALLETT | Drilling Fluid WATER BASE MUD | Engineers DONOHOE
County HODGEMAN | State KANSAS | Elev. 2502' CM | Location SW SE NE SEC 15-22S-25W

Lithological Symbols and Abbreviations

SAND SD. | SHALE SH. | LIME LM. | DOLOMITE DOL. | CHERT CH. | CONGLOMERATE CONG. | ANHYDRITE ANHY. | FRACTURED FRAC.

SAMPLE NUMBER	DEPTH FEET	PERMEABILITY MILLIDARCYS MAX. 90°		POROSITY PERCENT	RESIDUAL SATURATION PER CENT PORE OIL	RESIDUAL SATURATION PER CENT PORE TOTAL WATER	LITHOLOGY	REMARKS
(1)	4595.0-03.2						Lime	
7	4603.2-05.2	<0.1	<0.1	3.1	5.8	75.4	Lime	Styl.
(1)	4605.2-11.9						Lime	
8	4611.9-13.5	<0.1	<0.1	7.1	2.3	76.7	Lime	pp Vugs.
9	13.5-15.3	<0.1	<0.1	5.5	4.4	74.8	Lime	Styl., Fine VF, pp Vugs.
10	15.3-16.9	<0.1	<0.1	6.2	3.7	73.4	Lime	Styl., VF, pp Vugs.
11	16.9-18.5	<0.1	<0.1	9.6	5.5	67.6	Lime	Styl., pp Vugs., Sli.Foss.
12	18.5-20.0	<0.1	<0.1	9.6	2.7	69.5	Lime	Styl., pp Vugs., Sli.Foss.
13	20.0-21.8	16	6.7	17.4	16.9	43.1	Dol.	pp Vugs.
14	21.8-23.6	1.8	0.7	15.4	2.6	73.4	Lime	Sli.Dol., pp Vugs.
15	23.6-25.4	0.6	0.1	12.4	6.2	71.8	Lime	Sli.Dol., pp Vugs., W/Calcite Stk
16	25.4-27.4	2.7	0.5	13.7	19.0	50.6	Dol.	Lmy., pp Vugs.
17	27.4-28.7	2.0	*	14.1	14.7	59.1	Lime	Sli. Dol., VF, pp Vugs.
18	4628.7-30.9	13	*	12.4	8.9	64.0	Lime	Dol., VF, pp Vugs.
(1)	4630.0-33.0						Lime	
(1)	4633.0-36.0						Lime	Cherty
(1)	4636.0-45.0						Shale	
	4645.0-46.9						Lime	Cherty, Sli.Shly.
19	4646.9-48.5	5.2	2.0	16.1	2.8	81.8	Lime	Dol., Sli.Vugy.
20	4648.5-50.0	0.8	0.1	16.5	7.4	68.3	Lime	Dol., Cherty, pp Vugs.

(1) Not analyzed by request of client.

* Denotes plug permeability.

Distribution as per attached list.

Data mailed from the Oklahoma City laboratory. Phone Ja 5-7421.

CORE LABORATORIES, INC. *Petroleum Reservoir Engineering*

CP-6-921 TMI

COMPANY	KEWANEE OIL COMPANY	DATE ON	1/5/58	FILE NO.	CP-1-3130 WC
WELL	KLINE NO. 1	DATE OFF	1/6/58	ENGRS.	DONOHOE
FIELD	HALLETT	FORMATION	MISSISSIPPIAN	ELEV.	2502' CM
COUNTY	HODGEMAN STATE KANSAS	DRLG. FLD.	WATER BASE MUD	CORES	DIAMOND
LOCATION	SEC. 15-22S-25W	REMARKS	SAMPLED BY CLI ENGINEER AS DIRECTED BY REPRESENTATIVE OF CLIENT		

COMPLETION COREGRAPH

SCALE: 1 INCH = 20 FEET

PERMEABILITY ——— MILLIDARCYS

40 30 20 10 0

TOTAL WATER SATURATION ——— PERCENT PORE SPACE

100 90 80 70 60 50 40 30 20 10 0

POROSITY ---- PERCENT

50 45 40 35 30 25 20 15 10 5 0

RESIDUAL OIL SATURATION ---- PERCENT PORE SPACE

0 10 20 30 40 50 60 70 80 90 100

4580

4600

4620

4640

4660