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EARLOUGHER ENGINEERING

CORE SUMMARY

Company Kewanee Oil Company Lease Parks Well No. 133

Location 2160 feet North, 300 feet East of SW Corner

Section 27 Twp. 20-S Rge. 21-E County Anderson State Kansas

Formation Cored Squirrel Sand Type Core Rotary, 3-inch

Date Cored 10-16-48 Date Shot _____ Date Completed _____

Depths:

Started coring, shale	647.0 ft.
Top of sand section	648.2 "
Top of oil sand	650.1 "
Bottom of oil sand	655.1 "
Net feet of oil sand	3.1 "
Bottom of core, shale	688.0 "
Total cored	41.0 "
Feet analyzed	6.9 "

Shot Record: Plug back to 665. feet Set Packer 647. Feet

Depth, Feet From	Depth, Feet To	Feet	Shell Diameter	Quarts Per Foot	Quarts Total
650	665	15	4-1/2"	3.2	48

Completion Data:

Hrs. well stood after coring _____; Feet Fluid in Hole _____ (Oil _____ Water _____)

Clean-out time, hrs. _____; Initial production, bbls. day _____ (Oil _____ Water _____)

Remarks: This core shows only 3.1 net feet of shaly oil sand located in a broken section between 650.1 and 665.1 feet.

Permeability is very low averaging only 0.5 millidarcy with individual values ranging from less than 0.1 millidarcy to 1.7 millidarcys. Average porosity is 14.2 percent and average oil content 481 barrels per acre-foot. Laboratory flooding tests yielded an average oil recovery of 148 barrels per acre-foot, however, permeability to water was very low.

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Insofar as these test results are concerned little or no oil recovery should be expected from the area of which this core is representative. However, it was recommended the sand section be shot and the well completed as an water injection well in view of the possibility of shooting into a cleaner sand section to the south.

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RESULTS OF SATURATION TESTS

COMPANY Kewanee Oil Company WELL Parks No. 133

Sat. No.	Depth Feet	Porosity Per Cent	PER CENT SAT. Oil	Water	Total	Avg. Oil Content Bbls./A. Ft.	FT. OF SAND Ft.	Cum.	Total Oil Content Bbls./Acre
1	648.5	12.5	29.	66.	95.	280.	1.0*		
F-1	650.5	15.6	44.	--	--	530.	0.5	0.5	270.
2	651.0	13.0	33.	67.	100.	330.	1.1*		
3	657.3	12.9	39.	61.	100.	390.	0.4	0.9	160.
F-2	658.9	7.0	61.	--	--	330.	0.6*		
4	660.6	16.0	37.	48.	85.	460.	0.4	1.3	180.
F-3	661.9	15.1	39.	--	--	460.	0.6	1.9	280.
5	663.9	13.7	38.	62.	100.	400.	0.5	2.4	200.
6	664.8	12.3	60.	40.	100.	570.	0.7	3.1	400.

*Not included in cumulative feet of sand.

SUMMARY

DEPTH FEET FROM	DEPTH FEET TO	FEET OF SAND	AVG. POROSITY	AVG. OIL SAT.	AVG. WATER SAT.	AVG. OIL CONTENT BBLS./A. FT.	TOTAL OIL CONTENT BBLS./ACRE
650.1	665.1	3.1	14.2	44.	53.	481.	1,490.

EARLOUGHER ENGINEERING

RESULTS OF PERMEABILITY TESTS

COMPANY Kewanee Oil Company WELL Parks No. 133

Sample No.	Depth Feet	Permeability Millidarcys	FEET OF SAND Ft.	FEET OF SAND Cum. Ft.	Capacity Ft. X Md.	Sample No.	Depth Feet	Permeability Millidarcys	FEET OF SAND Ft.	FEET OF SAND Cum. Ft.	Capacity Ft. X Md.
1-A	648.5	0.1	0.4*			4-A	660.6	0.1	0.4	1.3	0.1
1	649.1	0.2	0.6*			7	660.8	Imp.	0.6*		
2	650.3	0.2	0.5	0.5	0.1	8	661.5	0.5	0.2	1.5	0.1
3	650.8	0.2	0.3*			9	661.9	Imp.	0.4	1.9	0.0
2-A	651.0	0.2	0.8*			5-A	663.9	0.2	0.5	2.4	0.1
4	652.1	0.8	0.5*			10	664.6	0.7	0.3	2.7	0.2
3-A	657.3	Imp.	0.2	0.7	0.0	6-A	664.8	1.7	0.2	2.9	0.3
5	657.6	0.8	0.2	0.9	0.2	11	665.0	1.5	0.2	3.1	0.3
6	658.8	0.1	0.6*			12	678.5	Imp.	-- *		

*Not included in cumulative feet of sand.

SUMMARY

DEPTH FEET FROM	DEPTH FEET TO	FEET OF SAND	AVERAGE PERMEABILITY	CAPACITY FT. X MD.
650.1	655.1	3.1	0.5	1.4

Squirrel 650.1 [illegible] 2160' N., 300' E. of SW Corner
SEC 27 T 20-S R 21-E COUNTY Anderson
STATE Kansas DATE 11-2-40
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RESULTS OF LABORATORY FLOODING TESTS

COMPANY Kewanee Oil Company LEASE Parks WELL NO. 133

Sample No.	Depth	Porosity	Perm. Approx.	BEFORE FLOODING 1/ Oil Sat.	Water Sat.	Oil Content B./A. Ft.	Max. Press. Psi.	Water Thru c.c.	Time Min.	FLOOD POT RESIDUALS Oil Sat.	Water Sat.	Oil Content B./A. Ft.	OIL RECOVERY B./A. Ft. Diff. 2/	Flood Pot
F- 1	650.5	15.6	0.2	44.	--	530.	40.	12.	600.	32.	68.	390.		144.
F- 2	658.9	7.0	0.1	61.	--	330.	40.	+	725.	53.	47.	290.		38.
F- 3	661.9	15.1	Imp.	39.	--	460.	40.	15.	660.	28.	61.	330.		130.

SUMMARY

Sec.	DEPTH, FEET From	To	Net Ft. of Sand	Avg. Por.	Average Core Sat. Oil	Water	CORE OIL CONTENT Avg. B./A. Ft.	Total Bbl./Ac.	PERMEABILITY Avg. Mds.	Capacity Ft. x Md.	FLOOD POT RESIDUALS Saturation Oil	Water	Oil Content B./A. Ft.	Bbl./Ac.	OIL RECOVERY Bbl./Ac. Diff.	Flood Pot
	650.1	665.1	3.1	14.2	44.	53.	481.	1,490.	0.5	1.4	30.	65.	331.	1,030.	460.	430.

REMARKS: 1/ Unless otherwise noted, oil content and saturation before flooding equals flood pot oil recovery plus flood pot residual.
2/ Oil recovery as B./A. Ft. Diff. equals B./A. Ft. oil content from adjacent saturation sample minus flood pot residual oil content for flood sample.