EARLOUGHER ENGINEERING
CORE SUMMARY

Plugged

Company Kewanee Oil Company Lease Parks Well No. 7

Location 1970 feet North, 170 feet East of SW Corner SW/4

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

Formation Cored Squirrel sand Type Core Rotary, 3-inch

Date Cored 2-9-49 Date Shot _____ Date Completed _____

Depths:

Started coring, shale	647.5 feet
Top of oil sand	661.6 "
Bottom of oil sand	681.3 "
Net feet of oil sand	10.3 "
Bottom of core, shale	682.0 "
Total cored	34.5 "
Feet analyzed	11.5 "

Shot Record: Set Packer _____ Feet

Depth, Feet From	To	Feet	Shell Diameter	Quarts Per Foot	Quarts Total
663.5	679.	15½	5"	3.9	60.

Set packer 661 feet.
Plug back to 680 feet.

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 10.3 net feet of good oil sand which occurs in thin streaks throughout a broken section from 661.6 to 681.3 feet. The sand itself is relatively clean although the section is very shaly.

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PERMEABILITY Permeability is low with the weighted average being 3.2 millidarcys. Individual values range from 0.1 to 9.0 millidarcys. Permeability capacity is 33 foot-millidarcys.

POROSITY Average porosity is 17.8 percent which is somewhat low also. Individual values range from 15.1 to 20.9 percent.

PERCENT SATURATION Average oil saturation is 43 percent and values are uniformly good. Average water saturation is 37 percent.

OIL CONTENT Average oil content is 592 barrels per acre-foot and values range from 440 to 860 barrels per acre-foot.

LABORATORY FLOODING TESTS Laboratory flooding tests yielded an average oil recovery of 261 barrels per acre-foot or a total recovery of 2,690 barrels per acre. Average residual oil saturation was 24 percent. This sand took water reasonably well in these laboratory flooding tests.

CONCLUSIONS

1. Net feet of oil sand is 10.3 feet located between 661.6 and 681.3 feet. The sand occurs as relatively thin streaks of clean sand in a broken shale and sand section.
2. Oil saturation is reasonably good and the sand responded well to water flooding in the laboratory.
3. Estimated oil recovery by water flooding is 204 barrels per acre-foot or 2100 barrels per acre from the area of which this core is representative.

Respectfully submitted
EARLOUGHER ENGINEERING

J M Robinson

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J. M. Robinson, Engineer

EARLOUGHER ENGINEERING

RESULTS OF SATURATION TESTS

COMPANY Kewanee Oil Company WELL Parks No. 7.

Sat. No.	Depth Feet	Porosity Per Cent	PER CENT SAT.			Avg. Oil Content Bbls./A. Ft.	FT. OF SAND		Total Oil Content Bbls./Acre
			Oil	Water	Total		Ft.	Cum.	
F 1	662.0	17.0	44.	--	--	590.	0.8	0.8	470.
1	663.0	17.1	37.	38.	75.	490.	0.6	1.4	290.
F 2	665.2	17.6	46.	--	--	630.	1.1	2.5	690.
2	666.4	20.9	53.	21.	74.	860.	0.7	3.2	600.
F 3	668.2	19.1	45.	--	--	670.	1.5	4.7	1000.
3	669.8	16.9	42.	37.	79.	550.	1.1	5.8	610.
4	671.2	14.5	28.	55.	83.	320.	0.6	*	
F 4	672.8	17.1	41.	--	--	540.	0.8	6.6	430.
5	674.2	15.1	38.	50.	88.	440.	1.1	7.7	480.
F 5	676.0	19.9	43.	--	--	660.	0.7	8.4	460.
6	678.0	17.5	38.	40.	78.	510.	0.7	9.1	360.
F 6	679.5	17.5	43.	--	--	590.	1.2	10.3	710.

*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
1.	661.6	681.3	10.3	17.8	43.	37.	592.	6100.

EARLOUGHER ENGINEERING

RESULTS OF PERMEABILITY TESTS

COMPANY Kewanee WELL Parks No. 7

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.
4	661.7	2.2	0.4	0.4	0.9	15	671.5	2.6	0.3	*	
3	662.3	7.6	0.4	0.8	3.0	16	671.9	0.3	0.5	*	
2	662.8	1.2	0.2	1.0	0.2	17	672.5	2.5	0.3	6.1	0.8
1	663.2	0.4	0.4	1.4	0.3	18	673.1	1.0	0.5	6.6	0.5
5	664.5	3.3	0.5	1.9	1.7	19	674.0	2.4	0.5	7.1	1.2
6	665.0	1.3	0.3	2.2	0.4	20	674.5	0.1	0.1	*	
7	665.4	0.1	0.3	2.5	0.1	21	675.0	3.3	0.6	7.7	1.9
8	666.2	3.7	0.5	3.0	1.9	22	675.8	2.7	0.4	8.1	1.1
9	666.6	4.3	0.2	3.2	0.8	23	676.5	5.3	0.3	8.4	1.6
10	667.5	9.0	0.6	3.8	5.4	24	677.0	6.9	0.1	8.5	0.7
11	668.0	2.4	0.9	4.7	2.2	25	677.7	2.7	0.6	9.1	1.6
12	669.3	2.2	0.3	5.0	0.6	26	678.9	6.2	0.3	9.4	1.9
13	670.3	3.0	0.8	5.8	2.4	27	679.3	1.2	0.6	10.0	0.7
14	671.0	1.5	0.3	*		28	681.2	5.1	0.3	10.3	1.5

*Not included in cumulative feet of sand.

SUMMARY

	DEPTH FEET FROM	DEPTH FEET TO	FEET OF SAND	AVERAGE PERMEABILITY	CAPACITY FT. X MD.
1.	661.6	681.3	10.3	3.2	33.