



OILFIELD RESEARCH LABORATORIES

536 NORTH HIGHLAND - CHANUTE, KANSAS 66720 - PHONE (316) 431-2650

April 3, 1979

The Marshall Petroleum Company
Box 811
Iola, Kansas 66749

Gentlemen:

Enclosed herewith are the results of tests run on the rotary core taken from the Ellison Lease, Well No. 1, Woodson County, Kansas, and submitted to our laboratory on March 29, 1979.

The core was sampled by a representative of Oilfield Research Laboratories after being received in the laboratory. The core was exposed to air approximately four hours prior to sampling.

Your business is greatly appreciated.

Very truly yours,

OILFIELD RESEARCH LABORATORIS


Benjamin R. Pearman

SAM:km
5 c to Iola, Kansas

Oilfield Research Laboratories

GENERAL INFORMATION & SUMMARY

Company The Marshall Petroleum Co. Lease Ellison Well No. 1

Location SW SW SE

Section 10 Twp. 26S Rge. 17E County Woodson State Kansas

Name of Sand	-	Cattleman
Top of Core	-	859.0
Bottom of Core	-	869.0
Top of Sand	-	859.0
Bottom of Sand	-	869.0
Total Feet of Permeable Sand	-	9.0
Total Feet of Floodable Sand	-	

Distribution of Permeable Sand:
Permeability Range
Millidarcys

	Feet	Cum. Ft.
0 - 10	2.7	2.7
10 - 40	3.7	6.4
40 - 80	2.6	9.0

Average Permeability Millidarcys	-	33.2
Average Percent Porosity	-	15.6
Average Percent Oil Saturation	-	41.6
Average Percent Water Saturation	-	46.5
Average Oil Content, Bbls./A. Ft.	-	511.
Total Oil Content, Bbls./Acre	-	4,600.
Average Percent Oil Recovery by Laboratory Flooding Tests	-	
Average Oil Recovery by Laboratory Flooding Tests, Bbls./A. Ft.	-	
Total Oil Recovery by Laboratory Flooding Tests, Bbls./Acre	-	
Total Calculated Oil Recovery, Bbls./Acre	-	
Packer Setting, Feet	-	
Viscosity, Centipoises @	-	
A. P. I. Gravity, degrees @ 60 °F	-	
Elevation, Feet	-	

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LOG

Company The Marshall Petroleum Company Lease Ellison Well No. 1

<u>Depth Interval,</u> <u>Feet</u>	<u>Description</u>
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CATTLEMAN SAND

859.0 - 860.7	Light brown and gray laminated sandstone and shale.
860.7 - 863.0	Brown sandstone.
864.0 - 865.3	Brown sandstone.
865.3 - 866.0	Light brown slightly shaly sandstone.
866.0 - 869.0	Brown sandstone.

BARTLESVILLE SAND

961.0 - 969.5	Brown sandstone.
969.5 - 970.8	Gray slightly shaly sandstone.
970.8 - 973.0	Gray and light brown sandstone.
973.0 - 974.0	Gray sandstone.
974.0 - 975.5	Gray and light brown laminated sandstone.

RESULTS OF SATURATION & PERMEABILITY TESTS

TABLE 1-B

Company The Marshall Petroleum Company Lease Ellison Well No. 1

Sample No.	Depth, Feet	Effective Porosity Percent	Percent Saturation		Oil Content Bbls. / A Ft.	Perm., Mill.	Feet of Sand		Total Oil Content	Perm. Capacity Ft. X md.
			Oil	Water			Ft.	Cum. Ft.		
					<u>CATTLEMAN SAND</u>					
1	859.5	12.1	23	71	94	2.0	1.0	1.0	216	2.00
2	860.5	15.3	38	48	86	28.	0.7	1.7	316	19.60
3	861.5	16.4	48	35	83	62.	1.3	3.0	792	80.60
4	862.5	13.7	45	50	95	37.	1.0	4.0	476	37.00
5	864.5	15.1	54	38	92	53.	1.3	5.3	820	68.90
6	865.5	14.4	36	59	95	7.1	0.7	6.0	281	4.97
7	866.5	18.7	45	33	78	10.	1.0	7.0	652	10.00
8	867.5	19.3	43	38	81	36.	1.0	8.0	644	36.00
9	868.5	15.3	34	57	91.	40.	1.0	9.0	403	40.00
					<u>BARTLESVILLE SAND</u>					
10	961.2	19.9	38	39	77	37.	1.0	10.0	587	37.00
11	962.2	21.7	33	37	70	18.	1.0	11.0	556	18.00
12	963.2	20.0	38	39	77	36.	1.0	12.0	590	36.00
13	964.2	19.4	28	48	76	3.9	1.0	13.0	421	3.90
14	965.2	21.0	30	44	74	12.	1.0	14.0	489	12.00
15	966.2	20.9	38	38	76	39.	1.0	15.0	616	39.00
16	967.2	20.1	36	41	77	35.	1.0	16.0	561	35.00
17	968.2	19.0	26	52	78	21.	1.0	17.0	383	21.00
18	969.2	21.3	34	44	78	72.	0.5	17.5	281	36.00
19	970.2	16.6	15	64	79	7.2	1.3	18.8	251	9.36
20	971.2	18.6	30	58	88	91.	1.2	20.0	518	109.20
21	972.2	20.5	20	53	73	27.	1.0	21.0	318	27.00
22	973.2	17.6	11	76	87	22.	1.0	22.0	150	22.00
23	974.2	20.5	27	54	81	17.	1.0	23.0	429	17.00
24	975.2	18.3	17	63	80	6.8	0.5	23.5	121	3.40

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SUMMARY OF PERMEABILITY & SATURATION TESTS

TABLE III

Company The Marshall Petroleum Company Lease Ellison Well No. 1

Depth Interval, Feet	Feet of Core Analyzed	Average Permeability, Millidarcys	Permeability Capacity, Ft. x Md.			
<u>CATTLEMAN SAND</u>						
859.0 - 869.0	9.0	33.2	299.07			
<u>BARTLESVILLE SAND</u>						
961.0 - 969.5	8.5	28.0	237.90			
969.5 - 975.5	6.0	31.3	187.96			
961.0 - 975.5	14.5	29.4	425.86			
Depth Interval, Feet	Feet of Core Analyzed	Average Percent Porosity	Average Percent Oil Saturation	Average Percent Water Saturation	Average Oil Content Bbl./A. Ft.	Total Oil Content Bbls./Acre
<u>CATTLEMAN SAND</u>						
859.0 - 869.0	9.0	15.6	41.6	46.5	511	4,600
<u>BARTLESVILLE SAND</u>						
961.0 - 969.5	8.5	20.3	33.4	42.4	528	4,484
969.5 - 975.5	6.0	18.6	20.3	61.2	298	1,787
961.0 - 975.5	14.5	19.6	28.0	50.2	432	6,271