



OILFIELD RESEARCH LABORATORIES

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

October 29, 1979

James E. Russell Petroleum, Inc.
P.O. Box 2618
Abilene, Texas 79604

Gentlemen:

Enclosed herewith are the results of tests run on the rotary core taken from the Minckley "B" Section 10 Lease, Well No. 106, Anderson County, Kansas, and submitted to our laboratory on October 20, 1979.

The core was sampled by a representative of Oilfield Research Laboratories.

Your business is greatly appreciated.

Very truly yours,

OILFIELD RESEARCH LABORATORIES

Benjamin R. Pearman
Benjamin R. Pearman

BRP/tem
3 c to Abilene, Texas
2 c to Chanute, Kansas

- REGISTERED ENGINEERS -

CORE ANALYSIS - WATER ANALYSIS - REPRESSURING ENGINEERING - SURVEYING & MAPPING - PROPERTY EVALUATION & OPERATION

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GENERAL INFORMATION & SUMMARY

Inc. Minckley "B"

Company James E. Russell Petroleum, Inc. Lease Section 10 Well No. 106

Location 2475' EWL & 2475' SNL

Section 10 Twp. 23S Rge. 19E County Anderson State Kansas

Name of Sand	-		Squirrel
Top of Core	-		736.0
Bottom of Core	-		776.0
Top of Sand	-	(Tested)	740.7
Bottom of Sand	-		746.3
Total Feet of Permeable Sand	-		1.4
Total Feet of Floodable Sand	-		

Distribution of Permeable Sand:
Permeability Range
Millidarcys

Feet

Cum. Ft.

0.18 - 0.46

1.4

1.4

Average Permeability Millidarcys	-		0.38
Average Percent Porosity	-		11.8
Average Percent Oil Saturation	-		20.2
Average Percent Water Saturation	-		56.8
Average Oil Content, Bbls./A. Ft.	-		177.
Total Oil Content, Bbls./Acre	-		443.
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	-	(Ground Level)	1,077.3

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LOG

Name James E. Russell Petroleum. Inc. Lease Minckley "B" Well No. 106
Section 10

<u>Depth Interval,</u> <u>Feet</u>	<u>Description</u>
736.0 - 739.2	Gray shale interbedded with hard very thin streaks of oil saturated sandstone.
739.2 - 740.7	Black shale.
740.7 - 741.0	Gray shaly sandstone.
741.0 - 741.8	Gray shale.
741.8 - 742.1	Gray shaly sandstone.
742.1 - 743.7	Black shale.
743.7 - 744.6	Gray shaly sandstone.
744.6 - 745.3	Black shale.
745.3 - 746.3	Hard light brown slightly calcareous sandstone.
746.3 - 749.4	Black shale.
749.4 - 749.6	Gray limestone.
749.6 - 751.6	Black shale.
751.6 - 751.7	Gray limestone.
751.7 - 776.0	Black shale.

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RESULTS OF SATURATION & PERMEABILITY TESTS

TABLE 1-B

Company James E. Russell Petroleum, Inc Lease Minkley "B" Section 10 Well No. 106

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.		
1	740.8	14.0	7	84	76	Imp.	0.3	0.3	23	0.00
2	742.0	14.6	27	45	306	Imp.	0.3	0.6	92	0.00
3	743.8	11.7	13	77	118	0.18	0.4	1.0	47	0.07
4	744.5	11.7	6	85	55	Imp.	0.5	1.5	28	0.00
5	745.4	10.2	32	30	253	0.46	1.0	2.5	253	0.46

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SUMMARY OF PERMEABILITY & SATURATION TESTS

TABLE III

Company James E. Russell Petroleum, Inc. Lease Minkley "B" Section 10 Well No. 106

Depth Interval, Feet	Feet of Core Analyzed	Average Permeability, Millidarcys	Permeability Capacity Ft. x Md.
740.7 - 746.3	1.4	0.38	0.53

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
740.7 - 746.3	2.5	11.8	20.2	56.8	177	443