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

September 17, 1979

Mid-States Energy, Inc.
Box 371
Paola, Kansas 66071

Gentlemen:

Enclosed herewith are the results of tests run on the rotary core taken from the Caylor South Lease, Well No. 2, Franklin County, Kansas, and submitted to our laboratory on September 13, 1979.

The core was sampled and the samples sealed in plastic bags by a representative of the client.

Your business is greatly appreciated.

Very truly yours,

OILFIELD RESEARCH LABORATORIES

Benjamin R. Pearman

BRP:km
5 c to Paola, Kansas

Oilfield Research Laboratories

GENERAL INFORMATION & SUMMARY

Company Mid-States Energy, Inc. Lease Caylor South Well No. 2

Location 1155' FNL & 165' FEL SE SE NW SW

Section 27 Twp. 17S Rge. 21E County Franklin State Kansas

Name of Sand	Peru
Top of Core	648.0
Bottom of Core	659.4
Top of Sand	648.0
Bottom of Sand	659.4
Total Feet of Permeable Sand	11.4
Total Feet of Floodable Sand	

Distribution of Permeable Sand: Permeability Range Millidarcys	Feet	Cum. Ft.
1 - 5	4.4	4.4
5 - 10	3.7	8.1
10 - 24	3.3	11.4

Average Permeability Millidarcys	8.0
Average Percent Porosity	17.8
Average Percent Oil Saturation	50.3
Average Percent Water Saturation	35.4
Average Oil Content, Bbls./A. Ft.	734.
Total Oil Content, Bbls./Acre	8,352.
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	

OILFIELD RESEARCH LABORATORIES

LOG

Company Mid-States Energy, Inc. Lease Caylor South Well No. 2

Depth Interval, Feet	Description
648.0 - 649.7	Brown and gray laminated sandstone and shale.
649.7 - 657.3	Dark brown laminated shaly sandstone.
657.3 - 659.4	Gray and brown laminated shale and sandstone.
659.4 - 669.0	Gray sandy shale.

Oilfield Research Laboratories

RESULTS OF SATURATION & PERMEABILITY TESTS

TABLE 1-B

Company Mid-States Energy, Inc. Lease Caylor South Well No. 2

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	Total			Ft.	Cum. Ft.		
1	648.5	23.1	41	26	67	735	24.	1.0	1.0	735	24.00
2	649.3	15.6	54	40	94	654	5.4	0.7	1.7	458	3.78
3	650.5	20.5	40	33	73	636	13.	1.3	3.0	826	16.90
4	651.5	10.8	40	53	93	335	4.5	1.0	4.0	335	4.50
5	652.6	17.7	42	44	86	577	5.3	1.0	5.0	577	5.30
6	653.7	21.2	43	28	71	707	18.	1.0	6.0	707	18.00
7	654.7	19.3	54	35	89	809	5.4	1.0	7.0	809	5.40
8	655.8	19.0	65	30	95	958	5.7	1.0	8.0	958	5.70
9	656.9	18.8	63	29	92	919	3.8	1.3	9.3	1193	4.94
10	658.0	19.9	54	39	93	834	1.4	1.0	10.3	834	1.40
11	659.0	18.9	57	37	94	836	1.2	1.1	11.4	920	1.32

Oilfield Research Laboratories

SUMMARY OF PERMEABILITY & SATURATION TESTS

TABLE III

Company Mid-States Energy, Inc. Lease Caylor South Well No. 2

Depth Interval, Feet	Feet of Core Analyzed	Average Permeability, Millidarcys	Permeability Capacity Ft. x Md.
648.0 - 659.4	11.4	8.0	91.24

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
648.0 - 659.4	11.4	17.8	50.3	35.4	734	8,352