

# OILFIELD RESEARCH LABORATORIES

700 NORTH MISSION  
OKMULGEE, OKLAHOMA  
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- REGISTERED ENGINEERS -

Chanute, Kansas

536 N. HIGHLAND  
CHANUTE, KANSAS  
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November 13, 1961

Langdon & Finch  
309 East 5th  
Ottawa, Kansas

Gentlemen:

Attached hereto are the results of tests run on the Cable Tool core samples taken from the Kalb Lease, Well No. 1, Douglas County, Kansas, and submitted to our laboratory on November 9, 1961.

This core was sampled and the samples sealed in glass jars by a representative of the client.

Because of the soft character of the sand, it was impossible to obtain permeability samples for the entire core.

Your business is greatly appreciated.

Very truly yours,

OILFIELD RESEARCH LABORATORIES

*Benjamin R. Pearman*  
Benjamin R. Pearman

BRP:rf

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# Oilfield Research Laboratories

## GENERAL INFORMATION & SUMMARY

Company Langdon & Finch Lease Kalb Well No. 1

Location SE SW

Section 12 Twp. 15S Rge. 20E County Douglas State Kansas

|                                       |          |
|---------------------------------------|----------|
| Name of Sand                          | Squirrel |
| Top of Core                           | 846.0    |
| Bottom of Core                        | 855.0    |
| Top of Sand                           | 846.0    |
| Bottom of Sand                        | 855.0    |
| Total Feet of Permeable Sand (Tested) | 2.0      |
| Total Feet of Floodable Sand          | -        |

Distribution of Permeable Sand:  
Permeability Range  
Millidarcys

Feet

Cum. Ft.

0 - 1.5

2.0

2.0

|                                                                 |        |
|-----------------------------------------------------------------|--------|
| Average Permeability Millidarcys                                | 1.1    |
| Average Percent Porosity                                        | 19.4   |
| Average Percent Oil Saturation                                  | 22.4   |
| Average Percent Water Saturation                                | 60.9   |
| Average Oil Content, Bbls./A. Ft.                               | 337.   |
| Total Oil Content, Bbls./Acre                                   | 3,030. |
| 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 (Primary)             | 700.   |
| Packer Setting, Feet                                            |        |
| Viscosity, Centipoises @                                        |        |
| A. P. I. Gravity, degrees @ 60 °F                               |        |
| Elevation, Feet                                                 |        |

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## RESULTS OF SATURATION & PERMEABILITY TESTS

TABLE 1-B

Company Langdon & Finch Lease Kalb 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. |                   |                          |
| 1          | 846.5       | 19.9                       | 26                 | 52    | 401                       | -            | 1.0          | 1.0      | 401               | -                        |
| 2          | 847.5       | 20.7                       | 21                 | 50    | 338                       | -            | 1.0          | 2.0      | 338               | -                        |
| 3          | 848.5       | 19.6                       | 27                 | 48    | 411                       | -            | 1.0          | 3.0      | 411               | -                        |
| 4          | 849.5       | 15.1                       | 19                 | 74    | 223                       | -            | 1.0          | 4.0      | 223               | -                        |
| 5          | 850.5       | 16.6                       | 26                 | 66    | 336                       | 1.4          | 1.0          | 5.0      | 336               | 1.40                     |
| 6          | 851.5       | 21.4                       | 20                 | 58    | 332                       | -            | 1.0          | 6.0      | 332               | -                        |
| 7          | 852.5       | 19.6                       | 18                 | 64    | 274                       | -            | 1.0          | 7.0      | 274               | -                        |
| 8          | 853.5       | 19.7                       | 17                 | 74    | 260                       | -            | 1.0          | 8.0      | 260               | -                        |
| 9          | 854.5       | 21.7                       | 27                 | 62    | 455                       | 0.83         | 1.0          | 9.0      | 455               | 0.83                     |
|            |             |                            |                    |       |                           |              | Total        | -----    | 3,030             |                          |

**Oilfield Research Laboratories**  
**SUMMARY OF PERMEABILITY & SATURATION TESTS**

**TABLE III**

| Company                 |                          | Lease                                   |                                         | Well No.                               |                                       |
|-------------------------|--------------------------|-----------------------------------------|-----------------------------------------|----------------------------------------|---------------------------------------|
| Langdon & Finch         |                          | Kalb                                    |                                         | 1                                      |                                       |
| Depth Interval,<br>Feet | Feet of Core<br>Analyzed | (Permeable)<br>Feet of Core<br>Analyzed | Average<br>Permeability,<br>Millidarcys | Permeability<br>Capacity<br>Ft. x Md.  | Total Oil<br>Content<br>Bbls./Acre    |
|                         |                          |                                         |                                         |                                        |                                       |
| 846.0 - 849.0           | -                        | -                                       | -                                       | -                                      |                                       |
| 849.0 - 855.0           | 2.0                      | 2.0                                     | 1.1                                     | 2.23                                   |                                       |
| 846.0 - 855.0           | 2.0                      | 2.0                                     | 1.1                                     | 2.23                                   |                                       |
| Depth Interval,<br>Feet | Feet of Core<br>Analyzed | Average<br>Percent<br>Porosity          | Average<br>Percent Oil<br>Saturation    | Average<br>Percent Water<br>Saturation | Average<br>Oil Content<br>Bbl./A. Ft. |
| 846.0 - 849.0           | 3.0                      | 20.1                                    | 24.7                                    | 50.0                                   | 383                                   |
| 849.0 - 855.0           | 6.0                      | 19.0                                    | 21.2                                    | 66.3                                   | 313                                   |
| 846.0 - 855.0           | 9.0                      | 19.4                                    | 22.4                                    | 60.9                                   | 337                                   |
|                         |                          |                                         |                                         |                                        | 1,150                                 |
|                         |                          |                                         |                                         |                                        | 1,880                                 |
|                         |                          |                                         |                                         |                                        | 3,030                                 |