

OILFIELD RESEARCH LABORATORIES

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

November 30, 1981

Siddeg Production Ltd.
219 S. Plummer
Chanute, Kansas 66720

Gentlemen:

Enclosed herewith are the results of tests run on the rotary core taken from the Finney C Lease, Well No. 2-3-04, located in Allen County, Kansas.

The core was sampled and sealed in plastic bags by a representative of Oilfield Research Laboratories, and was received in our laboratory on November 24, 1981.

Your business is greatly appreciated.

Very truly yours,

OILFIELD RESEARCH LABORATORIES



Sanford A. Michel

SAM/mkf

5 c to Chanute, Ks.

Oilfield Research Laboratories
GENERAL INFORMATION & SUMMARY

Company Siddeg Production, Ltd. Lease Finney C Well No. 2-3-04
 Location 1742' NSL & 1150' WEL
 Section 21 Twp. 25S Rge. 18E County Allen State Kansas

Elevation, Feet

Name of Sand..... **BARTLESVILLE**

Top of Core 851.0

Bottom of Core 871.0

Top of Sand (Tested) 851.2

Bottom of Sand 866.8

Total Feet of Permeable Sand 14.8

| Distribution of Permeable Sand: Permeability Range Millidarcys | Feet | Cum. Ft. |
|--|------|----------|
| 0 - 12 | 4.6 | 4.6 |
| 12 - 36 | 5.7 | 10.3 |
| 40 - 100 | 1.9 | 12.2 |
| 115 - 160 | 2.6 | 14.8 |
| Average Permeability Millidarcys | | 44.1 |
| Average Percent Porosity | | 18.2 |
| Average Percent Oil Saturation | | 51.7 |
| Average Percent Water Saturation..... | | 28.8 |
| Average Oil Content, Bbls./A. Ft. | | 749. |
| Total Oil Content, Bbls./Acre..... | | 11,083. |

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LOGName Siddeg Production Ltd. Lease Finney C Well No. 2-3-04

| <u>Depth Interval,</u> <u>Feet</u> | <u>Description</u> |
|---------------------------------------|--|
| 851.0 - 851.2 | Grayish brown shaly sandstone. |
| 851.2 - 851.5 | Brown sandstone. |
| 851.5 - 852.9 | Grayish brown shaly sandstone. |
| 852.9 - 854.1 | Gray and brown laminated shale and sandstone. |
| 854.1 - 854.4 | Grayish brown shaly sandstone. |
| 854.4 - 857.6 | Black slightly carbonaceous sandstone. |
| 857.6 - 858.1 | Grayish brown shaly sandstone. |
| 858.1 - 866.8 | Alternating layers of gray sandstone and black carbonaceous micaceous sandstone. |
| 866.8 - 867.5 | Coal. |
| 867.5 - 871.0 | Gray shale. |

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RESULTS OF SATURATION & PERMEABILITY TESTS

TABLE 1-B

Company Siddeg Production Ltd. Lease Finney C Well No. 2-3-04

| 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 | 851.4 | 18.7 | 44 | 43 | 638 | 44. | 0.3 | 0.3 | 191 | 13.20 |
| 2 | 852.4 | 10.7 | 20 | 75 | 166 | 1.8 | 1.4 | 1.7 | 232 | 2.52 |
| 3 | 853.6 | 15.5 | 67 | 21 | 806 | 9.4 | 1.2 | 2.9 | 967 | 11.28 |
| 4 | 854.5 | 19.5 | 42 | 26 | 635 | 157. | 1.0 | 3.9 | 635 | 157.00 |
| 5 | 855.5 | 19.7 | 55 | 23 | 841 | 138. | 1.0 | 4.9 | 841 | 138.00 |
| 6 | 856.6 | 19.1 | 42 | 28 | 622 | 115. | 0.6 | 5.5 | 373 | 69.00 |
| 7 | 857.5 | 19.1 | 49 | 26 | 726 | 92. | 0.6 | 6.1 | 436 | 55.20 |
| 8 | 858.5 | 17.5 | 62 | 21 | 842 | 28. | 0.7 | 6.8 | 589 | 19.60 |
| 9 | 859.6 | 20.1 | 45 | 29 | 702 | 19. | 1.0 | 7.8 | 702 | 19.00 |
| 10 | 860.5 | 19.4 | 43 | 27 | 647 | 18. | 1.0 | 8.8 | 647 | 18.00 |
| 11 | 861.6 | 19.5 | 60 | 22 | 908 | 31. | 1.0 | 9.8 | 908 | 31.00 |
| 12 | 862.5 | 18.0 | 61 | 28 | 852 | 11. | 1.0 | 10.8 | 852 | 11.00 |
| 13 | 863.5 | 17.7 | 56 | 19 | 769 | 10. | 1.0 | 11.8 | 769 | 10.00 |
| 14 | 864.6 | 18.8 | 45 | 38 | 656 | 43. | 1.0 | 12.8 | 656 | 43.00 |
| 15 | 865.5 | 20.6 | 71 | 19 | 1135 | 31. | 1.0 | 13.8 | 1135 | 31.00 |
| 16 | 866.4 | 21.8 | 68 | 8 | 1150 | 24. | 1.0 | 14.8 | 1150 | 24.00 |

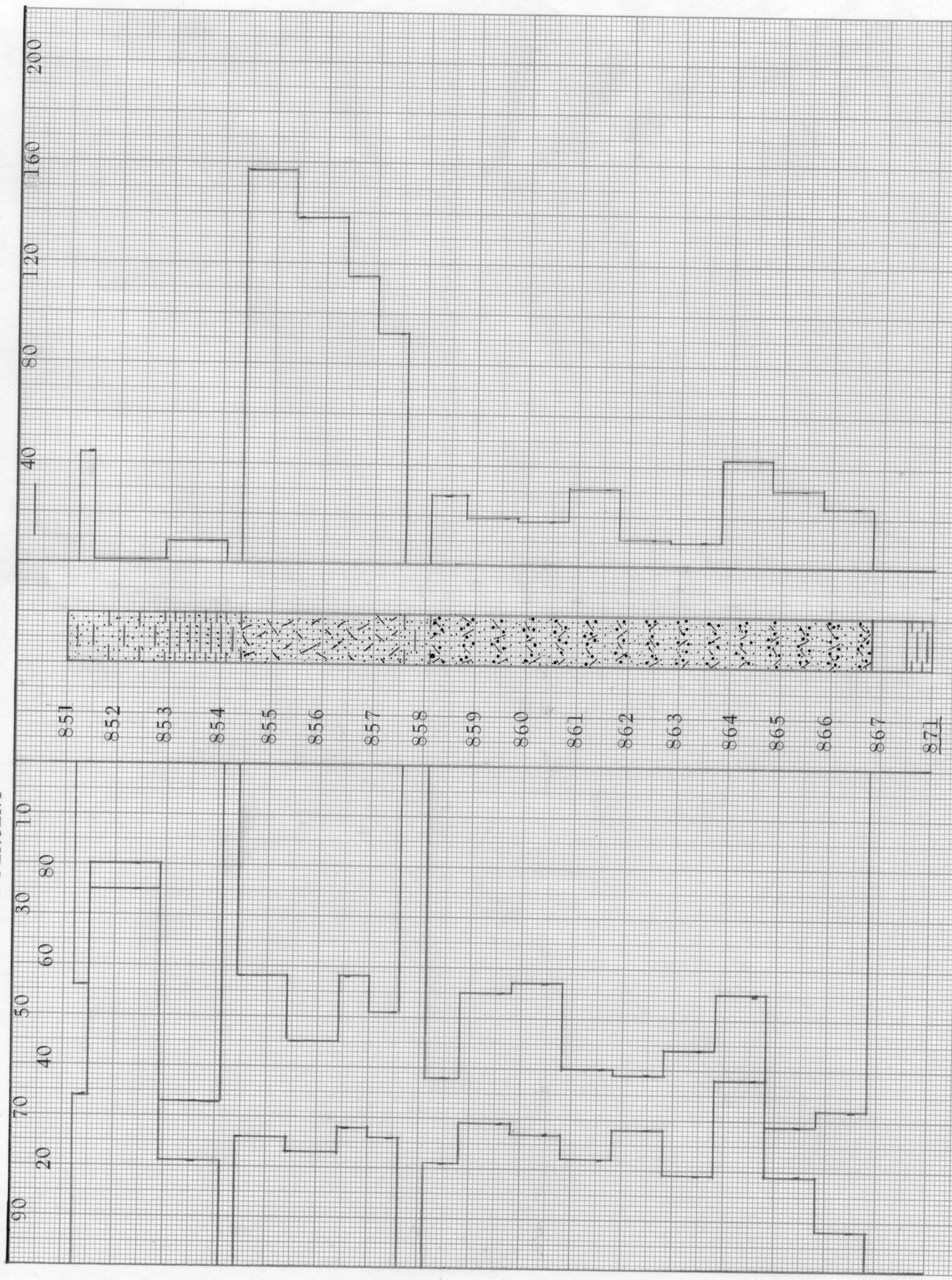
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SUMMARY OF PERMEABILITY & SATURATION TESTS

TABLE III

| Company | Lease | Well No. | | | | | |
|-------------------------|--------------------------|---|---------------------------------------|--------------------------------------|--|---------------------------------------|------------------------------------|
| Siddeg Production Ltd. | Finney C | 2-3-04 | | | | | |
| Depth Interval, Feet | Feet of Core Analyzed | Average Permeability, Millidarcys | Permeability Capacity Ft. x Md. | Average Percent Oil Saturation | Average Percent Water Saturation | Average Oil Content Bbl./A. Ft. | Total Oil Content Bbls./Acre |
| 851.2 - 866.8 | 14.8 | 44.1 | 652.80 | | | | |
| 851.2 - 866.8 | 14.8 | 18.2 | | 51.7 | 28.8 | 749 | 11,083 |

WATER SAT., PERCENT → ← OIL SAT., PERCENT
— PERMEABILITY, IN MILLIDARCYS



KEY:



COAL



SANDSTONE



SHALE

CARBONACEOUS SANDSTONE

SHALY SANDSTONE

LAMINATED SANDSTONE AND SHALE

ALTERNATE LAYERS OF MICACEOUS CARBONACEOUS SANDSTONE AND SANDSTONE

SIDDEG PRODUCTION, LTD.

FINNEY "C" LEASE

WELL NO. 2-3-04

ALLEN COUNTY, KANSAS

| DEPTH INTERVAL, FEET | FEET OF CORE ANALYZED | AVERAGE | | AVG. OIL | | AVG. WATER | |
|-------------------------|--------------------------|---------------------|---------|-----------------------|-----------------------|-----------------------------|--|
| | | POROSITY PERCENT | PERCENT | SATURATION PERCENT | SATURATION PERCENT | PERMEABILITY, MILLIDARCS | AVERAGE PERMEABILITY, MILLIDARCS |

| | | | | | | | |
|---------------|------|------|------|------|------|--|--|
| 851.2 - 866.8 | 14.8 | 18.2 | 51.7 | 28.8 | 44.1 | | |
|---------------|------|------|------|------|------|--|--|

OILFIELD RESEARCH LABORATORIES
CHANUTE, KANSAS
DECEMBER, 1981

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