

EARLOUGHER ENGINEERING

PETROLEUM CONSULTANTS - CORE ANALYSES

3316 EAST 21ST STREET

TULSA, OKLAHOMA

May 1, 1954

Schermerhorn Oil Corporation
714 First National Building
Tulsa, Oklahoma

Attention - Mr. H. A. Sherman

Re - Core Analysis
North Unit Well No. 0-20
Sec. 4, T.21-S., R.21-E.
Anderson County, Kansas

Gentlemen:

Attached are results of analysis, together with profile and summary,
covering core received from your above well.

Yours very truly

EARLOUGHER ENGINEERING



R. C. Earlougher, Engineer

JMR tw
Encl 1
cc - Garnett Office

core water saturation 40 per cent.

Estimated oil recovery by water flooding from the area of which this core is representative is 500 barrels per acre.

JMR tw

EARLOUGHER ENGINEERING
SUMMARY OF CORE ANALYSES DATA

COMPANY Schermerhorn Oil Corporation **LEASE** North Unit **WELL NO.** 0-20

| Sec. | Formation | Depth, Ft. | | Net Ft. of Sand | Avg. Por. | Avg. Core Saturation | | Core Oil Content | | Permeability | | Flood Pot Residuals | | | | Oil Recovery Bbl./Acre | |
|------|---------------------|------------|-------|-----------------|-----------|----------------------|-------|------------------|-------------|--------------|--------------------|---------------------|-------|-------------|-------|------------------------|-----------|
| | | From | To | | | Oil | Water | Avg. B/A. Ft. | Total B/Ac. | Avg. Md. | Capacity Ft. x Md. | Saturation | | Oil Content | | Diff. | Flood Pot |
| | | | | | | | | | | | | Oil | Water | B/A. Ft. | B/Ac. | | |
| | <u>BARTLESVILLE</u> | 733.0 | 739.5 | 4.2 | 22.3 | 28. | 40. | 491. | 2,060. | 97. | 406. | -- | -- | -- | -- | -- | -- |

EARLOUGHER ENGINEERING
RESULTS OF SATURATION TESTS

COMPANY Schermerhorn Oil Corporation WELL North Unit 0-20

| Sat. No. | Depth Feet | Porosity Per Cent | Per Cent Saturation | | | Avg. Oil Content Bbl./A. Ft. | Feet of Sand | | Total Oil Content Bbl./Acre |
|----------|------------|-------------------|---------------------|-------|-------|------------------------------|--------------|------|-----------------------------|
| | | | Oil | Water | Total | | Ft. | Cum. | |
| 1 | 731.3 | 16.0 | 16. | 56. | 72. | 200. | 0.6 | * | -- |
| 2 | 733.2 | 20.7 | 27. | 41. | 68. | 430. | 1.1 | 1.1 | 470. |
| 3 | 734.5 | 10.8 | 18. | 82. | 100. | 150. | 0.5 | * | -- |
| 4 | 735.7 | 18.4 | 23. | 46. | 69. | 320. | 0.3 | 1.4 | 100. |
| 5 | 736.7 | 23.8 | 26. | 43. | 69. | 490. | 0.8 | 2.2 | 390. |
| 6 | 737.3 | 22.3 | 42. | 34. | 75. | 720. | 0.7 | 2.9 | 500. |
| 7 | 738.3 | 23.8 | 25. | 38. | 63. | 460. | 1.3 | 4.2 | 600. |
| 8 | 739.2 | 11.0 | 18. | 82. | 100. | 150. | 0.2 | * | -- |

* Not included in cumulative feet of sand.

EARLOUGHER ENGINEERING
RESULTS OF PERMEABILITY TESTS

COMPANY Schermerhorn Oil Corporation **WELL** North Unit No. 0-20

| Sample No. | Depth Feet | Permeability Millidarcys | Feet of Sand | | Capacity Ft. X Md. | Sample No. | Depth Feet | Permeability Millidarcys | Feet of Sand | | Capacity Ft. X Md. |
|--|------------|--------------------------|--------------|----------|--------------------|------------|------------|--------------------------|--------------|----------|--------------------|
| | | | Ft. | Cum. Ft. | | | | | Ft. | Cum. Ft. | |
| 1 | 731.1 | 2.6 | 0.6 | * | -- | 6 | 737.5 | 109. | 0.7 | 2.9 | 76. |
| 2 | 733.2 | 28. | 0.8 | 0.8 | 22. | 7 | 738.5 | 131. | 0.8 | 3.7 | 105. |
| 3 | 734.2 | 15. | 0.3 | 1.1 | 4.5 | 9 | 739.0 | 65. | 0.5 | 4.2 | 33. |
| 4 | 735.7 | 55. | 0.3 | 1.4 | 17. | 8 | 739.2 | Imp. | 0.2 | * | -- |
| 5 | 736.7 | 185. | 0.8 | 2.2 | 148. | | | | | | |
| * Not included in cumulative feet of sand. | | | | | | | | | | | |

NO. UNIT 0-20



Recommended
Shot Qts./Ft.

Permeability, Millidarcys

0 2 4 340 320 300 280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 Fm. Log Depth Feet 80 60 40 20 0 Percent Oil Sat. 20 40 60 80 0 Percent Water Sat. 10 20 30 0 Percent Porosity 100 200 400 600 800 1000 1200 Oil Content, Bbls./A.Ft.

Casing cemented at 733.0 feet.
Plug back to 739.0 feet.
Sand-Oil Treatment

730
732
734
736
738
740
742

| Sec | Sand | Depth, Feet | | Net Ft of Sand | Avg. Por | Average Core Sat. | | Core Oil Content | | Permeability | | Flood Pot Residuals | | | |
|-----|--------------|-------------|-------|----------------|----------|-------------------|-------|------------------|---------------|--------------|------------------|---------------------|-------|-------------|----------|
| | | From | To | | | Oil | Water | Avg. B. A.Ft | Total Bbl./Ac | Avg. Mas | Capacity Ft x Md | Saturation | | Oil Content | |
| | | | | | | | | | | | | Oil | Water | B./A.Ft. | Bbl./Ac. |
| 1 | Bartlesville | 733.0 | 739.5 | 4.2 | 22.3 | 28. | 40. | 491. | 2,060. | 97. | 406. | | | | |

COMPANY SCHERMERHORN OIL CORPORATION
 LEASE NORTH UNIT WELL NO. 0-20
 LOCATION 150'S. of N.L., 800'E. of W.L., NE/4
 SEC. 4 T. 21-S R. 21-E COUNTY Anderson
 STATE Kansas DATE 5-1-54
 EARLOUGHER ENGINEERING TULSA, OKLAHOMA