



28-22-16E

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# OILFIELD RESEARCH LABORATORIES

P.O. BOX 647 - 536 N. HIGHLAND - CHANUTE, KANSAS 66720 - PHONE (316) 431-2650

August 13, 1990

Lancer Oil, Inc.  
P. O. Box 34  
Piqua, KS 66761

Gentlemen:

Attached hereto are the results of tests run on the rotary core taken from the Crofts Lease, Well No. 2-W, located in Section 28, T22S, R16E, Coffey County, Kansas.

The core was sampled and sealed in plastic bags by a representative of the client and submitted to our laboratory on August 9, 1990.

Your business is greatly appreciated.

Very truly yours,

OILFIELD RESEARCH LABORATORIES

*Alan M. Dunning*  
Alan M. Dunning

AMD:bl

5 c Piqua, KS

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STATE OF KANSAS COMMISSION

REGISTERED ENGINEERS

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

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LOGCompany Lancer Oil, Inc. Lease Crotts Well No. 2-WLOWER SQUIRREL SANDSTONE

| <u>Depth Interval,<br/>Feet</u> | <u>Description</u>                                                          |
|---------------------------------|-----------------------------------------------------------------------------|
| 1003.0 - 1003.5                 | Shale and sandstone, gray and brown, laminated.                             |
| 1003.5 - 1004.5                 | Shale, gray.                                                                |
| 1004.5 - 1005.2                 | Sandstone and shale, brown and gray, laminated.                             |
| 1005.2 - 1006.3                 | Shale, gray with scattered brown sandstone partings.                        |
| 1006.3 - 1007.2                 | Sandstone and shale, brown and gray, laminated.                             |
| 1007.2 - 1007.6                 | Shale, gray with scattered brown sandstone partings.                        |
| 1007.6 - 1008.0                 | Sandstone and shale, brown and gray, laminated.                             |
| 1008.0 - 1009.1                 | Shale, gray with widely scattered brown sandstone partings.                 |
| 1009.1 - 1009.5                 | Shale and sandstone, gray and brown, laminated.                             |
| 1009.5 - 1010.3                 | Sandstone, brown, shaly with scattered shale partings.                      |
| 1010.3 - 1010.5                 | Shale, gray.                                                                |
| 1010.5 - 1010.9                 | Sandstone, brown, shaly with scattered shale partings.                      |
| 1010.9 - 1011.1                 | Shale, gray.                                                                |
| 1011.1 - 1011.5                 | Sandstone, brown with scattered shale partings.                             |
| 1011.5 - 1011.8                 | Shale, gray.                                                                |
| 1011.8 - 1013.0                 | Sandstone, dark brown with very widely scattered shale partings.            |
| 1013.0 - 1013.6                 | Sandstone, dark brown, slightly calcareous.                                 |
| 1013.6 - 1015.4                 | Sandstone, brown, slightly calcareous with widely scattered shale partings. |
| 1015.4 - 1015.6                 | Shale, gray.                                                                |

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## Oilfield Research Laboratories

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## RESULTS OF SATURATION &amp; PERMEABILITY TESTS

TABLE 1

Company Lancer Oil, Inc. Lease Crotts Well No. 2-W

| Sample No. | Depth, Feet | Porosity Percent | Percent Saturation |       |       | Oil Content Bbis. / A. Ft. | Permeability, Millidarcys |
|------------|-------------|------------------|--------------------|-------|-------|----------------------------|---------------------------|
|            |             |                  | Oil                | Water | Total |                            |                           |
| 1          | 1003.4      | 12.4             | 18                 | 73    | 91    | 173                        | Imp.                      |
| 2          | 1004.8      | 13.7             | 28                 | 59    | 87    | 298                        | 1.0                       |
| 3          | 1006.7      | 14.0             | 31                 | 58    | 89    | 337                        | 0.95                      |
| 4          | 1007.7      | 12.5             | 31                 | 59    | 90    | 301                        | 0.16                      |
| 5          | 1009.7      | 15.1             | 28                 | 51    | 79    | 328                        | 5.7                       |
| 6          | 1010.7      | 15.3             | 54                 | 44    | 98    | 641                        | 2.8                       |
| 7          | 1011.4      | 22.0             | 46                 | 28    | 74    | 785                        | 88.                       |
| 8          | 1012.6      | 17.7             | 68                 | 30    | 98    | 934                        | 15.                       |
| 9          | 1013.5      | 17.0             | 59                 | 31    | 90    | 778                        | 38.                       |
| 10         | 1014.3      | 19.8             | 39                 | 31    | 70    | 599                        | 82.                       |
| 11         | 1015.3      | 16.8             | 43                 | 37    | 80    | 560                        | 28.                       |

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