K & A
LABORATORIES

February 14, 1995

Ms. Jan Dixon
Amoco Corporation
P.O. Box 800
Denver, Colorado 80201

Re: Final Report
Standard Core Analysis
Test Results
Amoco Corporation
Wells: Cross H. Cattle and
Kerr Trust 1-31
Section 6-25S-39W and
Section 31-22S-39W
Hamilton County, Kansas
K&A Job No. 95-7011-03

Dear Ms. Dixon:

This report presents the final results of the standard core analysis tests performed on one-inch-diameter samples supplied by Amoco Corporation, Denver, Colorado. These tests were authorized by Ms. Jan Dixon on February 13, 1995. A summary of these test results and the procedures used are provided below.

The standard core analysis test results are presented in tabular form on pages 3 and 4. These results include air permeabilities, helium porosities, and grain densities. Crossplots of air permeabilities and porosities are presented on pages 5 and 6.

The procedures used for these tests are as follows: upon arrival, the samples were placed into soxhlet-type extractors and fully cleaned using a toluene-methanol azeotrope solvent. The samples were then oven dried for 24 hours at a temperature of 220° Fahrenheit. After allowing the samples to cool in a desiccator, a helium porosity and an air permeability were measured for each sample.

Helium porosities were measured at room conditions using a Boyles' Law double-celled helium porosimeter. Bulk volumes were measured using an Archimedes mercury immersion technique. Air permeabilities were measured using steady-state flow techniques at a confining stress of 400 psi. Test results are presented in tabular and graphical form.

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The conditions, under which this report is presented, are described immediately following this report. We request that the report be used in its entirety if reproductions are to be made. Please contact us if you have any questions concerning these data, or if we may be of further service.

Respectfully Submitted,

K&A LABORATORIES

K & A Laboratories

JMC/bw

STANDARD CORE ANALYSIS SUMMARY

AMOCO CORPORATION
WELL CROSS H. CATTLE
SECTION 6-25S-39W
HAMILTON COUNTY, KANSAS

Sample Number	Depth, feet	Air Permeability, md	Porosity, percent	Grain Density, gm/cc
1C	2,936.	0.371	17.0	2.74
2C	2,937.	0.644	21.9	2.73
3C	2,938.	6.01	25.5	2.75
4C	2,939.	0.895	31.4	2.75
5C	2,940.	2.10	29.8	2.79
6C	2,942.	7.24	31.0	2.73
7C	2,943.	2.36	24.4	2.76
8C	2,944.	11.7	27.9	2.76
9C	2,947.	6.00	17.2	2.78
10C	2,948.	1.16	18.7	2.76
11C	2,949.	0.0127	7.9	2.79
12C	2,950.	1.21	5.2	2.72

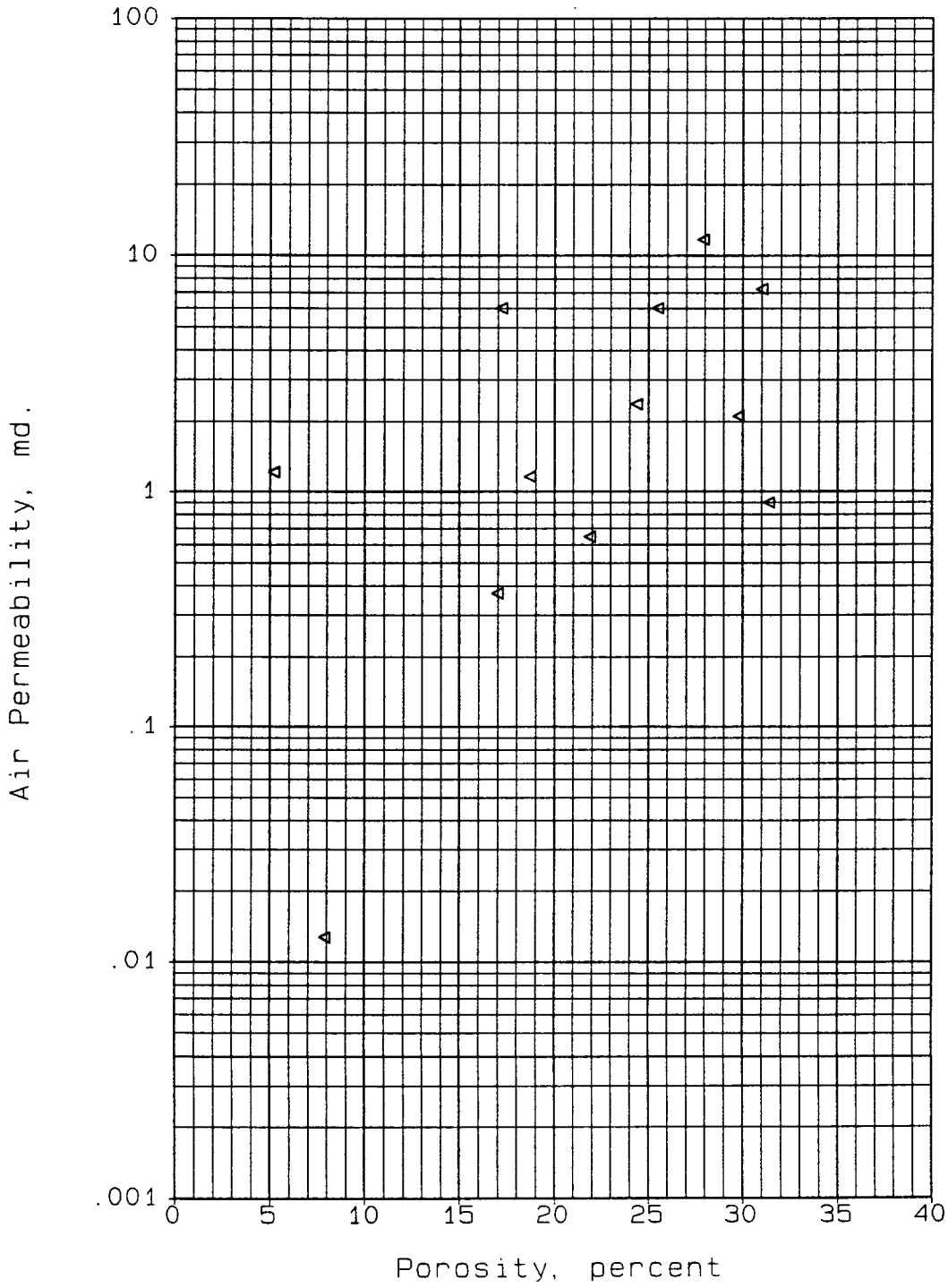
STANDARD CORE ANALYSIS SUMMARY

AMOCO CORPORATION
WELL KERR TRUST 1-31
SECTION 31-22S-39W
HAMILTON COUNTY, KANSAS

Sample Number	Depth, feet	Air Permeability, md	Porosity, percent	Grain Density, gm/cc
1K	2,684.	0.206	9.8	2.77
2K	2,686.	0.0181	6.9	2.83
3K	2,687.	0.00373	5.4	2.83
4K	2,688.	0.0498	10.8	2.79
5K	2,689.	0.605	12.2	2.72
6K	2,690.	0.900	12.4	2.72
7K	2,691.	1.19	12.3	2.72
8K	2,692.	1.04	15.7	2.70
9K	2,693.	3.11	14.8	2.71
10K	2,694.	5.27	17.0	2.72
11K	2,697.	0.0669	10.5	2.72
12K	2,699.	0.00371	6.8	2.77
13K	2,700.	0.241	17.3	2.70

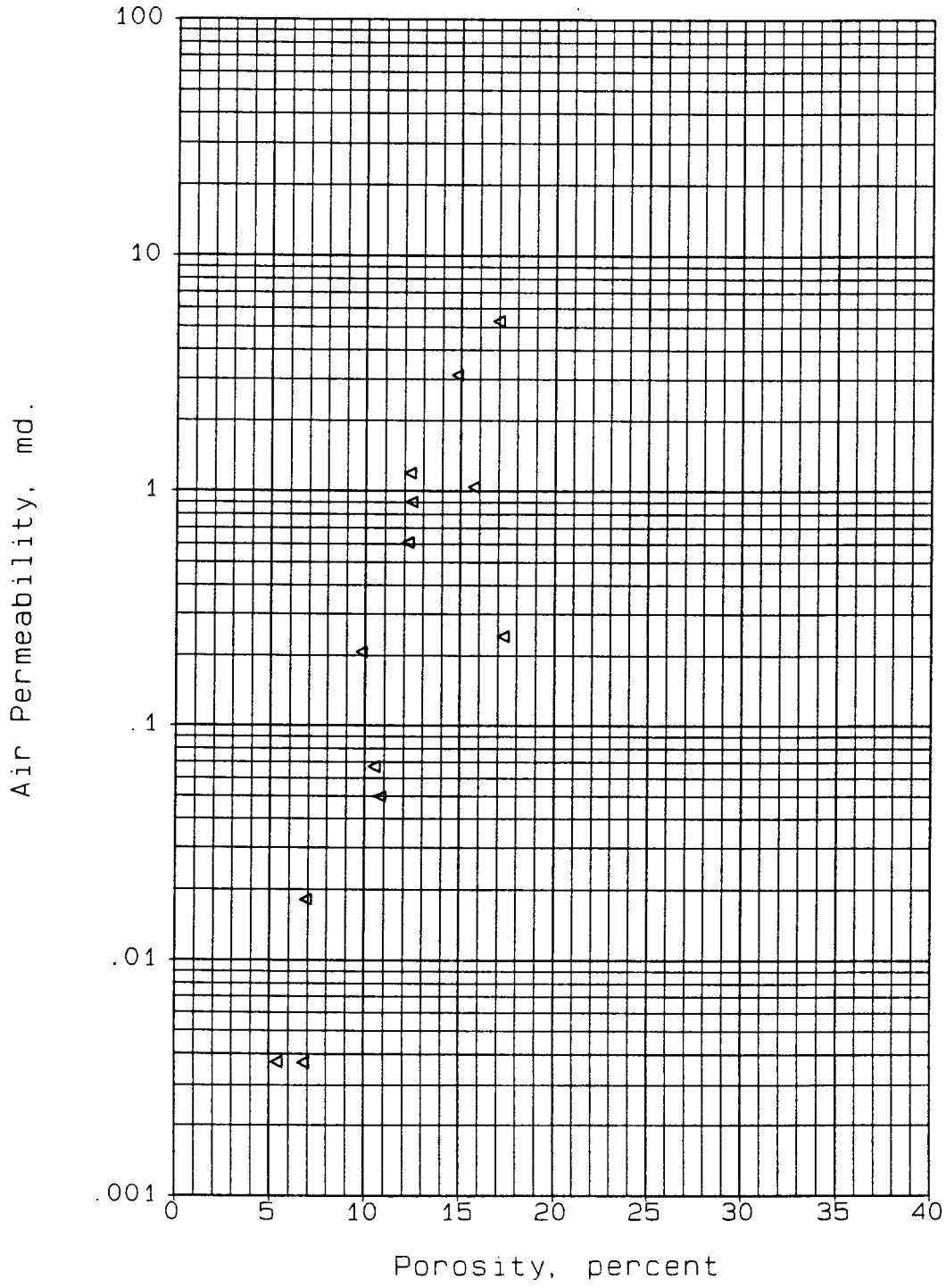
AIR PERMEABILITY VS. POROSITY CROSSPLOT

AMOCO CORPORATION
WELL CROSS H. CATTLE
SECTION 6-25S-39W
HAMILTON COUNTY, KANSAS



AIR PERMEABILITY VS. POROSITY CROSSPLOT

AMOCO CORPORATION
WELL KERR TRUST 1-31
SECTION 31-22S-39W
HAMILTION COUNTY, KANSAS



CONDITIONS AND QUALIFICATIONS

K&A Laboratories will endeavor to provide accurate and reliable laboratory measurements of the cores provided by the client. The results of any core analysis are necessarily affected by the condition in which the core is received and the selection of the samples to be analyzed. In the absence of direction by the client, K&A Laboratories will utilize its best geological and engineering judgment in selecting the samples to be analyzed. It should be recognized that most cores do not have uniform properties and that selection of truly representative samples is rarely possible. Unless otherwise directed, the samples will normally be selected from the highest quality segments. Thus, use of the properties measured in this report in reservoir calculations could result in an overestimation in reservoir volume and/or deliverability. K&A Laboratories assumes no responsibility nor offers any guarantee of the productivity or performance of any oil or gas well or hydrocarbon recovery process based upon the data presented in this report.