

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

CORE POROSITY, PERMEABILITY, AND VITRINITE REFLECTANCE DATA FROM
THE LOWER CRETACEOUS J SANDSTONE IN 141 DENVER BASIN COREHOLES

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***Click here to return to
Volume Title Page***

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INTRODUCTION

THIS DATA RELEASE CONTAINS 143 DATA FILES IN IBM PC COMPATIBLE FORMAT; THIS INCLUDES A STATISTICAL CONDENSATION FILE AND INDIVIDUAL DATA FILES OF J SANDSTONE CORE POROSITY AND PERMEABILITY FOR 141 WIDELY DISTRIBUTED COREHOLES IN THE DENVER BASIN OF COLORADO AND WYOMING. THESE DATA HAVE BEEN USED TO RESEARCH THE RELATIONSHIPS AMONG SANDSTONE POROSITY AND PERMEABILITY, AND THE DEGREE OF THERMAL MATURATION OF THE J SANDSTONE OF THE LOWER CRETACEOUS DAKOTA GROUP AND ASSOCIATED HYDROCARBON SOURCE ROCKS. PUBLISHED MAPS AND PAPERS PRODUCED FROM THESE DATA ARE LISTED IN THE SELECTED REFERENCES SECTION OF THIS INTRODUCTION AND IN THE PORDATA.LIS FLOPPY FILE.

THE THREE TYPES OF FILES LOCATED ON THE FLOPPY DISKS ARE AS FOLLOWS;

1) PORDATA.LIS IS A COPY OF THIS INTRODUCTION. ALSO INCLUDED IN THIS FILE IS A LISTING OF ASSIGNED COREHOLE ID NUMBER, WELL AND OPERATOR NAME, LOCATION, REPORTED J SANDSTONE INTERVAL, AND ASSIGNED FLOPPY FILE NAME FOR EACH OF THE 141 DATA FILES.

2) JSANDSTO.DAT IS A LISTING OF COREHOLE LOCATIONS, AND OF STATISTICS DERIVED FROM 135 OF THE 141 INDIVIDUAL CORE REPORT FILES. VITRINITE REFLECTANCE VALUES FOR THE J SANDSTONE IN 37 COREHOLES AND FOR 14 OUTCROP LOCATIONS ARE ALSO INCLUDED. A COMPLETE LISTING OF THE VARIABLES AND FILE FORMAT IS SHOWN BELOW.

3) EACH OF THE 141 INDIVIDUAL COREHOLE FILES CONTAINS CORE REPORT DATA. THIS POROSITY INFORMATION WAS SUPPLIED BY MORE THAN 35 OIL COMPANIES. INFORMATION CONSISTS OF CORE DEPTH, AND SANDSTONE HORIZONTAL PERMEABILITY AND POROSITY. VERTICAL PERMEABILITY AND FRACTURED ROCK SECTIONS MAY ALSO BE INDICATED IN THE DATA FILES. A LISTING OF THE FILE FORMATS AND NAMES IS INCLUDED IN THIS INTRODUCTION.