

**U.S. Geological Survey  
Digital Data Series DDS-69-X**

***National Oil and Gas Assessment Project:***

**Geologic Assessment of Undiscovered Hydrocarbon Resources of  
the Western Oregon and Washington Province**

By U.S. Geological Survey Western Oregon and Washington Province Assessment  
Team

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## **Introduction**

The purpose of the U.S. Geological Survey (USGS) National Oil and Gas Assessment is to develop geology-based hypotheses regarding the potential for additions to oil and gas reserves in priority areas of the United States, focusing on the distribution, quantity, and availability of oil and natural gas resources. The USGS has completed an assessment of the undiscovered, technically recoverable oil and gas resources in western Oregon and Washington (USGS Western Oregon and Washington Province 5004). The province includes all of Oregon and Washington north of the Klamath Mountains and west of the crest of the Cascade Range, and extends offshore to the 3-mi limit of State waters on the west and to the International Boundary in the Straits of Juan de Fuca and Canada on the north. It measures about 450 mi north-south and 50 to 160 mi east-west, encompassing more than 40,000 mi<sup>2</sup>.

The assessment of the Western Oregon and Washington Province is geology based and used the total petroleum system (TPS) concept. The geologic elements of a TPS include hydrocarbon source rocks (source rock maturation and hydrocarbon generation and migration), reservoir rocks (quality and distribution), and traps for hydrocarbon accumulation. Using these geologic criteria, two conventional and one unconventional (continuous) total petroleum systems were defined, with one assessment unit (AU) in each TPS: (1) the Cretaceous-Tertiary Composite TPS and the Western Oregon and Washington Conventional Gas AU, (2) the Tertiary Marine TPS and the Tertiary-Marine Gas AU, and (3) the Tertiary Coalbed Gas TPS and the Eocene Coalbed Gas AU, in which a cell-based methodology was used to estimate coalbed-gas resources.



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## Contact Information

This volume is one of a series of products resulting from the National Oil and Gas Assessment project of the U.S. Geological Survey. Inquiries about this CD-ROM or the project should be addressed to:

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## Using This CD

The descriptive and interpretive text chapters of this volume are in PDF format. Use Adobe Acrobat Reader 7.0 (installer for Mac and Windows provided on this CD-ROM) to access these chapters.

Contained on this CD-ROM are tabular data and graphical images in support of the assessment. Chapter three contains tabular data and graphical images in support of the undiscovered, technically recoverable coalbed-gas resources in Cretaceous and Tertiary rocks. The chapter text PDF contains links to the data and images. Data-table files are presented as tab-delimited text files (.tab files), usable in spreadsheet and database software. Graphical and summary-table files are presented as portable document format files (.pdf files).

The USGS Central Energy Resources Science Center has developed an Internet Map Service to deliver the GIS data to the public. The Spatial data that formed the basis of the GIS are provided online at the USGS National Oil and Gas Assessment Web site (NOGA Online: <http://energy.cr.usgs.gov/oilgas/noga>) and are also contained on this CD-ROM in the spatial folder. GIS information is presented in the Spatial folder and its subdirectories that contain the spatial data and documentation. The Spatial folder contains metadata for western Oregon and Washington and adjacent State waters. The Spatial folder contains ArcView/ArcGIS shapefiles used in the GIS project. Most of the base cartographic data layers used in the GIS project were obtained from the U.S. Department of the Interior National Atlas web site, [www.nationalatlas.gov](http://www.nationalatlas.gov) or the U.S. Geological Survey National Map, <http://nmviewogc.cr.usgs.gov/viewer.htm>.

## Contents of This CD-ROM

When the CD-ROM is opened, the following folders appear on the screen:

ACROBAT—contains installer for Acrobat Reader 7.0.

OPEN\_FIRST—from OPEN\_FIRST.pdf in this folder, navigate to the ReadMe file, an executive summary, pages of chapter titles, and the GIS data and metadata.

READ\_ME—you can access the ReadMe file from this folder also.

REPORTS—listing of, and links to, the chapters, plus the tabular data.

SPATIAL\_DATA—metadata and shape files.

There are several routes to the information in this volume.

## System Requirements

### MAC OS X

#### Adobe Reader 7

- Power PC G3, G4, G5 processor
- Mac OS X v. 10.2.8 or 10.3
- 128 MB of RAM
- 80 MB of available hard disk space (110 MB required for the full version)
- 800 x 600 screen resolution

### WINDOWS

#### Adobe Reader 7.0 MS Windows

- Intel Pentium-class processor
- Windows XP Professional or Home Edition with SP1 or SP2, or Tablet

### PC Edition

- Microsoft Windows 2000 with Service Pack 2 (SP2)
- 128 MB of RAM
- 90 MB of available hard-disk space for the full version
- 800 x 600 monitor resolution

Note: Installers for Acrobat Reader 7.0 for Macintosh and Windows platforms are provided on this CD-ROM.



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