DESCRIPTION OF DIGITAL FILES FOR GEOLOGIC MAP OF THE RIDGEFIELD QUADRANGLE, CLARK AND COWLITZ COUNTIES, WASHINGTON

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INTRODUCTION

This readme document serves to introduce and describe the digital files that are included in this publication. They are available for downloading at http://pubs.usgs.gov/sim/2004/2844/ and include both Geographic Information System (GIS) software files (both raster and vector data) that are viewable with an Environmental Systems Research Institute (ESRI) compatible commercial GIS (or with ESRI's ArcReader utility; a free map viewer with no editing capabilities) as well as Portable Document Format (PDF) files that are viewable with a reader or web browser plug-in available for free on the internet. Two download packages are available (see the section entitled "Scientific Investigations Map 2844 Digital Contents" below for details) depending on the resources available to the user. For those interested only in a paper plot of the Scientific Investigations Map, please see the section entitled "Obtaining Paper Plots" below.

This digital map publication, generated from new mapping by the author, shows the general distribution of bedrock and surficial deposits in the Ridgefield 7.5' quadrangle. Together with the accompanying geologic description pamphlet, it presents current knowledge of the geologic structure and stratigraphy of the area covered. The database identifies map units that are classified by general age and lithology following the stratigraphic nomenclature used by the U.S. Geological Survey. The scale of the source map limits the spatial resolution (scale) of the database to 1:24,000 or smaller. The content and character of the digital publication, as well as methods of obtaining the digital files, are described below.

SCIENTIFIC INVESTIGATIONS MAP 2844 DIGITAL CONTENTS

The digital data for this Scientific Investigations Map consists of:

1) A **Geodatabase** package that contains geologic vector and table data stored as data objects within an ESRI format personal geodatabase, raster data stored as ESRI format DRG-TIFF, an ESRI map document for use with ArcGIS 9.0 or 8.3 which allows full control of editing and rendering of the data sources, an ESRI published map document for use with ArcReader which allows viewing and querying of the source data along with metadata and an ArcGIS style for symbolizing the map.
2) A **Shapefile** package that contains shapefiles exported from the personal geodatabase, and the same ESRI DRG-TIFF as in the Geodatabase package along with supporting files including metadata. Annotation layers are not included due to software limitations.
3) **PDF** files of the map sheet and geology pamphlet.

Each package has been compressed into a single file (.zip extension) using WinZip, a freely downloadable compression software utility (download from http://www.winzip.com . Each compressed file will uncompress into a folder containing the associated files.

If you:
- Have access to ArcGIS 8.3 or 9.0, download the Geodatabase package and open the map document (.mxd extension) from ArcGIS (preferably versions 8.3 or 9.0, but 8.2 should work as well).
- Have access to ArcView 3.x (or a GIS that can read shapefiles), download the Shapefile package.
- Do not have access to a GIS but wish to view and query the data, download the Geodatabase package and open the published map document (.pmf extension) from ArcReader (free download from http://www.esri.com).
- Do not have access to a GIS and only wish to print the map sheet or parts of it, download the PDF package and open them from Adobe Reader 5.0 or later (free download from http://www.adobe.com). Note that the map sheet is approximately 36 x 36 inches and will require a large-format plotter.
- Only wish to have a paper copy of the Scientific Investigations Map, see the section entitled "Obtaining Paper Plots" below.

1) GEODATABASE PACKAGE
(SIM2844_DB.ZIP, 11.2 MB COMPRESSED, 37.4 MB UNCOMPRESSED)

Geodatabase data objects	Description
ridgefield.mdb	An ESRI personal geodatabase with simple feature classes:

Feature Classes

rdg_geo_arc	A line feature class representing the contacts and faults of the geology
rdg_stx_arc	A line feature class representing structural features (folds and cross section lines)
rdg_geo_poly	A polygon feature class representing geologic units
rdg_pmg_pt	A point feature class representing radiometric data
rdg_chm_pt	A point feature class representing chemistry data points
rdg_stx_pt	A point feature class representing bedding measurements
rdg_pts_pt	A point feature class representing wells and glacial erratics
rdg_geo_polyAnno	An annotation feature class (feature-linked) representing the map unit symbols of the geologic units
rdg_stx_ptAnno	An annotation feature class (feature-linked) representing the dip of beds
rdg_chm_ptAnno	An annotation feature class (feature-linked) representing the reference number of the chemistry points to the geochemical data

Map document files

ridgefield.mxd	Map document created in ArcGIS 8.3 containing the data rendering and symbolization information that was used in the production of the Scientific Investigations Map sheet. For this release, the layers were grouped logically and given aliases in order to be more usable
ridgefield.pmf	Published map document created from ridgefield.mxd for use with ArcReader. It contains all of the same rendering and symbolization information that is in the original .mxd. Features may be queried with the identify tool in the same way they could in the .mxd, but there are no editing capabilities with this utility
alc1b.style	Custom style file used to symbolize lines, polygons, and points.
ridgefield.tif	DRG base of USGS topographic map at 400dpi
metadata.html	Metadata created in ArcCatalog for this map

PDF file

RDG_geol_text.pdf	PDF file of geology pamphlet

2) SHAPEFILE PACKAGE
(SIM2844_SHP.ZIP, 4.6 MB COMPRESSED, 12.1 MB UNCOMPRESSED)

Shapefiles	Description
rdg_geo_arc.shp	A line shapefile of the rdg_geo_arc feature class exported from the geodatabase (see Geodatabase Package above)
rdg_stx_arc.shp	A line shapefile of the rdg_stx_arc feature class exported from the geodatabase (see Geodatabase Package above)
rdg_geo_poly.shp	A polygon shapefile of the rdg_geo_poly feature class exported from the geodatabase (see Geodatabase Package above)
rdg_pmg_pt.shp	A point shapefile of the rdg_pmg_pt feature class exported from geodatabase (see Geodatabase Package above)
rdg_stx_pt.shp	A point shapefile of the rdg_stx_pt feature class exported from the geodatabase (see Geodatabase Package above)
rdg_chm_pt.shp	A point shapefile of the rdg_chm_pt feature class exported from the geodatabase (see Geodatabase Package above)
rdg_pts_pt.shp	A point shapefile of the rdg_pts_pt feature class exported from the geodatabase (see Geodatabase Package above)

Map document files

alc1b.style	Custom style file used to symbolize lines, polygons, and points.
ridgefield.tif	DRG base of USGS topographic map at 400dpi
metadata.html	Metadata created in ArcCatalog for this map

PDF files

RDG_geol_text.pdf	PDF file of geology pamphlet

3) PORTABLE DOCUMENT FORMAT (ADOBE ACROBAT 5.0) FILES (27.2 MB)

Files	Description
RDG_map.pdf	A PDF file containing an image of the entire map sheet, exported from Adobe Illustrator
RDG_geol_text.pdf	Geology pamphlet containing description of map

OBTAINING THE DIGITAL DATA

The digital data for this map can be obtained in two ways:
1) Download from the U.S. Geological Survey Web Site
2) Request a compact disc (CD) of the files.

1) TO OBTAIN THE FILES FROM THE U.S. GEOLOGICAL SURVEY WEB PAGES:

The U.S. Geological Survey supports a set of graphical pages on the World Wide Web. Digital publications (including this one) can be accessed via these pages. The location of the main Web page for the entire U.S. Geological Survey is http://www.usgs.gov . The Web server for digital publications is http://pubs.usgs.gov . To access files for this Scientific Investigations Map report, go to http://pubs.usgs.gov/sim/2004/2844/ .

2) TO OBTAIN A CD OF THE FILES:

A CD of any or all of the digital files described here can be obtained by sending a request and return address to:

Karen Wheeler (or Ray Wells)
U.S. Geological Survey
345 Middlefield Road, M/S 973
Menlo Park, CA 94025

or by email: kwheeler@usgs.gov or rwells@usgs.gov

OBTAINING PAPER PLOTS

TO OBTAIN PLOTS FROM A COMMERCIAL VENDOR:

First obtain the PDF package via a download or by requesting a CD of the PDF package as described above. Take that package to a commercial vendor with a large-format plotter. Make sure the vendor is capable of reading CDs and PDF files and provide the vendor with a copy of this document.

TO OBTAIN PAPER PLOTS FROM THE U.S. GEOLOGICAL SURVEY:

The U.S. Geological Survey provides a print on demand service for digital maps such as this report. To obtain plots, contact the U.S. Geological Survey:

USGS Information Services
Box 25286
Denver Federal Center
Denver, CO 80225-0046

(303) 202-4200

1-888-ASK-USGS

FAX: (303) 202-USGS

e-mail: infoservices@usgs.gov

Be sure to include with your request the Scientific Investigations Map number 2844.

DIGITAL COMPILATION

Several different feature classes were generated within a geodatabase during the construction of the Ridgefield quadrangle geologic map. The topographic base map remains as a digital raster graphic (DRG) and is overlain on the geology feature class in ArcMap at a 60% transparency level. Some custom menus were used to project, transform, edit, tag, and build points in the map. A digital layout or map collar was made with Adobe Illustrator. The map was exported from the layout view in ArcMap as an Adobe Illustrator file and added to a single Adobe Illustrator file that also contained the description of map units, correlation of map units, cross sections, and an index map. Differences between the maps as they appear in the final map sheet and as they appear in the either the .mxd or .pmf files represent changes made in the Adobe Illustrator file to the symbology only and do not reflect any changes in the actual source data. The map is in UTM projection, zone 10, meters, and 1:24,000 scale. The explanatory geology pamphlet was saved to PDF from Microsoft Word.

BASE MAP

The base map for the digital compilation is a Digital Raster Graphic (DRG) of the U.S. Geological Survey, 1:24,000-scale topographic map of the Ridgefield 7.5' quadrangle (1990), which has a 10-foot contour interval. The image inside the map neatline is georeferenced to the Universal Transverse Mercator projection. The horizontal positional accuracy and datum of the DRG matches the accuracy and datum of the source map. The base map layer is a digital image, but no information other than location is attached to the lines. The base map is provided for reference only.

SPATIAL RESOLUTION

Uses of this digital geologic map should not violate the spatial resolution of the data. Although the digital form of the data removes the constraint imposed by the scale of a paper map, the detail and accuracy inherent in map scale are also present in the digital data. The fact that this database was edited at a scale of 1:24,000 means that higher resolution information is not present in the dataset. Plotting at scales larger than 1:24,000 will not yield greater real detail, although it may reveal fine-scale irregularities below the intended resolution of the database. Similarly, where this database is used in combination with other data of higher resolution, the resolution of the combined output will be limited by the lower resolution of these data.

ACKNOWLEDGMENTS

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