

DIGITAL MAPPING TECHNIQUES 2014

The following was presented at DMT'14
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The contents of this document are provisional

See Presentations and Proceedings
from the DMT Meetings (1997-2014)

<http://ngmdb.usgs.gov/info/dmt/>

Introducing PaGEODE—Pennsylvania GEOlogic Data Exploration (Poster Session)

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WHAT IS IT?

PaGEODE is an online interactive map of Pennsylvania that allows visitors to explore and download geologic data and publications. Built using the ArcGIS API for Flex, PaGEODE was launched by the Pennsylvania Department of Conservation and Natural Resources in January 2014 and introduced at the Digital Mapping Techniques 2014 Workshop as a poster session (Figure 1). The name evokes the geologic wonder of breaking open a geode to find hidden crystals. And, just like the crystals in a geode, the amount of geologic data and publications available on this web-mapping application is growing.

DATA

All of the data are stored and served out of an ArcGIS SQL server enterprise geodatabase. The map layers, many of which are scale-dependent, can be toggled on or off and include bedrock geology, surficial geology, and other geologic themes of interest, such as sinkhole locations, earthquake epicenters, physiographic sections, and outstanding geologic sites (Figure 2). Data can be viewed on a choice of base maps, and a dynamic legend reflects the cartographic representation of the data that are open. A visitor can zoom in or out, read pertinent facts in convenient pop-up boxes, and make use of the tools, navigation, and search options (see table). Selected data can be downloaded or added directly to ArcMap or Google Earth.

PaGEODE Tools, Navigation, and Search Options

TOOLS		NAVIGATION	SEARCH
Extract Data	Lat/Long	Bookmarks	Zoom to an Address or Location
Add Data to ArcMap	Annotations and Shapes	Legend	Bedrock Geology Search
Add Data to Google Earth	Elevation Profile	Driving Directions	Other Geology Search
Print/Create PDF	Swipe Tool	Overview Map	Surficial Geology Search
Measure			Publications Search



Introducing PaGEODE

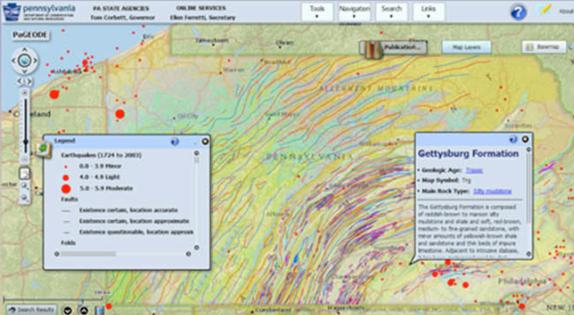
Pennsylvania GEOlogic Data Exploration

YOUR GEOGRAPHIC PORTAL TO PENNSYLVANIA GEOLOGY



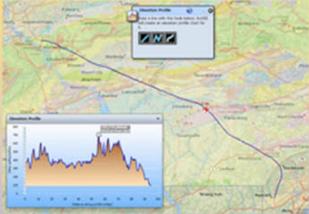
- Search and Select From Nearly 800 Publications
- Read Report Summaries Before Downloading
- Descriptions in Pop-Up Windows
- Pick Map Layers
 - Surficial Geology
 - Bedrock Geology
 - Thematic Geology
 - Relevant Boundaries
- View and Export GIS Data

Take a test drive today or ask for a demo



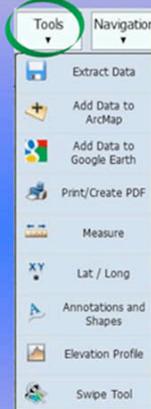
Visit www.gis.dcnr.state.pa.us/geology
and check for new gems of geologic data

How We Got Here

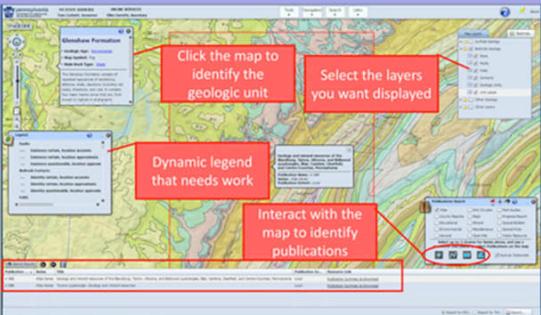



**All the Pieces
Came Together**

**Profile from Office to
DMT Meeting**




Videos Demonstrate the
Use of Widgets and Tools



PaGEODE — A Work in Progress

Figure 1. Image of the PaGEODE poster that was displayed at the Digital Mapping Techniques 2014 Workshop. A PDF image of the poster at size can be viewed on the DMT website at http://ngmdb.usgs.gov/Info/dmt/docs/DMT14_Oneil.pdf.

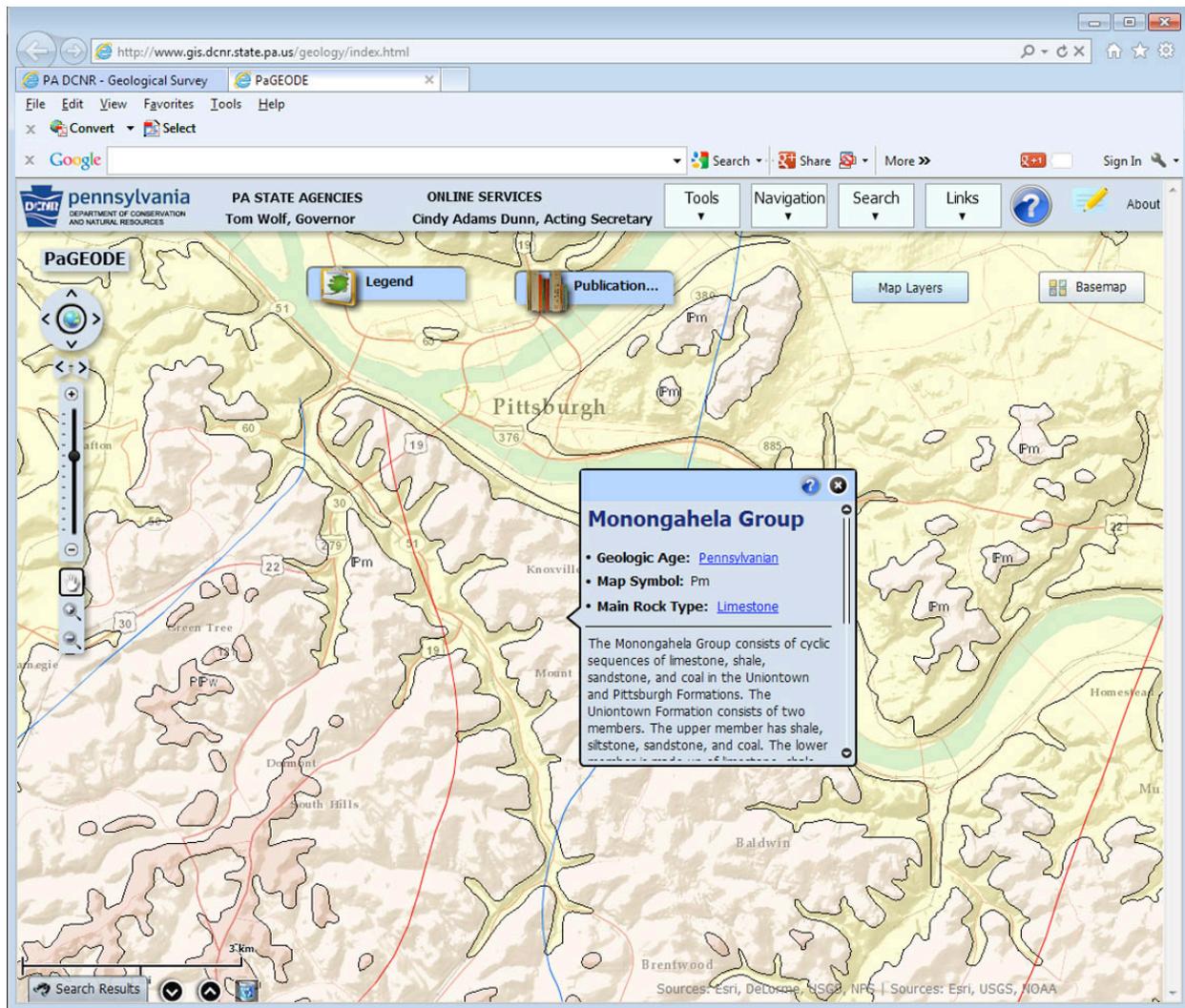


Figure 2. A view of the Pittsburgh area on PaGEODE with all of the bedrock geology layers shown on top of the Terrain base map. The pop-up window shows information on the Monongahela Group, one of the units mapped in this area.

PUBLICATIONS

Almost 800 Pennsylvania Geological Survey publications and several geologic reports pertaining to Pennsylvania but published by other agencies can be obtained through PaGEODE. Most publications are in text-searchable PDF format, and except for a few active web reports, all are bundled in ZIP files for downloading.

PaGEODE visitors can search the map by point, line, or area for publications. To keep the process efficient, each search is limited to a selection of up to three publication series. Visitors may also choose to enter a specific report number, if known.

After hunting for publications, a Search Results table is displayed at the bottom of the screen. Selecting a title from that table will zoom and move the display so the area covered by

the report is centered and entirely contained in the view. The extent of the study area will be shown by a red diagonal-line pattern (Figure 3).

Clicking the "Publication Summary & Download" link in the Search Results table will open a landing page for the report (Figure 4). Here, the visitor can read a short description of the report and, if desired, download the publication to his or her computer. The information that populates the landing page is retrieved from a database that, among other things, is used to manage publications on the PaGEODE website.

COME VISIT

Go to <http://www.gis.dcnr.state.pa.us/geology/index.html> to test PaGEODE yourself. Come back often, as the Survey continues to add to the data and publications available on this website. The layout and functionality are also being expanded and improved as time and software enhancements allow. We welcome your feedback, and encourage you to take our short survey, which is accessible through the notepad-and-pencil icon in the upper right corner of the web page.

Publication ...	Series	Title	Publication Ex...	Resource Link
A 075	Atlas Series	Geology and mineral resources of the Curwensville quadrangle	Local	Publication Summary & Download
A 085cd	Atlas Series	Geology and mineral resources of the Ramey and Houtzdale quadrangles, Clearfield and Centre Counties, Pennsylvania	Local	Publication Summary & Download
A 086	Atlas Series	Geology and mineral resources of the Blandburg, Tipton, Altoona, and Belwood quadrangles, Blair, Cambria, Clearfield, and Centre Counties, Pennsylvania	Local	Publication Summary & Download
M 001	Mineral Resource Reports	The oil and gas fields of Pennsylvania	Regional	Publication Summary & Download

Figure 3. Publication search results are shown at the bottom of a PaGEODE screen shot. This particular search included Atlases, Mineral Resource Reports, and Water Resource Reports of a local or regional extent that intersected a line (not shown) that was drawn across Clearfield County in western Pennsylvania. Atlas 75, *Geology and Mineral Resources of the Curwensville Quadrangle*, was selected from the Search Results table, and the area

that pertains to Atlas 75 is shown by red diagonal lines. In this screen shot, PaGEODE shows the ESRI Topographic base map with the Physiographic Sections map layer on top. Clicking on "Publication Summary & Download" under the "Resource Link" column of the Search Results table will open the publication landing page for the selected report (Figure 4).

Atlas 075



Geology and mineral resources of the Curwensville quadrangle (Mahaffey, Curwensville, Westover, and Irvona 7.5-minute quadrangles, Clearfield County)

by
Ashley, G. H.
1940

Suggested Citation: Ashley, G. H., 1940, Geology and mineral resources of the Curwensville quadrangle: Pennsylvania Geological Survey, 4th ser., Atlas 75, 140 p. [Available online as a ZIP file.]

Description: Atlas 75 describes the general geology, topography, stratigraphy, and mineral and water resources of the Curwensville 15-minute quadrangle in Clearfield County, Pennsylvania. The area is underlain by Pennsylvanian and Mississippian rock units. Three appendices give the locations of triangulation stations, coal reserve estimates, and a list of coal mines. Plates include a 1:62,500-scale topographic map, geologic map, and map showing mineral resources and structure. A fourth plate is a stratigraphic chart that shows a generalized lithologic column as well as lithologic columns from 21 separate locations in the study area.

Download Publication: [Click Here](#) (32 MB)

Figure 4. The landing page for Atlas 75 is displayed. Publication landing pages show the report series and number; the publication title and authors; a thumbnail image created from part of the report; a suggested citation; and a short description of the publication contents. At the bottom of the page, there is a link to download the publication, and the size of the download is noted.