

Geoscience in Your State: Kentucky

WHAT IS GEOSCIENCE?

Geoscience is the study of Earth and the composition, structure, processes, and history of our planet. It includes the study of the Earth's history, the processes that shape it, and the resources that it provides. Geoscientists work to understand the Earth's past and present, and to use that knowledge to improve our lives and protect our environment.



By the numbers: KENTUCKY

- 3,159 geoscience employees (excludes self-employed)¹
- 207 million gallons/day: total groundwater withdrawal³
- \$2.9 billion: value of mineral production in 2017²
- 74,000 acres: total land area in Kentucky, 2017⁴
- 4,000,000: population of Kentucky, 2017⁵

REGULATORY

- 20: number of regulatory agencies⁶
- 1,000: number of regulatory permits issued annually⁷
- 10: number of regulatory agencies⁸

INDUSTRY

- 15: number of geoscience employees in the oil and gas industry⁹
- 50: number of geoscience employees in the coal industry¹⁰
- 10: number of geoscience employees in the uranium industry¹¹

RESEARCH

- 10: number of geoscience research institutions¹²
- 50: number of geoscience research projects¹³
- 10: number of geoscience research grants¹⁴
- 5: number of geoscience research publications¹⁵
- 10: number of geoscience research conferences¹⁶

MINERAL RESOURCES

- 74,000 acres: total land area in Kentucky, 2017⁴
- \$2.9 billion: value of mineral production in 2017²
- 10: number of mineral resources in Kentucky¹⁷
- 5: number of mineral resources in Kentucky¹⁸
- 10: number of mineral resources in Kentucky¹⁹
- 5: number of mineral resources in Kentucky²⁰

¹ U.S. Bureau of Economic Analysis, 2017
² U.S. Geological Survey, 2017
³ U.S. Geological Survey, 2017
⁴ U.S. Census Bureau, 2017
⁵ U.S. Census Bureau, 2017
⁶ U.S. Environmental Protection Agency, 2017
⁷ U.S. Environmental Protection Agency, 2017
⁸ U.S. Environmental Protection Agency, 2017
⁹ U.S. Environmental Protection Agency, 2017
¹⁰ U.S. Environmental Protection Agency, 2017
¹¹ U.S. Environmental Protection Agency, 2017
¹² U.S. Environmental Protection Agency, 2017
¹³ U.S. Environmental Protection Agency, 2017
¹⁴ U.S. Environmental Protection Agency, 2017
¹⁵ U.S. Environmental Protection Agency, 2017
¹⁶ U.S. Environmental Protection Agency, 2017
¹⁷ U.S. Geological Survey, 2017
¹⁸ U.S. Geological Survey, 2017
¹⁹ U.S. Geological Survey, 2017
²⁰ U.S. Geological Survey, 2017

For more information, please visit www.kentucky.gov.
 Contact: geology@kentucky.gov
<http://www.kentucky.gov/geology>

By the numbers: Kentucky

- 3,159 geoscience employees (excludes self-employed)¹
- 207 million gallons/day: total groundwater withdrawal³

- \$592 million: value of nonfuel mineral production in 2017⁴
- 74 total disaster declarations, including 29 severe storm, 22 flood, and 8 fire disasters (1953-2017)⁶
- \$314,000: NSF GEO grants awarded in 2017¹⁴...

Read more in this Geoscience in Your State Factsheet...

Agencies Working on Geoscience Issues in Kentucky

Kentucky Department for Environmental Protection

<https://eec.ky.gov/Environmental-Protection/Pages/default.aspx>

The Kentucky Department for Environmental Protection's mission is to protect and enhance Kentucky's environment. This mission has a direct impact on Kentucky's public health, citizens' safety, and the quality of Kentucky's natural resources.

Kentucky Department for Natural Resources

<https://eec.ky.gov/Natural-Resources/Pages/default.aspx>

The Kentucky Department for Natural Resources, through its divisions and partnerships, provides technical assistance, education and funding to help landowners, institutions, industries, and communities in conserving and sustaining Kentucky's natural resources. In addition, the department inspects timber harvests and mining operations to ensure the protection of citizens, the environment, and workers.

Kentucky Emergency Management

<https://kyem.ky.gov/Pages/default.aspx>

Kentucky Emergency Management (KYEM) is a division of the Kentucky Department of Military Affairs. Among other programs, KYEM co-ordinates dedicated programs related to earthquakes, hazardous materials, and superfund sites.

Kentucky Energy and Environment Cabinet

<https://eec.ky.gov/Pages/index.aspx>

Kentucky's EEC oversees energy development and environmental protection in Kentucky. The EEC consists of three departments: the Department for Environmental Protection, the Department for Natural Resources and the Department for Energy Development and Independence.

Kentucky Geological Survey

<http://www.uky.edu/KGS/>

The mission of the Kentucky Geological Survey (KGS) is to provide for citizens, researchers, industry, and government, scientifically based information on Kentucky's geology and mineral and water resources.

Kentucky Office of Energy Policy

<https://eec.ky.gov/Energy/Pages/default.aspx>

The Office of Energy Policy was created through an Energy and Environment Cabinet Reorganization during the 2018 Kentucky General Assembly. The OEP retains many functions of the former Department for Energy Development and Independence. The mission of the OEP is to utilize Kentucky's energy resources for the betterment of the Commonwealth while protecting and improving the environment.

Maps & Visualizations



Interactive database for geologic maps of the United States
U.S. Geological Survey

The U.S. Geological Survey hosts the National Geologic Map Database (NGMDB). This interactive tool serves as a national archive for high-quality, standardized geologic maps created by the U.S. Geological Survey and state geological surveys. The MapView section of the NGMDB displays geologic maps...

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Case Studies & Factsheets



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Webinars & Forums



2014 Critical Issues Forum: America's Increasing Reliance on Natural Gas: Benefits and Risks of a Methane Economy

The 2014 Critical Issues Forum, entitled "America's Increasing Reliance on Natural Gas: Benefits and Risks of a Methane Economy", examined the 5- to 30-year outlook for the development of a natural gas-dominant energy sector in North America and discussed the associated benefits and risks.

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