

Geoscience in Your State: Oklahoma

WHAT IS GEOSCIENCE?

Geoscience is the study of Earth and the composition, nature, development, and physical processes that control it and the energy, information, materials, and natural resources it provides. Geoscientists study the Earth's history and evolution, its resources, and the ways in which it has shaped the environment and the life that inhabits it.



By the numbers: OKLAHOMA

- 8,200 geoscience employees (excludes self-employed)¹
- 1.11 billion gallons/day: total groundwater withdrawal³
- 270 million acres of land in Oklahoma is oil²
- 100 million acres of land in Oklahoma is oil²
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DEVELOPMENT IN OKLAHOMA

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INDUSTRY IN OKLAHOMA

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RESOURCES IN OKLAHOMA

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WATER RESOURCES IN OKLAHOMA

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¹ Oklahoma Geoscience Institute
² Oklahoma Geoscience Institute
³ Oklahoma Geoscience Institute

For more information, please visit www.okgeoscience.org

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- \$700 million: value of nonfuel mineral production in 2017⁴
- 167 total disaster declarations, including 84 fire, 39 severe storm, and 22 flood disasters (1953-2017)⁶
- \$2.94 million: NSF GEO grants awarded in...

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

Agencies Working on Geoscience Issues in Oklahoma

Oklahoma Department of Emergency Management

<https://www.ok.gov/oem/>

The Oklahoma Department of Emergency Management (OEM) prepares for, responds to, recovers from and mitigates against disasters and emergencies. The department maintains the State Emergency Operations Center which serves as a command center for reporting emergencies and coordinating state response activities. OEM delivers service to Oklahoma cities, towns and counties through the network of more than 400 local emergency managers.

Oklahoma Department of Environmental Quality

<https://www.deq.ok.gov/>

The mission of the Oklahoma Department of Environmental Quality is to enhance the quality of life in Oklahoma and protect the health of its citizens by protecting, preserving and restoring the water, land and air of the state, thus fostering a clean, attractive, healthy, prosperous and sustainable environment.

Oklahoma Geological Survey

<http://www.ou.edu/ogs/>

The Oklahoma Geological Survey is charged with investigating the state's land, water, mineral, and energy resources and disseminating the results of those investigations to promote the wise use of Oklahoma's natural resources consistent with sound environmental practices.

Oklahoma Water Resources Board

<https://www.owrb.ok.gov/>

The mission of the OWRB is to protect and enhance the quality of life for Oklahomans by managing and improving the state's water resources to ensure clean and reliable water supplies, a strong economy, and a safe and healthy environment.

State of Oklahoma Department of Mines

<http://mines.ok.gov/>

The mission of the Oklahoma Department of Mines (ODM) is to protect the environment of the state, to protect the health and safety of the miners and to protect the life, health, and property of the citizens who are affected through enforcement of the state mining and reclamation laws. ODM is a regulatory authority empowered to execute, enforce, and implement provisions of state and federally mandated programs in the areas of health, safety, mining, and land reclamation practices associated with surface and sub-surface mining. Additionally, ODM is charged with enforcing the mining laws of the state, including the inspection of mines for hazardous conditions, paying special attention to working conditions, safe equipment operation, proper ventilation and elimination of other hazards affecting the life and health of miners.

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

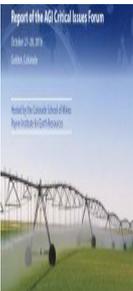


Using Produced Water

Opportunities and Concerns in Using Produced Water Produced water is natural groundwater that is extracted along with oil and gas. It is commonly salty and mixed with oil residues,¹ so it must be either disposed of or treated and reused. About 2.5 billion gallons of produced water are extracted...

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Webinars & Forums



2016 Critical Issues Forum: Addressing Changes in Regional Groundwater Resources: Lessons from the High Plains Aquifer

The 2016 Critical Issues Forum was a 1-½ day meeting covering multiple aspects of groundwater depletion in the High Plains.

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