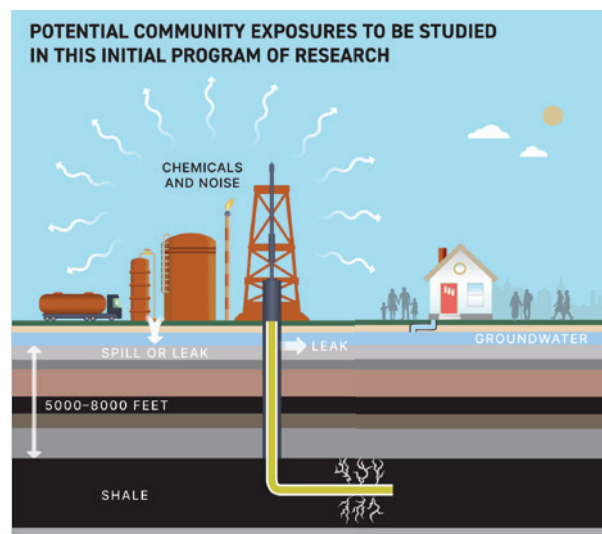


Researching Community Exposures Associated with Unconventional Oil and Natural Gas Development

THE RESEARCH PROGRAM

HEI Energy aims to improve understanding of exposures that come from unconventional oil and gas development (UOGD) in the United States. Nine studies are underway to produce data and tools for use in policymaking and environmental health research.



Air and Noise

Three ongoing air quality and noise studies are assessing potential links between community exposures and specific UOGD processes, entitled the Tracking Community Exposures and Releases (TRACER) Collaboration. The research consists of two parts: measuring exposure by monitoring air quality and noise in multiple regions of the United States, and modeling exposure by developing and evaluating a new model nationwide that will predict chemical emissions and their effects on the quality of air that people breathe.

Research Team Leaders:

Jeffrey Collett, Colorado State University
Meredith Franklin, University of Toronto, Canada
Lea Hildebrandt Ruiz, University of Texas at Austin

Air Quality Trends

Starting in the spring of 2024, three studies are assessing trends in air quality and community exposures and identifying factors that might explain any observed trends in five regions of the United States.

Research Team Leaders:

Bok Haeng Baek, George Mason University
Jeremy Gernand, The Pennsylvania State University
Gunnar Schade, Texas A&M University

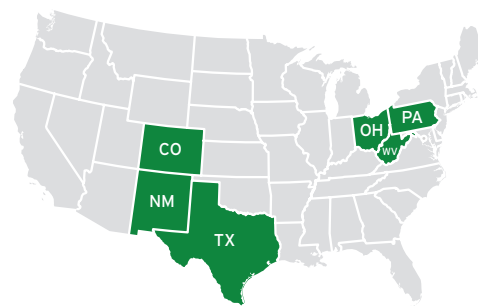
Water

HEI Energy has funded two completed water quality studies that combined existing data and statistical modeling to understand potential links between UOGD and surface water and groundwater contamination. Starting in the spring of 2024, a new study will build a model for understanding residential well water vulnerability to contamination from UOGD across the Marcellus Shale region.

Research Team Leaders:

Jennifer Baka, The Pennsylvania State University
Joseph Ryan, University of Colorado, Boulder
James Saiers, Yale University

Study locations for HEI Energy's initial program of exposure research



HEI Energy's Mission: Provide high-quality, impartial, and policy-relevant science on the potential human population exposures and health effects from development of oil and natural gas from shale and other unconventional resources (UOGD) across the U.S.