NETL Complementary Research Areas

Drilling Under Extreme Conditions

Mission: Improve the economic viability of drilling for and producing from domestic deep (greater than 15,000 ft TVD) and ultra-deep (greater than 25,000 ft TVD) oil and natural gas resources.

- Drill Bit-rock-fluid Fundamentals
- Numerical Model Development (Rock Mechanics)
- Novel Drilling Fluids
- High Temperature Sensors And Electronics
- Materials Development

Environmental Impacts of Oil and Natural Gas Development

Mission: Provide unbiased scientific information and analysis on the environmental impacts of oil and natural gas development, and develops and evaluates new technology or strategies to effectively deal with any negative environmental impacts.

- Produced Water Management
- Oil Shale Extraction
- Models Of Air Emissions
- Sensitive Ecosystems
- Existing Regulatory Issues

Enhanced and Unconventional Oil Recovery

Mission: Developing advanced technologies that will move the status of known but unrecoverable oil resources to technologically and economically producible resources.

- Data Management
- Basin and Reservoir Models
- Model Algorithms
- Additives and Catalysts for Oil Shale Production
- Spent Shale By-Product Testing
- Sensor Development
- Technologies for CO2 and Thermal EOR

Resource Assessment

Mission: Provides characterizations of emerging, underutilized, or poorly understood oil and natural gas resource elements, and use these assessments to investigate the potential impacts of technology advances on these resources.

- Resource Characterizations
- Technology Assessments
- Technology Transfer