



# **Environmental Services**

The Environmental Services team at Southwest Research Institute® (SwRI®) provides proven and innovative environmental engineering and assessment capabilities to government and industry clients. SwRI applies an integrated, multidisciplinary approach to solving complex environmental problems. Working with state-of-the-art field and laboratory instrumentation, test facilities, and computer codes, SwRI engineers and scientists are able to implement comprehensive and cost-effective approaches to solve environmental problems, assist in addressing regulatory issues, and identify the need for regulations and aid in their development.

## **Services Offered**

- Environmental assessment and site characterization
- Environmental sampling and monitoring, including air, water, soil, permafrost, and waste streams
- · Radiological surveys and modeling
- Geological, geochemical, and hydrological analysis and modeling
- Near-surface geophysical surveys
- Airborne and satellite remote sensing data acquisition and analysis
- · Geospatial data mapping and management
- Pollution prevention and control
- Treatment and remediation technology
- · Public communications and stakeholder outreach

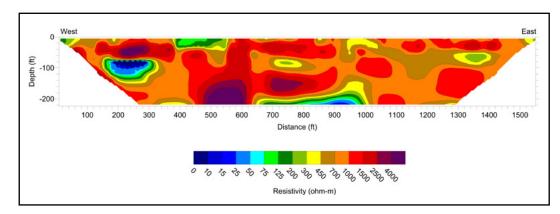
# The complexities of actions are readily analyzed, visualized, and interpreted during environmental assessments using SwRI's ever-expanding suite of software tools.

# **Applications**

- · Regulatory compliance, including support for permitting and National Environmental Policy Act (NEPA) assessments
- Emissions characterization, inventories, and compliance assessments
- · Climate-change impact assessments
- · Health-based assessments such as worker exposure evaluations
- Deterministic and probabilistic hazard, risk, and performance assessments
- · Evaluation of geological, geochemical, and hydrological site conditions
- Investigation of surface water-groundwater interactions
- Evaluation of fate and transport of gas- and liquid-phase contaminants
- Remote identification of buried manmade objects, including cultural resources, pipes, rebar, and unexploded ordnance, and natural features such as karst caves and conduits or aggregate deposits
- Slope, erosion, and sediment stability analysis
- Pollution control technology assessment, including source reduction, recycling, and reuse
- Remote sensing for detection and monitoring of environmentally important processes and conditions
- Stakeholder engagement support and public meeting facilitation
- Technology development and implementation related to hazardous waste treatment and remediation of sites contaminated by toxic materials

### **Benefits**

- · Proven approach to management and implementation of field and laboratory operations
- · Comprehensive environmental analyses of air, soil, water, biota, wastes, and other substances
- Ready access to highly qualified biologists, engineers, environmental scientists, geochemists, geologists, geophysicists, health physicists, hydrologists, petrophysicists, remote-sensing scientists, seismologists, and coupled-process numerical modelers
- Experienced staff, free from conflict of interest, with proven ability to develop and implement innovative solutions to environmental science and engineering problems
- State-of-the-art field and laboratory instrumentation deployment capabilities for measuring and monitoring chemical, geological, geophysical, and hydrological parameters
- Expert staff skilled in plain-language scientific outreach to members of the public, improving communication between our clients and their stakeholders



Electrical resistivity profiling and three-dimensional surveying are used to map subsurface conditions to aid construction decision-makers or to identify the subsurface distribution of resources (e.g., aggregate).

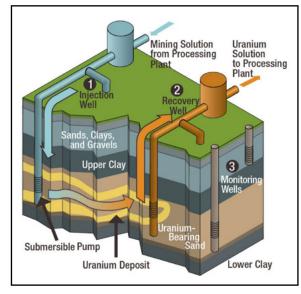
# We welcome your inquiries.

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Environmental analyses and environmental impact statements examine, for example, potential impacts from complex mineral extraction and remediation processes.

### SOUTHWEST RESEARCH INSTITUTE

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