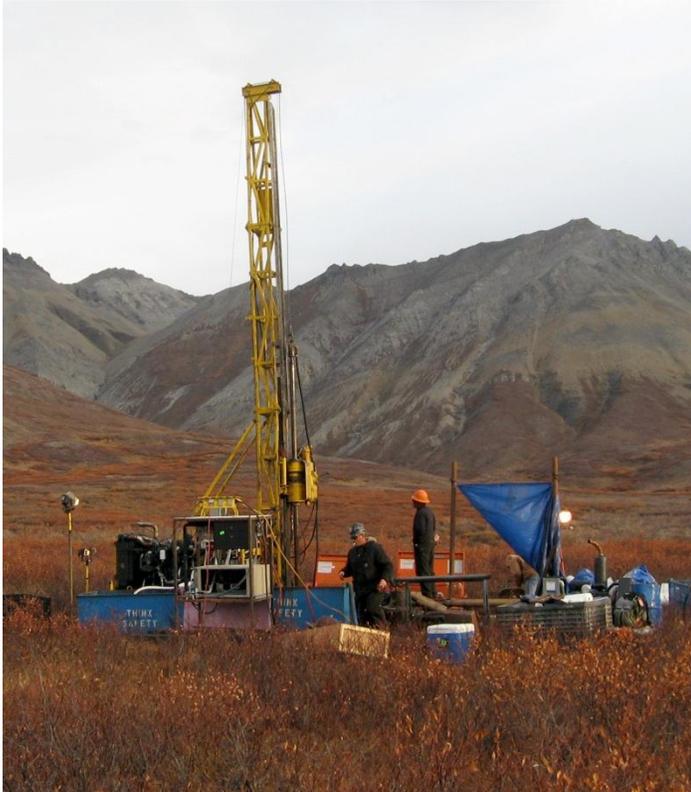


Geotechnical Engineering



Tetra Tech's engineering staff has extensive experience in providing geologic and geotechnical engineering and geo-environmental services for a wide variety of projects.

Our experienced professional staff specializes in all aspects of soil and rock mechanics, including field and laboratory testing and evaluation of soil and rock engineering properties. Our geotechnical engineering services are routinely integrated into a multidisciplinary project delivery team that can handle projects from the early conceptual phase through detailed design, construction management, and final as-built documentation.

We provide our clients a professional engineering staff with considerable experience in solving difficult geotechnical engineering problems for projects related to mine-site development and closure, industrial and commercial site development and new construction, cleanup of contaminated land, and the management of solid municipal wastes.

Geotechnical Services

Tetra Tech performs projects involving engineering analysis and design for complex soil, rock, and groundwater conditions:

- Soil and rock investigations
- Slope stability analysis of cut-and-fill slopes—excavation shoring and underpinning, soil nailing, tie backs, rock anchors, retaining walls, sheet piles, tunnels and micro-tunnels
- Geophysical exploration—ground-penetrating radar, electromagnetics, downhole logging
- Foundations—investigations and engineering, shallow spread footing and deep pile and caisson foundation evaluation, design of ground support systems
- Landslide investigation, analysis, mitigation, and stabilization
- Settlement and subsidence analysis
- Seismic and soil liquefaction evaluations
- Liner systems—design, evaluation, and analysis of hazardous and municipal waste landfill liner systems and closure cover systems, impoundment liner systems, slurry wall containment systems, and leak detection systems; installation of geosynthetic liners
- Design and evaluation of concrete and asphalt pavements—flexible and rigid designs
- Capping and cover design
- Consolidation, deformation, and drainage modeling; infiltration, seepage, and unsaturated flow modeling
- Forensic geotechnical engineering and expert witness services
- Materials testing and laboratory analysis (available in select markets)

Tetra Tech is a leading provider of consulting, engineering, program management, construction management, and technical services. The Company supports government and commercial clients by providing innovative solutions to complex problems focused on water, environment, energy, infrastructure, and resource management. With 13,000 employees worldwide, Tetra Tech's capabilities span the entire project life cycle.



Geotechnical Applications

- **Mining**—open-pit and underground mines, tailings and disposal design and closure, leach pads, audit plugging systems, subsidence
- **Dams**—concrete, rock, and earth fill dam analysis, stability, inspection, and design
- **Oil, gas, and power**—pipelines, utility corridors, pad sites, lined impoundments
- **Site development, land planning, and buildings**—subsurface investigations for foundations and infrastructure

Software

- | | | |
|-------------------|----------------------|---------------------|
| • GeoStudio Suite | • Seisomsoft | • Hydroflow Express |
| • RocScience | • SeisOpt Remi | • LPIL |
| • FSConsol | • Plaxis | • HEC-RAS |
| • GoldSim | • CSR | • HEC-HMS |
| • FLAC | • Inclanalysis | • RISA-3D |
| • FLAC/Slope | • gINT | • EZ-FRISK |
| • LaMODEL | • LiquefyPro | • ArcGIS |
| • SDPS | • Groundwater Vistas | • AutoCAD Civil 3D |



27 Countries

Worldwide work in Afghanistan, Argentina, Australia, Bolivia, Brazil, Canada, Chile, Dominican Republic, El Salvador, Guatemala, Guyana, Honduras, Indonesia, Kazakhstan, Mexico, Mongolia, Myanmar, New Caledonia, New Zealand, Nicaragua, Panama, Peru, Spain, Turkey, United States, Venezuela, West Africa

450+

Soils and geotechnical engineers across the company

100+

industry clients, including real estate, infrastructure development, highways and roads, pipelines, transmission lines, wind power, aviation, industrial and manufacturing, commercial construction, mining, and government agencies

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