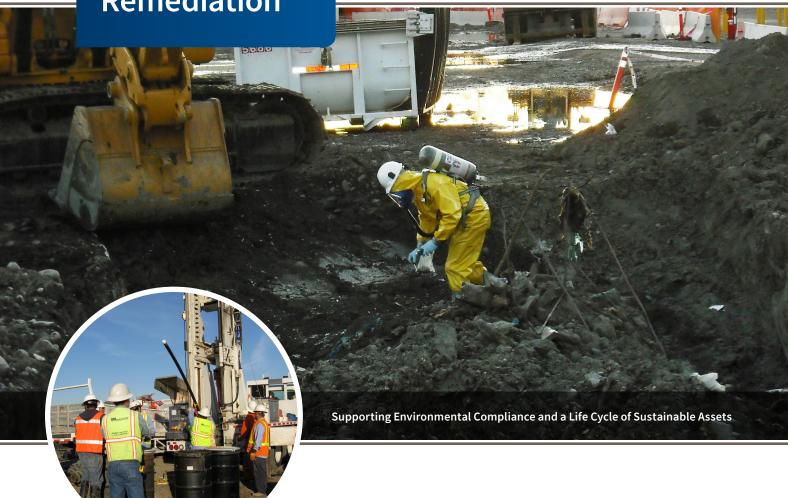
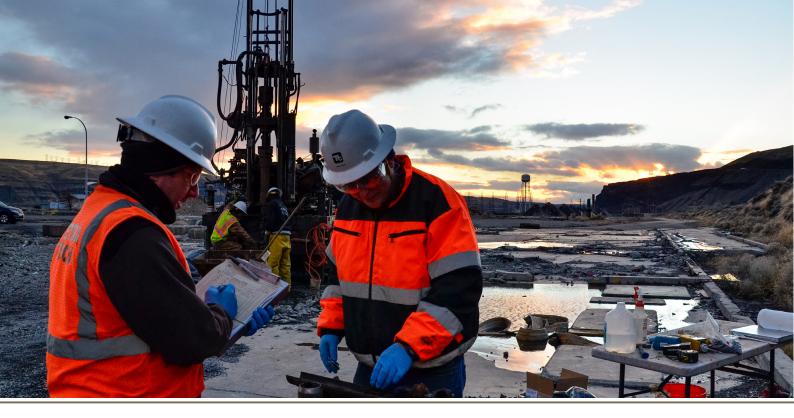


Environmental Assessment & Remediation





Tetra Tech South America designs and executes environmental assessment and remediation projects for clients in the public and private sectors. We have experience and successful results in the development of high complexity projects and integrated solutions for the soils and groundwater decontamination. The Tetra Tech Brazil outstanding performance is represented in the following sectors:

- Chemical industry
- Petrochemicals
- Energy
- Siderurgy
- Mining

- Telecommunications
- Automotive industry
- Auto Parts
- Infrastructure

Our Services

- Program management and project
- Assessment and investigation
- Remediation project elaboration
- Environmental monitoring
- Waste management and transport
- Decontamination, decommissioning and demolition
- Dredging, excavation on land, treatment of contaminated soils and sediments

- Groundwater recovery and treatment
- Heat treatment
- Radiological remediation and waste disposal
- Deep dynamic compression
- Wetlands restoration
- Computational modeling of aquifers
- Hydraulic barriers installation
- Pumping test and recharging capability





Technical and Management Focus

Environmental investigation

- Soil surveys and sampling
- Lithostratigraphic field observations
- Soil vapor concentration in situ assessment
- Interception verification of the groundwater level and the presence of free-phase product and sampling





Soil Vapors Sampling - Active and Passive Methods

- Initial screening for the presence of volatile organic compounds (VOCs)
- Site evaluation / characterization, estimating the source, extent and magnitude of the soil and groundwater impacted
- Active methods: vapors screening in situ Soil Gas Survey, sampling and installation of wells / vapor sampling devices below the sub slab underfloor and ambient air
- Passive Method: installation and sampling from the adsorption / fixation of volatile and semivolatile organic compounds (VOC and SVOC) present in the soil in gas phase, with exposure of the sampler in period of 7 to 14 days





Environmental Remediation

Tetra Tech designs, implements and operates remediation systems, covering the following techniques / technologies:

- Multiphase Extraction System (MPE)
- Multiphase Extraction System (MPE) with injection of surfactants
- Air Sparging (AS) / Soil Vapor Extraction (EVS)
- Excavation and removal of contaminated soil
- Chemical Oxidation in Situ (ISCO)
- Chemical Reduction in Situ (ISCR)
- Aerobic and anaerobic bioremediation
- Thermal remediation
- Environmental emergencies



Underground Water Sampling

Tetra Tech South America is accredited for INMETRO groundwater sampling to the requirements of ABNT NBR ISO / IEC 17025. The method used is the low flow method recommended in item 7.2 of ABNT NBR 15.847: 2010. This methodology consists in the performance of controlled well purge, using low pumping rates in order to promote the lowest possible water level lowering and aiming to optimize the representativeness of the sampled aquifer.





Study Integration and Cost Optimization

We elaborate feasibility studies for environmental research and remediation projects to evaluate and identify the best cost-benefit relationships among the applicable techniques / technologies, aiming to reduce operational costs throughout the project life cycle.

We have proven experience in designing, implementing and operating remediation systems.









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Tetra Tech's innovative, sustainable solutions help our clients address their water, environment, infrastructure, resource management, energy, and international development challenges. We are proud to be home to leading technical experts in every sector and to use that expertise throughout the project life cycle. Our commitment to safety is ingrained in our culture and at the forefront of every project. tetratech.com