Background & Project Challenges

Once used as a chemical weapon manufacturing facility called the Rocky Mountain Arsenal and later leased to Shell Chemical Co. for the production of agricultural chemicals, this 15,000-acre site located approximately 10 miles northeast of Denver, Colorado underwent an extensive environmental remediation in the 1980s.

Common industrial and waste disposal practices used in that era resulted in soil, surface water, and groundwater contamination.

In June of 1996, a site-wide Record of Decision was approved and signed by the U.S. Army, the Environmental Protection Agency, and the Colorado Department of Public Health and Environment.

GeoTesting Role & Accomplishments

GeoTesting Express, Inc. (GTX)’s challenge was to provide an on-site quality control laboratory in support of the soil-capping efforts.

On two separate occasions during a four-year span, GTX mobilized to staff and equip an on-site laboratory within 5 days of the notice to proceed. The laboratory was equipped to perform various soil index tests.

GTX managed the staff and provided rapid turnaround on data reduction/reporting of test results directly to the program manager. Each mobilization lasted for approximately 1.5 years. During the peak of operations, GTX employed 6 full-time personnel.

All activities were performed under the oversight of the United States Army Corps of Engineers. Strict adherence to safety and quality guidelines was enforced, and Geocomp was frequently audited to ensure compliance.

In addition to on-site testing, GTX provided laboratory services from Geocomp’s permanent labs. These labs provided support by testing geosynthetic materials (geomembrane, geocomposite, and geotextile) used during construction of the landfill cap. GTX also performed permeability tests on undisturbed samples of clay used in constructing the landfill cap. Tests were carried out with 24–48 hour turnaround times.