



PROJECT DESCRIPTION

INDUSTRIAL/MANUFACTURING CLIENT, DENVER, COLORADO

VOLUNTARY CLEANUP PROGRAM

Subsurface impacts to groundwater were apparently the result of releases from two separate sources: an underground trichloroethene (TCE) storage tank and TCE-laden sludge discovered in two former disposal areas. These TCE sources were the result of luggage manufacturing operations conducted from 1923 to 1971. LTE completed a detailed site characterization to determine the geometry of a groundwater plume which covered approximately 100,000 square feet across two parcels.

Based on the analytical data and pilot tests, LTE designed the injection program into treatment regions, each with specific detailed injection plans. The goals for the injection design were to protect the property boundaries, manage the hydraulic effects of injections so that the constituents of concern (COCs), if pushed, always moved toward a region of higher concentration or into a region where injectate had already been placed, and third, to ensure that the aerial extent of impacts in soil or groundwater decreased to below the Colorado Department of Public Health and Environment (CDPHE) clean-up goals.

HIGHLIGHTS

Performance sampling using temporary wells and implants was conducted throughout the installation phase to ensure that the stated goals were being met. Installation was completed, at which time LTE initiated a formal quarterly monitoring program for a period of one year. As stipulated by the CDPHE, groundwater samples were collected from specific locations within the defined plume and along the property boundary. The treatment remedy was implemented, per the Corrective Action Plan approved by the Colorado Department of Labor and Employment, Division of Oil and Public Safety (OPS). All of the activities cited in that approval were completed and the BOS 200® remedy effectively treated the petroleum-hydrocarbon impacts at the site. An NAD was granted for this site and the OPS considers this property closed.

