

CONFIDENTIAL CLIENT

ERH FORMER DRY CLEANER

El Centro, California

Role: Subcontractor

Lead Agency: SDRWQCB

Contracting: Time and Materials

Services:

- Electrical Resistance Heating
- Remediation System Installation
- Remedial System Operation, Monitoring and Maintenance
- Electrode/Well Installation
- Temperature Monitoring Point (TMP) Installation
- Piping Installation

Discussion:

CES Group was contracted to support construction, operation, monitoring and maintaining an Electrical Resistive Heating (ERH) remediation system for the remediation of chlorinated hydrocarbons in clay and silty soils. This project targeted source area removal from beneath a former dry cleaner remediation of tetrachloroethene (PCE) DNAPL. The facility was removed, and the treatment area was an open lot. Initial groundwater concentrations were in excess of 75,000 µg/l in groundwater and 2,500 mg/kg in site soils. The treatment area was 1,150 square feet and treated from 2.5 feet to 32 feet bgs. The system operated for only 71 days meeting source area removal objectives.

CES was contracted to assist in the installation of ERH electrodes, TMPs and extraction wells as well as complete system construction including performing cable installation, piping, and installation of monitoring points/wells.

Following system construction CES personnel proceeded to complete startup and subsequent operations, monitoring, and maintenance. System operations and monitoring required ERH optimization. Monitoring included measuring vapor flow rates using a pitot tube and manometer, in addition to temperature measurements. Other monitoring required piezometer measurements for water levels and subsurface pressure.