



## Conestoga-Rovers & Associates Project Summary

### KEY PROJECT ELEMENTS

- Superfund Site
- Engineering Design
- Groundwater Treatment System
- Groundwater Extraction and Pipeline System
- Operation and Maintenance

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### MOTOROLA 52ND STREET SUPERFUND SITE PHOENIX, ARIZONA



CLIENT: PRP GROUP  
DURATION: 1996 - PRESENT

CRA was retained in late 1996 to provide design services for the Operable Unit 2 (OU2) Area remedy at the Motorola 52nd Street Superfund Site in Phoenix, Arizona. The two primary design components include the groundwater extraction and monitoring well network and a 5,300-gallon per minute (gpm) treatment plant and pipeline design.

The selected groundwater treatment processes included ultraviolet oxidation (one UV tower) and granular activated carbon (nine pairs of 20,000-pound carbon adsorbers). The treated groundwater is discharged to a canal for use in irrigation through a 2.5-mile discharge pipeline. Extracted groundwater and treated water pipelines are located within the City of Phoenix streets. CRA evaluated potential pipeline routings and provided the Client with a recommendation on preferred pipeline routings. CRA prepared all design documents for the project and negotiated the permits required for the design and construction.

Construction commenced in February 2000 and the final construction inspection was held on October 23, 2001. During the construction period, CRA, as the design engineer, reviewed and approved all technical submittals. CRA assisted with commissioning of the system and subsequently initiated O&M activities. CRA continues to perform the O&M, process sampling, evaluation, and reporting, as well as coordination and reporting of an ongoing hydraulic monitoring program. Operational uptime for the first 3 months of operation was 96, 98, and 97 percent, respectively.

The operation of the extraction, treatment, and discharge systems is controlled by Programmable Logic Controllers (PLCs) to allow automation of the system under normal operating conditions, to shut down the system or portions of the system based on predetermined operational parameters and start the system based on predetermined operational parameters. The main PLC is connected to a Supervisory Control and Data Acquisition (SCADA) system in the office of the treatment building. An auto-dialer communicates unusual system conditions and alarms to operations personnel.