

# Sprague Road Groundwater Plume, Odessa, Texas

## Hexavalent Chrome Contamination Treatment for Reinjection

In March 2003, Siemens Water Technologies, formerly USFilter, was awarded a contract to provide design, installation, training, and off site recovery for a chromium contaminated groundwater supply in Texas. The site is the location for a number of chrome plating shops that have since gone out of business. The project is now part of an EPA superfund cleanup.

In order to treat up to 550 gallons per minute, a total of ten 48" diameter service vessels, each containing 60 cubic feet of resin, were installed in a lead/lag configuration. This allows the operator to monitor for chromium break through after the primary tanks while maintaining an acceptable chromium discharge level after the second set of tanks.

When tests indicate the primary tanks are approaching exhaustion, our Dallas, TX office dispatches service technicians to replace the spent resin. A resin sluicing diaphragm pump and resin storage/transfer totes are used for removal of the spent resin. Sluice water is obtained from the treated water holding tank therefore, no additional water is required. Siemens Water Technologies brings fresh resin and reloads the service tanks. The tank manifolds are configured in such a way as to allow what was the lag bank to become the lead without moving the vessels. This improves the efficiency of the resin exchange and insures that maximum resin life can be obtained. Siemens service technicians visually inspect the vessel internals, install the fresh resin, and return the system to service. Spent resins are transported to Siemens Roseville, Minnesota regeneration facility, a RCRA permitted site, for recovery.

## Significant Accomplishments

Original designs called for on-site regeneration of the ion exchange resin. The successful contractor was to be responsible for operating the system and disposing of all regenerant waste. Siemens design eliminated all equipment needed for regeneration on site saving capital and space.

Siemens' service contract provides this customer with a low capital investment, low operating cost option where no wastes are generated on site. Removal of the spent and contaminated resins from the site, eliminates concerns of recontamination.

Facility	Groundwater Supply
Application	Hexavalent chrome removal
Technology	Ion Exchange
Scope of Services	System Design Capital equipment with controls Resin removal, and recovery
Start Date	March 2003





Siemens Water Technologies North America Service Network

### North America Service Network

Our North America service network is backed by more than 80 offices staffed with certified technicians and applications experts who can solve your problems. In addition, Siemens Water Technologies provides response flexibility through either a lease or capital purchase option, and the company offers assured liability protection through environmentally safe waste destruction.

### Services Available

- Activated carbon supply, removal and reactivation services
- Filter media supply and removal
- Ion exchange resin supply
- Membrane supply and cleaning programs
- Parts and expendables
- Service contracts
- Temporary/emergency water systems

### Technologies Available

- Reverse Osmosis (RO) membrane filtration
- Conventional clarification and filtration
- Oil/Water separation
- Granular activated carbon adsorption
- Demineralization
- Inorganic metals removal
- Chemical addition

Siemens Water Technologies delivers cost-effective, reliable systems guaranteed for quality, safety, and compliance. Our trained service staff is available to make sure your systems is running at peak performance and to your specification. For your water treatment system, choose the partner that is committed to taking care of the world's water...and yours.

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