

# Ace Services, Colby, Kansas

## Hexavalent Chrome Contamination Treatment for Public Drinking Water Supply

In May 2003, Siemens Water Technologies, formerly USFilter, initiated a capital purchase and 3-year renewable service contract with the City of Colby, Kansas to treat chromate contaminated groundwater on the Ogalala drinking water aquifer.

Ace Services, a farm implement manufacturing company contaminated the groundwater from inappropriate discharge of their chroming process. The company has since gone out of business and the project is now part of an EPA Superfund Cleanup.

Siemens' design features once-through ion exchange resin technology. The resulting treated water is pumped directly to the City of Colby potable water system.

A total of six service vessels, two skidded trains in a lead/lag arrangement with the third vessel in standby, each contain 600 cu. ft. of resin. A resin sluicing diaphragm pump and a resin storage/transfer tank is used for removal of the spent resin. Siemens delivers new resin via tanker, off loads to the storage/transfer tank, and then loads the tanker with the spent resin. Siemens service technicians visually inspect the vessel internals prior to installing the fresh resin from the storage tank.

Siemens will provide continuing service for the removal of spent resin and the installation of fresh resin over the next three year period.

### Significant Accomplishments

Siemens' contract is the first chromate fixed bed groundwater remediation system used for potable drinking water. By contracting with Siemens, the City will have the benefit of working with a single provider, with centralized equipment and service responsibility.

Siemens' resin exchange system is self-contained, with tankers removing spent and contaminated resins from the site, thereby eliminating concerns of recontamination. Siemens also provides environmentally compliant handling and disposal of the spent resins, eliminating the liability for the City of Colby.

Siemens' vessel design also decreases the visibility of the system equipment for the local light industrial/residential neighborhood.

Facility	Municipal Drinking Water
Application	Chromate removal
Technology	Ion exchange
Scope of Services	System Design Capital Equipment with Controls Resin Removal, Testing and Disposal Training
Start Date	May 2003

*Ion Exchange removal tanks with valves and piping harness for one of two installed systems*





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.

Siemens  
Water Technologies  
2430 Rose Place  
Roseville, MN 55113  
800.525.0658 phone

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