



OVERVIEW

At an operating dry cleaning facility in Ottawa chlorinated ethenes including PCE were discovered underneath and downgradient of the facility. Groundwater and soil impacts included:

- PCE (maximum concentration of 250 µg/L & 1.0 µg/g)
- TCE (maximum concentration of 1.2 µg/L & <0.5 µg/g)
- cis 1,2 DCE (maximum concentration of 2.4 µg/L & <0.5 µg/g)

SCOPE OF WORK

- Acquired all relevant permits to complete the remediation program
- Designed and optimized an *in-situ* program to maximize treatment efficiencies
- Implemented a program that minimized capital expenditures and infrastructure

THE VERTEX APPROACH

- In-Situ Chemical Oxidation
- Single application
 - Mitigate off-site migration
 - Source reduction
- Injection of chemical oxidant
 - 150 kg of permanganate
- Injections completed using:
 - Vertical wells
 - Low to moderate pressure



OUTCOME

- Over 5,000 L of oxidant solution delivered
- Source zone address
- Potential off-site migration impacts addressed
- Operations not interrupted
- Project objectives met