

In-Situ Chemical Oxidation of Dense Non-Aqueous Phase Liquid

Project Location	New Jersey
GWTT Scope	Design / Build
Contract Value	\$1.2M
Project Duration	20 Months
Contaminants	DNAPL

Key Project Details:

- Construction of an In-Situ Chemical Oxidation System for the remediation of dense non-aqueous phase liquid (DNAPL)
- Installation of 24 stainless steel injection wells
- Installation of over 6,000' of 2" Sch. 80 carbon steel piping
- Design, fabrication, and installation of a mixer support and catwalk system



Project Description

GWTT was selected as part of the design/build team to construct an In-Situ Chemical Oxidation System (ISCO) for the remediation of subsurface dense non-aqueous phase liquid (DNAPL) contamination at a former chemical manufacturing facility in Newark, NJ.

GWTT's scope of work included the installation of 24 stainless steel injection wells by a specialty subcontractor in glacial till at depths ranging between 50' and 75' deep. GWTT fabricated permanent wellheads, which were welded to the injection wells and connected to 2" Sch. 80 carbon steel oxidant carrier piping. Over 6,000' of 2" Sch. 80 carbon steel piping was installed between the wells and the injection building. A series of pre-cast valve vaults were installed around the perimeter of the building to allow the operator to assess each point locally.

GWTT oversaw the installation of a 15' wide, 40' long, 18' high pre-engineered metal building, which was installed to house the injection equipment that included a conveyor system for loading of dry potassium permanganate and two 2,000-gal mix tanks for blending a 3% potassium permanganate solution to be pumped from the building to the injection wells. GWTT designed and fabricated a mixer support and catwalk system at our shop, which was then installed on site. The oxidant injection pumps, tanks, mixers and primary injection piping manifolds were placed within a 2' high concrete secondary containment wall inside the ISCO building.

Connect with one of our In-Situ DNAPL Remediation experts now: 800-770-0901