

PROJECT:

Remediation of a federal site impacted by petroleum hydrocarbons (PHCs) and chlorinated volatile organic compounds (cVOCs)



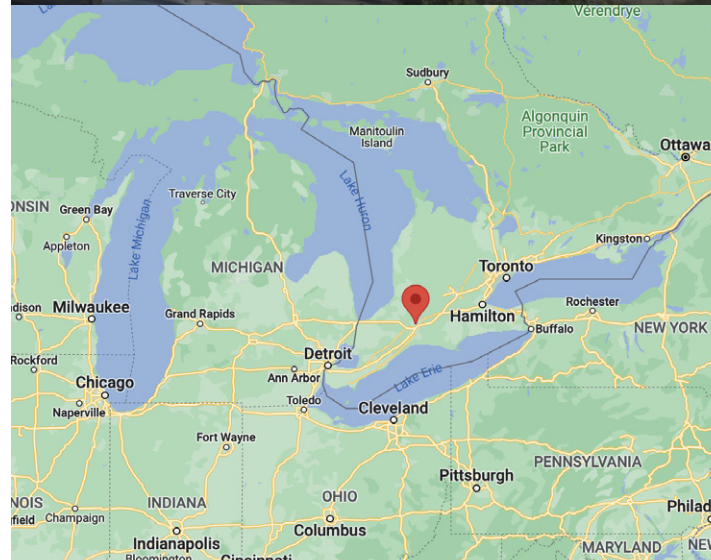
CHALLENGES

The challenge consisted in designing a site-specific program to remediate the soils and groundwater impacted by PHCs and cVOCs and to meet the applicable environmental criteria for groundwater.

BACKGROUND

The Highbury Complex was first established in the early 1940s for assembly operations. Operations included maintenance, supply, transport, repair, refitting, storage, and fueling of military vehicles and equipment. Several former buildings on the property were used for a variety of purposes, including a paint shop, vehicle and equipment storage, mechanical assembly, and refitting of heavy military vehicles. The buildings were demolished in 2012.

SANEXEN was retained as the general contractor for the project and was ultimately responsible for implementing the entire contract and executing all project work.



SITE RESTORATION

Project location: London, Ontario

Quantity of water treated: 43,950,000 L

Project date: 2020

SOLUTION DEVELOPED

The work included overall project management and reporting, as well as ensuring that all SANEXEN subcontractors carried out work elements according to the main contract. SANEXEN was also responsible for developing and implementing the site-specific plans (Health & Safety, Environmental Management, Emergency Response), and implementing its corporate QA/QC, EHS, and Project Management systems.

Prior to the excavation work, public and private utilities were located, contaminated soils were identified, concrete foundations and structures were removed, and drainage systems were installed along the perimeter of each excavation in an effort to lower the groundwater table to below the depth of soils to be excavated.

Each excavation zone was drained and dewatered, and the water was pumped to Sanexen's custom built mobile WTU for treatment to applicable standards prior to discharge.

Environmental protection measures included the installation of silt fences to divert natural run off from contaminated areas and soil stockpiles, the use of geomembranes to protect non contaminated surfaces, and air monitoring.

In numbers, the project performance and results can be summarized as follows:

- Excavation of approximately **136,000 m³** of soils, of which 55,800 m³ were below the groundwater table;
- Treatment of **43,950,000 litres** of contaminated water;
- Collection of **250 water and 5,350 soil samples** for laboratory analyses;
- Backfilling of **117,300 m³** using previously excavated soils that met the applicable soil criteria and **44,000 m³** of clean imported backfill.



CONTACT



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