Biogénie

Remediation of a Former Manufactured Gas Plant Site in a Residential Area

TYPE OF CLIENT:
Utility Company

COST ($CAN):
- ❑ < 500 K
- ❑ 0.5 – 1 M
- ❑ 1 – 5 M
- ❑ 5 – 10 M
- ☑ > 10 M

BACKGROUND

This site, spanning an area of 9 acres, was host to a manufactured gas plant for some 70 years. The plant's aboveground structures were dismantled and removed in the mid-70s. However, underground structures, such as tanks, gas and oil pipes and concrete foundations of former buildings, together with the PAH-contaminated soil remained an issue of concern. As the site was located in a residential area, specific measures had to be devised to minimize the impact of the remediation work on residents.

SOLUTION

With the supplemental investigation and treatability study results on hand, Biogenie proposed a comprehensive remedial solution that relied, to a great extent, on the on-site biological treatment of the contaminated soil. Specific prevention and monitoring measures to ensure the well-being of the nearby residents were instrumental in gaining public acceptance. The measures that were put into place included: soil pretreatment prior to excavation; excavation under a mobile shelter; monitoring of dust fallout, suspended particles and PAHs with four air sampling stations.

SERVICES

- Supplemental site investigation and treatability study;
- Design of the remedial solution;
- Overall project management;
- Site ventilation prior to excavation with an *in situ* venting process for volatile compound extraction and treatment;
- Excavation of 150,000 tons of soil under a mobile shelter to minimize dust fallout, noise and odor emissions;
- *Ex situ* Biopile treatment of 100,000 tons of PAH-contaminated soil;
- Management of 10,000 tons of debris (concrete, brick, iron) as well as waste (wood shavings, tar);
- Confinement and treatment of 25,500 m^3 of groundwater;
- Project and post-project environmental monitoring (air quality and groundwater);
- Tactical landscaping of the remediated site in view of future development;
- Production of reports.