

Environmental Remediation Case Study



Why choose AEL?

• ON-SITE TESTING

AEL leads the environmental consulting industry with innovative on-site testing approaches using XRF, UVF, and the Water-loo Profiler

• RESPONSIVE SOLUTIONS

AEL's ESAs are custom designed for each unique site, offering the best value and most effective solutions

• EXPERT TEAM

AEL's team of senior engineers, risk assessors, hydrogeologists, field scientists, geo-scientists, GIS and data experts, and support personnel have expertise covering all facets of environmental engineering.

What AEL's clients say:

"AEL worked with us to assess, remediate, and file RSCs for a number of our sites. They used innovative technology in efficient ways, reducing the cost and working within our time frames. Their team is technically strong, and also able to communicate well."

Vince Polsoni, Manager of Station Sustain-ment, PowerStream Inc.

Project Location: Ontario, Canada

Former Trucking Distribution and Service Centre

AEL was retained to complete Environmental Site Assessments and Remediation work in support of a large real estate transaction. The site had been used as a trucking service and distribution facility since the 1950s and included under/above ground fuel and waste oil tanks.

The work was complicated by a limited time schedule, early winter working conditions and a sensitive site imposed by O. Reg. 153/04 due to surface bedrock. AEL was able to "segment" the site under by O. Reg. 153/04 and apply the sensitive criteria only to those portions of the property affected by shallow bedrock. This resulted in significant savings in assessment and remediation costs while at the same time being protective of the natural environment.

Prior to AEL involvement approximately 2500 tonnes of petroleum hydrocarbon (PHC) impacted soil had been estimated at the site. AEL undertook a Phase II ESA utilizing on-site testing for PHC in soil and groundwater by Ultra-Violet Fluorescence (UVF). The use of UVF enabled AEL to direct the investigation in real time over a 2 day period and delineated approximately 5000 tonnes of PHC impacted soils. UVF provided a

greater understanding of impacts at the site, eliminated multiple site visits and waiting for traditional lab results and greatly reduced the time and cost of the assessment.

Off-site disposal of the impacted material would have cost in the order of \$350,000. By using ex-situ bioremediation, **AEL was able to reduce that cost by more than 50% and allow for reuse of the treated material on-site as residential quality fill material.** Excavation and backfilling costs were also reduced on the project by directing work using AEL's onsite laboratory.

Now, the site remediation has reached completion, closure samples show that the PHC impacts have been removed, and the site has been purchased by a local school board and will soon be the location of a new elementary school.

Land restoration benefits everyone—especially the site owner and the surrounding community. What once was a contaminated truck service facility is now a site where children can safely learn.