



Fuel Storage Terminal, Northeastern US

AGI Universal Sampler

Summary

Media:	Soil gas
Study Type:	Plume delineation investigation
Technology:	Accumulation
Peer Reviewed:	Yes
Publication Date:	February 2024

Study Description

- The site is an approximately 13-hectare active fuel storage terminal in the northeastern United States. Impacts had been identified in existing groundwater monitoring wells, but the plume had yet to be fully delineated and groundwater was relatively shallow (1–7 meters below ground surface [bgs]).
- Compounds include volatile organic compounds (VOCs), particularly benzene, toluene, ethylbenzene, and xylenes (collectively known as BTEX).
- Following initial discussions with the overseeing regulatory agency, it was decided to install 33 groundwater monitoring wells to both fully define the contaminant plume and monitor the eventual remediation efforts. Prior to proceeding with these activities, the regulators agreed to the performance of a passive soil gas (PSG) survey.
- The PSG survey included the deployment of more than 100 AGI Universal Samplers throughout the site.

Remedial Phase

The objective of this investigation was to laterally delineate the impacted groundwater plume in order to reduce the number of groundwater monitoring wells needed to sufficiently monitor impacts at the site.

Outcome

As shown in the figure below, the PSG survey provided lateral delineation to the contaminant plume on site. The regulators were then able to reduce the number of groundwater monitoring wells to 15, saving the client \$150,000 in installation and monitoring costs the first year, and \$100,000 in monitoring costs annually thereafter. Additionally, the PSG survey costs were 86% less than what the installation of groundwater monitoring wells would have been.

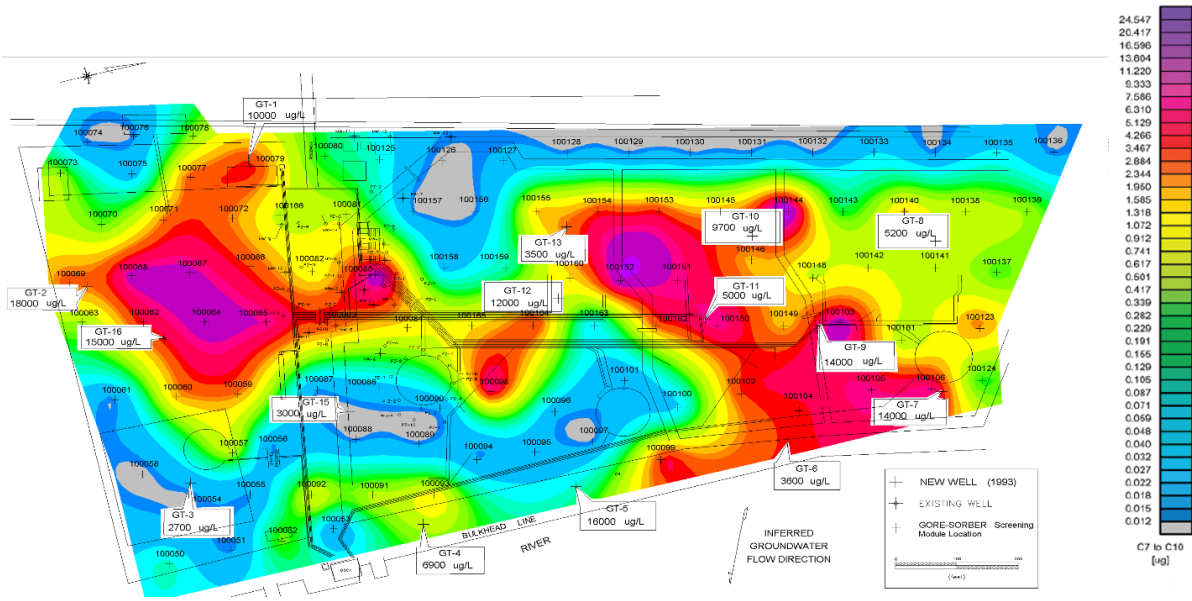


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Case Study Reference

AGI, <https://agisurveys.net/technical-library.html>