A.1 Technology Name

AGI Universal Sampler

A.1.1 Source

AGI's website

https://agisurveys.net/technical-library.html

A.1.2 Summary

Media:	Soil Gas
Study Type:	Plume Delineation Investigation
Technology:	AGI Universal Sampler
Peer Reviewed:	Yes
Publication Date:	February 2024

A.1.3 Site Description

- The Site was 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]).
- Contaminants of concern (COCs): 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 plum 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 over 100 AGI Universal Samplers throughout the site.

A.1.4 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 that would be needed to sufficiently monitor impacts at the site.

A.1.5 Outcome

As shown in the figure below, the results of the PSG survey was successfully able to provide lateral delineation to the contaminant plume on-site. The regulators were then able to reduce the number of groundwater monitoring wells down 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 groundwater monitoring wells installations would have been.

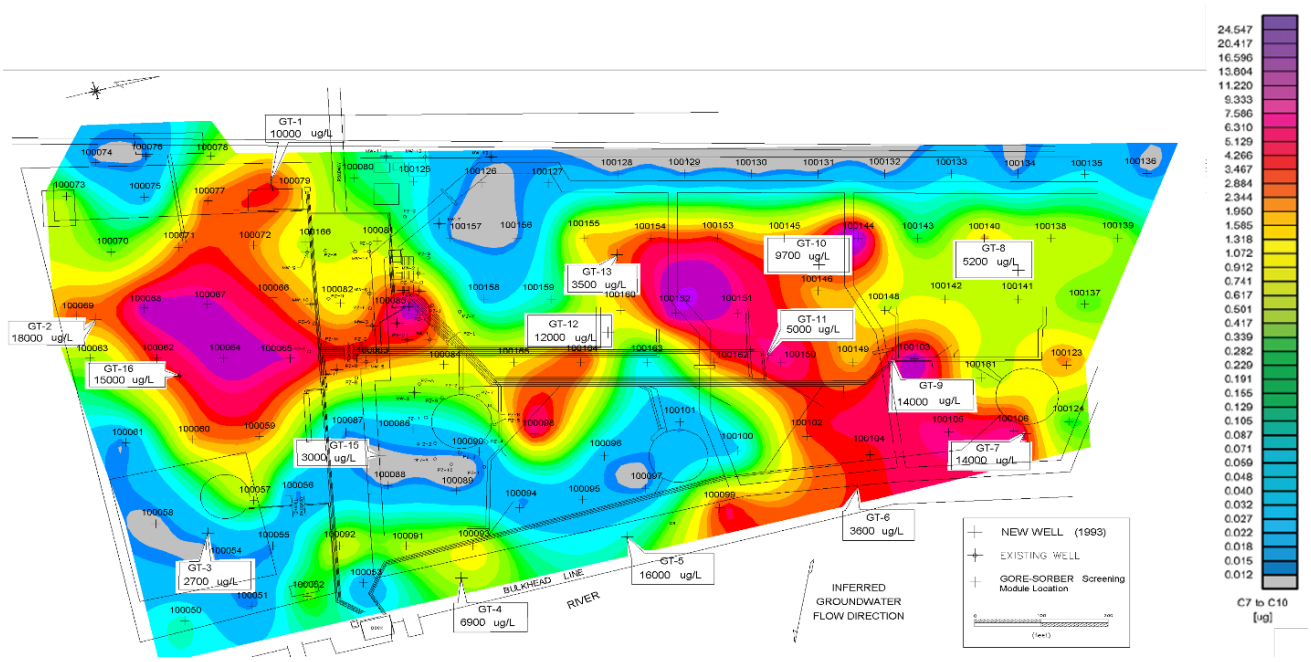

Figure used with permission from AGI.

A.1.6 References