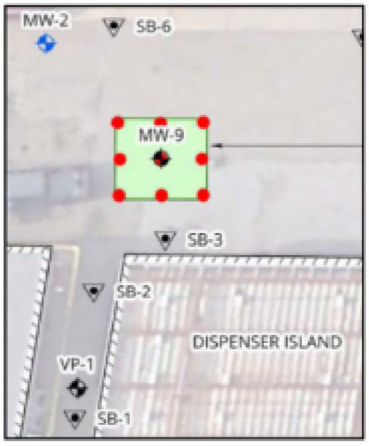
BAM & Calcium Peroxide DPT Injection – BTEX

Active Gas Station – Wellsburg, WV

Project Profile: Active Gas Station– Wellsburg, WV

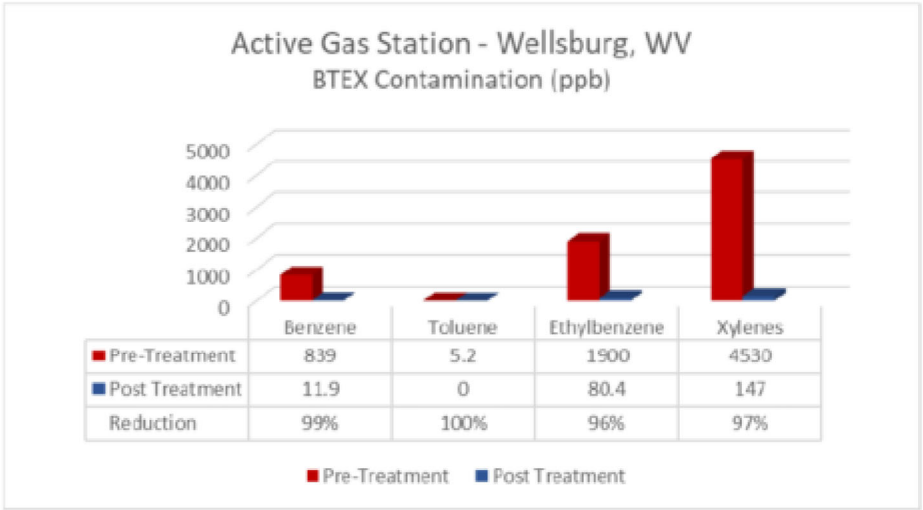
Contaminants:
Benzene: 839 µg/L
Toluene: 5.2 µg/L
Ethylbenzene: 1,900 µg/L
Xylenes: 4,530 µg/L



Treatment Chemistry: BAM
Calcium peroxide

Impacted Matrix: Silty clay, sand, and gravel fill

Project Summary: ORIN successfully reduced BTEX contaminated groundwater utilizing in-situ DPT injection of BAM combined with a slow-release oxidizer. Approximately 100 gallons of treatment chemistry was injected into each of 9 injection points at depth-specific intervals. The injection points were spaced to target the remnant hot spot area of a contaminant plume. The treatment chemistry injection was coordinated with vacuum extraction to control hydraulic activity more accurately and to improve injection efficiency. This facilitated preferred treatment chemistry coverage within the targeted treatment area.



	Benzene	Toluene	Ethylbenzene	Xylenes
Pre-Treatment	839	5.2	1900	4530
Post Treatment	11.9	0	80.4	147
Reduction	99%	100%	96%	97%

Project Results: BAM and Calcium Peroxide, in combination with a vacuum truck, has shown to greatly decrease the concentrations of BTEX, specifically the elevated Benzene and Ethylbenzene at this site. The BTEX concentration within the hotspot treatment area reduced by 97%. The residual calcium peroxide in the subsurface will continue to provide an oxygen source and promote bioremediation.

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