PROJECT SNAPSHOT

SEE/TCH Remediation at an Active Manufacturing Facility

TCH/SEE

Location: Florida

Client: Confidential

Contamination: CVOCs

Volume: 104,000 cy

Goal: Eliminate NAPL in the source zone

Heaters and SEE Wells: 413 TCH and 40 SEE Wells

Duration: 8 months of operation

Mass Removed: 4,800 lbs.

WHAT MAKES THIS PROJECT UNIQUE?

The combined TCH and SEE system was implemented to treat contaminated soils and groundwater at a site where 90% of the target treatment zone (TTZ) was located beneath a building. SEE was combined with TCH to address high permeability groundwater flow zones within a low permeability silt layer. The TTZ encompassed an area with a footprint of approximately 70,000 ft^2 extending from ground surface down to a maximum depth of 55 ft bgs.

Important Project Details

- **Approach:** The TTZ was located within and outside a building. 413 TCH wells and 40 SEE injection wells were installed. A Fourier Transform InfraRed (FTIR) field analytical package was used for continuous system and air discharge monitoring.
- **Challenges:** Approximately 90% of the TTZ was located beneath a building. Although the building was vacant, partition walls, drop ceilings, and existing utilities existed within the limits of the TTZ. An Ambersorb treatment system was operated to remove 1,4-dioxane, mobilized by the thermal system.
- **Results:** The total mass removed was approximately 4,000 lbs in the vapor phase and another 800 lbs in the liquid phase and as NAPL. Biotic and abiotic processes were also found to have removed substantial amounts of mass due to the idling of the heaters and gentle low-temperature heating for several months prior to full operation.

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