

Remediation

Industrial Facility Decommissioning and Risk Assessment



Client: Manufacturing Company, Kingsville, MD

Brownfield Science & Technology, Inc. (BSTI) was retained to develop a closure strategy for a complexed industrial site located adjacent to a valuable waterway. The vacant 24,000 sq. ft. facility contained miles of oil-containing pipe, tanks, separators and equipment.

BSTI assessed petroleum impacts to groundwater and soil which resulted in the removal of over 4,400 tons of soil and over 5,000 gallons of hydrocarbons. Furthermore, BSTI decommissioned the building and recycled approximately 60% of the material including steel, wood, brick, concrete and rubber.

In order to remediate, BSTI surgically dismantled a historic post and beam structure for the purposes of reuse. The materials were donated to a local historic village for the renovation of several structures.

To demonstrate the lack of toxicity from the released hydraulic oil, BSTI performed a fingerprint analysis, TPH analysis and laboratory aquatic toxicity testing on multiple samples.

Objective: Develop a closure strategy for site and remediate petroleum impacts to groundwater and soil.

Services

- Implemented the demolition and recycling of a 24,000 square foot industrial building
- Dismantled historic structure and preserved for reuse
- Developed site conceptual model for contaminant transport
- Performed surface and subsurface oil recovery and remediation
- Performed human and ecological risk assessment
- Removed 37,000 lbs. of hydrocarbons
- Treated and removed 120,000 gallons of water

Applied Science

- Operation of an oil water separator
- Aquifer testing
- 3D modeling and mapping
- Aquatic toxicological testing
- Silica gel TPH analysis
- TPH fractionation analysis
- LNAPL fingerprinting
- NPDES/Demo permitting

