

Project Description



Description: *LUST Corrective Action*

Site: *Municipal Town Hall*

Location: *Confidential Indiana Town*

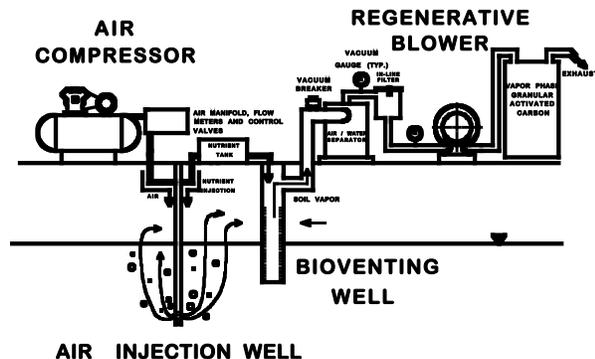
Upon removal of the Town's underground storage tank (UST) system, a release of gasoline was identified and reported to the Indiana Department of Environmental Management (IDEM). Following a multi-phased subsurface investigation by IES personnel, the extent of impact to the subsurface was shown to affect nearly an acre of ground.

The site was found to be characterized by sandy soils, with two distinct aquifer zones, an upper perched aquifer and a lower, unconfined aquifer. Soils in the immediate vicinity of the former USTs were found to contain total petroleum hydrocarbons. Impacts to groundwater were found to be laterally extensive.

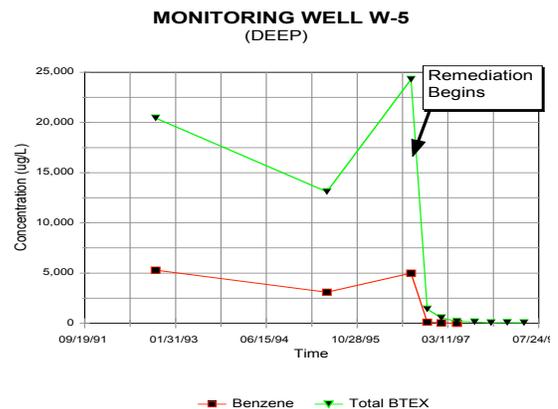
To address the release, IES developed a comprehensive Corrective Action Plan (CAP). An integrated approach was chosen which included in-situ air sparging and soil vapor extraction. Since the groundwater plume was

south, air sparging was augmented by soil vapor extraction to address contaminated soils above the water table. For this purpose, IES developed the system shown in Figure 1.

In addition to developing the CAP, IES competitively bid the project and was awarded the contract for implementation. As designed, the air sparging system required the installation of 12 air injection wells drilled 45 degrees from vertical in order to remediate the plume beneath the railroad right-of-way.



bisected by a railroad right-of-way, two separate remediation systems were specified. To the north, only air sparging was needed to address the dissolved phase plume. To the



Approximately 1,600 pounds of gasoline were removed and groundwater BTEX concentrations were reduced by 91 to 100 % in each of the effected monitoring wells after 21 months of operation. Figure 2 illustrates the trend of groundwater concentration observed in one of the deep monitoring wells.

In addition to implementing the remediation, IES successfully secured reimbursement from the IDEM's Excess Liability Fund, effectively minimizing costs to the customer.

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