

MtBE Remediation Bureau Case Study



Richmond Four Corners Store

Overview

The Richmond Four Corners Store was in the heart of the Town of Richmond located at the intersection of the two main roads in town near the Fire Department and Library.

History

The store operated for years as a classic New Hampshire country store and retail fuel station since the early 1900s. Over that time at least five underground storage tanks had been located at the property. In 1992, high levels of gasoline contamination were detected in a neighbor's water supply well. An investigation was completed and points of entry treatment systems (POEs) were installed to treat five impacted water supply wells. A number of site cleanup efforts were undertaken including a 225 cubic yard soil excavation in 1995 and the operation of a pump and treatment system from 2004 to 2008. Full remediation of the site failed during these previous attempts because access to a significant quantity of contaminated soil was blocked by the presence of an operating underground storage tank system.

In 2013, the Richmond Four Corners Store was shut down due to insufficient funds. In 2014, the property mortgage holder initiated the foreclosure process by conducting an environmental due diligence investigation. The property owner also owed money to the Town of Richmond for several years of back taxes.

MtBE Bureau Investigation and Remediation Actions

The Town of Richmond, the property owner and the Southwest Regional Planning Commission worked together to apply for brownfields assistance to remove the existing underground storage tank system from the property. The Town of Richmond was very engaged with this project because of the back taxes, the central location of the property and the boarded-up/in-foreclosure nature of the store. The MtBE Bureau quickly became involved with these initial discussions and collectively, the decision was made to proceed with a joint project that combined the removal of the tank system and excavation of soil contamination that surrounded the tank system.

In July 2014, the Southwest Regional Planning Commission removed the 12,000 gallon underground gasoline storage tank and associated piping. During the removal of the tank system, there was an opportunity to observe the tank system piping. It appeared that the piping was Total

AT A GLANCE

Site Location: 3 Winchester Road, Richmond

Bureau Actions:

Contaminated Soil Removal

MtBE Fund Reimbursements: \$149,687

Outcomes:

- Leaking tank system removed.
- 964 tons of petroleum contaminated soil removed and properly disposed of.
- Soil contamination removed from building dirt basement.
- Treatment systems maintained at contaminated water supplies.

Containment, Inc. Enviroflex pipe (aka yellow pipe). NHDES has been systematically requiring the removal of this type of piping because it is incompatible with gasoline containing ethanol. NHDES was unaware of this substandard installation of pipe. Upon further inspection of the dispenser piping, the outer pipe appeared blackened and stained indicating the presence of gasoline between the inner and outer pipes of the double walled system.

During excavation, as the excavator reached the impacted soil there was enough petroleum vapor from the soil contamination to ignite as the excavator bucket scraped against one of the cobbles in the excavation. This suggests that gasoline has been recently released in addition to the larger, older gasoline release. Approximately 964 tons of contaminated soil was removed, including some contaminated soil below the dirt floor of the building. Following removal of the tank system and impacted soil, the Town of Richmond acquired the property for back taxes.



Contaminated soil is excavated in July 2014.

Current Status, 2019:

NHDES continues to reimburse for the costs for the operation of POEs at the five contaminated water supplies. Replacement groundwater monitoring wells were installed to evaluate the impact of the removal of the underground storage tank and contaminated soil. The property is now vacant land and is being marketed by the Town of Richmond as a potential location of a new convenience store.