

State of Vermont

AGENCY OF NATURAL RESOURCES  
Department of Environmental Conservation  
Waste Management & Prevention Division  
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August 23, 2011

Mr. Marc Matz  
555 Bailey-Hazen Rd.  
Peacham, VT 05862

**RE: Site Management Activities Completed**  
**Site: Matz Residence, 555 Bailey-Hazen Rd., Peacham, VT (SMS Site #2010-4072)**

Dear Mr. Matz:

The Sites Management Section (SMS) has received the report titled *Vapor Barrier Installation, Soil Boring and Sump Sampling* for the above referenced site, which was submitted by Ross Environmental Associates (REA) and dated May 24, 2011. Investigation/remediation work was recently conducted at this site to further define the degree and extent of petroleum contamination, which was discovered during assessment work last year. Based on the information we have received, the following conclusions have been made:

- The heating system in this residence is currently served by an above-ground storage tank (AST). Previous to the installation of this tank approximately 25 years ago, there was an underground storage tank located adjacent to the south wall of the residence. REA conducted investigation work at this site in July, 2010 which involved advancing soil borings in the vicinity of the former UST and inspection of indoor air spaces and soils in the adjacent basement. An area of contamination was identified in the basement soils next to the concrete footer and suction return lines. Soils screened for petroleum vapors using a photoionization detector (PID) had readings up to 125 parts per million (ppm) in this area. Soils below the current above-ground storage tank (AST) were inspected and also appeared to have been impacted, though at very low levels. No contamination was encountered at the UST tank grave. No groundwater impacts were identified during the boring installation work, though bedrock was encountered at shallow depths. A confirmatory soil sample was collected from S-33 located approximately 30 feet from the former tank location and had detectable concentrations of several petroleum-related compounds.
- REA returned to the site in May, 2011 to conduct supplemental investigation work and construct a vapor barrier in the basement. Eight soil borings were advanced at the site, one of which was completed as a groundwater monitoring point. During the installation of the soil borings, soils screened with a PID had a peak reading 1.4 ppm. Refusal was generally met at about three feet below grade, and no groundwater or petroleum odors were encountered in any of the points. Confirmatory soil samples were taken from SB-1 and SB-2 and analyzed for volatile organic compounds (VOCs) and total petroleum hydrocarbons (TPH). No groundwater was detected in the monitoring well during either the well installation or a follow-up site visit, and this point has since been removed. A poly vapor barrier was installed in the observed area of soil contamination in the basement. This barrier was then covered with five cubic yards of gravel. Ambient air readings in the basement taken with a PID were all 0.0 ppm before and after the installation of the vapor barrier.

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- On August 9, 2011, REA conducted a follow-up inspection of the vapor barrier. Part of this inspection was to determine if the new vapor barrier was creating a moisture problem in the basement. The indoor ambient air was screened using a PID and no readings above 0.0 ppm were recorded. No pooling water or mold-like odors were noted in the basement, and no moisture was observed atop the vapor barrier.
- A survey of sensitive receptors was conducted as part of the investigation work at this property. Potential receptors of contamination in this area include soils, groundwater, and indoor air. All properties in this area are served by the municipal drinking water system. It appears that soil contamination is restricted to the shallow soils in the vicinity of the chimney in the basement. The vapor barrier that was installed effectively eliminates any threat of direct exposure to residual contamination and limits any impacts to ambient indoor air in the basement. It appears that groundwater is at a significant depth beneath the site and is not likely impacted by the shallow soil contamination.
- No unacceptable risk to human health or the environment is believed to be present due to any contamination at the site from former heating oil UST.

Based on the above, the SMS is assigning this property a Site Management Activity Completed (SMAC) designation. The SMAC designation will not release the owner(s) of the property from any past or future liability associated with the petroleum contamination at the site. It does, however, mean that the SMS is not requesting any additional work in response to the contamination discovered during the site investigation work in 2010.

Please feel free to call myself or Ashley Desmond of the SMS at (802) 241-3888 if you have any questions.

Sincerely,



Chuck Schwer, Section Chief  
Sites Management Section

c: James Gascoyne, REA (submitted via e-mail)  
DEC Regional Office – St. Johnsbury (submitted via e-mail)  
Peacham Health Officer  
Peacham Selectboard