



State of Vermont

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July 29, 2002

MR. AND MRS. WRIGHT
WRIGHT'S GENERAL STORE
P.O. BOX 125
WEST CHARLESTON, VERMONT 05655

RE: Site Management Activity Completed, Wright's General Store (formerly Dane's General Store),
SMS Site #98-2512, West Charleston, Vermont

Dear Mr. and Mrs. Wright:

The Sites Management Section (SMS) has reviewed the July 25, 2002 letter report titled, "*Well Abandonment and SMAC Request, former Dane's Store - West Charleston, Vermont*" prepared by Ross Environmental Associates (REA) for work conducted at your property. The SMS has also reviewed information contained in the site file. With this information, the SMS can now make the following conclusions:

- During the September 1998 in place closure of 1 kerosene underground storage tank (UST) contaminated soil was observed. Volatile organic compounds (VOCs) were measured by a photoionization detector (PID). PID readings of the soils at the UST ranged up to 225 parts per million (ppm). Groundwater was encountered at a depth of 13' below the ground surface. Contaminated soils consisting of sand and gravel were backfilled. No sheens or free product were observed on the groundwater adjacent to the UST.
- On October 8, 1998, four groundwater monitor wells were installed in order to evaluate potential contamination related to the UST. Dark brown sand and silt were observed from grade to 11.8'. Rock fragments were encountered at the bottom of the soil borings, indicating probable bedrock. Petroleum odors and PID readings ranging from 0 to 324 ppm were noted in soil samples from MW-4, the down-gradient monitor well. PID readings up to 161 ppm were noted at MW-2, the source area monitor well. No above background PID readings were noted at MW-1 or -3, the up-gradient and cross gradient monitor wells.
- On October 15, 1998 MW-1 to -4 and the water supply well were sampled for VOCs via EPA

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Method 8021B. No target compounds were detected in MW-2 and -3. In MW-1, ethylbenzene (trace below quantitation limit [TBQ]), xylene (1.1 µg/L), 1,2,4-trimethylbenzene (1.3 µg/L), 1,3,5-trimethylbenzene (1.1 µg/L), and naphthalene (2.4 µg/L) were noted below the Vermont Groundwater Enforcement Standards (VGES). In MW-4, ethylbenzene (TBQ), xylene (2.7 µg/L), 1,2,4-trimethylbenzene (2.3 µg/L), 1,3,5-trimethylbenzene (TBQ), and naphthalene (6.2 µg/L) were noted below the VGES. Total petroleum hydrocarbons (TPH) was found in MW-4 (2.37 mg/L).

- The water supply well was tested and traces of ethylbenzene, xylene, TPH, and 1,2,4-trimethylbenzene were noted on the October 15 sample date. No difference was found between samples before and after the ultraviolet water treatment system. Four follow up samples between 1998 and October 2001 confirmed low levels of petroleum contaminants below the VGES; kerosene odors were reported on occasion in the water. A point of entry activated carbon water treatment was installed in October 2000. This system controlled the taste and odor problems, and eliminated the trace petroleum contamination.
- Follow up testing of the site monitor wells showed no contamination in MW-2 and -3. The neighboring LaBarron and Davis water supply wells were sampled and contained no detectable contamination. MW-1 and -4 continued to have low level contamination below the VGES.
- Based on site conditions and following 1½ years of treatment system operation with no change in water quality, it was decided to install a replacement water supply well. The new supply well was sited as far from the contamination source and site septic system as the lot size would permit. It was drilled to 205' into bedrock with the upper 100' of cased and grouted into the bedrock. The new supply well was sampled and no petroleum contamination was detected.
- The building basement was identified as a potential sensitive receptor, however no VOCs were detected via PID screening of the basement air. The Clyde River is the nearest surface water, approximately 70' down gradient, however given the low levels of contamination reported on site it does not appear to be at risk. Residual contamination in the soil and groundwater associated with the UST closure was shown to be confined to the subject property. No unacceptable risk to human health and the environment is present due to any residual contamination remaining in the ground from the closed UST.
- Three of the four site groundwater monitoring wells and the old water supply well were properly closed to eliminate possible conduits for contaminant migration into the subsurface. This closure involved removal of the protective well cover and filling the wells with a grout material to prevent

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fluid migration in the borehole. The submersible water pump was removed from the water supply well prior to grouting. The fourth monitor well could not be located and may have been destroyed or buried during site work.

Based on the above, the SMS is assigning this site a Site Management Activity Completed (SMAC) designation. This SMAC designation does not release Clair Dane, former owner of Dane's Store, of any past or future liability associated with the petroleum contamination onsite. It does, however, mean that the SMS is not requesting any additional work in response to the 1998 in place closure of the kerosene UST. Please feel free to call with any questions.

Sincerely,



George Desch, P.E.

Chief, Sites Management Section

CC: Clair Dane, former owner
West Charleston Selectboard
West Charleston Health Officer
DEC Regional Office
Bob Ross, Ross Environmental Associates