



Pennsylvania Department of Environmental Protection

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Oil and Gas Program  
400 Waterfront Drive  
Pittsburgh, PA 15222-4745  
August 12, 2009

**CERTIFIED MAIL: 7003 2260 0005 8734 7482**

Deanna K. Tanner, Esquire  
Villari, Brandes & Kline, P.C.  
8 Tower Bridge  
161 Washington Street, Suite 400  
Conshohocken, PA 19428

Re: Stephanie Hallowich Water Well Contamination

Dear Attorney Tanner:

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I am responding to your letter dated August 5, 2009 regarding the water supply of Chris and Stephanie Hallowich, located at 179 Avella Road in Mt Pleasant Township, Washington County. Therein, you allege that Range Resources has contaminated the supply and are requesting that DEP issue an order to the company for the replacement/restoration of the supply. After a review of the information, including primarily water analyses, we cannot affirm your conclusions. I will address the five parameters discussed in the "Residential Groundwater Investigation" prepared by RT Environmental Services, Inc. ("RT") that form the basis of your request: styrene, acrylonitrile, iron, lead, and manganese.

As a bit of background, the Range gas well in question was drilled in July of 2007. The Hallowich water well was installed in October, 2007. In addition, Range constructed a lined, centralized fresh water impoundment near the Hallowich home in the summer of 2007.

A general problem in reaching conclusions about the source of any Hallowich water supply contamination is the lack of a pre-drill analysis of the water source prior to the drilling of the Range gas well. We acknowledge that the water supply was not installed until after the gas well was drilled, but we are unable to document the quality of the aquifer prior to the drilling of the gas well. Moreover, the results taken at a neighboring property (163 Avella Road), which is also close to the gas well, only shows a lead problem; the other four parameters are either non-detect or within drinking water standards. Mrs. Hallowich alleges that the drilling of the gas well polluted the aquifer. As the following will demonstrate, we are lacking any direct evidence to prove this assertion.

Concerning styrene, only one of the two analyses reports this contaminant in the Hallowich supply and this at an undetermined concentration. RT's own sampling did not

measure any styrene at the reported detection level. How styrene might be related to gas well drilling is not clear. However, the water lines in the Hallowich household, as well as from the water well to the house, are PVC which contains styrene.

The RT report mentions an impact from acrylonitrile. Again, only the "Hunt" sample reports a number, and RT's sampling did not detect this compound. The report identifies acrylonitrile as a possible constituent of the liner and suggests the latter as the cause because there are no other sources in the area. Acrylonitrile is used in the manufacture of plastics, glues, pesticides, ABS pipe (common drain line pipe used in homes; the "A" in ABS stands for acrylonitrile), synthetic rubber, acrylics, carpets, dinnerware, food containers, toys, luggage, automotive parts, appliance, telephones, among others. It can also be washed from the air by rain and then enter the groundwater system. There is a plastic rock which has been placed over the water well and could be leaching contaminants into the ground during rainfall events, which interestingly enough is when Mrs. Hallowich reports that the acrylonitrile values seem to increase based upon on-going sampling that apparently has been occurring. Unfortunately, a sample could not be taken of the pit contents by RT, which could have helped to determine whether or not acrylonitrile might be leaching from the liner. It should also be noted that there is no established drinking water MCL for this compound, either by DEP or EPA.

Iron is discussed as a contaminant. Four iron analyses were performed on the Hallowich supply, two of those taken on the same day. Only one of those, the "Hunt" sample, shows an iron level above the MCL of .3 mg/l. The others, including the DEP and RT samples taken on June 9, 2009 are below the drinking water standard. We do not believe that an iron contamination of the water supply has been established.

The concentration of lead is high in the 6/9/2009 sample taken by RT. However, the 4/1/2009 result in the "Hunt" sample shows compliance with the Pennsylvania MCL. Assuming that there is a lead problem (and I am not sure that assumption has been verified), we are unclear as to the source and how gas well drilling or the impoundment would have caused lead contamination.

The only parameter that consistently seems to be above the MCL is that for manganese. Manganese (and iron) is a common problem in water supplies in southwest Pennsylvania, whether or not any gas/oil well drilling takes place. It can, however, be caused by drilling via the introduction of air into the aquifer – gas well OR water well drilling. Without any pre-drill data, we cannot determine whether the high manganese level is naturally occurring or due to the drilling of the Range gas well or the Hallowich water well itself.

We have learned that Mrs. Hallowich has been collecting and submitting water samples for analysis on a regular basis. This information is not part of the results you attached to your letter and would be helpful to DEP in analyzing this case.

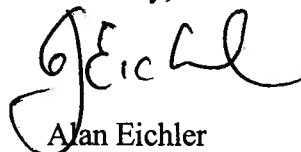
In summary, we question your conclusions about the contamination problems to the Hallowich water supply. The only parameter that is clearly above the MCL is manganese,

and we cannot clearly link it to the drilling of the Range Resources gas well. Therefore, DEP cannot issue a water supply replacement/restoration order to Range Resources.

At the end of your letter, you mentioned noise and air pollution problems. Noise is regulated by the local municipality (Mt Pleasant Township) and not by DEP. Concerning air pollution, DEP has already responded to calls and complaints from Mrs. Hallowich about odor problems from Range's operations. To date, we have not been able to document a violation. There is a gas processing plant near the Hallowich home which does have an Air Quality permit and may be the sources of odors. However, this facility is operated by a company named Mark West, not Range Resources. If odors persist, DEP's Air Quality Program should be contacted at 412-442-4000.

I hope the foregoing has addressed your concerns. A copy of this letter is being forwarded to the Hallowich's and Range Resources. If you have any additional, questions you may contact me by phone at 412-442-4006 or email at [aeichler@state.pa.us](mailto:aeichler@state.pa.us).

Sincerely,

A handwritten signature in black ink that reads "Alan Eichler". The signature is stylized with a large, looped initial "A" and a cursive "Eichler".

Alan Eichler  
Oil & Gas Program Manager

Cc: Case file  
Jack Crook  
Vince Yantko  
Bryon Miller  
Scott Sabocheck  
Chris & Stephanie Hallowich  
Range Resources