

January 17, 2008

Shawn & Ronalie Campbell  
RR 4  
Ponoka, Alberta  
T4J 1R4

Dear Mr & Mrs Campbell:

**RE: Incident No. 220271**  
**Water Well Complaint at SE-18-043-27 W4M**

Alberta Environment's investigation regarding the possible impact of energy development on your water well at SE-18-043-27 W4M is complete.

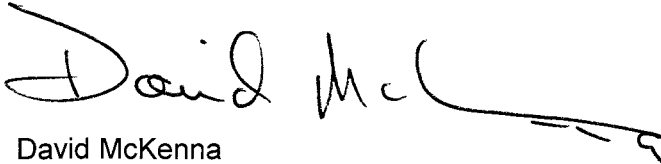
Dr. Alec Blyth, an expert isotope geochemist/hydrogeologist from the Alberta Research Council, was retained to conduct an independent review of the data and Alberta Environment's process for handling well water complaints. A copy of their review is attached.

The Alberta Research Council used various lines of evidence to determine if your well has been impacted. The report concludes that the methane gas present in your water well is predominantly biogenic, indicating it was formed at a shallow depth. The report also identifies a small component of deeper gas present in your well. Further work is required to determine whether this deeper source is a leaking resource well or a natural geological feature, such as a fault. Alberta Environment will continue to work with the Energy Resources Conservation Board (formally the Alberta Energy and Utilities Board) to determine the specific source.

Given the presence of gas in your wells, Alberta Environment recommends that you take measures to properly vent your water wells and distribution system. There are no known or demonstrated adverse human health effects associated with drinking or bathing with well water that contains methane. Methane gas that accumulates in a confined space or an enclosed area has the potential to create oxygen-deficient and flammable/explosive environments. Please refer to the attached materials on how to mitigate situations where gas is present in groundwater. Alberta Environment recommends that you consult with a qualified water well contractor to deal with the aesthetic and gas related issues pertaining to your wells.

Please note that various laboratory records on your well dating back to 1991 indicate that some routine water quality parameters exceed the Guidelines for Canadian Drinking Water Quality<sup>i</sup> (GCDWQ). These include the aesthetic objectives<sup>ii</sup> of sodium, iron, manganese and total dissolved solids. These exceedances are not related to the presence of gas in your well. No health-related parameters have exceeded the maximum acceptable concentration<sup>iii</sup>. It is advised that you contact your Regional Health Authority for further advice regarding these results.

Sincerely,

A handwritten signature in black ink that reads "David McKenna". The signature is written in a cursive style with a long horizontal flourish extending to the right.

David McKenna  
Business Unit Leader  
Groundwater Policy Branch

Enclosures

cc: John Knapp  
Alberta Environment

Wayne Boyd  
Alberta Environment

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<sup>1</sup>*Guidelines for Canadian Drinking Water Quality (March 2006)* help to protect the health of Canadians by establishing maximum acceptable concentrations for substances found in water used for drinking. The guidelines apply to all public and private drinking water supplies and to treated or finished water as it emerges from the tap. Drinking Water Quality Guidelines are developed by and available through Health Canada. Please consult with your local Health Authority regarding any parameters above the set criteria relating to possible health affects.

<sup>2</sup>*Aesthetic objective(s)* are the characteristics of drinking water that can affect consumer acceptance such as appearance and taste. If a concentration is well above an aesthetic objective, there is a possibility of a health hazard. For further information, please contact your local Health Authority.

<sup>3</sup>*Maximum Acceptable Concentration(s)* have been established for certain substances that are known or suspected to cause adverse effects on health. Each MAC has been derived to safeguard health assuming lifelong consumption of drinking water containing the substance at that concentration. Please consult with your local Health Authority regarding any parameters above the set criteria relating to possible health effects.