



Waterwell and Groundwater Monitoring Newsletter

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Canadian Pipe & Pump Supply is an industry leader engaged in the manufacturing and distribution of pipe product used in waterwell and groundwater monitoring applications. In addition, we supply pumps and accessories used in conjunction with our pipe. We firmly believe in helping our customers grow their businesses. Our skilled team of industry experts can help select the proper product for your application or help to design a custom solution.

We have four locations across Ontario to serve your needs. Please visit us at one of our branches located in Toronto, Orillia, Ottawa or Tillsonburg.

Common Bacteria in Water Systems

Two forms of bacteria that can cause significant problems for water systems and headaches for water system installers are Iron Reducing Bacteria (IRB) and Sulphur Reducing Bacteria (SRB). Of the two types, SRB is more common.

IRB cause problems with water's taste and odour and can stain plumbing fixtures. The most obvious indicator of IRB is red or yellow slime on the walls of toilet tanks, water tanks and plumbing. The real problems occur when IRB builds up; it can clog pipes and screens and can also corrode treatment equipment. Indications of a build-up of this bacterium are unpleasant tastes and smells described as swampy, oily or musty. IRB does not, however, emit the rotten egg smell, since it does not produce hydrogen sulphide. It can cause the appearance of a rainbow oil-like look to water and leave a yellow, red or brown stain on fixtures.

SRB grow in oxygen-deficient environments and decompose sulfur compounds, releasing hydrogen sulfide gas. Hydrogen sulfide gas is very corrosive and has a foul smell. The clearest sign of an SRB problem is the rotten egg smell of the hydrogen sulfide gas. Similar to the smells created by IRB, the rotten egg odour may only be noticeable when the water hasn't been run for a number of hours. If the smell is present only when the hot water is turned on, then this might indicate that the SRB is in the water heater. Heat can also make the gas spread more rapidly in the air, so the smell might be more concentrated in a shower. Another good indicator of this bacterium is a blackish slime coating the inside of the toilet tank.

Hydrogen sulfide is highly corrosive to steel, copper, brass and iron. It can also cause yellow or black stains on plumbing fixtures. High levels of hydrogen sulfide also ruin the resin bed of an ion

exchange water softener. If hydrogen sulfide is detected in treated water, but is not detectable in non-treated water, then there is usually some SRB in the treatment or filtering system. A[HH1] form of bacteria that thrives in a salt rich-environment, such as a water softener that uses sulfates, may leave a black slime inside the water softener.

Hydrogen sulfide gas also occurs naturally and is typically formed from decaying plant material in the groundwater. Occasionally, a hot water heater can be a source of hydrogen sulfide odor - this occurs when the magnesium corrosion control rod in many hot water heaters reduce naturally occurring sulfates to hydrogen sulfide in a chemical process.

To learn about how to control and eliminate bacteria from water systems, contact one of our experts at CPPS to help you to eradicate the problem.



We look forward to your business and partnering with you to help drive your growth in 2014.

Sincerely,

Robert Martini
Vice-President General Manager