

# Water Contaminants and Health in Newfoundland and Labrador

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## Microbiological Contaminants

- *E. Coli* is the most immediate public health concern from water
- Gastroenteritis is a serious health risk
- Some strains of *e.coli* can cause kidney failure, even death
- During peak months, June – November, more than 1% of public water samples, and 10% of private water samples can test positive for *e.coli*
- Over 50% of private samples test positive for total coliforms in peak months
- 239 communities currently on Boil Water Advisory
- Disinfection does not kill all parasites, follow Boil Water Advisories!

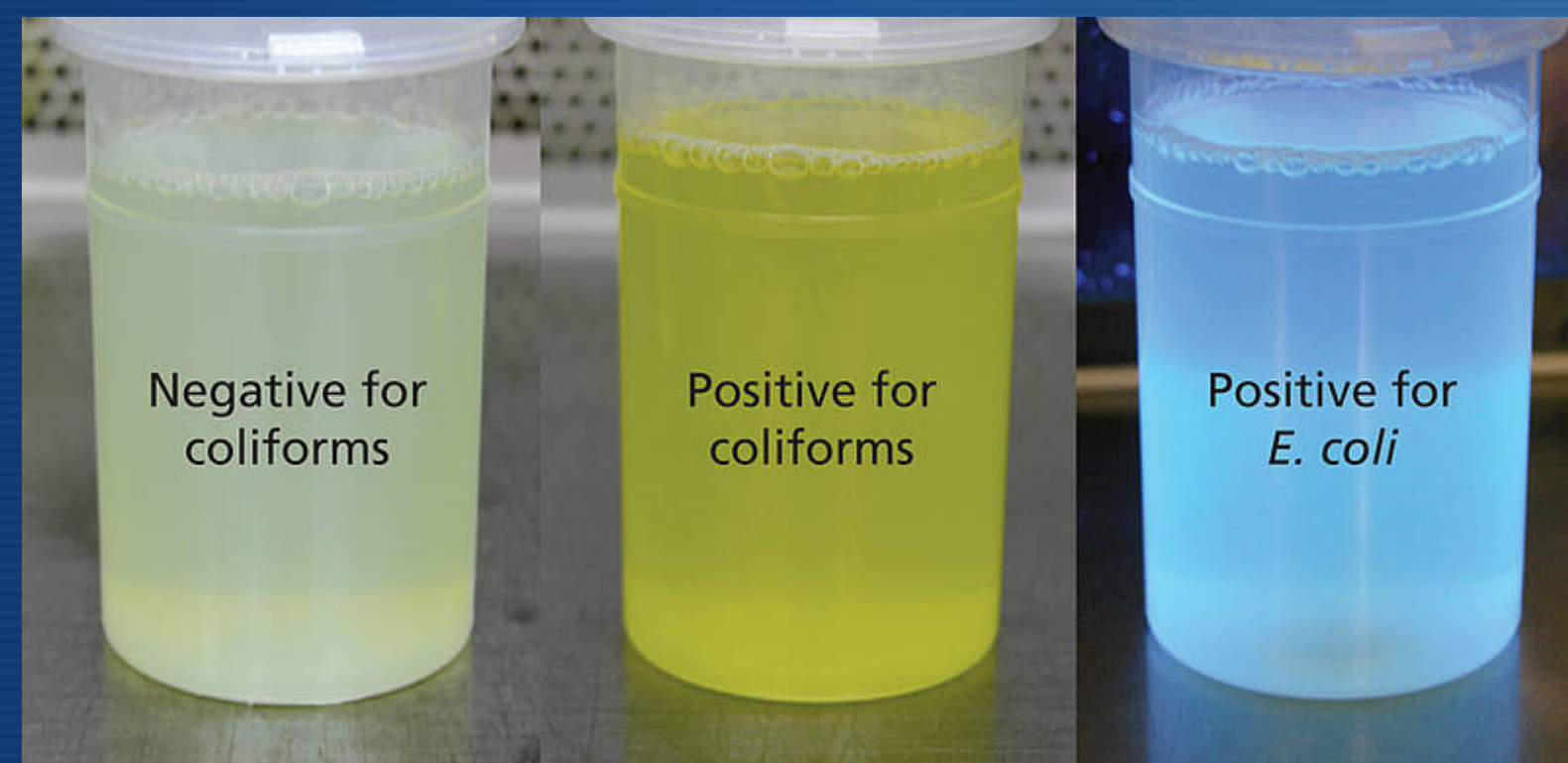


Photo credit: <http://www.easyfairs.com/typo3temp/pics/cc93f6c563.jpg>

The Public Health Lab is available, with 6 locations across the province, to test water for total coliforms using the *Colitag* system—a proxy test for recent fecal contamination

## Increased Cancer Risk

Organ	Possible increase in cancer risk from drinking water contaminated with:
Bladder	Arsenic, THM's
Colon	THM's
Liver	Arsenic, THM's, HAA's
Lung	Arsenic, Cadmium, Uranium
Kidney	Cadmium, THM's, Lead, Uranium
Skin	Arsenic
Stomach	Chromium

## Disinfection By-Products (DBPs)

- 132 out of 478 NL water supplies have high trihalomethanes (THM's)
- 147 out of 478 NL water supplies have high haloacetic acids (HAA's)
- Small amounts of THM's can be breathed in while showering, or absorbed through the skin while swimming
- Over 60 studies since 1974 have looked at DBP's and cancer.
- It is possible that 5 of the most common DBP's cause cancer

**The benefits of drinking chlorinated water, even with high THM's, outweigh the risks of drinking untreated water!**

## Chemical Contaminants

- Naturally occurring elements can actually be toxic chemicals
- New research shows even low levels of certain chemicals can have toxic effects if drank over a long period of time
- Our analysis found evidence of 10 different chemical contaminants in Newfoundland and Labrador including arsenic, chromium, fluoride, uranium and others
- Cancer is the biggest risk from chemical contaminants



Photo Credit: <http://cooks.ndtv.com/article/show-your-digestive-tract-s-surface-is-the-size-of-a-studio-apartment-513703>

Digestive tract organs are the most at risk for developing cancer from contaminated drinking water

## Areas of Potential Arsenic Contamination in Ground Water

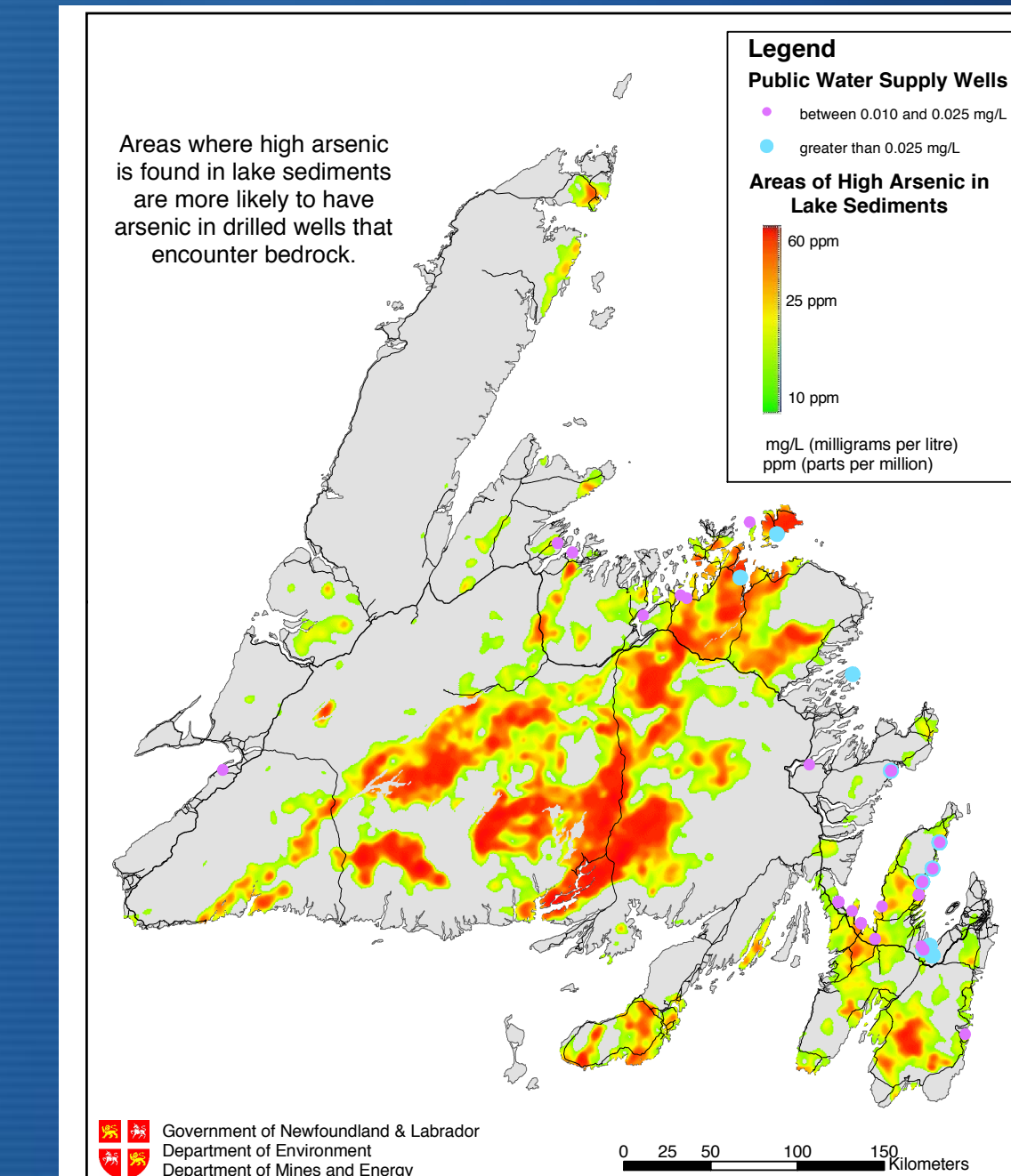


Photo credit: <http://www.env.gov.nl.ca/env/waterres/cycle/groundwater/well/arsenic.html>

## Did you know?

**Not all water contaminants have a taste or a smell.**

**Test water so you know it is safe, even if the water looks clean!**