

# Simply The Best...

**OUR GOAL** is to provide you with a safe and dependable supply of drinking water. This is a snapshot of the quality of water that we provided for January 1 through December 31, 2012. It also includes the date and results of any contaminants that we detected within the past five years tested less than once a year. Any contaminants detected within the past five years are listed along with the date of detection and concentration. This report is designed to inform you about the quality water and services we deliver to you every day.

## SOURCES OF DRINKING WATER AND CONTAMINANTS

The sources of drinking water (both tap water and bottled water) include surface water (streams, lakes) and ground water (wells, springs). As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals. It also picks up substances resulting from the presence of animals and human activity. Some “contaminants” may be harmful. Others, such as iron and sulfur, are not harmful. Public water systems treat water to remove contaminants, if any are present. Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous systems, and may have increased risk of getting cancer.

In order to ensure that your water is safe to drink, we test it regularly according to regulations established by the U.S. Environmental Protection Agency and the State of Vermont. These regulations limit the amount of these various contaminants:

**Microbial organisms** (viruses and bacteria) may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.

**Inorganic chemicals** (salts and metals) can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, or farming.

**Synthetic Organic chemicals** (pesticides and herbicides) may come from agriculture, urban stormwater runoff, residential uses, and careless disposal of household chemicals.

**Volatile Organic chemicals** (gasoline and solvents) may come from gas stations, urban stormwater runoff, septic systems, industrial process, and careless disposal of household chemicals.

**Naturally occurring radioactivity**

## HEALTH INFORMATION REGARDING DRINKING WATER

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants, can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbiological contaminants are available from EPA’s Safe Drinking Water Hotline (1-800-426-4791).

All drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some Contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the hotline.

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. St. Albans Water Dept. is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your drinking water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can

take to minimize exposure is available from the Safe Drinking Water Hotline or at

<http://www.epa.gov/safewater/lead>.

- Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, and diarrhea and associated headaches.

- Some people who drink water containing haloacetic acids in excess of the MCL over many years may have an increased risk of getting cancer. In animal studies, some haloacetic acids have been associated with reproductive or developmental effects.

CHEMICAL CONTAMINANTS	Level Detected/Units	MCL	MCLG	Sample Date	Violation Yes or No	Likely source of detected contaminant
CARBON, TOTAL ORGANIC (TOC)	2 PPM	1.39 – 4.26	1000	6/23/2010	No	Naturally present in the environment
ALKALINITY TOTAL	63 MG/L	1000	1000	11/29/2010	No	
MANGANESE	0.033 MG/L	.05	.05	3/1/2006	No	
NITRATE (AS N)	0.35 ppm	10	10	01/11/2012	No	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
TURBIDITY	0.3	0.1		3/1/2006	No	Soil Runoff
FLUORIDE	1.1ppm	4.0	4.0	05/12/2012	No	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories.
DISINFECTION BYPRODUCTS	MONITORING PERIOD	RAA	RANGE	MCL	MCLG	TYPICAL SOURCE
TOTAL HALOACETIC ACIDS (HAA5)	2012	36 ppb	7.6-51.3	60	0	BY-PRODUCT OF DRINKING WATER DISINFECTION
TOTAL TRIHALOMETHANES (TTHM)	2012	47 ppb	11.6-56.9	80	0	BY-PRODUCT OF DRINKING WATER CHLORINATION
RADIONUCLIDES	COLLECTION DATE	Highest Value	RANGE	MCL	MCLG	TYPICAL SOURCE
RADIUM COMBINED (226, 228)	2011	0	1.2-1.7	5	0	EROSION OF NATURAL DEPOSITS
GROSS ALPHA, INCLUDING RA, EXCLUDING RN & U	2011	0	2.7-2.8	10	0	EROSION OF NATURAL DEPOSITS
RADIUM 226	2011	0	0.1	5	0	
RADIUM -228	2011	0	1.1-1.7	5	0	

Contaminant Detected	RANGE	90 <sup>th</sup> Percentile	95 <sup>th</sup> Percentile	Sampling Date	AL	SITES OVER	Likely source of detected contaminant
Copper	0- PPM 0.18 PPM	0.098	0.11	2011-2013	1.3	0	Corrosion of household plumbing systems; erosion of natural deposits.
Lead	0-61 ppb	2	3	2011-2013	15	0	Corrosion of household plumbing systems; erosion of natural deposits.
Microbiological	Result	MCL		MCLG	Typical Source		
No Detected Results were found in the 2012							

## WATER QUALITY DATA

The adjacent tables list all the drinking water contaminants that we detected during the 2012 calendar year. It also includes the date and results of any contaminants that we detected within the past six years tested less than once per year. The presence of these contaminants in the water does not necessarily show that the water poses a health risk.

## TERMS AND ABBREVIATIONS

In these tables you may find terms you might not be familiar with. To help you better understand these terms, we have provided the following definitions:

- **Maximum Contamination Level Goal (MCLG):** The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.
- **Maximum Contamination Level (MCL):** The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment.
- **Maximum Residual Disinfectant Level Goal (MRDLG):** The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of disinfectants in controlling microbial contaminants.
- **Maximum Residual Disinfectant Level (MRDL):** The highest level of a disinfectant allowed in drinking water. Addition of a disinfectant may help control microbial contaminants.
- **Action Level:** The concentration of a contaminant, which, if exceeded, triggers treatment or other requirements, which a water system must follow.
- **90<sup>th</sup> Percentile:** 90% of the samples are below the action level. (Nine of ten sites sampled were at or below this level).
- **Treatment Technique (TT):** A process aimed to reduce the level of a contaminant in drinking water.
- **Parts per million (ppm) or Milligrams per liter (mg/l):** (one penny in ten thousand dollars)
- **Parts per billion (ppb) or Micrograms per liter (mg/l):** (one penny in ten million dollars)
- **Picocuries per liter (pCi/L):** a measure of radioactivity in water.
- **N/A:** Not applicable.

## NO VIOLATIONS OCCURRED DURING THE YEAR 2012

### FOR MORE INFORMATION

We want you to be informed about the quality of your water. If you have any questions, please contact the person(s) listed below. Also, you are invited to attend any City Council meeting on the second Monday of each month at 6:30 p.m. in City Hall.

Allen Robtoy, Director of Public Works –  
(802)-524-1500, Ext -267

### WATER SOURCE

The St. Albans Water System is unique among water systems in Vermont. Operating two water treatment plants, the City provides an average of up to 2.5 million gallons per day to approximately 3,000 residential, 500 business and 20 industrial customers. The sources of the City's supply include:

Source Name	Source Water Type
Lake Champlain- 20	Surface Water
Fairfax Reservoir	Surface Water
Lake Champlain-18	Surface Water
Silver Lake/ Fairfax	Surface Water

The State of Vermont Water Supply Rule requires Public Community Water Systems to develop a Source Protection Plan. This plan delineates a source protection area for our system and identifies potential and actual sources of contamination. Please contact us if you are interested in reviewing the plan. The City owns the acres within the primary watershed and owns land within the secondary watershed. However, Lake Champlain is a State water supply, with the lands lying under water falling under the jurisdiction of the U.S. Army Corps of Engineers and State of Vermont, Agency of Natural Resources.

*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools and businesses). You can do this by posting this notice in a public place and distributing copies by hand or mail*

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# City of St. Albans Water Department

## 2012

## WATER QUALITY REPORT

WSID #5130

