

CROSWELL WATER DEPARTMENT
 WATER QUALITY REPORT
 2014

The Safe Drinking Water Act (SDWA) was passed by congress in 1974 and last amended in 1996 to protect and inform all community water systems and their customers. The U.S. Environmental Protection Agency (USEPA) was given mandate to require each community water system to provide its customers with a Consumer Confidence Report every calendar year. The City of Croswell Water Department will inform you of the source of water, what it contains, and what our test results have been for the 2014 calendar year. Croswell is committed to providing its customers with the safest and most reliable water source available.

OVERVIEW

- Water Source

The City of Croswell is supplied by groundwater that is pumped from four wells located on the East End of Sanborn Avenue in Croswell. Well #1 is 86' deep and capable of pumping 250 gallons per minute. Well #2 is 84' deep and pumps approximately 500 gallons per minute. Well #3 is 94' deep and pumps 1000 gallons per minute. Well #4 is 100' in depth and pumps around 1000 gallons per minute. Croswell is a very fortunate community having four wells that produce plenty of good tasting water with room for growth in the future.

- Explanation of the Water-Quality Data Table

The City of Croswell's water report is based on tests done for the year 2014

This Water-Quality report will define terms used in testing your water.

1. Maximum contaminant 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.
2. Maximum contaminant 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 technology.

Inorganic Contaminants	Date tested	Unit	MCL	MCLG	Detected Level	Range	Violation	Typical source of contaminant
Arsenic*	3/25/14	Ppb	10	0	Not detected		NO	Erosion of natural deposits
Copper**	6/5/12	Ppb	AL=1300	1300	641	304-1020ppb	NO	Corrosion of household plumbing
Lead**	3/25/14	Ppb	AL=15	0	0	<3ppb	NO	Corrosion of household plumbing
Trihalomethanes	3/21/14	Ppb	80	N/A	0.0063		NO	Erosion of natural deposits
Fluoride	3/21/14	Ppm	4	4	0.42		NO	Erosion of natural deposits
Barium	3/25/14	Ppm	2	2	0.17		NO	Erosion of natural deposits
Selenium	3/25/14	Ppb	50	50	0		NO	Erosion of natural deposits
Nitrate	3/21/14	Ppm	10	10	0.4		NO	Human and animal fecal waste
Combined radium	7/12/13	pCi/l	5	0	0.2		NO	Erosion of natural deposits
			MRDL	MRDLG				
Chlorine	Jan.-Dec. 2014	Ppm	4	4	.65	.5-.9	NO	Chlorination of drinking water

Unregulated Contaminants	Date tested	Unit	MCL	MCLG	Detected Level	Range	Violation	Typical source of contaminant
Sodium	3/21/14	Ppm	N/A	N/A	28		NO	Erosion of natural deposits
Nickel	3/25/14	Ppb	N/A	N/A	Not detected		NO	Erosion of natural deposits

Key to Table:

Ppb = Parts Per Billion

MCL = Maximum Contaminant Level

TT = Treatment Technique

Na = Not Applicable

pCi/liter=picocuries per liter

MCLG = Maximum Contaminant Level Goal

Ppm = Parts Per Million, or milligrams per liter

Action Level = The concentration of a contaminant which, if exceeded, triggers a treatment or other requirement which a water system must follow. (AL)

MRDL= Maximum residual disinfectant level: means the highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

MRDLG= Maximum residual disinfectant level goal: Means the level of a drinking water disinfectant below which there is no known or expected risk of health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

** Typical source of contaminants for Lead and Copper is corrosion of household plumbing, using the 90th percentile at the most recent round of sampling.

*While your drinking water meets EPA's standard for arsenic, it does contain low levels of arsenic. EPA's standard balances the current understanding of arsenic's possible health effects against the cost of removing arsenic from drinking water. EPA continues to research the health effects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems.

Water Quality Data

Croswell did radiological testing in 2013 and had no violations. A partial chemical test was done in 2014 with no violations. Croswell sampled ten sites for copper and lead in 2012 and all samples were below the action level set by the U.S.E.P.A. Previously we had elevated samples at sixteen sites. Croswell Water Department continues to treat its water with orthophosphate, which helps control the elevated copper we previously had. Monthly samples are taken for testing of coliform bacteria and no violations have occurred. Croswell met all state requirements for testing in the year 2014 and will continue to make your potable water as safe as possible in the future.

Water Hardness

Annual testing for water hardness is conducted by the Croswell Water Department. Recent tests resulted in a range of 20 grains of hardness.

Required Additional Health Information

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 water posed a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline (800-426-4791).

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and radioactive materials, and can pick up substances resulting from the presence of animals or from human activity. Contaminants that may be present in source water include:

- Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- Inorganic contaminants, such as salts and metals, which can be naturally occurring or result from urban storm runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- Pesticides and herbicides, which may come from a variety of sources such as agriculture, stormwater runoff, and residential uses.

- Organic chemical contaminants, including synthetic and volatile organics, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff and septic systems.
- Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Some people may be more vulnerable to contaminants in drinking water than is 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* are available from the Safe Drinking Water Hotline (800-426-4791).

Concerning Lead in Our Water

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. Croswell Water Department 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 your water for drinking or cooking. If you are concerned about lead in your 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 (800-426-4791) or at <http://www.epa.gov/safewater/lead>.

Source Water Assessment Report for Croswell

The Michigan SWAP evaluated 2416 community groundwater sources and determined susceptibility to be **Very Low** for .4%, **Low** for 16.1%, **Moderately Low** for 27.6%, **Moderate** for 25.6 %, **Moderately High** for 18.3%, **High** for 11.7%, and **Very High** for 1.3%. Croswell's susceptibility determination fell in the **moderately high** category for all four of Croswell's wells.

Susceptibility is a means to identify the relative potential of contamination for public water supply sources. A copy of the source water assessment may be obtained at Croswell's city hall.

National Primary Drinking Water Regulations Compliance

Thank you for participating in the 2014 water quality report. If you should have any questions or concerns pertaining to your water please call 810- 679-2121 for the water superintendent or call City Hall at 810-679-2299 and they will inform you when our city council meets. This report will not be mailed to Croswell residents, however all information is available at the above telephone numbers. A copy of this report may be obtained at 100 North Howard, Croswell's City Hall.