

2014 WATER QUALITY REPORT FOR THE City of Melbourne

The City of Melbourne strives to provide you with a safe, dependable supply of drinking water that is in compliance with the guidelines established by the Environmental Protection Agency. This report contains important information regarding the water quality in our water system. The City of Melbourne currently purchases its water through a bulk connection with Central Iowa Water Association. The Newton Waterworks supplies the water which is pumped from 21 wells located in the Alluvial and Cambrian-Ordovician aquifers of the Skunk River. Our water quality testing shows the following results:

City of Melbourne

CONTAMINANT	MCLG	MCL	DETECTED LEVEL	DATE SAMPLED	RANGE OF DETECTION	VIOLATION	SOURCE
INORGANIC CONTAMINANTS							
Copper (ppm) (90 th percentile)	1.3	AL=1.3	0.0074	2012	ND-0.0077	NO	Corrosion of plumbing systems; Erosion of natural deposits; Leaching from wood preservatives.
*Lead (ppb) (90 th percentile)	0	AL=15	ND	2012	ND	NO	Corrosion of household plumbing systems; erosion of natural deposits.
VOLATILE ORGANIC CONTAMINANTS							
Total Trihalomethanes (TTHM) (ppb)	N/A	80	32.00	09/30/2014	32-32	NO	By-products of drinking water disinfection.
Total Haloacetic Acids	N/A	60	10.00 LRAA	9/30/2015	10-10	NO	By-products of drinking water disinfection.
OTHER							
Chlorine (ppm)	MRDLG =4.0	MRDL=4.0	1.2 (RAA)	12/31/2014	.8-1.6	NO	Water additive used to control microbes.

Newton Water Source

INORGANIC CONTAMINANTS							
Chlorine (ppm)	MRDLG =4.0	MRDL=4.0	0.8 (RAA)	12/31/2014	0.23-1.13	NO	By-product of drinking water disinfection.
Total Coliform Bacteria	Presence of coliform bacteria in >5% of monthly samples (0)	TCR	1 sample(s) positive	07/31/2014	N/A	NO	Naturally present in the environment.
Total Trihalomethanes (ppb) [TTHM]	80	N/A	23.00 LRAA	10/22/2013	18-25	NO	By-products of drinking water chlorination.
Total Haloacetic Acids (ppb) [HAA5]	60	N/A	5.00 LRAA	06/30/2014	ND-6	NO	By-products of drinking water chlorination.
Fluoride (ppm)	4	4	0.76	02/29/2012	0.47-0.91	NO	Water additive which promotes strong teeth; Erosion of natural deposits; Discharge from fertilizer and aluminum factories.
Barium	2	2	0.0094	02/29/2012	N/A	NO	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Selenium (ppb)	50	50	3.90	02/29/2012	N/A	NO	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge of mines.
Thallium (ppb)	2	0.5	1.00	02/29/2012	N/A	NO	Leaching from ore-processing sites; Discharge from electronics, glass, and drug factories.
**Nitrate [as N] (ppm)	10	10	3.00	2014	2.60-3.00	NO	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Sodium (ppm)	N/A	N/A	10.3	02/29/2012	N/A	NO	Erosion of natural deposits; Additive to water during treatment process.

THIRD UNREGULATED CONTAMINANT MONITORING RULE RESULTS (UCMR3)

Our utility is committed to protecting public health and meets or surpasses all state and federal health standards for tap water. To help advance the science of drinking water, we have been collecting data for the EPA since the rule was enacted in January 2013. Collecting information about the occurrence of these compounds in water supplies is the first step in the EPA's efforts to determine whether they should be regulated. The presence of a compound does not necessarily equate to a health risk; the concentration of a compound is a far more important factor in determining whether there are health implications. We will closely monitor both the concentrations of these compounds and the EPA's health studies and will keep you informed of any developments. Should the EPA ultimately determine that regulation is warranted, we will take whatever steps are necessary to protect the health of our customers. Additional information about the Third Unregulated Contaminant Monitoring Rule can be found at DrinkTap.org.

CONTAMINANT	RESULT	MRL
Hexavalent Chromium by EPA Method 218.7	0.45 ug/L	0.03
Chlorate by EPA Method 300.1	47 ug/L	20
Chromium by EPA Method 200.8	0.44 ug/L	0.2
Molybdenum by EPA Method 200.89	1.2 ug/L	1
Strontium by EPA Method 200.8	190 ug/L	.3
Vanadium by EPA Method 200.8	0.54 ug/L	0.2

NOTE: The EPA requires monitoring of over 80 drinking water contaminants. Those listed above are the only contaminants detected in your drinking water. For a complete list contact the City of Melbourne.

*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. The City of Melbourne 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>.

**Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant, you should ask advice from your health care provider.

DEFINITIONS

- 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.
- 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.
- ppb -- parts per billion.
- ppm -- parts per million.
- pCi/L – picocuries per liter
- N/A – Not applicable
- ND - Not detected
- RAA – Running Annual Average
- LRAA – Locational Running Annual Average
- IDSE – Initial Distribution System Evaluation
- Treatment Technique (TT) – A required process intended to reduce the level of a contaminant in drinking water.
- Action Level (AL) – The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
- 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 the use of disinfectants to control microbial contaminants.
- Maximum Residual Disinfectant Level (MRDL) - 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.
- SGL – Single Sample Result
- TCR – Total Coliform Rule
- MRL – Minimum Reporting Level

GENERAL INFORMATION

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. Your water supply is monitored on a regular basis to assure the water is a safe, dependable supply.

FDA regulations establish limits for contaminants in bottled water that must provide the same protection for public health. Any bottled water that is labeled “drinking water” has to meet the EPA’s drinking water regulations. 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 the water poses a health risk.

The most common drinking water treatment is disinfection. Disinfection is considered to be the primary mechanism to kill bacteria and other germs to prevent the spread of waterborne diseases. Chlorine is the most widely used disinfectant. Disinfectants combine with organic and inorganic matter present in water to form chemicals called disinfectant by-products. EPA sets standards for controlling the levels of disinfectants and disinfectant by-products in drinking water.

Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agriculture activity. If you are caring for an infant, you should ask for advice from your health care provider.

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 microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

SOURCE WATER ASSESSMENT INFORMATION

The Newton Waterworks obtains its water supply from the Alluvial and Cambrian-Ordovician aquifers. The Alluvial aquifer was determined to be highly susceptible to contamination because the characteristics of the aquifers and overlying materials allow contaminants to move through the aquifers fairly quickly. The Cambrian-Ordovician aquifer was determined to be not susceptible to contamination because the characteristics of the aquifer and overlying materials prevent easy access of contaminants to the aquifer. The wells will be susceptible to activities such as leaking underground storage tanks, underground storage tanks, and hazardous waste generators. A detailed evaluation of your source water was completed by the IDNR, and is available from Central Iowa Water Association at (641) 792-7011.

OTHER INFORMATION

The City of Melbourne is making every effort to protect the water system from potential security threats. You, as customers, can also help. If you see any suspicious activity near any part of the water system, please contact us at (641) 482-3338 or the local police/sheriff department. We appreciate your assistance in protecting the water system.

CONTACT INFORMATION

For questions regarding this information, please contact Gary Fricke, Superintendent at of Public Works (641) 328-4389. Decisions regarding the water system are made at the Melbourne City Council meetings held on the second Monday of each month at 7:00 p.m. at the Melbourne City Hall; 111 1st Street; Melbourne, Iowa and are open to the public.