

# City of Mackay

## 2015 Drinking Water Report

June 22, 2016

The City of Mackay Water Department is pleased to report to you on the quality of water you receive from your water system. During 2015 your tap water met all U.S. Environmental Protection Agency (USEPA) and State of Idaho drinking water standards.

To comply with Safe Drinking Water Act amendments, the City of Mackay annually issues a report on monitoring performed on its drinking water. During 2015 we conducted 16 tests for three contaminants. This report summarizes monitoring conducted during the calendar year 2015.

### **Is my water safe?**

In a word, YES!

The City of Mackay vigilantly safeguards your water supplies and we are proud to report that our system did not violate a maximum contaminant level, monitoring or other water quality standard. Samples collected in 2015 and other chemicals detected in previous years are summarized in the Water Quality Data Table on page 3 of this report.

We test for coliform bacteria every month. No coliform bacteria were present in our 12 samples.

The City of Mackay also tested water from each of our 4 water sources for the inorganic chemical Nitrate. No Nitrates were detected at the minimum method detection level of 1 milligram per liter (mg/L).

### **Why are there contaminants in my drinking water?**

Drinking water, *including bottled water*, may reasonably be expected to contain at least small amounts of some contaminants. Contamination is anything other than pure water. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the USEPA Safe Drinking Water Hotline (1-800-426-4791), <http://www.epa.gov/safewater/hotline> or you may contact Ken Day at the City of Mackay (588-2274 or [mackaywater@gmail.com](mailto:mackaywater@gmail.com)).

## **Do I need to take special precautions?**

Probably not. 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 at particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/ Centers for Disease Control and Prevention (CDC) guidelines on appropriate measures to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791) or <http://www.epa.gov/safewater/hotline> .

## **Where does my water come from?**

The City of Mackay uses groundwater sources for all the water provided by our system. Our primary supply is from the City Spring on the Mine Hill. This is supplemented by three wells. Because of the high quality of our groundwater, we are able to deliver this water through our system with no treatment. After a source water assessment was completed, a committee of citizens developed a Source Water Protection Plan in 2009 to assist in protecting our drinking water.

## **How can I get involved?**

The Mackay City Council is the governing body for the City of Mackay and the Mackay water system. The Council meets on the first Tuesday of each month at 7:00 pm at City Hall. You are welcome at all Council meetings. Ken Day is the certified in-charge operator for the water system. Ken Day or the Council members would be happy to answer questions you may have, either about this report or any other aspects of the water system.

**If you have any questions please contact:**

**Ken Day**

**(208)588-2274**

**[mackaywater@gmail.com](mailto:mackaywater@gmail.com)**

**City of Mackay**

**PO Box 509**

**203 S. Main St.**

**Mackay, ID 83251**

---

## Unit Descriptions

<u>Term</u>	<u>Definition</u>
ppm	parts per million or milligrams per liter (mg/L)
ppb	parts per billion or micrograms per liter ( $\mu\text{g/L}$ )
pCi/L	picocuries per liter (a measure of radioactivity)
Positive sample/ per month	number of samples taken monthly that were found to be positive
NA	Not applicable
ND	Not detected
NR	Monitoring not required, but recommended

---

## Important Drinking Water Definitions

<u>Term</u>	<u>Definition</u>
MCLG	Maximum Contaminant Goal: 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.
MCL	Maximum Contaminant Level: The highest level of a contaminant that is allowed in drinking water. MCL's are set as close to the MCLGs as feasible using the best available treatment technology.
TT	Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water.
AL	Action Level: The concentration of a contaminant, which, if exceeded, triggers treatment or other requirements which a water system must follow.
MRDLG	Maximum Residential Disinfection Level Goal: The level of a drinking water disinfectant below which there are no known or expected risks to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.
MRDL	Maximum Residual Disinfectant Level: The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for the control of microbial contaminants.
MNR	Monitored Not Regulated

## Water Quality Data Table

The table below lists all the drinking water contaminants that we tested during the year 2015. The presence of contaminants in water does not necessarily indicate that the water poses a health risk. Some other contaminants of interest are included for your information. This samples were collected and tested in 2013. The USEPA or the State of Idaho requires us to monitor for certain contaminants less than once a year because the concentrations of these contaminants do not change frequently or our system is not considered vulnerable to this type of contamination. One (1) part per billion (ppb) is equal to .001 part per million (ppm).

<u>Contaminants</u>	<u>Violation</u>	<u>MCLG</u>	<u>MCL</u>	<u>Your Water</u>		<u>Date</u>	<u>Typical Source</u>
				<u>Range Low</u>	<u>Sample High</u>		
<b>Microbial Contaminants</b>							
Total Coliform	No	0	1	0	0	monthly	Naturally present in the environment.
<b>Inorganic Contaminants</b>							
Nitrates (ppm)	No	10	10	ND	ND	November	Runoff from fertilizer use, leaching from septic tanks, sewage. Erosion of natural deposits.
Lead (ppb)	No	0	15	<1	12.0	9/2013	Corrosion of household plumbing. Erosion of natural deposits.
Copper (ppm)	No	1.3	1.3	< .05	0.098	9/2013	Corrosion of household plumbing. Erosion of natural deposits.

Lead and Copper samples were collected at ten consumer water taps.

### Radioactive Contaminants

Alpha Emitters (pCi/L) includes radium and uranium.

No	0	15	< 2.5	9.7	12/2013	Erosion of natural deposits
----	---	----	-------	-----	---------	-----------------------------

## Lead and Copper

Because of the problems with lead contaminated drinking water in Flint, Michigan, everyone has become more aware of the presence of lead contamination in some water. Although we have been complying with the Lead and Copper Rule (LCR) requirements since 1993, we are required to review our procedures and testing criteria.

The U.S. Environmental Protection Agency (USEPA) has established drinking water regulations for lead and copper. Although there is no known safe level of lead consumption, the USEPA has established a Maximum Contaminant level (MCL) for lead and copper as measured at consumer's taps. The MCL for lead is 0.015 mg/L (15 parts per billion). The MCL for copper is 1.3 mg/L (1.3 parts per million).

The potential health effects of low level lead exposure for children can include: altered physical and mental development; interference with growth; deficits in IQ, attention span, and hearing; and anemia. For adults these effects can include increased blood pressure, shorter gestational periods and reduced kidney function. The potential health effects of copper exposure can include stomach and intestinal distress.

Our source water has not shown detectable levels of lead contamination. Our distribution system contains no lead lines or copper lines with lead solder. The LCR requires the City to test water collected from homeowner's individual taps. This is because it has been shown that the primary source of lead and copper contamination is from corrosion and leaching of lead service lines and plumbing fixtures especially brass.

Other factors contributing to increased lead and copper contamination include the corrosivity of water. Hard water and the presence of calcium and magnesium generally result in less corrosive water. Hard water does cause mineral deposits on plumbing, fixtures and windows and decreases the sudsing capacity of soap. Acid water and low mineral content also contributes to more corrosive water.

The cooperation of homeowners and residents is necessary for Mackay to comply with the LCR. The LCR requires the City of Mackay to collect water samples from houses most likely to have high levels of lead and copper. The first priority is single family residences with lead pipes, lead service lines or copper pipes with lead solder installed between 1982 and 1988. We are not aware of any lead pipes or service lines in Mackay.

If you think you have lead pipes in your house, please contact the City of Mackay at 588-2274 or [mackaywater@gmail.com](mailto:mackaywater@gmail.com). We have a list of houses constructed between 1982 and 1988 with copper pipes. If your house meets these criteria but has not been tested in previous years please contact us also.

The second priority is for multi-family residences and other structures with the same plumbing features as the first priority houses.

The third priority is single family residences with copper pipes with lead solder constructed before 1983. Most copper pipe was soldered with lead solder before 1986 when the manufacture and use of lead solder was outlawed because of health risks.