

Annual Drinking Water Quality Report

Argusville, ND

2015

We're pleased to present to you this year's Annual Drinking Water Quality Report. This report is designed to inform you about the safe clean water we deliver to you every day. Our constant goal is to provide you with a safe and dependable supply of drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water. We purchase treated groundwater from Cass Rural Water Users District (Phase I). Water treatment includes iron and manganese removal, addition of polyphosphates, fluoridation, and chlorination.

Cass Rural Water Users District (Phase I) is participating in the North Dakota Wellhead Protection Program. This plan can be obtained from Cass Rural Water Users District office by calling (701) 428-3139. The North Dakota Department of Health has prepared a Source Water Assessment for the City of Argusville & Cass Rural Water Users District (Phase I). Information on these programs is available to the public upon request. Our public water system, in cooperation with the North Dakota Department of Health, has completed the delineation and contaminant/land use inventory elements of the North Dakota Source Water Protection Program. Based on the information from these elements, the North Dakota Department of Health has determined that our source water is "not likely susceptible" to potential contaminants. No significant sources of contamination have been identified.

"I'm pleased to report that our drinking water is safe and meets federal and state requirements," says Al Woods, Water Superintendent.

This report shows our water quality and what it means.

If you have any questions about this report or concerning your water utility, please contact Al Woods at (701) 793-6534 or Mary Howatt, City Auditor at (701) 484-5095. We want our valued customers to be informed about their water utility. If you want to learn more, please attend any of our regularly scheduled meetings. They are held on the first Monday of every month at 7:00 PM in the Community Center. If you are aware of non-English speaking individuals who need help with the appropriate language translation, please call Al at the number listed above.

The City of Argusville would appreciate it if large volume water customers would please post copies of this year's Annual Drinking Water Quality Report in conspicuous locations or distribute them to tenants, residents, patients, students, and/or employees, so individuals who consume the water, but do not receive a water bill, can learn about our water system.

The City of Argusville routinely monitors for contaminants in your drinking water according to Federal and State laws. The tables on pages 3 & 4, shows the results of our monitoring for the period of January 1st to December 31st, 2015. As authorized and approved by EPA, the state has reduced monitoring requirements for certain contaminants to less often than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. Some of our data [e.g., for radioactive contaminants], though representative, is more than one year old.

The sources of drinking water (both tap 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, in some cases, radioactive material, 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 stormwater, industrial or domestic wastewater discharges, oil production, mining or farming.

Pesticides and herbicides, which come from a variety of sources such as agriculture, urban stormwater runoff and residential uses.

Organic chemical contaminants, including synthetic and volatile organic chemicals, 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, the Environmental Protection Agency (EPA) prescribes regulations, which limit the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

In the tables on pages 3 & 4 you will find many terms and abbreviations you might not be familiar with. To help you better understand these terms we've provided the following definitions:

Non-Detects (ND) - laboratory analysis indicates that the contaminant is not present.

Parts per million (ppm) or Milligrams per liter (mg/l) - one part per million corresponds to one minute in two years or a single penny in \$10,000.

Parts per billion (ppb) or Micrograms per liter ($\mu\text{g}/\text{l}$) - one part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.

Parts per trillion (ppt) or Nanograms per liter (nanograms/l) - one part per trillion corresponds to one minute in 2,000,000 years, or a single penny in \$10,000,000,000.

Parts per quadrillion (ppq) or Picograms per liter (picograms/l) - one part per quadrillion corresponds to one minute in 2,000,000,000 years or one penny in \$10,000,000,000,000.

Picocuries per liter (pCi/L) - picocuries per liter is a measure of the radioactivity in water.

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

Maximum Contaminant Level - The "Maximum Allowed" (*MCL*) is 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 - The “Goal” (MCLG) is 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 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.

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.

TEST RESULTS FOR CASS RURAL WATER DISTRICT – PHASE I								
<u>Contaminant</u>	<u>MCLG</u>	<u>MCL</u>	<u>Level Detected</u>	<u>Unit Measurement</u>	<u>Range</u>	<u>Date (year)</u>	<u>Violation Yes/No Other Info</u>	<u>Likely Source of Contamination</u>
Disinfectants								
1. Chlorine	MRDL G=4	MRDL= 4.0	3.1	ppm	2.54 to 3.45	2015	No	Water additive used to control microbes
Lead/ Copper								
2. Copper	1.3	AL=1.3	0.781 90 th % Value	ppm	N/A	2015	*No	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
3. Lead	0	AL=15	2.8 90 th % Value	ppb	N/A	2015	*No	Corrosion of household plumbing systems, erosion of natural deposits
Stage 2 Disinfection Byproducts								
4. Total Haloacetic Acids (HAA5)	System -Wide	60	4	ppb	N/A	2015	No	By-product of drinking water disinfection.
5.Total Trihalomethanes (TTHM)	System -Wide	80	6	ppb	N/A	2015	No	By-product of drinking water chlorination.

. * No sites exceeded the copper or lead action levels in 2015.

* 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 costs 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.

TEST RESULTS FOR THE CITY OF ARGUSVILLE								
Contaminant	MCLG	MCL	Level Detected	Unit Measurement	Range	Date (year)	Violation Yes/No Other Info	Likely Source of Contamination
Lead/ Copper								
1. Copper	1.3	AL=1.3	1.02 90% Value	ppm	N/A	2013	*No	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
2. Lead	0	AL=15	1.4 90% Value	ppb	N/A	2013	*No	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Disinfectants								
3. Chlorine	MRDL G=4	MRDL= 4.0	1.2	ppm	0.26 to 1.57	2015	No	Water additive used to control microbes

* No sites exceeded the copper or lead action level in 2013.

EPA requires monitoring of over 80 drinking water contaminants. Those contaminants listed in the table above are the only contaminants detected in your drinking water

Unregulated contaminants are those for which the EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist the EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted.

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 Environmental Protection Agency's Safe Drinking Water Hotline (1-800-426-4791)

MCL's are set at very stringent levels. To understand the possible health effects described for many regulated contaminants, a person would have to drink 2 liters of water every day at the MCL level for a lifetime to have a one-in-a-million chance of having the described health effect.

In our continuing efforts to maintain a safe and dependable water supply it may be necessary to make improvements in your water system. The costs of these improvements may be reflected in the rate structure. Rate adjustments may be necessary in order to address these improvements.

Thank you for allowing us to provide your family with clean, quality water this year. In order to maintain a safe and dependable water supply we sometimes need to make improvements that will benefit all of our customers. These improvements sometimes require rate structure adjustments.

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 the Safe Drinking Water Hotline (1-800-426-4791).

If present, elevated levels of lead can cause serious health problems, especially for pregnant woman and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. City of Argusville is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. **Use water from the cold tap for drinking and cooking. 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>.

Please call our office at (701) 793-6534 or (701) 484-5095 if you have questions.

The City of Argusville works around the clock to provide top quality water to every tap. We ask that all our customers help us protect our water sources, which are the heart of our community, our way of life, and our children's future. Copies of this report will not be mailed out to each individual water user. Copies of this report are available upon request at City Hall.

Consumer Confidence Reports Safe Drinking Water Act Chemical/Radiological Detected Results from 2011-2015

Important! Please read the following explanation first.

The following is a summary of the chemical/radiological analytes and result values that are required for your Consumer Confidence Report (CCR). The summary is divided into several sections (i.e. Inorganic Chemicals, Radiological Chemicals, etc.). Each section includes the chemical name, collection date, result, and units as required in the CCR along with other values (i.e., MCLG, Range of Detections, etc.). Refer to the footnotes at the bottom for the definitions of the specific headings and an explanation of the various units.

CASS RURAL WATER DISTRICT-PHASE I - ND0901060

Lead/Copper ***

	Date	# Samples	Action Level(AL)	90th Percentile	Samples Exceed AL	Units
COPPER 90TH PERCENTILE	7/27/2015	20	1.3	0.781	0	ppm
LEAD 90TH PERCENTILE	7/27/2015	20	15	2.8	0	ppb

*** Be sure to include the required Educational Language found in attachment 4 of your 2015 CCR guidance packet.

	Date	MCL	MCLG	High Comp.	Units	Range
Disinfectants						
CHLORINE	5/31/2015	MRDL=4.0	MRDL=4	3.1	ppm	2.54 to 3.45

Stage 2 Disinfection Byproducts (TTHM/HAA5)

	System/Site	Date	MCL	MCLG	High Comp.	Units	Range
HAA5	System-Wide	12/31/2015	60		4	ppb	N/A
TTHM	System-Wide	12/31/2015	80		6	ppb	N/A

(MCLG) Maximum Contaminant Level Goal: The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLG's 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 MCLG's as feasible using the best available treatment technology.

(MRDLG) Maximum Residual Disinfectant Level Goal: 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.

(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 control of microbial contaminants.

Highest Compliance Level: The highest level of that contaminant used to determine compliance with a National Primary Drinking Water Regulation.

Range of Detections: The lowest to the highest result value recorded during the required monitoring timeframe for systems with multiple entry points.

Abbreviations: ppb - parts per billion or micrograms per liter; ppm - parts per million or milligrams per liter; ppt - parts per trillion or nanograms per liter; ppq - parts per quadrillion or picograms per liter; NA - not applicable; ND - none detected; pCi/L - picocuries per liter (a measure of radioactivity), umho/cm = micromhos per centimeter (a measure of conductivity), obsvns = observations/field at 100 Power, IDSE = Initial Distribution System Evaluation