

Annual Drinking Water Quality Report Napoleon, North Dakota 2024

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. The city of Napoleon draws its potable water from the Napoleon aquifer.

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 "*moderately susceptible*" to potential contaminants. No significant sources of contamination have been identified.

The city of Napoleon is pleased to report that our drinking water is safe and meets federal and state requirements.

This report shows our water quality and what it means.

If you have questions regarding this report, please call Roger Kristiansen, at (701) 754-2266. Questions can also be answered at our regularly scheduled monthly council meeting held the first Monday of each month at 7:30 p.m. in the Napoleon City Hall. If you are aware of non-English speaking individuals who need help with the appropriate language translation, please call Roger at the number listed above.

The city of Napoleon would appreciate it if large volume water customers would please post copies of *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 Napoleon routinely monitors for contaminants in your drinking water according to Federal and State laws. This table shows the results of our monitoring for the period of January 1st to December 31st, 2024. 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 inorganic 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 storm water, industrial or domestic wastewater discharges, oil production, mining or farming.

Pesticides and herbicides, which come from a variety of sources such as agriculture, urban storm water 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 storm water runoff and septic systems.

Radioactive contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities.

To ensure that tap water is safe to drink, the Environmental Protection Agency (EPA) prescribes regulations which limit the number 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 following table, 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:

Not applicable (NA), No Detect (ND)

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 (µg/l) - one part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.

Picocuries per liter (pCi/l) –Pico curies 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.

Treatment Technique (TT) - A treatment technique is a required process intended to reduce the level of a contaminant in drinking water.

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.

| 2024 Test results for the city of Napoleon, ND | | | | | | | | |
|---|-------------|---------------------|-----------------------|-------------------------|----------------|--------------------|------------------------------------|--|
| Contaminant | MCLG | MCL | Level Detected | Unit Measurement | Range | Date (year) | Violation Yes/No Other Info | Likely Source of Contamination |
| Lead/Copper | | | | | | | | |
| Copper | 1.3 | AL=1.3 90% Value | 0.428 | ppm | 0.361 to 0.795 | 2022 | 0 sites exceeded AL | Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives |
| Lead* | 15 | AL=15 90% Value | No Detect | ppb | ND to ND | 2022 | 0 site exceeded AL | Corrosion of household plumbing systems, erosion of natural deposits |
| Inorganic Contaminants | | | | | | | | |
| Arsenic | 0 | 10 | 1.98 | ppb | N/A | 2016 | No | Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes |
| Barium | 2 | 2 | 0.0976 | ppm | N/A | 2018 | No | Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits |
| Chromium | 100 | 100 | 4.46 | ppb | N/A | 2018 | No | Some people who use water containing Chromium well more than the MCL over many years could experience allergic dermatitis. |
| Fluoride | 4 | 4 | 0.175 | ppm | N/A | 2018 | No | Erosion of natural deposits; Water additives which promotes strong teeth; Discharge from fertilizer and aluminum factories |
| Disinfectants | | | | | | | | |
| Chlorine | MRDL G=4 | MRDL =4.0 | 1.8 | ppm | .58 to 2.24 | 2024 | No | Water additive used to control microbes |
| Stage 2 Disinfection By-Products (System-Wide) | | | | | | | | |
| HAA5 | 60 | N/A | No Detect | ppb | ND | 2023 | No | By-product of drinking water Chlorination |
| TTHM | 80 | N/A | No Detect | ppb | ND | 2023 | No | By-product of drinking water chlorination |
| Radioactive Contaminants | | | | | | | | |

| | | | | | | | | |
|---|-----|-----|---------|---------|--------------|------|----|-----------------------------|
| Gross Alpha, Including RA, Excluding RN & U | 15 | 15 | 4.14 | pCi/l | N/A | 2017 | No | Erosion of natural deposits |
| Radium, Combined (226, 228) | N/A | 5 | 0.75 | pCi/l | N/A | 2017 | No | Erosion of natural deposits |
| Uranium, Combined | N/A | 30 | 0.95 | ppb | N/A | 2017 | No | Erosion of natural deposits |
| Unregulated Contaminants | | | | | | | | |
| Alkalinity, Total | N/A | N/A | 381 | ppm | N/A | 2018 | No | N/A |
| Bicarbonate as HCO3 | N/A | N/A | 465 | ppm | N/A | 2018 | No | N/A |
| Calcium | N/A | N/A | 44.5 | ppm | N/A | 2018 | No | N/A |
| Chloride | N/A | N/A | 7.5 | ppm | N/A | 2018 | No | N/A |
| Conductivity @ 25 UMHOS/CM | N/A | N/A | 866 | umho/cm | N/A | 2018 | No | N/A |
| Hardness, Total (AS CAC03) | N/A | N/A | 171 | ppm | N/A | 2018 | No | N/A |
| Iron | N/A | N/A | 0.103 | ppm | N/A | 2018 | No | N/A |
| Magnesium | N/A | N/A | 14.6 | ppm | N/A | 2018 | No | N/A |
| Manganese** | N/A | N/A | 0.707 | ppm | N/A | 2018 | No | N/A |
| Nickel | N/A | N/A | 0.00528 | ppm | N/A | 2018 | No | N/A |
| pH | N/A | N/A | 7.82 | pH | N/A | 2018 | No | N/A |
| Potassium | N/A | N/A | 6.9 | ppm | N/A | 2018 | No | N/A |
| Sodium | N/A | N/A | 125 | ppm | N/A | 2018 | No | N/A |
| Sodium Adsorption Ratio | N/A | N/A | 4.15 | obsvns | N/A | 2018 | No | N/A |
| Sulfate | N/A | N/A | 88.3 | ppm | 86.2 to 88.3 | 2018 | No | N/A |
| TDS | N/A | N/A | 518 | ppm | N/A | 2018 | No | N/A |
| Zinc | N/A | N/A | 0.00558 | ppm | N/A | 2018 | No | N/A |

| | |
|---|---|
| Bacteriological Monitoring Data – RTCR | |
| Total Coliform Data | November had the highest number of Total Coliform Samples Total Coliform Positives for that month: 2 |

| | | | |
|-------------------------------|-----------|--|-----------|
| Assessment Data – RTCR | | | |
| Type | Data | Reason | Completed |
| Level 1 | 11/6/2024 | Multiple Total Coliform Positive Samples | Yes |

System Name: City Of Napoleon

Public Water System (PWS) Number ND2400715

- Our system is required to monitor for total coliform bacteria in our drinking water. Coliforms are bacteria that are naturally present in the environment and are used as a indicator that other, potentially harmful, waterborne pathogens may be present or that a potential pathway exists through which contamination may enter the drinking water distribution system. We found coliform indicating the need to look for potential problems in water treatment or distribution. When this occurs, we are required to conduct assessments to identify problems and to correct ant problems found during these assessments.
- A level 1 assessment is a study of the water system to identify potential problems and determine (if Possible), why total coliform bacteria have been found in our water system.
- During the past year, we were required to conduct one level 1 assessment. One Level 1 Assessment was completed.
- The Level 1 Assessment was triggered when sample taken 11-5-2024 and one sample taken 11-7-2024 tested positive for coliform bacteria. The assessment was completed on 11-19-2024.
- Corrective Action: No sanitary defects were found.

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

*There is no safe level of lead in drinking water. Exposure to lead in drinking water can cause serious health effects in all age groups, especially pregnant people, infants (both formula+-fed and breastfed), and young children. Some of the health effects to infants and children include decreases in IQ and attention span. Lead exposure can also result in new or worsened learning and behavior problems. The children of persons who are exposed to lead before or duroing pregnancy may be at increased risk of these harmful health effects. Adults have increased risks of heart disease, high blood pressure, kidney or nervous system problems. Contact your health care provider for more information about your risk.

Lead can cause serious health effects in people of all ages, especially pregnant people, infants (both formula-fed and breastfed), and young children. Lead in drinking water is primarily from material and parts used in service lines and in home plumbing. City Of Napoleon is responsible for providing high quality drinking water and removing lead pipes but cannot control the variety of materials used in the plumbing in your home.

Because lead levels may vary over time, lead exposure is possible even when your tap sampling results do not detect lead at one point in time. You can help protect yourself and your family by identifying and removing lead materials within your home plumbing and taking steps to reduce your family's risk. Using a filter, certified by an American National Standard Institute accredited certifier to reduce lead is effective in reduce lead exposures. Follow the instructions provide with the filter to ensure is used properly.

Use only cold water for drinking, cooking and making baby formula. Boiling water does

not remove lead from water. Before using tap water drinking, cooking, or making baby formula, flush your pipes for several minutes. You can do this by running your tap. taking a shower, doing laundry or a load if dishes. If you have a lead service line or galvanized requiring replacement service line, you may need to flush your pipes for q longer period, If you are concerned about lead in your water and wish to have your water tested, contact City of Napoleon on 701-754-2266. Information on lead in drinking water, testing methods, and steps can take to minimize exposure is available at <https://www.epa.gov/safewater/lead>.

****People need some manganese to stay healthy, but too much can be harmful.** Children and adults who drink water with high levels of manganese may experience nervous system impacts. Infants may experience learning disabilities and behavioral problems if they drink water with too much manganese. Adults may experience impacts to their nervous system resulting in behavioral changes or slow and clumsy movements. **Per U.S. EPA guidance, drinking water should not contain more than 0.3 ppm. For infants under six months of age, tap water with manganese levels above 0.3 ppm should not be used for drinking or making formula.** Use bottled water or alternative water source. If additional home treatment is not available: For children greater than 6 months and adults use bottled water or alternative water source. If you are caring for an infant, or are concerned about your health from manganese exposure, discuss your concerns with your health care provider.

USEPA has recently published the Lead and Copper Rule Revision. The purpose if this revision is to strengthen public health protections by removing lead service lines within public water system. One requirement of this rule revision was to inventory all drinking water service lines within our public water system and notify consumers which type of line serves each property. You may have recently received a letter from our system with this information. The inventory is a listening of all service lines and the material composition of each line. The types of lines being documented are Lead lines, Galvanized Required Replacement (GRR) and lines made of Unknown Material. Classifications of a service line as being comprised of Unknown service line material indicates that pour system cannot currently confirm the material of both the public and the private portions of the line with written records, Non-lead lines were also documented; however, we were not required to notify consumers with documented no-load lines. The classifications of the type of service line serving a residence was based on historical data regarding the property and in some cases verifications of the type of material on the privately owned side of the line by visual inspection or replacement records of the owner.

The current Service Line Inventory for our system has been completed and is available for viewing at our office: City of Napoleon – 225 Lake Ave west – Phone 701-754-2266.

Additional work to update the service line inventory, including inspection of the line, may need to be performed to further document and confirm the type of material making up both the public and the private portions of the line serving your home or business. We will need the help of home/building owners in order to access the service line on the private side of the service line positively identify the material of the line that carries water within your home/building. Our system may perform this work with our own system employees or we may contract with engineering firms or third party contractors to complete this work to improve our service line inventory.

We're proud that your drinking water meets or exceeds all Federal and State requirements. We have learned through our monitoring and testing that some contaminants have been detected. The EPA has determined that your water IS SAFE at these levels.

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.

Thank you for allowing us to provide your family with clean, quality water this year. To maintain a safe and dependable water supply we sometimes need to make improvements that will benefit all 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).

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).

Tampering with a public water system is a federal offense. Report suspicious activity to local law enforcement immediately.

Please call Roger Kristiansen, at 701-754-2266 if you have questions concerning your city's water system.

The city of Napoleon works diligently 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.

