



Village Of Murray

Annual Water Quality Report For January 1 to December 31, 2021

This report is intended to provide you with important information about your drinking water and the efforts made by the Village Of Murray water system to provide safe drinking water.

Para Clientes Que Hablan Español: Este informe contiene información muy importante sobre el agua que usted bebe. Tradúzcalo ó hable con alguien que lo entienda bien.

For more information regarding this report, or to request a hard copy, contact:

SHELLI S HAYES
402-235-2119

If you would like to observe the decision-making processes that affect drinking water quality, please attend the regularly scheduled meeting of the Village Board/City Council. If you would like to participate in the process, please contact the Village/City Clerk to arrange to be placed on the agenda of the meeting of the Village Board/City Council.

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

Source Water Assessment Availability:

The Nebraska Department of Environment and Energy (NDEE) has completed the Source Water Assessment. Included in the assessment are a Wellhead Protection Area map, potential contaminant source inventory, and source water protection information. To view the Source Water Assessment or for more information please contact the person named above on this report or the NDEE at (402) 471-3376 or go to <http://dee.ne.gov>.

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.

Sources of Drinking Water:

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and groundwater 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.

The source of water used by Village Of Murray is purchased ground water. Our drinking water is supplied from another water system through a Consecutive Connection (CC). To find out more about our drinking water sources and additional chemical sampling results, please contact our office at the number provided above.

Buyer Name	Seller Name
Village Of Murray	Cass Co RWD 1
Cass Co RWD 1	City Of Plattsmouth

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 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, 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.

Drinking Water Health Notes:

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised 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) or the NDEE Drinking Water Division at 402-471-2186.

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. All Community water systems are 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 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), at <http://www.epa.gov/safewater/lead> or at the NDEE Drinking Water Division (402-471-1008).

The Village Of Murray is required to test for the following contaminants: Coliform Bacteria, Antimony, Arsenic, Asbestos, Barium, Beryllium, Cadmium, Chromium, Copper, Cyanide, Fluoride, Lead, Mercury, Nickel, Nitrate, Nitrite, Selenium, Sodium, Thallium, Alachlor, Atrazine, Benzo(a)pyrene, Carbofuran, Chlordane, Dalapon, Di(2-ethylhexyl)adipate, Dibromochloropropane, Dinoseb, Di(2-ethylhexyl)-phthalate, Diquat, 2,4-D, Endothal, Endrin, Ethylene dibromide, Glyphosate, Heptachlor, Heptachlor epoxide, Hexachlorobenzene, Hexachlorocyclopentadiene, Lindane, Methoxychlor, Oxamyl (Vydate), Pentachlorophenol, Picloram, Polychlorinated biphenyls, Simazine, Toxaphene, Dioxin, Silvex, Benzene, Carbon Tetrachloride, o-Dichlorobenzene, Para-Dichlorobenzene, 1,2-Dichloroethane, 1,1-Dichloroethylene, Cis-1,2,-Dichloroethylene, Trans-1,2-Dichloroethylene, Dichloromethane, 1,2-Dichloropropane, Ethylbenzene, Monochlorobenzene, 1,2,4-Trichlorobenzene, 1,1,1-Trichloroethane, 1,1,2-Trichloroethane, Trichloroethylene, Vinyl Chloride, Styrene, Tetrachloroethylene, Toluene, Xylenes (total), Gross Alpha (minus Uranium & Radium 226), Radium 226 plus Radium 228, Sulfate, Chloroform, Bromodichloromethane, Chlorodibromomethane, Bromoform, Chlorobenzene, m-Dichlorobenzene, 1,1-Dichloropropene, 1,1-Dichloroethane, 1,1,2,2-Tetrachloroethane, 1,2-Dichloropropane, Chloromethane, Bromomethane, 1,2,3-Trichloropropane, 1,1,1,2-Tetrachloroethane, Chloroethane, 2,2-Dichloropropane, o-Chlorotoluene, p-Chlorotoluene, Bromobenzene, 1,3-Dichloropropene, Aldrin, Butachlor, Carbaryl, Dicamba, Dieldrin, 3-Hydroxycarbofuran, Methomyl, Metolachlor, Metribuzin, Propachlor.

How to Read the Water Quality Data Table:

The EPA and State Drinking Water Program establish the safe drinking water regulations that limit the amount of contaminants allowed in drinking water. The table shows the concentrations of detected substances in comparison to the regulatory limits. Substances not detected are not included in the table. The state requires monitoring of certain contaminants less than once per year because the concentrations of these contaminants do not change frequently. Therefore, some of this data may be older than one year.

MCL (Maximum Contaminant Level) – 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.

MCLG (Maximum Contaminant Level 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.

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

MRDL (Maximum Residual Disinfectant Level) – The highest level of a disinfectant allowed in drinking water.

N/A – Not applicable.

Units in the Table:

ND – Not detectable.

ppm (parts per million) – One ppm corresponds to 1 gallon of concentrate in 1 million gallons of water.

mg/L (milligrams per liter) – Equivalent to ppm.

ppb (parts per billion) – One ppb corresponds to 1 gallon of concentrate in 1 billion gallons of water.

ug/L (micrograms per liter) – Equivalent to ppb.

pCi/L (Picocuries per liter) – Radioactivity concentration unit.

RAA (Running Annual Average) – An ongoing annual average calculation of data from the most recent four quarters.

LRAA (Locational Running Annual Average) – An ongoing annual average calculation of data from the most recent four quarters at each sampling location.

90th Percentile – Represents the highest value found out of 90% of the samples taken in a representative group. If the 90th percentile is greater than the action level, it will trigger a treatment or other requirements that a water system must follow.

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

TEST RESULTS

Microbiological	Highest No. of Positive Samples	MCL	MCLG	Likely Source Of Contamination	Violations Present
No Detected Results were Found in the Calendar Year of 2021					

Lead and Copper	Monitoring Period	90 th Percentile	Range	Unit	AL	Sites Over AL	Likely Source Of Contamination
COPPER, FREE	2019 - 2021	0.722	0.241 - 0.964	ppm	1.3	0	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing.
LEAD	2019 - 2021	1.02	0 - 1.1	ppb	15	0	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing.

During the 2021 calendar year, we had the below noted violation(s) of drinking water regulations.

Violation Type	Category	Analyte	Compliance Period
No Violations Occurred in the Calendar Year of 2021			

The Village Of Murray has taken the following actions to return to compliance with the Nebraska Safe Drinking Water Act:

Some or all of our drinking water is supplied from another water system. The table below lists all of the drinking water contaminants, which were detected during the 2021 calendar year from the water systems that we purchase drinking water from.

Regulated Contaminants	Collection Date	Water System	Highest Value	Range	Unit	MCL	MCLG	Likely Source Of Contamination
ARSENIC	5/25/2021	Cass Co RWD 1	3.4	3.4	ppb	10	0	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes.
BARIUM	10/13/2021	Cass Co RWD 1	0.13	0.13	ppm	2	2	Discharge from drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
COMBINED RADIUM (-226 & -228)	7/7/2021	Cass Co RWD 1	1.463	0 - 1.463	pCi/L	5	0	Erosion of natural deposits
FLUORIDE	10/13/2021	Cass Co RWD 1	0.398	0.398	ppm	4	4	Erosion of natural deposits; water additive which promotes strong teeth; Fertilizer discharge.
NITRATE-NITRITE	5/25/2021	Cass Co RWD 1	5.17	0 - 5.17	ppm	10	10	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits

Unregulated Water Quality Data	Collection Date	Water System	Highest Value	Range	Unit	Secondary MCL
NICKEL	7/13/2021	Cass Co RWD 1	0.00124	0 - 0.00124	mg/L	0.1
SULFATE	11/29/2021	City Of Plattsmouth	70	70	mg/L	250

During the 2021 calendar year, the water systems that we purchase water from had the below noted violation(s) of drinking water regulations.

Water System	Type	Category	Analyte	Compliance Period
No Violations Occurred in the Calendar Year of 2021				

There are no additional required health effects notices.

There are no additional required health effects violation notices.

2021 Annual Water Quality Report Certification of Distribution

Public Water Supply System Name: **Village Of Murray**
Population Served by Public Water System: **462**

Account Number: **NE3102514**
County: **CASS**

The Village Of Murray community water system hereby confirms that the Annual Water Quality Report has been distributed to customers (and appropriate notices of availability have been given) in accordance with Nebraska's Regulations Governing Public Water Supply Systems, Title 179 NAC 14. Further, this certifies that the information contained in the report is correct and consistent with the compliance monitoring data received by Nebraska Department of Environment and Energy.

FILL IN THIS REQUIRED INFORMATION: Certification By Licensed Water Operator:

Water Operator Name: SHELLI S. HAYES Water Operator License Number: 5193 Title: CLERK
Phone: 402-235-2119 E-mail: MURRAYCLERK@WINDSTREAM.NET Today's Date: 3-11-22

REQUIRED: Check the distribution method(s) used, fill in the corresponding information blanks, and attach the required information:

Mail: Date Mailed: _____ (Attach a copy of mailed report)
 Hand Deliver: Date: _____ (Attach a copy of delivered report)
 Publish: Date Published: _____ (Attach a copy of the newspaper clipping)
 Post: Date Posted: 3-22-22 (Attach a copy of the posted report AND list at least three posting locations below)
1st Location: MURRAY MUNICIPAL BUILDING 2nd Location: CORNERSTONE BANK 3rd Location: US POST OFFICE

Fill in this section ONLY if you are using Electronic Delivery methods (Email, Website) to distribute your Annual Water Quality Reports:

Check the blank(s) in front of the distribution method(s) you used. Fill in the corresponding information blanks, and attach the required documentation:
 Mailed notification that the CCR is available on Web site via a Direct URL (Attach a copy of the mailed notification) Date Mailed: _____
 E-mailed notification that included a Direct URL to the CCR (Provide Direct URL address) _____ Date E-mailed: _____
 E-mailed the CCR as an attachment to or an embedded document within an e-mail (Attach a copy of the attachment/document) Date E-mailed: _____
 Provided info on how a customer can obtain a paper copy of the CCR if utilizing ANY of the above Electronic Delivery methods. (Attach documentation)

When using Electronic CCR Delivery, you are also REQUIRED to utilize two "Good Faith" efforts to reach non-bill paying consumers.

Check the blank(s) in front of the TWO "Good Faith" efforts you used. Fill in the corresponding information blanks, and attach the required do:
 Posted the CCR on a publicly accessible Internet site (Provide Direct URL address) _____ Date Posted: _____
 Advertised the CCR availability in the news media (Attach a copy of the announcement and/or newspaper clipping) Date Published: _____
 Publication of the CCR in a local newspaper, in a legible size (Attach a copy of the newspaper clipping) Date Published: _____
 Posted the CCR in public places (Attach list of locations) Date Posted: _____
 Published in an electronic community/system newsletter (Attach a copy of the notice/article) Date Published: _____
 Electronic CCR announcement via Social Media Outlet(s) (Attach a list outlet(s) utilized & copy of announcement) Date Posted: _____

If your water system is a wholesale water system which sells water to consecutive water systems, please answer the following question:

Were Consecutive Systems notified? Yes No If yes, who? _____

The "2021 Annual Water Quality Report" and this Certification Form must be received by Nebraska Dept. of Environment and Energy no later than July 1, 2022. If this report is not received by July 1, 2022, a violation will be issued.

Village of Murray, Nebraska

PO Box 79, 106 W Main

Murray NE 68409

402-235-2119



Jeff Anderson

Chairman

NOTICE

A copy of the 2021 Annual Water Quality Report
is now available at the Murray Town Hall.

This report will not be mailed.

For Questions, please call
Clerk's Office at 402-235-2119.

Thank you!

A handwritten signature in blue ink that reads "Shelli S. Hayes". The signature is fluid and cursive.

Shelli S. Hayes
Certified Water Operator
Village of Murray, Nebraska