

MO1010399

2021

# Water Quality Report

## Water Department Consumer Confidence Report

We hope the information in this drinking water report is helpful to you. If you would like to observe the decision making process that affects drinking water quality, or if you have any questions, please do not hesitate to contact us at 816.325.7700 to inquire about scheduled meetings or contact persons.

## Message to our Customers

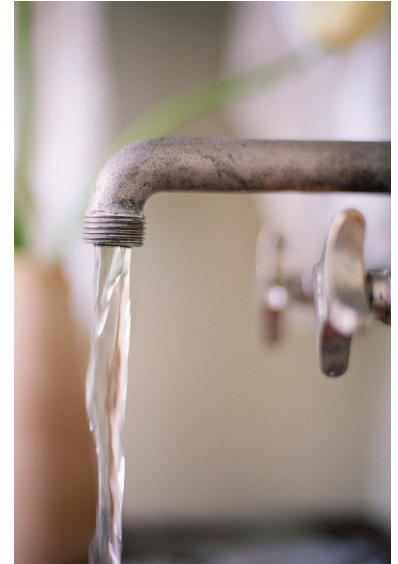
We are pleased to present to you this year's Annual Drinking Water Quality Report. Our water comes from 42 wells that pump water from the Missouri River alluvial aquifer. Today, the Courtney Bend Water Plant has the capability of supplying a maximum of 48-million gallons of water per day. We supply water to approximately 250,000 people including residents of Independence and 12 wholesale customers.

In addition to operating and maintaining the water treatment plant, we also maintain and manage 766 miles of water main (ranging in size from 2" to 36" in diameter), over 5,000 fire hydrants, and handle customer service for over 50,000 electric, water, and sewer utility customers. One area of focus for this year has been our Water Main Replacement Program. This program utilizes a data driven approach to identify and prioritize water main replacement projects, as replacing pipe solely based on age would not target the areas that provide the greatest return on investment. The prioritization is based on the likelihood of failure, consequence of failure, and benefit of replacement.

Three water main replacement projects have been awarded to contractors or are under construction in 2022, consisting of 8,500 linear feet of pipe that will be replaced. We anticipate the design and bidding of two more projects by the end of the year, consisting of an additional 5,900 linear feet of pipe to be replaced. Replacement of the pipe in the above projects will result in fewer water main breaks and a more reliable water distribution system for our customers. We will continue to focus on the main replacement program to maintain our aging distribution system and reduce or prevent increases in maintenance costs and the number of water main breaks experienced annually.

If you ever have any questions or concerns, please do not hesitate to reach out to us.

- Dan Montgomery, Water Systems Director



### For More Information

This report may be found online at:

[www.independencemo.org/ccr](http://www.independencemo.org/ccr)

To request a written copy of this report, please call us at:

**816.325.7698**

Other important information is available at the City of Independence Water Department internet site. Additional water quality information, updates on current projects, and other helpful information can be found at:

[www.independencemo.org](http://www.independencemo.org).

*Este informe contiene informacion muy importante.*

*Traducido o pregúntele a alguien que lo entienda bien.*



**INDEPENDENCE**  
★ WATER DEPARTMENT ★



## Substances Expected to be in Drinking Water

The sources of drinking water (both tap 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.

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 Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791.*

## Lead in Drinking Water

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 Independence Water Department 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 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) or at:

<http://water.epa.gov/drink/info/lead/index.cfm>

## 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 byproducts 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.

In order to ensure that tap water is safe to drink, the Missouri Department of Natural Resources prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. Missouri Department of Health regulations establish limits for contaminants in bottled water, which must provide the same protection to the public.

# Consumer Confidence Report from the City of Independence Water Department

The City of Independence supplies water to about 250,000 people, including residents of Independence and 12 wholesale customers. The water is supplied from 42 wells located at the Courtney Bend Water Treatment Plant. The wells receive water from the Missouri River Alluvial Aquifer, classified as a groundwater source. The well water is softened and disinfected at the treatment plant, and meets or exceeds all federal and state quality regulations.

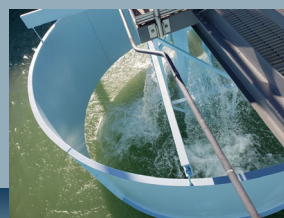
The City of Independence Water Department has violated no maximum contaminant levels, monitoring requirements, or treatment techniques for the 2021 year. The following shows chemicals we find in detectable limits in our drinking water.

Parameter	Possible Source	Units	Value Range	Independence Average	MCL	MCLG
<b>Inorganic Compounds</b>						
Barium	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits	ppm	0.046-0.0487	0.047	2	2
Chloramine	Water additive used to control microbes	ppm	1.87-2.48	2.15	4	4
Chromium	Discharge from steel and pump mills; Erosion of natural deposits	ppb	0-0.85	0.85	100	100
Fluoride	Erosion of natural deposits; discharge from fertilizer and aluminum factories	ppm	0.18-0.20	0.19	4	4
Nitrate - Nitrite	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits	ppm	0.18 - 0.318	0.254	10	10
<b>Radiological</b>						
Gross Alpha	Erosion of natural deposits	pCi/L	1.98	1.98	15	0
Gross Beta	Decay of natural and man-made deposits	pCi/L	8.24	8.24	50	0
Combined Radium	Erosion of natural deposits	pCi/L	0.337	0.337	5	0
Radon 222	Erosion of natural deposits	pCi/L	87.2	87.2	300	0
Uranium	Erosion of natural deposits	pCi/L	0.26	0.26	30	0
<b>Microbiological Quality</b>						
Total Coliform Bacteria	Naturally present in the environment	In October, 0.96% of samples returned as positive			TT	0
<b>Lead and Copper Rule Testing</b>			90th Percentile	Range of results	Action Level	Sites over Action Level
Lead	Corrosion of household plumbing systems	ppb	0.9	<0.4-6.0	AL = 15	0
Copper	Corrosion of household plumbing systems	ppb	2.6	<1-99.6	AL = 1300	0

<b>Disinfection By-Products Testing</b>						
Disinfection By-products/ Sample Point	Possible Source	Unit	Value Range	Highest LRAA	MCL	MCLG
HAA5 - Sample Point 3	By-product of drinking water disinfection	ppb	0-5.09	4	60	0
HAA5 - Sample Point 4	By-product of drinking water disinfection	ppb	0-2.53	2	60	0
TTHM - Sample Point 3	By-product of drinking water disinfection	ppb	1.05-3.11	2	80	0
TTHM - Sample Point 4	By-product of drinking water disinfection	ppb	1.23-2.33	2	80	0

## Important Definitions:

- ◆ **HAA5-Haloacetic Acids** (Mono-, di-, and tri-chloroacetic acid and mono- and di-bromoacetic acid) as a group.
- ◆ **LRAA—Locational Running Annual Average:** The locational average of sample analytical results for samples taken during the previous four calendar quarters.
- ◆ **Maximum Contaminant Level (MCL):** The highest level of a compound that is allowed in drinking water.
- ◆ **Maximum Contaminant Level Goal (MCLG):** The level of a contaminant in drinking water below which there is no known or expected risk to health.
- ◆ **Maximum Residual Disinfectant Level (MRDL):** The highest level of a disinfectant allowed in drinking water.
- ◆ **Maximum Residual Disinfectant Level Goal (MRDLG):** The level of a drinking water disinfectant below which there is no known or expected risk to health.
- ◆ **Milligram per Liter (mg/L):** Part per million (ppm).
- ◆ **Microgram per Liter (ug/L):** Part per billion (ppb).
- ◆ **Picocuries per Liter (pCi/L):** A measure of the radioactivity in water.
- ◆ **Treatment Technique (TT):** A required process intended to reduce the level of a contaminant in drinking water.
- ◆ **TTHM: Total Trihalomethanes** (Chloroform, bromodichloromethane, dibromochloromethane, and bromoform,) as a group.



## Additional Parameters

Compound	Average Result
Alkalinity, Total (mg/L)	58
Calcium (mg/L)	15.1
Hardness, Total (mg/L as Calcium Carbonate)	127 or 7 grains/gallon
Magnesium (mg/L)	20.4
pH (S.U.)	9.36 - 10.1
Potassium (mg/L)	6.7
Silica (mg/L)	15
Sodium (mg/L)	47

## Note to People with Special Health Concerns

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 EPA Safe Drinking Water Hotline (1.800.426.4791).

## Important Water Customer Information

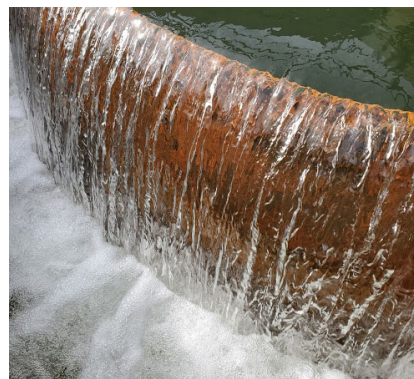
**816.325.SERV (7378)** is a 24-hour automated account information service from the City of Independence. To access your account information, dial 325.SERV, and use your Customer and Account Number located in the upper right corner of the City Utilities Bill to access account information.

**Utilities Online** is a feature of the City of Independence internet site. Use this service to access and update account information or submit a service request. Access Utilities Online at [www.independencemo.org](http://www.independencemo.org).

Call **Utilities Customer Service** at 816.325.7930 for more information during regular business hours, Monday—Friday, 8 a.m. to 5 p.m.

## Source Water Assessment

The Department of Natural Resources conducted a source water assessment to determine the susceptibility of our water source to potential contaminants. This process involved the establishment of source water area delineations for each well or surface water intake and then a contaminant inventory was performed within those delineated areas to assess potential threats to each source.



Assessment maps and summary information sheets are available on the internet at <https://drinkingwater.missouri.edu>.

To access the maps for your water system you will need the state-assigned identification code, which is printed at the top of this report. The Source Water Inventory Project maps and information sheets provide a foundation upon which a more comprehensive source water protection plan can be developed.

## Radon

Radon is a radioactive gas that you cannot see, taste, or smell. It is found throughout the U.S. Radon can move up through the ground and into a home through cracks and holes in the foundation. Radon can build up to high levels in all types of homes. It can also get into indoor air when released from tap water from showering, washing dishes, and other household activities. Compared to radon entering the home through soil, radon entering the home through tap water will in most cases be a small source of radon in indoor air. Radon is a known human carcinogen. Breathing air containing radon can lead to lung cancer. Drinking water containing radon may also cause increased risk of stomach cancer. If you are concerned about radon in your home, test the air in your home. Testing is inexpensive and easy. (You should pursue radon removal for your home if the level of radon in your air is 4 picocuries per liter (pCi/L) of air or higher. There are simple ways to fix a radon problem that are not too costly. For additional information, call your state radon program, the EPA Safe Drinking Water Act Hotline (1.800.426.4791) or call the EPA's Radon Hotline (1.800.SOS.RADON).