Public Water System ID Number MO1010415

2021 Annual Consumer Confidence Report

This report is intended to provide important information about your drinking water and efforts made to provide safe drinking water.

What is the source of my 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. Our water comes from the following sources:

Source Name	Type
Missouri River	Surface Water
Well # 1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13, and 14	Ground Water

A very small amount of our drinking water is supplied from another water system through a Consecutive Connection (CC). Results from those sources are provided in this report under "Reseller Contaminants".

Buyer Name	Seller Name
KANSAS CITY PWS	JACKSON COUNTY PWSD 2
JACKSON COUNTY PWSD 2	INDEPENDENCE PWS

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. 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 at https://drinkingwater.missouri.edu. To access the maps for your water system you will need the State-assigned identification code, MO1010415. The Source Water Inventory Project maps and information sheets provide a foundation upon which a more comprehensive source water protection plan can be developed.

Why are there contaminants in my water?

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 (800-426- 4791).

Contaminants that may be present in source water include:

A. Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
B. Inorganic contaminants, such as salts and metals, which can be naturally occurring or result from urban stormwater runoff, industrial, or domestic wastewater discharges, oil and gas production, mining, or farming.
C. Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.
D. 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 stormwater runoff, and septic systems.
E. 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 Department of Natural Resources prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. Department of Health regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Is our water system meeting other rules that govern our operations?

The Missouri Department of Natural Resources regulates our water system and requires us to test our water on a regular basis to ensure its safety. Our system has been assigned the identification number MO1010415 for the purposes of tracking our test results. Last year, we tested for a variety of contaminants. The detectable results of these tests are on the following pages of this report. Any violations of state requirements or standards will be further explained later in this report.

How might I become actively involved?

If you would like to observe the decision-making process that affect drinking water quality or if you have any further questions about your drinking water report, please call us at 816-513-7000 to inquire about scheduled meetings or contact persons.

Do I need to take any special precautions?

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.

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Contaminants Report

During the 2021 calendar year, no violations of drinking water regulations occurred.

The tables below list all the drinking water contaminants detected during monitoring period 2021. KC Water will provide a printed hard copy of the CCR upon request. To request that a copy of this report be mailed, please call 816-513-7000. The CCR also can be found at www.kcwater.us/about-us/reports. 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. Records with a sample year more than one year old are still considered representative. No data older than five years is included. If more than one sample is collected during the monitoring period, the Range of Sampled Results will show the lowest and highest tested results. The Highest Test Result, Highest LRAA, or Highest Value must be below the maximum contaminant level (MCL), or the contaminant has exceeded the level of health-based standards and a violation is issued to the water system.

Regulated Contaminants	Collection Date	Highest Test Result	Range of Sampled Results (low-high)	Unit	MCL	MCLG	Typical Source
Atrazine	5/20/2021	0.46	ND - 0.46	ppb	3	3	Runoff from herbicide used on row crops
Barium	5/5/2021	0.01	0.01	ppm	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Chromium	2/28/2019	5	ND – 5	ppb	100	100	Discharge from steel and pulp mills
Cyanide	3/4/2020	0.0058	ND-0.0058	ppm	0.2	0.2	Discharge from steel/metal factories; discharge from plastic and fertilizer; factories
Fluoride	5/5/2021	0.56	0.56	ppm	4	4	Natural deposits; water additive which promotes strong teeth
Nitrate - Nitrite	5/5/2021	0.73	0.73	ppm	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Selenium	5/5/2021	2.8	2.8	ppb	50	50	Erosion of natural deposits

Disinfectant	Collection Date		Highest	Range of Sampled Result(s) (low – high)	Unit	MRDL	MRDLG	Typical Source
Total Chlorine	3/11/2021		3.7	ND - 3.7	ppm	4	4	Disinfectant to control microbes
Disinfection Byproducts	**Sample Point**	**Monitoring Period**	**Highest LRAA**	**Range of Sampled Result(s) (low – high)**	**Unit**	**MCL**	**MCLG**	**Typical Source**
Total Haloacetic Acids	DBPDUAL-01	2021	12.8	7.0 - 20.8	ppb	60	0	Byproduct of drinking water disinfection
	DBPDUAL-02	2021	13.3	8 - 16.6	ppb	60	0	Byproduct of drinking water disinfection
	DBPDUAL-03	2021	13.1	9.3-12.1	ppb	60	0	Byproduct of drinking water disinfection
	DBPDUAL-04	2021	12.1	8.1 - 16.4	ppb	60	0	Byproduct of drinking water disinfection
	DBPDUAL-05	2021	12.8	9.9 - 15.4	ppb	60	0	Byproduct of drinking water disinfection
	DBPDUAL-06	2021	12.4	8.3-14.1	ppb	60	0	Byproduct of drinking water disinfection
Total Trihalomethanes	DBPDUAL-01	2021	7.7	4.2 - 10.3	ppb	80	0	Byproduct of drinking water disinfection
	DBPDUAL-02	2021	7.6	3.8 - 11.1	ppb	80	0	Byproduct of drinking water disinfection
	DBPDUAL-03	2021	6.7	3.1 - 7.0	ppb	80	0	Byproduct of drinking water disinfection
	DBPDUAL-04	2021	8.0	4.4-11.4	ppb	80	0	Byproduct of drinking water disinfection
	DBPDUAL-05	2021	7.6	4.4 - 10.0	ppb	80	0	Byproduct of drinking water disinfection
	DBPDUAL-06	2021	7.7	3.9 – 11.5	ppb	80	0	Byproduct of drinking water disinfection

Unregulated Contaminant Monitoring Rule (UCMR)	Monitoring Period	Federal Level Recommended	Average Value	Range of Sampled Result(s)	Unit
MOLYBDENUM, TOTAL	5/11/2019	NA	0.002	0.002	ppm
STRONTIUM	5/11/2019	NA	0.212	0.212	ppm
VANADIUM, TOTAL	5/11/2019	NA	0.003	0.003	ppm
Manganese	2019	NA	0.7	ND – 0.7	ppm
Total HAA5	2019	NA	14.9	7.4 – 33.1	ppm
Total HAA6 Br	2019	NA	1.85	1.0 – 3.2	ppm
Total HAA9	2019	NA	16.8	8.5 – 34.8	ppm

Unregulated contaminant monitoring helps the EPA determine where certain contaminants occur and whether the Agency should consider regulating those contaminants in the future. HAA5 includes dibromoacetic acid, dichloroacetic acid, monobromoacetic acid, monochloroacetic acid, trichloroacetic acid. HAA6Br includes: bromochloroacetic acid, bromodichloroacetic acid, dibromoacetic acid, dibromochloroacetic acid, monobromoacetic acid, tribromoacetic acid. HAA9 includes: bromochloroacetic acid, bromodichloroacetic acid, chlorodibromoacetic acid, dibromoacetic acid, dichloroacetic acid, monobromoacetic acid, monochloroacetic acid, tribromoacetic acid, trichloroacetic acid.

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TOC	Collection Date	Highest Value	Range of Sampled Result(s) (low – high)	Unit	TT	Typical Source
TOTAL ORGANIC CARBON	8/2/2021	3.28	1.87 - 3.28	ppm	Failure to remove required amount	Naturally present in the environment

Special Lead and Copper Notice

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. KC Water 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 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 http://water.epa.gov/drink/info/lead/index.cfm.

You can find sample results for all contaminants from both past and present compliance monitoring on the Missouri DNR Drinking Water Watch website, https://www.dnr.mo.gov/DWW/DNRLogin.jsp. Use the "Public Access" link, and then enter MO1010415 in the Water System Number box.
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Lead and Copper	Date	90th Percentile (90% of results below level indicated)	Range of Sampled Result(s) (low – high)	Unit	AL	Sites Over AL	Typical Source
Copper	2019	0.004	ND - 0.022	ppm	1.3	0	Corrosion of household plumbing
Lead *	2019	2.1	ND – 35.8	ppb	15	0	Corrosion of household plumbing
*One site out of 60 exceeded the lead AL of 15 ppb							

Turbidity						
Turbidity is a measure of cloudiness of water. We monitor turbidity because it is a good indicator of the effectiveness of our filtration system.						
Percent of samples in compliance with standard	Months Occurred	Monitoring Violation	Highest Single Measurement (NTU)	Month Occurred	Sources	In Compliance
96	March	NO	0.35	March	Soil Runoff	Yes

Microbiological	Result	MCL	MCLG	Typical Source
Total Coliform Rule (TCR)	In the month of July, 0.47% of samples returned positive	5% of monthly samples are positive	0	Naturally present in the environment

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Optional Monitoring (not required by EPA)

Optional Constituents and Constituents having Secondary MCL (SMCL)

Secondary standards are non-enforceable guidelines for constituents that may cause cosmetic effects (such as skin or tooth discoloration) or aesthetic effects (such as taste, odor, or color) in drinking water. EPA recommends these standards but does not require water systems to comply.

Secondary Constituents	Collection Date	Your Water System Highest Sampled Result	Range of Sampled Result(s) (low - high)	Unit	SMCL
Alkalinity, Total	3/20/2021	49	21 - 49	ppm	NA
Total Hardness	2/13/202	136	84.6 - 136	ppm	NA
Boron	4/7/2021	0.08	0.035 – 0.08	ppm	NA
Calcium	2/13/2021	73.9	22.6 – 73.9	ppm	NA
Chloride	3/1/2021	39.5	13.5 – 39.5	ppm	250
Copper	11/3/2021	3.03	1.87 – 3.03	ppb	NA
Magnesium	11/3/2021	9.55	1.84 – 9.55	ppm	NA
Orthophosphate	10/31/2021	0.59	ND – 0.59	ppm	NA
pH	6/23/2021	10.4	8.83 – 10.4	SU	8.5
Potassium	4/7/2021	7.14	5.74 – 7.14	ppm	NA
Silicon	3/3/2021	4.84	2.72 – 4.84	ppm	NA
Sodium	10/6/2021	76.3	52.9 -76.3	ppm	NA
Strontium	8/4/2021	0.244	0.195 – 0.244	ppm	NA
Sulfate	8/20/2021	217	85.8 - 217	ppm	250
Total Dissolved Solids	8/29/2021	415	182 - 415	ppm	500

Reseller Contaminants

Regulated Contaminants	Collection Date	Water System	Highest Sample Result	Range of Sampled Result(s) (low-high)	Unit	MCL	MCLG	Typical Source
BARIUM	5/10/2021	INDEPENDENCE PWS	0.0487	0.0487	ppm	2	2	Discharge of drilling wastes. Discharge from metal refineries; Erosion of natural deposits
FLUORIDE	5/10/2021	INDEPENDENCE PWS	0.2	0.2	ppm	4	4	Natural deposits; Water additive which promotes strong teeth
NITRATE-NITRITE	5/10/2021	INDEPENDENCE PWS	0.318	0.318	ppm	10	10	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits

Reseller Contaminants

Disinfection Byproducts	Monitoring Period	Water System	Highest LRAA	Range of Sampled Result(s) (low-high)	Unit	MCL	MCLG	Typical Source
(HAAS)	2021	JACKSON COUNTY PWSD 2	16	ND - 5.44	ppb	60	0	Byproduct of drinking water disinfection
(HAAS)	2021	INDEPENDENCE PWS	4	ND- 5.09	ppb	60	0	Byproduct of drinking water disinfection
TTHM	2021	INDEPENDENCE PWS	2	1.05 - 3.62	ppb	80	0	Byproduct of drinking water disinfection
TTHM	2021	JACKSON COUNTY PWSD 2	8	0.98 - 4.51	ppb	80	0	Byproduct of drinking water disinfection

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Reseller Secondary Contaminants	Collection Date	Water System Name	Highest Sampled Result	Range of Sampled Result(s) (low-high)	Unit	SMCL
ALKALINITY, CACO3 STABILITY	5/10/2021	INDEPENDENCE PWS	60.3	60.3	ppm	NA
BROMIDE	3/11/2019	INDEPENDENCE PWS	0.0936	0.0719 - 0.0936	ppm	0.05
CALCIUM	5/10/2021	INDEPENDENCE PWS	17.1	17.1	ppm	NA
CHLORIDE	5/10/2021	INDEPENDENCE PWS	32.4	32.4	ppm	250
HARDNESS.CARBONATE	5/10/2021	INDEPENDENCE PWS	131	131	ppm	NA
MAGNESIUM	5/10/2021	INDEPENDENCE PWS	21.4	21.4	ppm	NA
PH	5/10/2021	INDEPENDENCE PWS	9.49	9.49	SU	8.5
POTASSIUM	5/10/2021	INDEPENDENCE PWS	6.2	6.2	ppm	NA
SODIUM	5/10/2021	INDEPENDENCE PWS	48.6	48.6	ppm	NA
SULFATE	5/10/2021	INDEPENDENCE PWS	139	139	ppm	250
TDS	5/10/2021	INDEPENDENCE PWS	319	319	ppm	500

Reseller Violations and Health Effects Information

During the 2021 calendar year, the water system(s) 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.

Terms and Abbreviations

Population: 508,090 (2020 U.S. Census). This is the equivalent residential population served, including non-bill paying customers.

AL: Action Level, or the concentration of a contaminant which, when exceeded, triggers treatment or other requirements which a water system must follow.

HAAS: Haloacetic Acids (mono-, di- and tri-chloracetic acid, and mono- and di-bromoacetic acid) as a group.

LRAA: Locational Running Annual Average, or the locational average of sample analytical results for samples taken during the previous four calendar quarters.

MCLG: Maximum Contaminant Level Goal, or 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, or 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.

MRDL: Maximum residual disinfectant level, or the maximum level of a disinfectant added for water treatment that may not be exceeded without an unacceptable possibility of adverse health effects.

MRDLG: Maximum Residual Disinfectant Level Goal, or the level of a drinking water disinfectant below which there is no known or expected risk to health.

NA: not applicable.

ND: not detectable at testing limits.

NTU: Nephelometric Turbidity Unit, used to measure cloudiness in drinking water.

ppb: parts per billion or micrograms per liter.

ppm: parts per million or milligrams per liter.

RAA: Running Annual Average, or the average of sample analytical results for samples taken during the previous four calendar quarters.

Range of Results: Shows the lowest and highest levels found during a testing period. If only one sample was taken, then this number equals the Highest Test Result or Highest Value.

SU: Standard Units for pH

SMCL: Secondary Maximum Contaminant Level, or the secondary standards that are non-enforceable guidelines for contaminants and may cause cosmetic effects (such as skin or tooth discoloration) or aesthetic effects (such as taste, odor, or color) in drinking water. EPA recommends these standards but does not require water systems to comply.

TT: Treatment Technique, or 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.