Public Water System ID Number: MO1010415

# 2019 Annual Water Quality Report

***(Consumer Confidence Report)***

*This report is intended to provide you with important information about your drinking water and the 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 source(s):**

| Source Name | Type |
|---|---|
| MISSOURI RIVER | SURFACE WATER |
| WELL # 1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11, 12, 13 & 14 | GROUND WATER |

## 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 http://drinkingwater.missouri.edu/swip/swipmaps/pwssid.htm. 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.

## 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.

In order 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.

## 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*

KC Water will provide a printed hard copy of the Consumer Confidence Report (CCR) upon request. To request a copy of this report to be mailed, please call us at 816-513-7000. The CCR can also be found on the internet at https://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 Parameters*

| Regulated Contaminants | Collection Date | Highest Test Result | Range of Sampled Result(s) (low – high) | Unit | MCL | MCLG | Typical Source |
|---|---|---|---|---|---|---|---|
| BARIUM | 6/4/2019 | 0.028 | 0.007 – 0.028 | 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 |
| ATRAZINE | 5/29/2019 | 0.16 | ND – 0.16 | ppb | 3 | 3 | Runoff from herbicide used on row crops |
| FLUORIDE | 11/8/2019 | 0.87 | ND - 0.87 | ppm | 4 | 4 | Natural deposits; Water additive which promotes strong teeth |
| NITRATE-NITRITE | 1/12/2019 | 2.82 | 0.506 – 2.82 | ppm | 10 | 10 | Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits |
| SELENIUM | 5/31/2019 | 2.8 | 1.5 - 2.8 | ppb | 50 | 50 | Erosion of natural deposits |

| Disinfectant | Collection Date | | Highest | Range of Sampled Result(s) | Unit | *MRDL* | *MRDLG* | Typical Source |
|---|---|---|---|---|---|---|---|---|
| Total Chlorine | 11/15/2019 | | 3.8 | 0.5 – 3.8 | 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-06 | 2019 | 23.1 | 8.6 – 30.6 | ppb | 60 | 0 | Byproduct of drinking water disinfection |
| Total Trihalomethanes | DBPDUAL-03 | 2019 | 10.8 | ND – 22.2 | ppb | 80 | 0 | Byproduct of drinking water disinfection |

| TOC | Collection Date | Highest Value | Range of Sampled Results | Unit | TT | Typical Source |
|---|---|---|---|---|---|---|
| TOTAL ORGANIC CARBON | 10/1/2019 | 4.7 | 2.07 - 4.7 | ppm | 0 | Naturally present in the environment |

| Lead and Copper | Date | 90th Percentile: 90% of your water utility levels were less than | Range of Sampled Results (low – high) | Unit | AL | Sites Over AL | Typical Source |
|---|---|---|---|---|---|---|---|
| COPPER | 2019 | 0.004 | ND - 0.022 | ppm | 1.3 | 0 | Corrosion of household plumbing systems |
| LEAD | 2019 | 2.1 | ND – 35.8 | ppb | 15 | 1 | Corrosion of household plumbing systems |

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| **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.* | | | | | | |
| **% of samples in compliance with Standard** | **Months Occurred** | **Monitoring Violation** | **Highest Single Measurement (NTU)** | **Month Occurred** | **Sources** | **In Compliance** |
| 97 | 12 | NO | 0.96 | MARCH | SOIL RUNOFF | YES |

| **Microbiological** | **Result** | **MCL** | **MCLG** | **Typical Source** |
|---|---|---|---|---|
| COLIFORM (TCR) | In the month of July, 2.69% of samples returned as positive | TT | N/A | Naturally present in the environment |

| **Unregulated Contaminant Monitoring Rule (UCMR)** | **Federal Level Recommended** | **Average Value** | **Range of Sampled Result(s)** | **Unit** |
|---|---|---|---|---|
| MANGANESE | NA | 0.7 | ND – 0.7 | ppb |
| Total HAA5 | 60 | 14.9 | 7.4 – 33.1 | ppb |
| Total HAA6 Br | NA | 1.8 | 1.0 – 3.2 | ppb |
| Total HAA9 | NA | 16.8 | 8.5 – 34.8 | ppb |

*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.

## Terms and Abbreviations

**Population**: 460,000. This is the equivalent residential population served including non-bill paying customers.
**90th percentile**: For Lead and Copper testing. 10% of test results are above this level and 90% are below this level.
**AL**: Action Level, or the concentration of a contaminant which, when exceeded, triggers treatment or other requirements which a water system must follow.
**HAA5**: 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.
**LT2ESWTR:** Long Term 2 Enhanced Surface Water Treatment Rule**.**
**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.
**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.
**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.

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## *Violations and Health Effects Information*

| During the 2019 calendar year, one violation of drinking water regulations occurred. | | |
|---|---|---|
| **Compliance Period** | **Analyte** | **Type** |
| 3/1/2019 – 3/31/2019 | LT2ESWTR | Failure to provide LT2 Treatment |

**Additional Required Health Effects Violation Notices: Inadequately treated water may contain disease-causing organisms. These organisms include bacteria, viruses, and parasites, which can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.**

### 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. KANSAS CITY PWS 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.

You can also find sample results for all contaminants from both past and present compliance monitoring online at the Missouri DNR Drinking Water Watch website http://dnr.mo.gov/DWW/indexSearchDNR.jsp. To find Lead and Copper results for your system, type your water system name in the box titled Water System Name and select *Find Water Systems* at the bottom of the page. The new screen will show you the water system name and number; select and click the Water System Number. At the top of the next page, under the *Help* column find, *Other Chemical Results by Analyte*, select and click on it. Scroll down alphabetically to Lead and click the blue Analyte Code (1030). The Lead and Copper locations will be displayed under the heading *Sample Comments*. Scroll to find your location and click on the *Sample No*. for the results. If your house was selected by the water system and you assisted in taking a Lead and Copper sample from your home but cannot find your location in the list, please contact KANSAS CITY PWS for your results.

## *Optional Monitoring (not required by EPA)*

### *Optional Constituents and Constituents having Secondary MCL (SMCL)*

| Secondary Constituents | Collection Date | Your Water System Highest Sampled Result | Range of Sampled Result(s) (low - high) | Unit | SMCL |
|---|---|---|---|---|---|
| ALKALINITY, TOTAL | 3/24/2019 | 72 | 17 - 72 | ppm | |
| ALUMIUM | 1/11/2019 | 0.067 | ND – 0.067 | ppm | |
| BORON | 5/31/2019 | 0.054 | ND - 0.054 | ppm | |
| BROMIDE | 6/16/2019 | 0.499 | ND – 0.499 | ppm | |
| CALCIUM | 4/28/2019 | 52.5 | 22.1 - 52.5 | ppm | |
| CHLORIDE | 3/8/2019 | 32.8 | 10 – 32.8 | ppm | 250 |
| FOAMING AGENTS (SURFACTANTS) | 1/2/2019 | 0.03 | ND – 0.03 | ppm | |
| IRON | 8/11/2019 | 0.026 | ND – 0.026 | ppm | 0.3 |
| MAGNESIUM | 9/3/2019 | 7.37 | 2.44 – 7.37 | ppm | |
| MOLYBDENUM | 5/31/2019 | 0.003 | ND - 0.003 | ppm | |
| NICKEL | 3/14/2019 | 0.002 | ND – 0.002 | ppm | |
| pH | 3/24/2019 | 10.3 | 9.5 – 10.3 | SU | 8.5 |
| PHENOLS | 6/5/2019 | 0.045 | ND – 0.045 | ppm | |
| POTASSIUM | 8/2/2019 | 8.09 | 5.38 – 8.09 | ppm | |
| SILICA | 4/4/2019 | 4.85 | 2.32 – 4.85 | ppm | |
| SODIUM | 11/7/2019 | 63.1 | 23.6 – 63.1 | ppm | |
| STRONTIUM | 9/8/2019 | 0.26 | 0.17 – 0.26 | ppm | |
| SULFATE | 7/23/2019 | 235 | 58.4 - 235 | ppm | 250 |
| TDS | 12/12/2019 | 524 | 68 - 524 | ppm | 500 |
| TOTAL HARDNESS | 4/28/2019 | 142 | 75 - 142 | ppm | |
| VANADIUM | 5/11/2019 | 0.003 | ND - 0.003 | ppm | |
| ZINC | 4/20/2019 | 0.006 | ND - 0.006 | ppm | 5 |

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.