

2016

Kirkwood Water Annual Water Quality Report

MO6010430

Source Of Your Drinking Water

Drinking water in Kirkwood comes from and is treated by the Missouri American Water Company, purchased by the City and redistributed to Kirkwood customers through City mains. This water that is purchased from Missouri American originates from the Missouri River.

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://maproom.missouri.edu/swipmaps/pwssid.htm>. To access the maps for your water system, you will need the State-assigned identification code for the Missouri American Water Company, which is MO6010716. The Source Water Inventory Project maps and information sheets provide a foundation upon which a more comprehensive source water protection plan can be developed.

Kirkwood's Water Quality Report

As part of our ongoing quality assurance program, the Kirkwood Water has published this "report card" for our customers to use in evaluating the quality of their drinking water. This "Consumer Confidence Report" lists any detected substances found in the water as a result of testing, the concentration detected, and the maximum contaminate level (MCL) allowed for that substance, as established by the Environmental Protection Agency (EPA) in compliance with the Safe Drinking Water Act and regulated by the Missouri Department of Natural Resources.

Why Are There Contaminants In The Water & Where Do They Come From?

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. 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 Department of Natural Resources prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. Department of Health regulations establish limits for contaminants in bottled water that must provide the same protection for public health.

Special Health Information

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 (1-800-426-4791).

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromized 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 from their health care providers about drinking water. 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 (1-800-426-4791)**.

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. Kirkwood 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 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>.



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Public Participation Opportunities

Kirkwood City Council meetings are typically held at 7:00 p.m. on the first and third Thursday of each month, in the Council Chambers, located on the top floor of Kirkwood City Hall, 139 South Kirkwood Road. These meetings provide opportunity for public participation in decisions that affect drinking water quality.

REGULATED CONTAMINANTS

Disinfection Byproducts	Monitoring Period	RAA	Range	Unit	MCL	MCLG	Typical Source
CHROMIUM	2/18/2014	1.57	1.57	ppb	100	100	Discharge from steel and pulp mills
(HAA5)	2016	19	13.3—20.8	ppb	60	0	Byproduct of drinking water disinfection
TTHM	2016	28	4.75—25.7	ppb	80	0	Byproduct of drinking water disinfection

Lead and Copper	Date	90th Percentile	Range	Unit	AL	Sites Over AL	Typical Source
Copper	2014—2016	0.00833	0.00151—0.0112	ppm	1.3	0	Corrosion of household plumbing systems

Microbiological	Result	MCL	MCLG	Typical Source
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Regulated Contaminants - NO DETECTED RESULTS WERE FOUND IN THE CALENDAR YEAR OF 2016

Unregulated Contaminant Monitoring Rule (UCMR)	Collection Date of HV	Highest Value (HV)	Range	Unit
CHROMIUM, HEX	11/11/2013	1.4	0.85—1.4	UG/L
MOLYBDENUM, TOTAL	2/18/2014	2.93	2.93	UG/L
STRONTIUM	2/18/2014	222	222	UG/L
VANADIUM, TOTAL	2/18/2014	3.66	3.66	UG/L

Violations and Health Effects Information - NO VIOLATIONS OCCURRED IN THE CALENDAR YEAR OF 2016

RESELLER CONTAMINANTS

Regulated Contaminants	Collection Date	Highest Value	Range	Unit	MCL	MCLG	Typical Source
ATRAZINE	7/6/2016	0.4	0—0.4	ppb	3	3	Runoff from herbicide used on row crops
FLUORIDE	4/20/2016	0.66	0.52—0.66	ppm	4	4	Natural deposits; Water additive which promotes strong teeth
NITRATE-NITRITE	4/20/2016	3.45	0.13—3.45	ppm	10	10	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
SELENIUM	4/20/2016	3.0	0—3	ppb	50	50	Erosion of natural deposits

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. KIRKWOOD 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/>

Reseller Contaminants - NO VIOLATIONS OCCURRED IN THE CALENDAR YEAR OF 2016

Disinfection Byproducts	Monitoring Period	Highest RAA	Range	Unit	MCL	MCLG	Typical Source
(HAA5)	2016	30	5.4—54.3	ppb	60	0	Byproduct of drinking water disinfection
TTHM	2016	58	4.7—99.9	ppb	80	0	Byproduct of drinking water disinfection

The state has reduced monitoring requirements for certain contaminants to less 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.

Definitions Of Terms Used In This Report

- **MCLG:** Maximum Contaminant Level Goal, or the level of a contaminant in drinking water where 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.
- **AL:** Action Level, or the concentration of a contaminant which, when exceeded, triggers treatment or other requirements, which a water system must follow.
- **90th percentile:** For lead and copper testing, 10% of test results are above this level and 90% are below this level.
- **Range:** Shows the lowest and highest levels found during a testing period; if only one sample was taken, then this number equals the Level Found.

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

Abbreviations Used In This Report

- **TTHM:** Total Trihalomethanes (Chloroform, bromodichloromethane, dibromochloromethane, and bromoform) as a group.
- **HAA5:** Haloacetic Acids (mono-, di- and tri-chloroacetic acid, and mono- and di-bromoacetic acid) as a group.
- **ppb:** parts per billion or micrograms per liter.
- **ppm:** parts per million or milligrams per liter.