

WHITEMAN AIR FORCE BASE

2016 Annual Water Quality Report

(Consumer Confidence Report)

MO1079501

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

Under the Consumer Confidence Reporting Rule of the federal Safe Drinking Water Act (SDWA), community water systems are required to report this water quality information to the consuming public. Presented in this report is information on the source of our water, its constituents, and the health risks associated with any contaminants.

Your drinking water comes from the Whiteman AFB Water Treatment Plant operated by 509th Civil Engineer Squadron. Our system has been assigned the identification number MO1079501 for the purposes of tracking our test results. The plant treats water from the Ozark Aquifer pumped from groundwater wells located on base. Your water is filtered and treated with chlorine to disinfect the water. These wells have been tested and the results are available from the 509th Medical Operations Squadron, Bioenvironmental Engineering Flight. If you would like to observe the decision-making process that affects your drinking water quality or if you have any further questions, the water plant can be reached at 660-687-1984.

The sources of drinking water (both tap water and bottled water) includes 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.

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).

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.

We continually monitor the drinking water for contaminants. Our water is safe to drink.

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).

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.

Contaminants Report

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.

Violations and Health Effects Information

Compliance Period	Analyte	Type
No Violations Occurred in the Calendar Year of 2016		

Regulated Contaminants

Microbiological	Result	MCL	MCLG	Typical Source
No Detected Results were Found in the Calendar Year of 2016				

Disinfection Byproducts	Monitoring Period	Highest LRAA	Range (low-high)	Unit	MCL	MCLG	Typical Source
TTHM	2016	14	14.2-14.2	ppb	80	0	Byproduct of drinking water disinfection
(HAA5)	2016	0	0-0	ppb	60	0	Byproduct of drinking water disinfection

Lead and Copper	Date	90th Percentile	Range of Results (low-high)	Unit	AL	Sites Over AL	Typical Source
Copper	2012-2014	0.171	0.0047-0.272	ppm	1.3	0	Corrosion of household plumbing systems
Lead	2012-2014	6.4	6.4-16.9	ppb	15	1	Corrosion of household plumbing systems

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. Whiteman AFB 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 Whiteman Air Force Base Bioenvironmental Engineering at 687-4324 for your results.

Regulated Contaminants	Collection Date	Highest Value	Range of Results (low-high)	Unit	MCL	MCLG	Typical Source
Barium	5/13/2014	0.0404	0.0404	ppm	2	2	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Chromium	5/13/2014	2.1	2.1	ppb	100	100	Discharge from steel and pulp mills
Fluoride	5/13/2014	0.58	0.58	ppm	4	4	Natural deposits; Water additive which promotes strong teeth
Nitrate-Nitrite	5/12/2016	0.018	0.018	ppm	10	10	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits

Optional Monitoring (not required by EPA) Optional Contaminants

Monitoring is not required for optional contaminants.

Secondary Contaminants	Collection Date	Your Water System Highest Value	Range (low-high)	Unit	SMCL
Alkalinity, CaCO3 Stability	5/13/2014	211	211	MG/L	
Aluminum	5/13/2014	0.0344	0.0344	MG/L	0.05
Calcium	5/13/2014	38.8	38.8	MG/L	
Chloride	5/13/2014	36.7	36.7	MG/L	250
Hardness, Carbonate	5/13/2014	187	187	MG/L	
Magnesium	5/13/2014	21.8	21.8	MG/L	
pH	5/13/2014	8.2	8.2	pH	8.5
Potassium	5/13/2014	3.71	3.71	MG/L	
Sodium	5/13/2014	36.4	36.4	MG/L	
Sulfate	5/13/2014	42	42	MG/L	250
TDS	5/13/2014	296	296	MG/L	500
Zinc	5/13/2014	0.00578	0.00578	MG/L	5
Perfluorobutanesulfonic Acid	8/22/2016	<2.0	<2.0	ng/L	
Perfluoroheptanoic Acid	8/22/2016	<2.0	<2.0	ng/L	
Perfluorohexanesulfonic Acid	8/22/2016	<2.0	<2.0	ng/L	
Perfluorononanoic Acid	8/22/2016	<2.0	<2.0	ng/L	
Perfluorooctane Sulfonate	8/22/2016	<2.0	<2.0	ng/L	
Perfluorooctanoic Acid	8/22/2016	<2.0	<2.0	ng/L	

Secondary standard are non-enforceable guidelines for contaminants 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.

Terms and Abbreviations

Population: 9,600. This is the equivalent residential population served including non-bill paying customers.

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.

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

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

TT: Treatment Technique, or a required process intended to reduce the level of a contaminant in drinking water.

90th percentile: For lead and Copper testing. 10% of test results are above this level and 90% are below this level.

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 Value.

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

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

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.

n/a: not applicable.

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

nd: not detectable at testing limits.

For more information please contact the 509th Medical Operations Squadron, Bioenvironmental Engineering Flight (660-687-4324).