2022 WATER QUALITY REPORT
FOR
MISSOURI VALLEY WATER SUPPLY

This report contains important information regarding the water quality in our water system. The source of our water is groundwater. Our water quality testing shows the following results:

CONTAMINANT	MCL - (MCLG)	Compliance		Date	Violation	Source
		Type	Value & (Range)		Yes/No	
Total Trihalomethanes (ppb) [TTHM]	80 (N/A)	LRAA	16.00 (16 - 16)	09/30/2022	No	By-products of drinking water chlorination
Total Haloacetic Acids (ppb) [HAA5]	60 (N/A)	LRAA	8.00 (8 - 8)	09/30/2022	No	By-products of drinking water disinfection
Lead (ppb)	AL=15 (0)	90th	3.50 (ND - 4)	2021	No	Corrosion of household plumbing systems; erosion of natural deposits
Copper (ppm)	AL=1.3 (1.3)	90th	0.147 (0.0721 - 0.227)	2021	No	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives
950 - DISTRIBUTION SYSTEM						
Chlorine (ppm)	MRDL=4.0 (MRDLG=4.0)	RAA	1.03 (0.32 - 1.57)	12/31/2022	No	Water additive used to control microbes
Total Coliform Bacteria	TT (TT)	RTCR	1 sample(s) positive	11/30/2022	No	Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other waterborne pathogens may be present, or that a potential pathway exists through which contamination may enter the drinking water.
Fluoride (ppm)	4 (4)	RAA	0.37 (0.12 - 0.570)	12/31/2022	No	Water additive which promotes strong teeth;
03 - WELLS 1, 4 & 5 AFTR TRTMNT @ SAMPLE TAP						
Gross Alpha, inc (pCi/L)	15 (0)	SGL	5.47	11/17/2021	No	Erosion of natural deposits
Selenium (ppb)	50 (50)	SGL	10.60	10/24/2018	No	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines
Arsenic (ppb)	10 (0)	SGL	1.60	10/24/2018	No	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronic production wastes
Barium (ppm)	2 (2)	SGL	0.167	10/24/2018	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Fluoride (ppm)	4 (4)	SGL	0.2	10/24/2018	No	Erosion of natural deposits; Discharge from fertilizer and aluminum factories
Sodium (ppm)	N/A (N/A)	SGL	30.4	08/10/2022	No	Erosion of natural deposits; Added to water during treatment process
Nitrate [as N] (ppm)	10 (10)	SGL	1.600 (1.500 - 1.600)	2022	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits

Note: Contaminants with dates indicate results from the most recent testing done in accordance with regulations.

DEFINITIONS

- Maximum Contaminant Level (MCL) – 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.
- Maximum Contaminant Level Goal (MCLG) -- 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.
- ppb -- parts per billion.
- ppm -- parts per million.
- pCi/L – picocuries per liter
- N/A – Not applicable
- ND -- Not detected
- RAA – Running Annual Average
- Treatment Technique (TT) – A required process intended to reduce the level of a contaminant in drinking water.
- Action Level (AL) – The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
- Maximum Residual Disinfectant Level Goal (MRDLG) - The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.
- Maximum Residual Disinfectant Level (MRDL) - The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.
- SGL – Single Sample Result
- RTCR – Revised Total Coliform Rule
- NTU – Nephelometric Turbidity Units

GENERAL 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 posed a health risk. More information about contaminants or potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline (800-426-4791).

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised 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).

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. MISSOURI VALLEY WATER SUPPLY 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 or at http://www.epa.gov/safewater/lead.

OTHER VIOLATIONS

In December 2022 we failed to monitor for Coliform Bacteria. Adverse health effects, if any, are not known. Monitoring procedures have been corrected to avoid future violations.

SOURCE WATER ASSESSMENT INFORMATION

This water supply obtains its water from the sand and gravel of the Alluvial aquifer. The Alluvial aquifer was determined to be highly susceptible to contamination because the characteristics of the aquifer and overlying materials provide little protection from contamination at the land surface. The Alluvial wells will be highly susceptible to surface contaminants such as leaking underground storage tanks, contaminant spills, and excess fertilizer application. A detailed evaluation of your source water was completed by the Iowa Department of Natural Resources and is available from the Water Operator at 402-689-2693.

CONTACT INFORMATION

For questions regarding this information or how you can get involved in decisions regarding the water system, please contact MISSOURI VALLEY WATER SUPPLY at 402-689-2693.