

## Town of Silver City 2022 Water Quality Report

We are pleased to present you with this year's Annual Drinking Water Quality Report for the Town of Silver City. This report is designed to provide consumers with information on the quality of the water delivered by our system. The Annual Drinking Water Quality Report must contain information about the water system; information on the sources of water; reporting levels of contaminants detected in the finished water; and information on any violations of the drinking water regulations. This report covers all monitoring sampling performed by the Town of Silver City from January through December 2022.

The Town of Silver City is committed to delivering the best quality of drinking water. Our goal is and always has been, to provide to you a safe and dependable supply of drinking water. For more information about this report or any questions relating to your drinking water, please contact the Utilities Department at (575) 534-6365. You may also email Robert M. Esqueda, Utilities Director at [resqueda@qwestoffice.net](mailto:resqueda@qwestoffice.net) or Marisela Rodriguez, Utilities Secretary at [utilities@silvercitymail.com](mailto:utilities@silvercitymail.com).

### **Where Does My Water Come From?**

Silver City's water is supplied solely by ground water that is pumped out of wells located in two separate well fields. The Frank's Well Field is comprised of three wells (2 in-service) that all draw from the Gila-San Francisco Water Basin. The second well field is the Woodward Well Field that is comprised of five wells that all draw from the Mimbres Water Basin. The Gabby Hayes Well is an additional well that draws from the Mimbres Water Basin and also supply's the Town with water. However, it is not considered part of the Woodward Well Field.

### **Frequently Asked Questions**

#### What is the hardness of Silver City's Water?

Water hardness is defined by the amount of calcium and magnesium present. When the levels are comparatively low (0-125 ppm), water is described as soft. When the levels are comparatively high (300+ ppm), water is described as hard. Water in Silver City is described as medium hard (125-200 ppm). Harder water does not lather as easily and does not form as many suds when using soap or detergent.

#### Is fluoride added to Silver City's water?

Fluoride is a substance which is known to retard the formation of cavities in teeth. In some communities, fluoride is added to drinking water. The American Dental Association recommends a concentration of 1 part per million. However, fluoride occurs naturally in Silver City's water at the optimal level. Bottled water usually does not contain fluoride and, therefore, is not recommended for children. Because too much fluoride can be detrimental, the maximum level set by EPA standards is 4 parts per million.

Is the chlorine used to disinfect water dangerous?

Silver City uses chlorine to disinfect our drinking water. Chlorine is the most effective way to ensure that water stays disinfected as it travels throughout the water distribution system. Chlorine prevents water-borne epidemics such as cholera, typhoid, and hepatitis. The maximum amount of chlorine in Silver City's water is usually 0.66 parts per million. Chlorine in this quantity poses no adverse health risks.

Sometimes my water seems cloudy. Is the cloudy water safe to drink?

Water that appears cloudy/milky is usually the result of harmless air bubbles trapped in the water. After a glass of this water sits for a few minutes, the water will become clear as the air bubbles float to the top. Although the air trapped in the water does not affect the safety of the water, please report this problem to the Town of Silver City's Utilities Department at (575) 534-6365.

**Source Water Assessment & Protection (SWAP)**

The Source Water Assessment and Protection (SWAP) program assesses the susceptibility of public water supplies to potential contamination by microbiological pathogens and chemicals. A susceptibility ranking of high was assigned to this system using the information collected during the assessment by the Environment Department. A copy is available upon request.

Although throughout the United States, it is common to find potential sources of contamination located atop wellhead protection plans, and other planning efforts continue to be primary methods of protecting and ensuring high quality drinking water.

All sources of drinking water are subject to potential contamination by substances that are naturally occurring or manmade. These substances can be microbes, inorganic or organic chemicals and radioactive substances. All 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 the 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 at 1-800-426-4791.

Why are there contaminants in my drinking 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 (EPA) Safe Drinking Water Hotline) (800-426-4791). The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and 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; microbial contaminants, such as viruses and bacteria, that 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 stormwater runoff, industrial, or domestic wastewater

dischargers, oil and gas production, mining, or framing; pesticides and herbicides, which may come from a variety of sources such as agriculture, urban stormwater 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 stormwater runoff, and septic system; and 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, EPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

### **Important Health Information**

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 may be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. The U.S.EPA/CDC (Centers for Disease Control and Prevention) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline at 1-800-426-4791.

### **Term Table Definitions**

<b>Term</b>	<b>Definition</b>
<u>90<sup>th</sup> Percentile:</u>	Out of every 10 homes sampled, 9 were at or below this level.
<u>AL (Action Level):</u>	The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
<u>MCL (Maximum Contaminant Level):</u>	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.
<u>MCLG (Maximum Contaminant Level Goal):</u>	The level of a contaminant in drinking water below which there is no known or expected risk of health. MCLGs allow for a margin of safety.
<u>MRDL (Maximum Residual Disinfectant Level):</u>	The highest level of chlorine residual allowed in drinking water.
<u>MRDLG (Maximum Residual Disinfectant Level Goal):</u>	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.
<u>ND (Non-Detects):</u>	Not detected; Contaminant is not present.
<u>pCi/L: (Picocuries per liter):</u>	A measurement of radioactivity in water.
<u>Ppb (Parts per billion):</u>	One part substance per billion parts water or 1 minute in 2,000 years.
<u>Ppm (Parts per million):</u>	One part substance per million parts water or 1 minute in 2 years.
<u>RAA (Running Annual Average):</u>	The average of sample analytical results for samples taken during the last 12 calendar months.
<u>TT (Treatment Technique):</u>	A required process intended to reduce the level of a contaminant in drinking water.

**SUBSTANCES OF FREQUENT INTEREST TO CUSTOMERS**

<b>Unregulated Substances</b>	<b>Units</b>	<b>Range</b>	<b>Average</b>
Alkalinity	PPM	157 - 203	176
Calcium	PPM	29.9 - 60.3	49.13
Hardness	PPM	132 - 200	162 (Medium Hardness or 9.45 Grains/Gallon)
Iron	PPM	0 - 0.27	0.07
Magnesium	PPM	6.42 - 14.09	9.70
pH/Acidity	STD. UNITS	7.53 - 8.04	7.80
Sodium	PPM	22 - 26	24
Total Dissolved Solids	PPM	190 - 238	215

**(2022) Water Quality Analysis**

These tables display the results of our water quality analysis between (2016-2022). Each substance detected in our water, even the smallest traceable amount, is listed. These tables contain the name of each substance, the highest substance level allowed by the EPA, the highest level and range detected, and the sources of each contaminant.

<b>SUBSTANCE (UNITS)</b>	<b>YEAR SAMPLED</b>	<b>MCL</b>	<b>MCLG</b>	<b>HIGHEST LEVEL DETECTED</b>	<b>RANGE LOW - HIGH</b>	<b>MEETS EPA STD</b>	<b>TYPICAL SOURCE</b>
Barium (ppb) METALS	2017	2,000	2,000	8.2	2.8 - 8.2	YES	Discharge of drilling waste, metal refineries, erosion of natural deposits.
Selenium (ppb) METALS	2017	50	50	2.4	1.2 - 2.4	YES	Discharge from petroleum refineries and mines or erosion of natural deposits.
Zinc (ppm) METALS	2017	5.0	5.0	0.026	ND - 0.026	YES	Naturally occurring discharge from metal factories.
<b>SUBSTANCE (UNITS)</b>	<b>YEAR SAMPLED</b>	<b>MCL</b>	<b>MCLG</b>	<b>HIGHEST LEVEL DETECTED</b>	<b>RANGE LOW - HIGH</b>	<b>MEETS EPA STD</b>	<b>TYPICAL SOURCE</b>
Fluoride (ppm) MINERALS	2017	4	4	0.41	0.41 - 0.41	YES	Erosion of natural deposits; discharge from fertilizer and aluminum factories.
Nitrate & Nitrite Combined (ppm) NUTRIENTS	2022	10	10	1.6	.84 - 1.6	YES	Runoff from fertilizer use; leaching from septic

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							tanks; sewage erosion of natural deposits.
Alpha Emitters (pCi/L) RADIOLOGICAL	2019	15	0	5.3	3.3-5.3	YES	Erosion of natural deposits.
Combined Radium (pCi/L) RADIOLOGICAL	2019	5	0	0.16	ND-0.16	YES	Erosion of natural deposits.
Beta Emitters (pCi/L) RADIOLOGICAL	2019	50	0	3.7	2.3-3.7	YES	Erosion of natural deposits.
Uranium, Mass Concentration (ppb) RADIOLOGICAL	2019	30	0	2	2	YES	Erosion of natural deposits.

**Disinfectants and Disinfection By-Products**

SUBSTANCE (UNITS)	YEAR SAMPLED	MCL	MCLG	HIGHEST LEVEL DETECTED	RANGE LOW - HIGH	MEETS EPA STANDARDS	TYPICAL SOURCE
Chlorine (ppm) DISINFECTANTS	2022	4 (MRDL)	4 (MRDLG)	0.50	0.5 - 0.5	YES	Water additive used to control microbes.
Haloacetic Acids (ppb) DISINFECTION BY-PRODUCTS	2022	60	N/A	4.73	ND - 4.73	YES	By-product of chlorination for disinfection of water formed when chlorine reacts to organics in water.
(TTHM's) Total Trihalomethanes (ppb) DISINFECTION BY-PRODUCTS	2022	80	N/A	44.5	5.48 - 44.5	YES	By-products of chlorination for disinfection of water formed when chlorine reacts to organics in water.

**Lead and Copper**

SUBSTANCE (UNITS)	YEAR SAMPLED	MCL	MCLG	HIGHEST LEVEL DETECTED	RANGE LOW - HIGH	MEETS EPA STANDARDS	TYPICAL SOURCE
Copper (ppm) 90 <sup>th</sup> Percentile	2020	AL=1.3	1.3	90 <sup>th</sup> Percentile .11	0.0023 - 0.24	YES	Corrosion of household plumbing systems; erosion of natural deposits;

							leaching from wood preservatives.
Lead (ppb) 90 <sup>th</sup> Percentile	2020	AL=15	0	90 <sup>th</sup> Percentile 2.2	ND-5.2	YES	Corrosion of household plumbing systems, erosion of natural deposits.

\*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. Silver City 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>.

**Microbiological**

SUBSTANCE (UNITS)	YEAR SAMPLED	MCL	MCLG	HIGHEST LEVEL DETECTED	RANGE LOW - HIGH	MEETS EPA STD	TYPICAL SOURCE
Total Coliforms - 180 Routine Samples Yearly	2022	0	0	ND	ND	YES	Coliforms are naturally present in the environment; not a health threat in itself; it is used to indicate whether other potential harmful bacteria may be present.

\* This water report is available in Spanish upon request at the Utilities Department office at 1211 N. Hudson Street, Silver City.