Annual Drinking Water Quality Report

ANTIOCH

IL0970050

Annual Water Quality Report for the period of January 1 to December 31, 2024

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

The source of drinking water used by

ANTIOCH is Ground Water

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Este informe contiene información muy importante sobre el agua que usted bebe. Tradúzcalo ó hable con alguien que lo entienda bien.

Source of Drinking Water

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.

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.

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 EPAs Safe Drinking Water Hotline at (800) 426-4791.

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

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).

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. The drinking water supplier is responsible for providing high quality drinking water and removing lead pipes, but cannot control the variety of materials used in plumbing components in your home. You share the responsibility for protecting yourself and your family from the lead in your home plumbing. You can take responsibility by identifying and removing lead materials within your home plumbing and taking steps to reduce your family's risk. Before drinking tap water, flush your pipes for several minutes by running your tap, taking a shower, doing laundry or a load of dishes. You can also use a filter certified by an American National Standard Institute accredited certifier

to reduce lead in drinking water. 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 at http://www.epa.gov/safewater/lead.

Source Water Information

Source Water Name		Type of Water	Report Status	Location
WELL 1 (20309)		GW	_____	SOUTHWEST CORNER OF ORCHARD ST AND TOPT AVE.
WELL 10 (01650)		GW	_____	300 FT WEST OF WELL 9
WELL 2 (20310)		GW	_____	27 FT SOUTH OF WELL #1
WELL 3 (20311)		GW	_____	NORTHEAST CORNER OF MCMILLIAN RD AND GAIL ST
WELL 6 (00633)	SW COR OF ORCHARD & TOFT	GW	_____	SOUTHWEST CORNER OF ORCHARD AND TOFT
WELL 7 (01053)		GW	_____	NEXT TO 250000 GALLON ELEVATED TANK
WELL 8 (01648)		GW	_____	WNW OF SAVAGE AND WHITE ROADS
WELL 9 (01649)		GW	_____	200 FT NW OF WELL 8

Source Water Assessment

We want our valued customers to be informed about their water quality. If you would like to learn more, please feel welcome to attend any of our regularly scheduled meetings. The source water assessment for our supply has been completed by the Illinois EPA. If you would like a copy of this information, please stop by City Hall or call our water operator at (224) 558-0950. To view a summary version of the completed Source Water Assessments, including: Importance of Source Water; Susceptibility to Contamination Determination; and documentation/recommendation of Source Water Protection Efforts, you may access the Illinois EPA website at http://www.epa.state.il.us/cgi-bin/wp/swap-fact-sheets.pl.

Source of Water: ANTIOCHBased on information obtained in a Well Site Survey published in 1990 by the Illinois EPA, sixty-two potential sources or possible problem sites were identified within the survey area of Antioch's wells. Furthermore, information provided by the Leaking Underground Storage Tank and Remedial Project Management Sections of the Illinois EPA indicated several additional sites with ongoing remediations which may be of concern. The Illinois EPA has determined that the Antioch's wells #1, #2, #3, #5, #6, #8, #9, and #10 source water is not susceptible to contamination. However, the source water obtained from Well #7 is susceptible to contamination. This determination is based on a number of criteria including; monitoring conducted at the wells; monitoring conducted at the entry point to the distribution system; and the available hydrogeologic data on the wells.In 2008, 2009, and 2010 the Village of Antioch received Non-Compliance Advisories (NCAs) for bacteriological detections in wells #5, #10, and #8 respectively. The facility conducted an investigation on all the wells and determined the cause of the detect(s) to be well maintenance/rehab and sample collection techniques. The facility has corrected the deficiencies at this time. And while the NCA(s) for these wells have now been resolved, monitoring data is continually being tracked in regards to all active potable wells in the Village of Antioch.

Lead and Copper

Definitions:
Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
Action Level Goal (ALG): The level of a contaminant in drinking water below which there is no known or expected risk to health. ALGs allow for a margin of safety.

Copper Range: 0.0045 ppm to 1.2 ppm
Lead Range: <1.0 ppb to 27 ppb

To obtain a copy of the system's lead tap sampling data, contact Village of Antioch Public Works Department at (847) 395-1881.

Our Community Water Supply has developed a service line material inventory.
To view the service line inventory, please visit https://www.arcgis.com/apps/webappviewer/index.html?id=1273d3491e4a4102889169796ca4d65c.

Lead and Copper	Date Sampled	MCLG	Action Level (AL)	90th Percentile	# Sites Over AL	Units	Violation	Likely Source of Contamination
Copper	09/08/2023	1.3	1.3	0.972	0	ppm	N	Corrosion of household plumbing systems; Errosion of natural deposits.
Lead	09/08/2023	0	15	13	3	ppb	N	Corrosion of household plumbing systems; Errosion of natural deposits.

Water Quality Test Results

Definitions:	The following tables contain scientific terms and measures, some of which may require explanation.
Avg:	Regulatory compliance with some MCLs are based on running annual average of monthly samples.
Level 1 Assessment:	A Level 1 assessment is a study of the water system to identify potential problems and determine (if possible) why total coliform bacteria have been found in our water system.
Level 2 Assessment:	A Level 2 assessment is a very detailed study of the water system to identify potential problems and determine (if possible) why an E. coli MCL violation has occurred and/or why total coliform bacteria have been found in our water system on multiple occasions.
Maximum Contaminant Level or 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 or 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.
Maximum residual disinfectant level or 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.

Water Quality Test Results

Maximum residual disinfectant level goal or 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.
na:	not applicable.
mrem:	millirems per year (a measure of radiation absorbed by the body)
ppb:	micrograms per liter or parts per billion - or one ounce in 7,350,000 gallons of water.
ppm:	milligrams per liter or parts per million - or one ounce in 7,350 gallons of water.
Treatment Technique or TT:	A required process intended to reduce the level of a contaminant in drinking water.

Regulated Contaminants

Disinfectants and Disinfection By-Products	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Chlorine	2024	1.3	1 - 2	MRDLG = 4	MRDL = 4	ppm	N	Water additive used to control microbes.
Haloacetic Acids (HAA5)	2024	3	0 - 2.76	No goal for the total	60	ppb	N	By-product of drinking water disinfection.
Total Trihalomethanes (TTHM)	2024	2	1.112 - 1.94	No goal for the total	80	ppb	N	By-product of drinking water disinfection.
Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Arsenic	2024	5	0 - 5	0	10	ppb	N	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes.
Barium	2024	0.097	0.048 - 0.097	2	2	ppm	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Fluoride	2024	0.731	0.676 - 0.731	4	4.0	ppm	N	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Iron	2024	0.97	0.18 - 0.97		1.0	ppm	N	This contaminant is not currently regulated by the USEPA. However, the state regulates. Erosion of natural deposits.
Manganese	2024	11	4 - 11	150	150	ppb	N	This contaminant is not currently regulated by the USEPA. However, the state regulates. Erosion of natural deposits.
Sodium	2024	53	36 - 53			ppb	N	Erosion from naturally occuring deposits. Used in water softener regeneration.
Zinc	2024	0.019	0 - 0.019	5	5	ppm	N	This contaminant is not currently regulated by the USEPA. However, the state regulates. Naturally occurring; discharge from metal
Radioactive Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Combined Radium 226/228	2024	4	0 - 4.37	0	5	pCi/L	N	Erosion of natural deposits.
Gross alpha excluding radon and uranium	2024	7	0 - 6.74	0	15	pCi/L	N	Erosion of natural deposits.

Volatile Organic Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
cis-1,2-Dichloroethylene	2024	2	2.1 - 2.5	70	70	ppb	N	Discharge from industrial chemical factories.

Violations Table

Lead and Copper Rule			
The Lead and Copper Rule protects public health by minimizing lead and copper levels in drinking water, primarily by reducing water corrosivity. Lead and copper enter drinking water mainly from corrosion of lead and copper containing plumbing materials.			
Violation Type	**Violation Begin**	**Violation End**	**Violation Explanation**
FOLLOW-UP OR ROUTINE TAP M/R (LCR)	10/01/2023	02/28/2024	We failed to test our drinking water for the contaminant and period indicated. Because of this failure, we cannot be sure of the quality of our drinking water during the period indicated.

Corrective Action:
The sample volume received from a lead/copper sampling site was improper aliquot and required resampling, all samples were with-in compliance with IEPA Standards.