

ANNUAL DRINKING WATER QUALITY REPORT

The Water Board of the City of Geneva

January-December 2021

The City of Geneva Water and Sewer Board of Directors

Chairman Mr. Rufus Lee

Mr. Phillip Carter

Mr. David Hayes

Mr. Randall Meeks

Mr. Charlie Carter



As you can see by the table, our system had no violations of allowable limits of contaminants in your drinking water. We are proud that your drinking water meets or exceeds all Federal and State requirements. We have learned through our monitoring and testing that some constituents have been detected. The EPA has determined that your water IS SAFE at these levels.

All drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of these 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).

The sources of drinking water (both tap and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of land or through the ground, it dissolves naturally occurring minerals and radioactive material, and it can pick up substances resulting from the presence of animals or from human activity.

Geneva Water Works Board wants you to be aware that there is not a problem with lead in your drinking water. 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. Geneva Water Works Board 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>.

MCL's are set at very stringent levels. To understand the possible health effects described for many regulated constituents, a person would have to drink 2 liters of water every day at the MCL level for a lifetime to have a one in a-million chance of having the described health effect.

Some people may be more vulnerable to contaminants and drinking water than the general population you know what I mean is a vulnerable person such as persons with cancer undergoing chemotherapy persons who have undergone organ transplants people with HIV aids or other medical disorders some elderly and infants can be particularly at risk for infections. These people should seek advice about drinking water from their health care providers EPA slash CDC guidance lines on appropriate means to lessen the risk of infection by cryptosporidium and other microbiological contaminants are available from the safe drinking water hotline (1-800-426-4791) all drinking water including bottled water may be reasonably expected to contain at least small amounts of bacteria it is important to remember that the presence of these bacteria does not necessarily pose a health risk. The Geneva waterworks board is pleased to serve as a sponsor of the Geneva County groundwater festival Geneva county groundwater festival is a one day event that educates 4th grade students about our water resources this festival teaches children the

importance of their water resource from the actual source to protect it from possible contamination simple filtration methods and constructing an aquifer for consumption.

PLAIN LANGUAGE DEFINITION

- **Non-Detects (ND)** - laboratory analysis indicates that the contaminant is not present.
- **Not Required (NR)** – Laboratory analysis not required due to waiver granted by the Environmental Protection Agency for the State of Alabama.
- **Parts per million (ppm) or Milligrams per liter (mg/l)** - one part per million corresponds to one minute in two years or a single penny in \$10,000.
- **Parts per billion (ppb) or Micrograms per liter** - one part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.
- **Parts per trillion (ppt) or Nanograms per liter (nanograms/l)** - one part per trillion corresponds to one minute in 2,000,000 years, or a single penny in \$10,000,000,000.
- **Parts per quadrillion (ppq) or Picograms per liter (picograms/l)** - one part per quadrillion corresponds to one minute in 2,000,000,000 years or one penny in \$10,000,000,000,000.
- **Picocuries per liter (pCi/L)** - picocuries per liter is a measure of the radioactivity in water.
- **Millirems per year (mrem/yr)** - measure of radiation absorbed by the body.
- **Nephelometric Turbidity Unit (NTU)** - nephelometric turbidity unit is a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.
- **Variances & Exemptions (V&E)** - State or EPA permission not to meet an MCL or a treatment technique under certain conditions.
- **Action Level – (AL)** the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
- **Treatment Technique (TT)** - (mandatory language) A treatment technique is a required process intended to reduce the level of a contaminant in drinking water.
- **Threshold Odor Number (T.O.N.)**- The greatest dilution of a sample with odor-free water that still yields a just-detectable odor.
- **Maximum Contaminant Level** - (mandatory language) The “Maximum Allowed” (MCL) is 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** - (mandatory language) The “Goal”(MCLG) is 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 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.
- **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.
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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 run-off, 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, storm water run-off, 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 run-off, and septic systems.
- **Radioactive contaminants**, which can be naturally occurring or be the result of oil and gas production and mining activities.

The City of Geneva Water and Sewer Board of Directors routinely monitors for contaminants in your drinking water according to Federal and State laws. This table below shows the results of our monitoring for the period of January 1st to December 31st, 2021 unless noted. All drinking water, including bottled drinking water, may be reasonably expected to contain at least small amounts of some contaminants. It's important to remember that the presence of these contaminants does not necessarily pose a health risk.

Table of Primary Contaminants

At high levels some primary contaminants are known to pose a health risks to humans. This table provides a quick glance of any primary contaminant detections.

CONTAMINANT	MCL	AMOUNT DETECTED	CONTAMINANT	MCL	AMOUNT DETECTED	CONTAMINANT	MCL	AMOUNT DETECTED
Bacteriological			Selenium(ppb)	50	ND	Epichlorohydrin	TT	ND
Total Coliform Bacteria	< 5%	ND	Thallium(ppb)	2	ND	Ethylbenzene(ppb)	700	ND
Turbidity	TT	0.15	Organic Chemicals			Ethylene dibromide(ppt)	50	ND
Fecal Coliform & E. coli	0	ND	Acrylamide	TT	ND	Glyphosate(ppb)	700	ND
Radiological			Alachlor(ppb)	2	ND	Haloacetic Acids(ppb)	60	14.00
Beta/Photon emitters (mrem/yr)	4	ND	Atrazine(ppb)	3	ND	Heptachlor(ppt)	400	ND
Alpha emitters (pci/l)	15	.258+/- .937	Benzene(ppb)	5	ND	Heptachlor epoxide(ppt)	200	ND
Combined radium (pci/l)	5	.288+/- .418	Benzo(a)pyrene(PHAs)(ppt)	200	ND	Hexachlorobenzene(ppb)	1	ND
Uranium(pci/l)	30	ND	Carbofuran(ppb)	40	ND	Hexachlorocyclopentadiene(ppb)	50	ND
Inorganic			Carbon Tetrachloride(ppb)	5	ND	Lindane(ppt)	200	ND
Antimony (ppb)	6	ND	Chlordane(ppb)	2	ND	Methoxychlor(ppb)	40	ND
Arsenic (ppb)	10	ND	Chlorobenzene(ppb)	100	ND	Oxamyl [Vydate](ppb)	200	ND
Asbestos (MFL)	7	ND	2,4-D	70	ND	Pentachlorophenol(ppb)	1	ND
Barium (ppm)	2	0.02	Dalapon(ppb)	200	ND	Picloram(ppb)	500	ND
Beryllium (ppb)	4	ND	Dibromochloropropane(ppt)	200	ND	PCBs (ppt)	500	ND
Bromate(ppb)	10	ND	0-Dichlorobenzene(ppb)	600	ND	Simazine(ppb)	4	ND
Cadmium (ppb)	5	ND	p-Dichlorobenzene(ppb)	75	ND	Styrene(ppb)	100	ND
Chloramines(ppm)	4	ND	1,2-Dichloroethane(ppb)	5	ND	Tetrachloroethylene(ppb)	5	ND
Chlorine(ppm)	4	ND	1,1-Dichloroethylene(ppb)	7	ND	Toluene(ppm)	1	ND
Chlorine dioxide(ppb)	800	ND	Cis-1,2-Dichloroethylene(ppb)	70	ND	TOC	TT	ND
Chlorite(ppm)	1	ND	trans-1,2-Dichloroethylene(ppb)	100	ND	TTHM(ppb)	80	25.00
Chromium (ppb)	100	ND	Dichloromethane(ppb)	5	ND	Toxaphene(ppb)	3	ND
Copper (ppm)	AL=1.3	0.46	1,2-Dichloropropane(ppb)	5	ND	2,4,5-TP (Silvex)(ppb)	50	ND
Cyanide (ppb)	200	ND	Di-(2-ethylhexyl)adipate(ppb)	400	ND	1,2,4-Trichlorobenzene(ppb)	70	ND
Fluoride (ppm)	4	0.41	Di(2-ethylhexyl)phthalates(ppb)	6	ND	1,1,1-Trichloroethane(ppb)	200	ND
Lead (ppb)	AL=15	1.60	Dinoseb(ppb)	7	ND	1,1,2-Trichloroethane(ppb)	5	ND
Mercury (ppb)	2	ND	Dioxin[2,3,7,8-TCDD](ppq)	30	ND	Trichloroethylene(ppb)	5	ND
Nitrate (ppm)	10	0.17	Diquat(ppb)	20	ND	Vinyl Chloride(ppb)	2	ND
Nitrite (ppm)	1	ND	Endothal(ppb)	100	ND	Xylenes(ppm)	10	0.76
Total Nitrate & Nitrite	10	ND	Endrin(ppb)	2	ND			

Table of Secondary and Unregulated Contaminants

Secondary Drinking Water Standards are guidelines regulating contaminants that may cause cosmetic effects (such as skin or tooth discoloration) or aesthetic effects (such as taste, odor, or color) in drinking water. ADEM has Secondary Drinking Water Standards established in state regulations applicable to water systems required to monitor for the various components.

Unregulated contaminants are those for which EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted.

CONTAMINANT	MCL	DETECT	CONTAMINANT	MCL	DETECT	CONTAMINANT	MCL	DETECT
Secondary								
Aluminum	0.2	ND	Foaming Agents	0.5	ND	Silver	7	ND
Chloride	250	3.90	Iron	0.3	57.00	Sulfate	70	10.4
Color (PCU)	15	5.00	Magnesium	75	6.60	Total Dissolved Solids	500	180
Copper	1	ND	Odor (T.O.N.)	5	ND	Zinc	5	ND
Special								
Calcium	N/A	45.10	pH (SU)	N/A	7.70	Temperature (*C)	N/A	ND
Carbon Dioxide	N/A	12.4	Sodium	N/A	ND	Total Alkalinity	N/A	ND
Manganese	0.05	ND	Specific Conductance (umhos)	<500	ND	Total Hardness (as CaCO3)	N/A	ND
Unregulated								
1,1 - Dichloropropene	N/A	ND	Bromobenzene	N/A	ND	Hexachlorobutadiene	N/A	ND
1,1,2,2-Tetrachloroethane	N/A	ND	Bromochloromethane	N/A	ND	Isopropylbenzene	N/A	ND
1,1-Dichloroethane	N/A	ND	Bromodichloromethane	N/A	0.0006	m-Dichlorobenzene	N/A	ND
1,2,3 - Trichlorobenzene	N/A	ND	Bromoforn	N/A	0.0165	Methomyl	N/A	ND
1,2,3 - Trichloropropane	N/A	ND	Bromomethane	N/A	ND	Metolachlor	N/A	ND
1,2,4 - Trimethylbenzene	N/A	ND	Butachlor	N/A	ND	Metribuzin	N/A	ND
1,2,4-Trichlorobenzene	N/A	ND	Carbaryl	N/A	ND	MTBE	N/A	ND
1,3 - Dichloropropane	N/A	ND	Chloroethane	N/A	ND	N - Butylbenzene	N/A	ND
1,3 - Dichloropropene	N/A	ND	Chlorodibromomethane	N/A	ND	Naphthalene	N/A	ND
1,3,5 - Trimethylbenzene	N/A	ND	Chloroform	N/A	ND	N-Propylbenzene	N/A	ND
2,2 - Dichloropropane	N/A	ND	Chloromethane	N/A	ND	O-Chlorotoluene	N/A	ND
3-Hydroxycarbofuran	N/A	ND	Dibromochloromethane	N/A	0.0043	P-Chlorotoluene	N/A	ND
Aldicarb	N/A	ND	Dibromomethane	N/A	0.00	P-Isopropyltoluene	N/A	ND
Aldicarb Sulfone	N/A	ND	Dichlorodifluoromethane	N/A	ND	Propachlor	N/A	ND
Aldicarb Sulfoxide	N/A	ND	Dieldrin	N/A	ND	Sec - Butylbenzene	N/A	ND
Aldrin	N/A	ND	Fluorotrichloromethan	N/A	ND	Tert - Butylbenzene	N/A	ND
PFAS Compounds								
CONTAMINANT	RESULTS	UNITS	CONTAMINANT	RESULTS	UNITS	CONTAMINANT	RESULTS	UNITS
11CI-PF3OUdS	ND	ug/L	Perfluorodecanoic Acid	ND	ug/L	Perfluorooctanoic Acid	ND	ug/L
9CI-PF3ONS	ND	ug/L	Perfluorohexanoic Acid	ND	ug/L	Perfluorotetradecanoic Acid	ND	ug/L
ADONA	Cu	ug/L	Perfluorododecanoic Acid	ND	ug/L	Perfluorotridecanoic Acid	ND	ug/L
HFPO-DA	ND	ug/L	Perfluorooheptanoic Acid	ND	ug/L	Perfluoroundecanoic Acid	ND	ug/L
NEIFOSAA	ND	ug/L	Perfluorohexanesulfonic Acid	ND	ug/L	Total PFAS	ND	ug/L
NMeFOSAA	ND	ug/L	Perfluorononanoic Acid	HAA5	ug/L			ug/L
Perfluorobutanesulfonic Acid	ND	ug/L	Perfluorooctanesulfonic Acid	ND	ug/L			ug/L

Table of Detected Drinking Water Contaminants								
CONTAMINANT	MCLG	MCL	Range			Amount Detected		Likely Source of Contamination
Bacteriological Contaminants January - December 2021								
Turbidity	0	TT				0.15	NTU	Soil runoff
Radiological Contaminants January - December 2021								
Beta particle and photon	0	4				ND	mrem/yr	Decay of natural and man-made deposits
Alpha emitters	0	15				.651+1.22	pCi/L	Erosion of natural deposits
Combined Radium 226 & 228	0	5				.614+.368	pCi/L	Erosion of natural deposits
Uranium	0	30				ND	pCi/L	Erosion of natural deposits
Inorganic Contaminants January - December 2021								
Barium	2	2	ND	-	0.02	0.02	ppm	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Copper (2013)	1.3	10 Sites AL=1.3	No. of Sites above action level 0			0.4600	ppm	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Fluoride (2013)	4	4	ND	-	0.41	0.41	ppm	water additive which promotes strong teeth; erosion of natural deposits; discharge from fertilizer and aluminum factories
Lead	0	10 Sites AL=15	No. of Sites above action level 0			1.60	ppb	Corrosion of household plumbing systems; erosion of natural deposits
Nitrate (as N)	10	10	ND	-	0.17	0.17	ppm	runoff from fertilizer use; leaching from septic tanks; sewage; erosion of natural deposits
Organic Contaminants January - December 2021								
Haloacetic Acids (HAA5)	0	60	3.60	-	14.00	14.00	ppb	By-product of drinking water chlorination
Total trihalomethanes (TTHM)	0	80	14.00	-	25.00	25.00	ppb	By-product of drinking water chlorination
Xylene (total)	10	10	ND	-	0.76	0.76	ppm	Discharge from petroleum factories; discharge from chemical factories
Secondary Contaminants January - December 2020								
Chloride	N/A	250	ND	-	3.90	3.90	ppm	Naturally occurring in the environment or as a result of agricultural runoff
Color	N/A	15	ND	-	5.00	5.00	PCU	Naturally occurring in the environment or as a result of treatment with water additives
Iron	N/A	0.3	ND	-	57.00	57.00	ppm	Erosion of natural deposits
Magnesium	N/A	0.05	ND	-	6.60	6.60	ppm	Erosion of natural deposits
Sulfate	N/A	250	ND	-	10.40	10.40	ppm	Naturally occurring in the environment
Total Dissolved Solids	N/A	500	ND	-	180.00	180.00	ppm	Erosion of natural deposits
Special Contaminants January - December 2013								
Calcium	N/A	N/A	ND	-	45.10	45.10	ppm	Erosion of natural deposits
Carbon Dioxide	N/A	N/A	ND	-	12.40	12.40	ppm	Erosion of natural deposits
pH	N/A	N/A	ND	-	7.70	7.70	SU	Naturally occurring in the environment or as a result of treatment with water additives
Unregulated Contaminants January - December 2021								
Bromodichloromethane	N/A	N/A	ND	-	0.0012	0.0006	ppb	Naturally occurring in the environment or as a result of industrial discharge or agricultural runoff; by-product of chlorination
Bromoform	N/A	N/A	ND	-	0.0330	0.0165	ppm	Naturally occurring in the environment or as a result of industrial discharge or agricultural runoff; by-product of chlorination
Dibromochloromethane	N/A	N/A	ND	-	0.0085	0.0043	ppm	Naturally occurring in the environment
Dibromomethane	N/A	N/A	ND	-	0.00	0.00	ppm	Runoff/leaching from herbicide use

GENERAL INFORMATION

**Geneva water works is required to monitor
Your drinking water for specific contaminants
On a regular basis. Results of regular monitoring
are an indicator of whether or not your drinking
water meets health standards. During July 2021,
We did not complete all required monitoring for
Total coliform bacteria & therefore cannot be sure
Of the quality of your drinking water during that time.**

**GWW has always been in compliance and
Has always upheld our duties. The testing site that GWW
uses failed to document our test results. Therefore
Causing our water sample and our name to be noted as non-compliant**

Please share this info with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies my hand or mail.

**Should you have any questions concerning this non-compliance or monitoring Requirements, please contact:
Kayleigh Austin 334-684-9810
517 S Commerce St
Geneva, Al 36340**

We have learned through our monitoring and testing that some contaminants have been detected. The EPA has determined that your water IS SAFE at these levels.

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.

Some people may be more vulnerable to contaminants in drinking water than the general population. People who are immuno-compromised, such as cancer patients undergoing chemotherapy, organ transplant recipients, HIV/AIDS positive or individuals with other immune system disorders, some elderly, and infants, can be particularly at risk from infections. Those at risk should seek advice about drinking water from the 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 (1-800-426-4791).

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Lead in Drinking Water: "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. Beatrice 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>."

Total Coliform: The Total Coliform Rule requires water systems to meet a stricter limit for coliform bacteria. Coliform bacteria are usually harmless, but their presence in water can be an indication of disease-causing bacteria. When coliform bacteria are found, special follow-up tests are done to determine if harmful bacteria are present in the water supply. If this limit is exceeded, the water supplier must notify the public by newspaper, television or radio. To comply with the stricter regulation, we have increased the average amount of chlorine in the distribution system.

MCL's are set at very stringent levels. To understand the possible health effects described for many regulated contaminants, a person would have to drink two liters of water every day at the MCL level for a lifetime to have a one-in-a-million chance of having the described health effect.

Based on a study conducted by the ADEM with the approval of the EPA, a statewide waiver for the monitoring of Asbestos and Dioxin was issued. Thus, monitoring for these contaminants was not required.

We at The City of Geneva Water and Sewer Board of Directors work around the clock to provide top quality water to every tap. Carefully follow instructions on pesticides and herbicides you use for your lawn and garden and properly dispose of household chemicals, paints and waste oil. We ask that all our customers help us protect our water sources, which are the heart of our community, our way of life and our children's future.

**Geneva Water Works
517 South Commerce
Geneva, Alabama 36340**