

2024 ANNUAL DRINKING WATER QUALITY REPORT

PWSID #: 3060096

NAME: Lyons Borough Municipal Authority

Este informe contiene información importante acerca de su agua potable. Haga que alguien lo traduzca para usted, ó hable con alguien que lo entienda. (This report contains important information about your drinking water. Have someone translate it for you, or speak with someone who understands it.)

WATER SYSTEM INFORMATION:

This report shows our water quality and what it means. If you have any questions about this report or concerning your water utility, please contact Lyons Borough Municipal Authority at 610-682-0305. We want you to be informed about your water supply. If you want to learn more, please attend any of our regularly scheduled meetings. They are held on the second Monday of every month at 7:00 PM at the Lyons Borough Office Building (316 S Kemp St, Lyons, PA 19536).

SOURCE(S) OF WATER:

Our water sources are two groundwater wells which are located at 337 Lyons Road, Mertztown, PA 19539. Lyons Borough Municipal Authority does not add fluoride to the water.

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).

Monitoring Your Water:

We routinely monitor for contaminants in your drinking water according to federal and state laws. The following tables show the results of our monitoring for the period of January 1 to December 31, 2024. The State allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data is from prior years in accordance with the Safe Drinking Water Act. The date has been noted on the sampling results table.

DEFINITIONS:

Action Level (AL) – The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

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.

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.

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.

Minimum Residual Disinfectant Level (MinRDL) – The minimum level of residual disinfectant required at the entry point to the distribution system.

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.

Treatment Technique (TT) – A required process intended to reduce the level of a contaminant in drinking water.

Mrem/year = millirems per year (a measure of radiation absorbed by the body)

pCi/L = picocuries per liter (a measure of radioactivity)

ppb = parts per billion, or micrograms per liter ($\mu\text{g/L}$)

ppm = parts per million, or milligrams per liter (mg/L)

ppq = parts per quadrillion, or picograms per liter

ppt = parts per trillion, or nanograms per liter (ng/L)

DETECTED SAMPLE RESULTS:

Chemical Contaminants								
Contaminant	MCL in CCR Units	MCLG	Level Detected	Range of Detections	Units	Sample Date	Violation Y/N	Sources of Contamination
Combined Radium	5	0	1.03	0 – 1.03	pCi/L	5/2024	N	Erosion of natural deposits
Free Chlorine	MRDL=4 .0	MRDLG=4.0	1.13	0.4 – 1.13	ppm	2024	N	Water additive used to control microbes
Barium (IOC)	2	2	0.182	NA	ppm	5/2024	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Nitrate	10	10	2.73	NA	ppm	5/2024	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Calcium	NA	NA	48.2	41.7 – 49.5	ppm	2019	N	Naturally occurring in ground water from erosion of limestone
Lead (at Entry Point)	AL=15	0	3	NA	ppb	10/2019	N	Erosion of natural deposits or of pipes
Dichloroacetic Acid (HAA)	NA	NA	3.4	NA	ppb	9/2024	N	By-product of drinking water chlorination
Dibromoacetic Acid (HAA)	NA	NA	1.45	NA	ppb	9/2024	N	By-product of drinking water chlorination
Haloacetic Acids (HAA5)	60	NA	4.85	1.45 – 3.4	ppb	9/2024	N	By-product of drinking water chlorination
Bromoform (THM)	NA	NA	2.4	NA	ppb	9/2024	N	By-product of drinking water chlorination
Bromodichloro methane (THM)	NA	NA	11.8	NA	ppb	9/2024	N	By-product of drinking water chlorination
Chlorodibromom ethane (THM)	NA	NA	7.5	NA	ppb	9/2024	N	By-product of drinking water chlorination
Chloroform (THM)	NA	NA	13.5	0.6	ppb	9/2024	N	By-product of drinking water chlorination
Total Trihalomethane (TTHM)	80	NA	35.2	2.4 – 13.5	ppb	9/2024	N	By-product of drinking water chlorination

*EPA's MCL for fluoride is four ppm. However, Pennsylvania has set a lower MCL to better protect human health.

Entry Point Disinfectant Residual							
Contaminant	Minimum Disinfectant Residual	Lowest Level Detected	Range of Detections	Units	Sample Date	Violation Y/N	Sources of Contamination
Free Chlorine (Entry Point 101)	0.4	0.59	0.59 – 2.05	ppm	2024	N	Water additive used to control microbes.

Lead and Copper								
Contaminant	Action Level (AL)	MCLG	90th Percentile Value	Range of tap sampling results	Units	# of Sites Above AL of Total Sites	Violation Y/N	Sources of Contamination
Lead	15	0	0	0	ppb	0/5	N	Corrosion of household plumbing.
Copper	1.3	1.3	0.069	0 – 0.082	ppm	0/5	N	Corrosion of household plumbing.

DETECTED CONTAMINANTS HEALTH EFFECTS LANGUAGE AND CORRECTIVE ACTIONS:

- Radium- Some people who drink water containing radium 226 or 228 in excess of the MCL over many years may have an increased risk of getting cancer.
- Nitrate- Infants below the age of six months who drink water containing nitrate in excess of the MCL could become seriously ill and, if untreated, may die. Symptoms include shortness of breath and blue baby syndrome.
- TTHMs (Total trihalomethanes)- Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous systems, and may have an increased risk of getting cancer.
- Haloacetic Acids (HAA)- Some people who drink water containing haloacetic acids in excess of the MCL over many years may have an increased risk of getting cancer.
- Chlorine- Some people who use water containing chlorine well in excess of the MRDL could experience irritating effects to their eyes and nose. Some people who drink water containing chlorine well in excess of the MRDL could experience stomach discomfort.
- Barium- Some people who drink water containing barium in excess of the MCL over many years could experience an increase in their blood pressure.
- Lead- The lead result reported at the entry point was for a sample analyzed in 2019 in order to determine water quality parameters for corrosion control. See the entire EPA mandated language

on page 5+6 of this report for health effects of lead in drinking water from distribution tap water samples

- Calcium- Calcium is a naturally occurring element in water and is unregulated by EPA and PADEP. The analyses were performed in 2019 in order to determine water quality parameters for corrosion control.

OTHER VIOLATIONS:

Lyons Borough Municipal Authority received a violation in 2024 for failure on one day to obtain a daily chlorine residual reading. This violation was addressed/closed in 2024 after the public notice was issued to customers and all steps required by the Department of Environmental Protection were completed.

EDUCATIONAL INFORMATION:

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 stormwater 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, 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 systems.
- 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 and DEP prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. FDA and DEP regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

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).

INFORMATION ABOUT LEAD

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. Lyons Borough Municipal Authority is responsible for providing high quality drinking water and is 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 Standards Institute accredited certifier to reduce lead in drinking water. If you are concerned about lead in your water and wish to have your water tested, contact Lyons Borough Municipal Authority at: Phone: 610-682-0305 Email: lbma@windstream.net. 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>.

OTHER INFORMATION:

Lyons Borough worked with ISO fire protection services in April 2025 to conduct fire flow testing. The testing provided evidence for the fire protection service that the fire hydrants are supplying/are able to supply the volume of water required for adequate firefighting services according to ISO regulations.

Lyons Borough Municipal Authority prepared a service line inventory that includes the type of materials contained in each service line in our distribution system. This inventory can be accessed by visiting the direct link: <http://www.server724.com/lyons/ServiceLineInventory.pdf>