



**LONG NECK
WATER COMPANY**

2022 Annual Drinking Water Quality Report

PWS ID #DE0000625

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The Long Neck Water Company is pleased to present to you this year's Annual Drinking Water Quality Report. This report is designed to inform you about the quality of water and services we deliver to you every day. Our constant goal is to provide you with a safe and dependable supply of drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water.

This report shows our water quality and what it means. **(Este informe contiene información muy importante sobre el agua que usted bebe. Tradúzcalo ó hable con alguien que lo entienda bien.)**

Long Neck Water Company (LNWC) water source is groundwater from wells. Wells within the LNWC system withdraw water from the unconfined Columbia Aquifer that is part of the Pleistocene Formation sands. The Columbia Aquifer is a coarse sand and gravel, distinctly bedded with segregations of pebbles into bands of gravel (Jordan, 1967). An unconfined aquifer is an aquifer without a confining (protecting) layer of clay or silt above it. The confining layer helps prevent contaminants from moving into the aquifer. In general, the water quality of our wells is the same. Depending upon the time of year, Long Neck Water uses a combination of 7 wells that pump water to treatment facilities. The treatment consists of disinfection, PH and corrosion control.



A source water assessment of LNWC wells was done by the Department of Natural Resources and Environmental Control (DNREC). This Assessment was required under the 1996 amendments to the Safe Drinking Water Act. Because these (7) wells are in an unconfined aquifer they are highly susceptible to sources of contamination. Overall, the LNWC drinking water supply system has in the past exceeded drinking water standards for metals such as mercury, has a very high susceptibility to nutrients, pathogens, and other organic compounds, a high susceptibility to petroleum hydrocarbons, and pesticides, and a moderate susceptibility to PCBs and other inorganic compounds. You may also review this assessment at: <http://delawaresourcewater.org/assessments/> or, call **LNWC at 302-947-9600** for a copy of this assessment.

If you have any questions, concerns, or suggestions about this report or your water company, please contact **Mr. James Mooney, Director of Operations at 302-947-9600 or e-mail us at info@longneckwater.com**. We want our valued customers to be informed about their water company. Long Neck Water Company monitors for constituents in your drinking water according to Federal and State laws.

The table on page 3 shows the results of our monitoring for the period of **January 1st to December 31st, 2022**. The state allows us to monitor some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though representative, are more than one year old.

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 EPA's **Safe Drinking Water Hotline (1-800-426-4791)**.

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 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 microbiological contaminants are available from the **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. Contaminants may be found in drinking water that may cause taste, color, or odor problems. These types of problems are not necessarily causes for health concerns. For more information on taste, odor, or color of drinking water, please contact

us. In order to ensure tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration regulations established limits for contaminants in bottled water, which must provide the same protection for public health. 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 byproducts 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.

In the table on page 3 you will read terms and abbreviations you might not be familiar with. To help you better understand these terms we have provided the following definitions:

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.

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 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.

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.

2022 Long Neck Water Company Results of Water Tests

Lead and Copper

Lead and Copper	Date Sampled	MCLG	Action Level (AL)	90th Percentile	# Sites Over AL	Units	Violation	Likely Source of Contamination
Copper	2020	1.3	1.3	0.11	0	ppm	N	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.
Lead	2020	0	15	2.7	0	ppb	N	Corrosion of household plumbing systems; Erosion of natural deposits.

Regulated Contaminants

Disinfectants & Disinfection By-Products	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Chlorine Residual, Free	2022	1.72	.25 – 1.72	MRDLG = 4	MRDL = 4	ppm	N	Water additive used to control microbes.
Total Trihalomethanes (TTHM)	2022	4.47	4.47 – 4.47	No goal for the total	80	ppb	N	By-product of drinking water disinfection.
Inorganic & Volatile Organic Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Barium	2022	0.07419	0.05597 - 0.07419	2	2	ppm	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Mercury	2022	0.505	0 - 0.505	2	2	ppb	N	Erosion of natural deposits; Discharge from refineries and factories; Runoff from landfills; Runoff from cropland.
Nitrate [as Nitrogen]	2022	3	2.4987 - 2.9817	10	10	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Selenium	2022	1.1	0 - 1.1	50	50	ppb	N	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines

Delaware Secondary Standards

Contaminants	Collection Date	MCL	Average	Range of Levels Detected	Units
Alkalinity (Alk)	2022		65.2	50.2 – 74.4	ppm
Chloride (Cl)	2022	250	20.41	13.77 – 26.0	ppm
Hardness, Total	2022		10.50	6.33 – 13.72	ppm
Iron (Fe)	2022	300	160	0 - 499	ppb
Sodium (Na)	2022	N/A	39.25	32.56 – 44.30	ppm
Sulfate	2022	250	6.92	4.15 – 11.16	ppm
Manganese	2022	50	24.04	20.47 – 27.60	ppb
PH	2022	6.5 – 8.5	7.35	7.0 – 8.4	units

Educational Information/Health Risks

Lead: We routinely sample water at the consumer tap for lead and copper. Because of consistently low detection levels we are on a triennial monitoring program. **The next round of sampling is this coming summer of 2023.**

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. **Long Neck Water Company** 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 (800-426-4791)** or at www.epa.gov/safewater/lead.

Mercury: The **Long Neck Water Company** has and continues monitoring primary wells for Mercury on a quarterly scheduled basis. The U.S. Environmental Protection Agency sets drinking water standards and has determined that mercury is a health concern at certain levels of exposure. This inorganic mercury is used in electrical equipment and water pumps and gets into the water as a result of improper waste disposal. This chemical has been shown to damage the kidneys of laboratory animals, such as rats, where the animals are exposed to high levels over their lifetime. The EPA has set the stringent drinking water standard for mercury at 2 ppb to protect against the risk for these adverse health effects. In testing, the highest level detected for the year 2022 was 0.51 ppb. Drinking water that meets the EPA standards is associated with little to none of this risk and is considered safe with respect to mercury. Some people who drink water containing inorganic mercury well in excess of the MCL over many years could experience kidney damage.



As you can see from the table, our system had no violations. 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 drinkable at these levels. In our continuing efforts to maintain a safe and dependable water supply it may be necessary to make improvements in your water system. The costs of these improvements may be reflected in the rate structure. Rate adjustments may be necessary to address these improvements. The **Long Neck Water Company** has

taken steps to improve security at our facilities. This included the enclosure of wellheads, improved security lighting and increased inspections. We continue to work with local, state, and federal agencies to improve security within our system; additionally, we may be contacting customers that live near our facilities to assist in this effort. We ask all our customers to help us protect our water sources, which are the heart of our community, our way of life and our children's future.



*We at **Long Neck Water Company** are committed to providing top quality water to every tap. We strive to provide the best service. Thank you for allowing us to continue our efforts this year.*

**Please call our office at (302) 947-9600 if you have questions,
or e-mail us at info@longneckwater.com**

***STRIVING TO DELIVER SAFE & DEPENDABLE WATER
24 HOURS A DAY, 365 DAYS A YEAR***