



2016 ANNUAL DRINKING WATER QUALITY REPORT

PWSID #: 7380010 NAME: City of Lebanon 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 the City of Lebanon Authority at 2311 Ridgeview Rd, Lebanon, PA, 717-272-2841. 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 the second Monday, 3:00 pm at the above address.

SOURCES OF WATER: The City of Lebanon Authority has two sources of water supply: Siegrist Dam (surface water), Pine Grove Twp, Schuylkill Co, and Swatara Creek Intake (surface water), Jonestown, Lebanon Co. Surface water sources can be susceptible to contamination and/or spills from upstream sources. The Authority monitors constantly for changes in water quality parameters at the water treatment & filtration plant prior to be served to customers

A Source Water Assessment of our source(s) was completed by the PA Department of Environmental Protection (Pa. DEP). The Assessment has found that our water sources are potentially most susceptible to the contaminants listed below. Overall, our sources have moderate risk of significant contamination. A summary report of the Assessment is available on the Source Water Assessment Summary Reports eLibrary web page: <http://www.elibrary.dep.state.pa.us/dsweb/View/Collection-10045>.

Complete reports were distributed to municipalities, water supplier, local planning agencies and PADEP offices. Copies of the complete report are available for review at the Pa. DEP Lancaster District Office; 1661 Old Philadelphia Pike, Lancaster, PA 17602. Regional Office, Records Management Unit at (717)299-7601.

Protection Priority for the Swatara Creek Intake

<u>Potential Sources of Contamination</u>	<u>Contaminants of Concern</u>	<u>Protection Priority</u>
Agricultural Activities	Nitrogen, phosphorous, microbiological pathogens	A
Urban Runoff	Metals, nitrates, VOCs and SOCs	A
Sewage Discharges	Nitrogen, phosphorous, microbiological pathogens	B
Industrial Discharges	Oil and grease, metals, nitrates/nitrites	B
Gas Stations, Truck Terminals, Auto Repair	Oil and grease, metals, VOCs and SOCs	B
	<u>Protection Priority for Siegrist Dam</u>	
Acid Mine Drainage	Metals	B
Roads	Metals and SOCs	C
Pipeline	Petroleum hydrocarbons, VOCs	D
Agricultural Activities	Nitrogen and phosphorous	D

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: The City of Lebanon Authority routinely monitors 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, 2016. The State allows the Authority 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.

Running Annual Average (RAA) – This average is calculated by performing an average of the last 12 months of quarterly data. This calculation is performed each quarter.

90th percentile - Compliance with the Lead and Copper rule is determined by comparing the 90th percentile of results (which is a statistical calculation performed by DES) with the established Federal Action Level (“AL”). These calculations are found online within your public water system information page. Please be aware that if the 90th percentile exceeds the AL for either Lead or Copper in the first round, you must stop additional sampling and we will be in contact with further instructions. The goal is to ensure that no more than 10 percent of the population served has Lead or Copper present in amounts above the action level by comparing it to the calculated 90th percentile value.

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 (µg/L)

NTU – nephelometric turbidity units – turbidity measurement unit.

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

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
Barium	2	2	0.0065	---	ppm	2016	N	Erosion of natural deposits
Chlorine (Distribution System)	4.0	4.0	1.26	1.1 – 1.4	ppm	2016	N	Water additive used to control microbes.
Nitrate	10	10	0.30	---	ppm	2016	N	Runoff from Fertilizer use.
Fluoride	2*	2	0.72	---	ppm	2016	N	Water additive which promotes strong teeth; Erosion of natural Deposits.
			Highest RAA					
Haloacetic Acids (HAA)	60	n/a	30.8	28.8 – 33.4	ppb	2016	N	By-product of Disinfection.
TTHMs (Total Trihalomethanes)	80	n/a	41.8	25.0 – 65.9	ppb	2016	N	By-product of Disinfection.

*EPA's MCL for fluoride is 4 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
Chlorine	0.2	0.79	0.79 – 1.85	ppm	02/24/2016	N	Water additive used to control microbes.

Lead and Copper							
Contaminant	Action Level (AL)	MCLG	90 th Percentile Value	Units	# of Sites Above AL of Total Sites	Violation Y/N	Sources of Contamination
Lead	15	0	7.49	ppb	0 of 31 (2016)	N	Corrosion of household plumbing.
Copper	1.3	1.3	0.079	ppm	0 of 31 (2016)	N	Corrosion of household plumbing.

Turbidity						
Contaminant	MCL	MCLG	Level Detected	Sample Date	Violation Y/N	Source of Contamination
Turbidity	TT=1 NTU for a single measurement	0	0.23 NTU	08/06/16	N	Soil runoff
	TT= at least 95% of monthly samples ≤ 0.3 NTU		≤ 0.3 NTU 100% of the time	Jan-Dec 2016	N	

Microbial (related to Assessments/Corrective Actions regarding TC positive results)					
Contaminants	TT	MCLG	Assessments/ Corrective Actions	Violation Y/N	Sources of Contamination
Total Coliform Bacteria	Any system that has failed to complete all the required assessments or correct all identified sanitary defects, is in violation of the treatment technique requirement	N/A	0	N	Naturally present in the environment.

Total Organic Carbon (TOC)					
Contaminant	Range of % Removal Required	Range of percent removal achieved	Number of quarters out of compliance	Violation Y/N	Sources of Contamination
TOC	0% - 35%	8.3% - 37.8%	0	N	Naturally present in the environment

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 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 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: 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. City of Lebanon Authority is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components (service line into the home, interior piping and faucets). 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>.

OTHER INFORMATION: If you notice any issues with the water quality in your home or business, be it taste, odor, or color, please contact the City of Lebanon Authority 717-272-2841 to investigate any issues.