

UPPER LEACOCK TOWNSHIP 2016 ANNUAL DRINKING WATER REPORT

PUBLIC WATER SYSTEM ID # - 7360140

Este informe contiene informacion muy importante sobre su agua de beber. Traduzcalo o hable con alguien que lo entienda bien. (This report contains very important information about your drinking water. Translate it, 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 J. Robert Rissler, Water Operator 1, at the Upper Leacock Township office at 656-9755. We want you to be informed about your water supply. If you want to learn more, please attend any of our regularly scheduled Leola Sewer Authority meetings, owners of the Upper Leacock Township water system, on the second Thursday of each month at 6:30 pm, at the Upper Leacock Township office.

Sources of Water:

Our water sources are six ground water wells: Wells #6, #14, and #16 at the Quarry Rd. Treatment Plant #2; Wells #9, #12, and #13 at the Newport Rd. Treatment Plant #3; and an interconnection with the City of Lancaster water system at the New Holland Pk. Treatment Plant #4. Each of these treatment plants soften, adjust the pH, and chlorinate the water. In addition, the Newport Rd. treatment plant also removes nitrates in the raw 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 risk of infection from *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, 2016. 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 result table.

Definitions and Abbreviations:

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

Maximum Contaminate Level (MCL) – The highest level of a contaminate that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

Maximum Contaminate Level Goal (MCLG) - The level of a contaminate 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.

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)

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

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

ppq = parts per quadrillion, or picograms per liter

ppb = parts per billion, or micrograms per liter (ug/L)

ppt = parts per trillion, or nanograms per liter

Detected Sample Results:

QUARRY ROAD TREATMENT PLANT

Inorganic Chemicals:

Chemical Contaminant	MCL In CCR units	MCLG	Level Detected	Range of detection	Units	Sample Date	Violation Yes / No	Sources of Contamination
Nitrates	10	10	5.06	4.7 – 5.25	ppm	2016	No	Runoff from fertilizer use
Barium	20	20	17	Single sample	ppb	2016	No	Erosion of natural deposits

Radioactive Particles:

Chemical Contaminant	MCL In CCR units	MCLG	Level Detected	Range of detection	Units	Sample Date	Violation Yes / No	Sources of Contamination
Gross Alpha Emitters	15	0	6.79	Single Sample	pci/L	2011	No	Erosion of natural deposits
Combined Uranium	20	0	1.03	Single Sample	pci/L	2011	No	Erosion of natural deposits

Entry Point Disinfectant Residual:

Contaminant	Minimum Disinfectant Residual	Lowest Level Detected	Range of Detections	Units	Sample Date	Violation Y/N	Sources of Contamination
Chlorine	0.40	0.14*	0.14 – 1.42	ppm	2016	No	Water additive used to control microbes

* The level of 0.14 was recorded when the treatment plant was not in operation and is not a violation of minimum permitted residuals by DEP.

NEWPORT ROAD TREATMENT PLANT

Inorganic Chemicals

Chemical Contaminant	MCL In CCR units	MCLG	Level Detected	Range of detection	Units	Sample Date	Violation Yes / No	Sources of Contamination
Nitrates	10	10	4.8	4.5 – 4.9	ppm	2016	No	Runoff from fertilizer use

Radioactive Particles:

Chemical Contaminant	MCL In CCR units	MCLG	Level Detected	Range of detection	Units	Sample Date	Violation Yes / No	Sources of Contamination
Radium - 226	15	0	.31	Single Sample	pci/L	2014	No	Erosion of natural deposits

Entry Point Disinfectant Residual:

Contaminant	Minimum Disinfectant Residual	Lowest Level Detected	Range of Detections	Units	Sample Date	Violation Y/N	Sources of Contamination
Chlorine	0.40	0.02*	0.02 – 1.2	ppm	2016	No	Water additive used to control microbes

* The level of 0.02 was recorded when the treatment plant was not in operation and is not a violation of minimum permitted residuals by DEP.

DISTRIBUTION SYSTEM

Chemical Contaminant	MRDL In CCR units	MRDLG	Level Detected	Range of detection	Units	Sample Date	Violation Yes / No	Sources of Contamination
Chlorine	4.0	4.0	.954	.67 - .954	ppm	2016	No	Water additive used to control microbes

Microbial

Contaminants	MCL	MCLG	Highest # or % of Positive Samples	Sample Date	Violation Y/N	Sources of Contamination
Total Coliform Bacteria	For systems that collect less than 40 samples/month: More than 1 positive monthly sample.	0	0	2016	No	Naturally present in the environment. <i>Check samples showed system in compliance.</i>
Fecal Coliform Bacteria or <i>E. coli</i>	0	0	0		No	Human and animal fecal waste.

Lead & Copper:

Contaminant	Action Level (AL)	MCLG	90 th percentile value	Units	# of sites above AL of total sites	Sample Date	Violation of TT Yes / No	Sources of Contamination
Copper	1.3	1.3	0.184	ppm	0	2016	No	Corrosion of household plumbing
Lead	15	0	3.63	ppb	0	2016	No	Corrosion of household plumbing

Disinfection By-products:

Chemical Contaminant	MCL In CCR units	MCLG	Level Detected	Range of detection	Units	Sample Date	Violation Yes / No	Sources of Contamination
Haloacetic Acids	60	N/A	0	0	ppb	2016	No	By-products of drinking water disinfection
(TTHMs)	80	N/A	8.9	0 – 17.8	ppb	2016	No	By-products of drinking water disinfection

Violations:

We had two events that resulted in three violations for our water system in 2016. A total Coliform sample from the distribution system, one of nine required each month, was missed in December 2016. When it was discovered that the sample was missed the first week of January 2017, a sample was collected and tested by our certified laboratory and no coliforms were detected in the sample. Because the sample was missed in December, a second violation was triggered for missing a free chlorine residual check which is recorded at the time of the Coliform sample collection. The make-up sample from the first week in January showed the chlorine residuals were within acceptable ranges.

Another sample for Haloacetic Acids, a by-product of drinking water disinfection, that was collected in August 2016 and sent to our certified laboratory, was not able to be tested. Our laboratory failed to notify us to re-collect another sample for testing and the problem was not discovered until collection of the data for this report. Another sample was collected in April, 2017 and sent for testing.

Health effects:

Nitrate: Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rain fall or agricultural activity. If you are caring for an infant, you should ask for advice from your health care provider.

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 animal and human activity. Contaminates that may be present in source water includes:

- 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, urban 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.
- 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. Upper Leacock Township 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 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>.

In order to assure 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 the 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).

A *Source Water Assessment* of our sources was completed by the PA Department of Environmental Protection (Pa. DEP). The Assessment has found that our sources are potentially most susceptible to point and non-point sources of contamination ranging from residential activities to commercial and industrial activities. Overall, our sources have low risk from residential activities, to moderate to high risk from commercial and industrial activities of significant contamination to our water sources. A summary report of the Assessment is available on the *Source Water Assessment & Protection Web* page at:

(<http://www.dep.state.pa.us/dep/deputate/watermgt/wc/Subjects/SrceProt/SourceAssessment/default.htm>). 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 Southcentral Regional Office, Records Management Unit at (717) 705-4732.

Other Information:

One of our sources of water at the New Holland Pk. Water Treatment Plant #4 is from the City of Lancaster water system. Although we did not use any water from the Lancaster City water system in 2016, if you wish to view the City of Lancaster CCR, a link to the web site is at:

<http://cityoflanasterpa.com/sites/default/files/documents/2016-ANNUAL-DRINKING-WATER-QUALITY-REPORT.pdf>

IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER FAILURE TO MONITOR

**ESTE INFORME CONTIENE INFORMACIÓN IMPORTANTE ACERCA DE SU AGUA POTABLE. HAGA QUE
ALGUIEN LO TRADUZCA PARA USTED, O HABLE CON ALGUIEN QUE LO ENTIENDA.**

Monitoring Requirements Not Met for UPPER LEACOCK TOWNSHIP

Our water system violated several drinking water standards over the past year. Even though these were not emergencies, as our customers, you have a right to know what happened and what we did to correct these situations.

We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. During the month of December, 2016 we failed to monitor one total Coliform sample location and therefore cannot be sure of the quality of our drinking water during that time.

What should I do?

There is nothing you need to do at this time.

The table below lists the contaminant(s) we did not properly test for during the last year, how often we are supposed to sample for total coliform bacteria and how many samples we are supposed to take, how many samples we took, when samples should have been taken, and the date on which follow-up samples were (or will be) taken.

Contaminant	Required sampling frequency	Number of samples taken	When all samples should have been taken	When samples were or will be taken
Total Coliform Bacteria	Monthly	8 of 9	December, 2016	January, 2017

What happened? What was done?

We have since taken the required sample on January 5, 2017, as discribed in the last column of the table above. The sample showed we are meeting water standards.

For more information, please contact J. Robert Rissler - Water Operator 1 - Upper Leacock Twp. at 717-656-9755

Please share this information 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 by hand or mail.

This notice is being sent to you by Upper Leacock Twp.

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We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. During the month of August, 2016 we found that our certified laboratory failed to test a sample for Haloacetic acid (a disinfection by product) and therefore cannot be sure of the quality of our drinking water during that time.

What should I do?

There is nothing you need to do at this time.

The table below lists the contaminant(s) we did not properly test for during the last year, how often we are supposed to sample for Haloacetic acid (HAA5), a disinfection by product and how many samples we are supposed to take, how many samples we took, when samples should have been taken, and the date on which follow-up samples were (or will be) taken.

Contaminant	Required sampling frequency	Number of samples taken	When all samples should have been taken	When samples were or will be taken
Haloacetic Acid	2 in the month of August	1	August 11, 2016	April, 2017

What happened? What was done?

The required two samples were collected on August 11, 2016 and sent to our certified lab for testing. The lab was unable to test one of the samples but failed to contact us to collect a replacement sample. The replacement sample was collected when it was discovered the sample data was missing for the annual CCR.

For more information, please contact J. Robert Rissler - Water Operator 1 - Upper Leacock Twp. at 717-656-9755.

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PWS ID#: 7360140

Date distributed: With the Annual CCR.