

2017 Water Quality Report



Greene County continues to meet all Ohio EPA standards and through continuing improvements, will be able to meet the projected needs of our customers.

CONTACT US

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Greene County
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Safe Drinking Water
Hotline

(800) 426-4791

Well Field Susceptibility

The OEPA has determined that the aquifers that serve the Greene County Northwest Regional well field have a moderate susceptibility to contamination, and one serving the Southwest Regional well field has a high susceptibility. This does not mean that the well fields are, or will become, contaminated, just that conditions are such that ground water could be impacted by contaminants, unless we continue protective measures.



Definition of Terms

Definition of Terms contained within this report:

Maximum Contaminant Level Goal (MCLG): The level of a contaminant in the drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

Maximum Contaminant Level (MCL): The highest level of contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as

feasible, using available treatment technology.

Parts per Million (ppm) or Milligrams per Liter (mg/l): Units of measure for concentration of a contaminant. A part per million corresponds to one second in a little over 11.5 days. **Parts per Billion (ppb), or micrograms per liter (ug/l)** are also units of measure for concentration of a contaminant. A part per billion corresponds to one second in 31.7 years.

Picocuries per Liter (pCi/L): A common measure of radioactivity.

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

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

Risk Factors Explained

The following substances are found in our water, normally at levels below the action levels. There are some risk factors that could be involved with even low levels of these substances:

A. Arsenic

EPA has issued rules regarding the drinking water standard for arsenic. Arsenic is a naturally occurring mineral known to cause cancer in humans in high concentrations. EPA continues to research the health effects of low levels of arsenic. It is linked to other health effects such as skin damage and circulatory problems. Some people who drink water containing arsenic in excess of the MCL, over many years, could experience skin damage or problems with their circulatory system, and may have increased risk of getting cancer.

B. Nitrate

Nitrate in drinking water, at levels above 10 ppm, is a health risk for infants of less than six (6) months of age. High nitrate levels in drinking water can cause blue baby syndrome. High nitrate levels can also increase the risk of a particular kind of anemia in pregnant women. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant, or are

pregnant, you should ask for advice from your health care provider.

Additional information is available from the Safe Drinking Water Hotline (1-800-426-4791).

C: 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.

Greene County 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 want 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 at:

<http://www.epa.gov/safewater/lead>

Greene County has mapped each of their public water systems which provide additional information on the risk of lead exposure. These maps can be accessed on the Greene County Sanitary Engineering Department website at:

www.co.greene.oh.us/938/Water-Quality-Reports

WHY DOES MY GREENE COUNTY WATER REPORT INCLUDE A WATER REPORT FROM ANOTHER MUNICIPALITY?

The Greene County Water Report may include a water report from another municipality because Greene County water lines do not extend into certain areas; therefore Greene County purchases water from three municipalities. These municipalities are Dayton, Xenia, and Fairborn. Greene County is required by law to include water quality information from those municipalities.

Sources of Drinking Water

The sources of drinking water include wells, rivers, lakes, streams, ponds, reservoirs, and springs. In Greene County, the source of drinking water is wells that bring groundwater to the surface.

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: (A) Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife; (B) 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; (C) Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses; (D) 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; (E) 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, the EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems.

Drinking water, including bottled water, may be reasonably 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 (1-800-426-4791).

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 infection. These people should seek advice 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 (1-800-426-4791).

FAQs

State law requires the addition of fluoride to treated water for larger systems where the content is 1.0 parts per million. No fluoride is added to the water at Southwest Regional Water System and has a natural content of .03 part per million.

The chlorine content of the finished water is 1.3 parts per million, except for the Southwest Regional Water System where it is < 0.2 parts per million.

The pH of the finished water is 7.55. A pH of 7.0 is neutral.

The water at Northwest Regional has 27 grains of hardness. The Eastern Regional areas (including Cedarville, Shawnee Hills Lake, and Wilberforce) have 25 grains of hardness. The Southwest Regional water has 15-18 grains of hardness.

Greene County Water Source

Greene County has a current, unconditional license to operate our water system. The Northwest Regional Water Treatment Plant serves the Beaver Creek Community, and extends into Xenia Township, parts of Kettering, Sugar Creek, and Bath Townships, to serve the Career Center and Country Club Estates. It receives water from three (3) well

fields, which all draw water from the Little Miami River Buried Valley Aquifer. The well fields are located on Beaver Valley Rd., Shakertown Rd., and Orchard Lane.

The City of Xenia also uses the Little Miami River Buried Valley Aquifer. Greene County purchases water from Xenia for residents in Cedarville, Shawnee Hills Lake, and Wilberforce. The Southwest Regional Water Treatment

Plant serves residents in Sugar Creek and Spring Valley Townships. The water source is the Little Miami River Buried Valley Aquifer, with the well field off St. Rt. 42.

Some residents on the western side of Beaver Creek, Sugar Creek Township and Kittridge Road, in Bath Township, receive their water from the City of Dayton, which uses the Great Miami Buried Valley Aquifer as its water source.

2017 report 2016 data

Greene County Sanitary Engineering - Division of Water Supply and Treatment

Regulated Substance	Northwest Regional WTP 2903512		Southwest Regional WTP 2903912			Eastern Regional WTP 2906103			Greene County/Dayton 2900803 Entrada			Greene County/Dayton 2904203 Cijo			Greene County/Dayton 2904103 Swigart			Greene County/Dayton 2905003 Kitridge			Greene County/Fairborn 2956203			Possible Source of Contamination
	Highest Level Allowed (MCL)	Ideal Goals (MCLG)	Violation	Highest Level Detected	Range of Detection	Violation	Highest Level Detected	Range of Detection	Violation	Highest Level Detected	Range of Detection	Violation	Highest Level Detected	Range of Detection	Violation	Highest Level Detected	Range of Detection	Violation	Highest Level Detected	Range of Detection	Violation	Highest Level Detected	Range of Detection	

- Regulated at the Treatment Plant

Fluoride (ppm)	4	4	-	1.08	0.53 - 1.24	-	-	-	-	1.72	0.78 - 1.72	-	-	-	-	-	-	-	-	-	-	-	-	-	-	natural geology/supplement
Nitrate (ppm)	10	10	-	1.13	0.10 - 1.13	-	3.71	NA	-	*	*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	fertilizer runoff/natural geology
Nitrite (ppm)	10	10	-	NR	NR	-	NR	NR	-	*	*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	fertilizer runoff/natural geology
Radium 228 (pCi/l)	5	0	-	ND	ND	-	10	-	-	*	*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	natural deposits
Gross Alpha	15	0	-	ND	ND	-	-	-	-	*	*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	natural deposits
Arsenic (ppb)	10	0	-	5.99	5.16 - 5.99	-	-	-	-	*	*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	natural deposits

- Regulated at the Customer's Tap

Lead (ppb) ¹	AL=15	0	-	8.6 ¹	<5 - 383	-	<5 ¹	7.24	-	<5 ¹	<5 - 55.4	-	<5 ¹	ND	-	<5 ¹	ND	-	<5 ¹	ND	-	<5 ¹	ND	-	10 ¹	<5 - 20.7	corrosion of household plumbing materials
Copper (ppb) ¹	AL=1300	1300	-	200 ¹	<25 - 442	-	166 ¹	52 - 236	-	458 ¹	70.1 - 1250	-	62 ¹	<25 - 70	-	42 ¹	<25 - 52	-	54 ¹	<30 - 55	-	<30 ¹	ND	-	192 ¹	<25 - 195	
Number of samples				30			10			20			10			10			10			5			5		
# samples over the action level				1			0			1			0			0			0			0			1		

- Regulated in the Distribution System

Chlorine (ppm)	MRDL - 2	MRDLG - 2	-	1.47 ³	0.83 - 1.34		0.68 ³	0.20 - 1.10		0.78 ³	0.44 - 1.10		0.59 ³	0.40 - 0.90		1.02 ³	0.90 - 1.20		1.06 ³	0.90 - 1.20		0.80 ³	0.50 - 1.10		1.09 ³	0.90 - 1.20	water additive to control microbes	
				Yearly Running Average			Yearly Running Average			Yearly Running Average			Yearly Running Average			Yearly Running Average			Yearly Running Average			Yearly Running Average			Yearly Running Average			
Trihalomethanes (ppb)	80.00	0.00	-	43.72	22.96 - 81.43	-	23.64	17.23 - 30.06	-	35.16	31.43 - 38.89	-	21.98	16.53 - 30.34	-	23.58	20.13 - 31.89	-	25.63	21.01 - 32.50	-	39.23	N/A	-	13.29	9.55 - 17.03	by-products of chlorination	
Haloacetic Acids (ppb)	60.00	0.00	-	8.81	1.795 - 15.01	-	6.83	4.98 - 8.68	-	12.47	13.54 - 11.41	-	4.61	3.82 - 5.814	-	5.19	4.02 - 7.16	-	5.56	3.75 - 8.52	-	9.10	N/A	-	6.20	5.40 - 6.70		

Unregulated Compounds

Bromodichloromethane (ppb)	-	-	-	13.46	8.16 - 24.07	-	7.28	4.97 - 9.59	-	8.75	8.47 - 9.02	-	7.37	5.62 - 9.99	-	7.90	6.66 - 10.47	-	8.37	6.98 - 10.70	-	12.29	N/A	-	4.39	3.18 - 5.60	by-products of chlorination
Bromoform (ppb)	-	-	-	2.85	1.55 - 4.44	-	1.29	0.81 - 1.77	-	0.83	0.81 - 0.84	-	2.20	1.59 - 3.25	-	2.33	1.89 - 2.86	-	2.18	1.68 - 3.05	-	3.32	N/A	-	0.57	0.50 - 0.63	
Chloroform (ppb)	-	-	-	15.01	5.12 - 38.32	-	10.47	8.59 - 12.38	-	20.66	17.24 - 24.07	-	5.24	3.80 - 7.50	-	6.33	4.69 - 9.42	-	7.68	3.06 - 9.53	-	13.44	N/A	-	5.38	3.53 - 7.23	
Dibromochloromethane (ppb)	-	-	-	11.17	6.62 - 16.07	-	4.61	2.89 - 6.32	-	4.94	4.91 - 4.96	-	7.17	5.52 - 9.60	-	7.03	5.91 - 9.14	-	7.52	6.32 - 9.57	-	10.18	N/A	-	2.96	2.34 - 3.57	
Bromochloroacetic Acid (ppb)	-	-	-	3.65	1.28 - 6.35	-	2.68	2.13 - 3.22	-	3.83	3.28 - 4.37	-	2.39	2.20 - 2.58	-	2.92	2.39 - 3.52	-	3.31	2.15 - 4.20	-	4.26	N/A	-	3.22	2.45 - 3.99	
Dibromoacetic Acid (ppb)	-	-	-	3.02	1.16 - 4.59	-	2.14	1.93 - 2.34	-	1.89	1.65 - 2.13	-	1.94	1.46 - 2.25	-	2.65	2.29 - 3.29	-	2.82	1.99 - 3.71	-	3.63	N/A	-	2.44	1.46 - 3.42	
Dichloroacetic Acid (ppb)	-	-	-	3.96	1.62 - 7.52	-	3.88	3.05 - 4.71	-	6.80	6.23 - 7.36	-	2.20	1.71 - 2.95	-	2.40	1.71 - 3.08	-	3.00	1.76 - 3.75	-	4.19	N/A	-	3.08	2.58 - 3.58	
Monobromoacetic acid (ppb)	-	-	-	ND	ND	-	ND	ND	-	ND	ND	-	ND	ND	-	ND	ND	-	ND	ND	-	ND	N/A	-	ND	ND	
Monochloroacetic acid (ppb)	-	-	-	ND	ND	-	ND	ND	-	ND	ND	-	ND	ND	-	ND	ND	-	ND	ND	-	ND	N/A	-	ND	ND	
Trichloroacetic Acid (ppb)	-	-	-	2.69	1.06 - 6.30	-	1.62	1.62 - 1.62	-	3.79	3.53 - 4.05	-	1.40	1.40 - 1.40	-	1.00	1.00 - 1.00	-	1.06	1.06	-	1.27	N/A	-	1.37	1.37 - 1.37	

1 - 90th percentile value - used to determine compliance as per USEPA

2. NR = Not required

3 - Quarterly running average

PWS - Public Water Supply

AL N/A ND

<

- action level WTP - Water Treatment Plant
 - not applicable WS - Water Supply
 - not detected MCL - Maximum Contaminant Level
 - less than MCLG - Maximum Contaminant Level Goal

* - see Xenia 2016 CCR

MRDL - Maximum Residual Disinfectant Level -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.

MRDLG - Maximum Residual Disinfectant Goal - The level of 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.

"Under the Stage 2 Disinfectants/Disinfection Byproducts Rule (D/DBPR), our public water system was required by USEPA to conduct an evaluation of our distribution system. This is known as an Initial Distribution System Evaluation (IDSE), and is intended to identify locations in our distribution system with elevated disinfection byproduct concentrations. The locations selected for the IDSE may be used for compliance monitoring under Stage 2 DPBR, beginning in 2012. Disinfection byproducts are the result of providing continuous disinfection of your drinking water and form when disinfectants combine with organic matter naturally occurring in the source water. Disinfection byproducts are grouped into two categories, Total Trihalomethanes (TTHM) and Haloacetic Acids (HAA5s). USEPA sets standards for controlling the levels of disinfectants and disinfectant byproducts in drinking water, including both THMs and HAA5s."



CITY OF XENIA DRINKING WATER CONSUMER CONFIDENCE REPORT 2016

Meeting the Challenge

We are proud to present our annual water quality report covering all testing performed between January 1 and December 31, 2016. We have dedicated ourselves to producing drinking water that meets all state and federal standards. We have a current, unconditioned license to operate our water system. We strive to adopt new methods for delivering the best quality drinking water to you. The City of Xenia, Xenia Township, residents and businesses in the area are involved in a source water protection program to preserve and protect the water supply.

Where Does My Water Come From?

Our City receives its drinking water from the Little Miami River Buried Aquifer. The well fields are lo-

cated near the intersection of U.S. Highway 68 and State Route 235. We have 11 active wells that can produce up to ten million gallons of water a day to process and supply your drinking water.

The aquifers have a high susceptibility to contamination. This is due to the sensitive nature of the aquifers location and potential contamination sources identified. Between 1991 and 2016 water quality data collected resulted in detectable levels of nitrate. Future contamination can be avoided by continuing to develop and implement protective measures.

More information is available in the City's Source Water Protection Report and Susceptibility Analysis, which can be obtained by calling Joe Bates at (937) 376-7269.

We are pleased to report that The City of Xenia's drinking water continues to meet all federal and state requirements!

The Water Treatment Plant:

The City of Xenia Water Treatment Plant (WTP) is an iron and manganese removal plant. These contaminants are removed to prevent staining of laundry and plumbing fixtures. The first part of this process is aeration. The ground water is aerated to remove naturally occurring hydrogen sulfide and to introduce more oxygen into the water where it combines with ionic forms of iron and manganese. The next stage of treatment is filtration. The iron and manganese compounds precipitate in the gravity fed filters. The last stage of treatment is disinfection. The filtered water is chlorinated. A small amount of a blended phosphate solution is added to prevent pipe corrosion and sequester metals in the distribution system. The water is then pumped to the distribution and storage system. A residual amount of disinfectant is required to be present in the distribution system for your protection.

The Xenia WTP does not "soften" the water. The water is considered very "hard" with a **total hardness** of near 400 mg/L (**23 grains per gallon**). We do not add fluoride to the water. The naturally occurring fluoride is approximately 20% of the therapeutic dose of 1 mg/L, used in the prevention of dental caries.

Who needs to take special precautions?

Some people are more vulnerable to contaminants in drinking water than the general population. Immunocompromised persons such as someone with cancer who is undergoing chemotherapy, persons who have undergone organ transplants, persons with HIV/AIDS or other immune system disorders are more vulnerable. Some elderly and infants can be particularly at risk from infection. These people should seek advice about drinking water from their health care providers. The Environmental Protection Agency (EPA) and the Center for Disease Control (CDC) guidelines on the appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline at (800) 426-4791.

What are the sources of contamination to drinking water?

The sources of drinking water, both bottle and tap, 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. It can also pick up substances resulting from the presence of animal or human activity. A system of monitoring wells have been established to provide early warning of certain contaminants.

Contaminants that may be present in source water include:

- ◆ **Microbial contaminants**, such as viruses and bacteria, may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- ◆ **Inorganic contaminants**, such as salts and metals, can be naturally occurring or result from urban storm runoff, industrial or domestic waste water discharges, oil and gas production, mining, or farming.
- ◆ **Pesticides and herbicides** may come from a variety of sources such as agriculture, storm water runoff, and residential uses.
- ◆ **Organic chemicals**, including syn-

About your drinking water:

The EPA requires regular sampling to ensure drinking water safety. The City of Xenia conducted contaminant sampling for nitrate, lead, copper, total coliform bacteria, total chlorine, total trihalomethanes (TTHM's), and total haloacetic acids (HAA5) in 2016. Samples were collected for 4 different categories of regulated contaminants, most of which, were not detected in the City of Xenia Public Water System. The Ohio EPA requires 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, though accurate, is more than one year old. Listed in the table is information on those contaminants that were found.

Two metals of concern found in drinking water are lead and copper. These two metals leach from the pipes and plumbing fixtures within the home itself. Homes built before 1950 may have lead water line service connections. Homes built before 1987 may have copper pipes with lead solder. 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. The Xenia WTP 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* at 800-426-4791 or at <http://www.epa.gov/safewater/lead>.

Public participation and comment are encouraged at regular meetings of the Xenia City Council which meets every 2nd and 4th Thursday of the month at City Hall, located at 101 N. Detroit Street. For information about this report please contact Joe Bates, Water Treatment Supervisor, at (937) 376-7269.

thetic and volatile organics, are by-products of industrial processes and petroleum production and may come from gas stations, fuel oil containers, urban storm water runoff, and septic systems.

- ◆ **Radioactive contaminants**, 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, the Ohio and United States Environmental Protection Agencies (OEPA and USEPA) prescribe regulations which limits the amount of certain contaminants in water provided by public water systems. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water which must provide the same protection of 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 the contaminants and potential health affects can be obtained by calling the EPA Safe Drinking Water Hotline at (800) 426-4791.



This Consumer Confidence Report (CCR) reflects changes in drinking water regulatory requirements during 2016. All water systems were required to comply with the Total Coliform Rule from 1989 to March 31, 2016, and begin compliance with a new rule, The Revised Total Coliform Rule, on April 1, 2016. The new rule maintains the purpose to protect public health by ensuring the integrity of the drinking water distribution system and monitoring for the presence of total coliform bacteria, which includes E. coli bacteria. The U.S. EPA anticipates greater public health protection under the new rule, as it requires water systems that are vulnerable to microbial contamination to identify and fix problems. As a result, under the new rule there is no longer a maximum contaminant level for multiple total coliform detections. Instead, the new rule requires water systems that exceed a specified frequency of total coliform occurrences to conduct an assessment to determine if any significant deficiencies exist. If found, these must be corrected by the public water system.

The City of Xenia water treatment plant had an E. coli-positive violation during the month of August, 2016, following a total coliform-positive routine sample. E. coli are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Human pathogens in these wastes can cause short term effects such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a special health risk for infants, young children, the elderly, and people with severely compromised immune systems. The presence of E. coli bacteria triggered the City to look for potential problems in the water treatment and water distribution systems. We were required to complete a level 2 assessment of the water system in conjunction with the Ohio Environmental Protection Agency. As a result, we were required to take 4 corrective actions and we completed 4 of these actions. The corrective actions were as follows: evaluate and update bacteriological sampling plan, direct a privately owned facility connected to the public water system to install a containment backflow preventer, fill depressions around wells level to ground, and inspect the W. Second St. Tower and correct any deficiencies found.

The assessment, conducted by both city and state personnel, exposed a cross contamination between the sewer connection and the potable water service of a privately owned structure. While replacing the sewer line to this facility, a plumbing contractor broke the water line which was in the same trench while work was being performed on the sewer line. This most likely allowed for a cross contamination and the positive bacteriological samples taken from this location.

The Third Unregulated Contaminate Monitoring Rule (UCMR 3) List 1

UCMR 3 List 1	Collection Date	Sample Locations	Results	Units	PQL/MRL	Use or Environmental Source
Chlorate	06/25/14	Entry Point	122	ppb	20.0	Agricultural defoliant or desiccant; disinfection byproduct; and used in production of chlorine dioxide.
Chlorate	06/25/14	Distribution	127	ppb	20.0	Agricultural defoliant or desiccant; disinfection byproduct; and used in production of chlorine dioxide.
Molybdenum	06/25/14	Entry Point/ Distribution	2.2/2.1	ppb	1/1	Naturally-occurring element found in ores and present in plants, animals and bacteria; commonly used form molybdenum trioxide used as a chemical reagent.
Strontium	06/25/14	Entry Point/ Distribution	420/420	ppb	.3/.3	Naturally-occurring element; historically, commercial use of strontium has been in the faceplate glass of cathode-ray tube televisions to block x-ray emissions..

UCMR 3 - Unregulated contaminants are those that don't yet have a drinking water standard set by USEPA. The purpose of monitoring for these contaminants is to help EPA decide whether the contaminants should have a standard. UCMR examines what is in the drinking water, but additional health information is needed to know whether these contaminants pose a health risk.

MRL - Minimum Reporting Level: Represent an estimate of the lowest concentration of a compound that can be quantitatively measured by members of a group of experienced drinking water laboratories.

PQL - Practical Quantitation Level defined as "the lowest achievable level of analytical quantitation during routine laboratory operating conditions within specified limits of precision and accuracy".

ppb - parts per billion or ug/L.

2016 TABLE OF DETECTED CONTAMINANTS

Microbiological	Collection Date	# of Positive Total Coliform Samples	# of Positive Fecal/E. Coli Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Total Coliform (TCR)	Monthly	2	1	0	1 positive /month	#/ month	yes	Naturally present in the environment.
Disinfectants and Disinfection By-Products	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Chlorine	Daily	1.63	0.64 - 1.63	MRDLG = 4	MRDL = 4	ppm	None	Water additive used to control microbes.
Total Haloacetic Acids	Jan-Mar	Apr-Jun	Jul-Sept (08/30/16)	Oct-Dec	Likely Source of Contamination.			
DS-201 sample value (ppb)	None	None	10.7	None	By-product of drinking water disinfection.			
DS-201 LRAA	None	None	10.7	None	By-product of drinking water disinfection.			
DS-202 sample value (ppb)	None	None	9.9	None	By-product of drinking water disinfection.			
DS-202LRAA	None	None	9.9	None	By-product of drinking water disinfection.			
CCR Report Values	Highest Compliance Value = 10.7 ppb Range of Values = 9.9 to 10.7 ppb			Results are below MCL of 60 ppb , No Violation.				
Total Trihalomethanes	Jan-Mar	Apr-Jun	Jul-Sept (08/30/16)	Oct-Dec	Likely Source of Contamination.			
DS-201 sample value (ppb)	None	None	30.7	None	By-product of drinking water disinfection.			
DS-201 LRAA	None	None	30.7	None	By-product of drinking water disinfection.			
DS-202 sample value (ppb)	None	None	25.5	None	By-product of drinking water disinfection.			
DS-202 LRAA	None	None	25.5	None	By-product of drinking water disinfection.			
CCR Report Values	Highest Compliance Value = 30.7 ppb Range of Values = 25.5 to 30.7 ppb			Results are below MCL of 80 ppb , No Violation.				
Inorganic	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Barium	06/24/14	0.137	NA	2	2	ppm	None	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Fluoride	06/24/14	0.218	NA	4	4.0	ppm	None	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer & aluminum factories.
Nitrate [measured as Nitrogen]	02/16/16	2.05	NA	10	10	ppm	None	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Lead and Copper	Collection Date	90% of test levels were less than	# of Samples Over AL	ALG	Action Level (AL)	Units	Violation	Likely Source of Contamination
Copper	08/09/16	0.97	0	1.3	1.3	ppm	None	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.
0 out of 32 samples were found to have copper levels in excess of the copper action level of 1.3 ppm.								
Lead	08/09/16	0.00	0	0	15	ppb	None	Corrosions of household plumbing systems; Erosion of natural deposits.
0 out of 32 samples were found to have lead levels in excess of the lead action level of 15 ppb.								

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

ALG - Action Level Goal: The level of a contaminant in drinking water below which there is no known or expected risk to health. ALGs allow for a margin of safety.

LLRA - Locational Running Annual Average calculation with multiple sampling locations.

MCL - Maximum Contaminant Level: 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.

MCLG - Maximum Contaminant Level Goal: 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.

MRDL - Maximum Residual Disinfectant Level. 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.

MRDLG - Maximum Residual Disinfection Level Goal. 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.

ppm - parts per million or mg/l: milligrams per liter is one ounce in 7,350 gallons of water.

ppb - parts per billion or ug/l: micrograms per liter is one ounce in 7,350,000 gallons of water.

Level 2 Assessment-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.