



2016 Annual Water Quality Report

City of Camden
PWS ID: NJ0408001



As the water operations and maintenance contractor for City of Camden, American Water Contract Services is proud to provide customers with high-quality, reliable water service. As you read this Annual Water Quality Report, you will see that in cooperation with City of Camden we continue to supply water that meets or surpasses all state and federal water quality standards.

This service is an exceptional value when you consider the facilities and technology needed to draw water from the source and treat it, along with miles and miles of pipeline hidden below the ground to bring water to your tap. What's more, our plant operators, water quality experts, engineers and maintenance crews work around the clock to make sure that quality water is always there when you need it.

Because water is essential for public health, fire protection, economic development and overall quality of life, our employees are committed to ensuring that quality water keeps flowing not only today but well into the future. Delivering reliable, high-quality water service also requires significant investment to maintain and upgrade aging facilities. Working with the City of Camden to identify and analyze the system to help prioritize necessary improvement projects is key to efficiently maintaining critical infrastructure.

American Water's Contract Services Group provides water and wastewater management solutions for municipal and industrial clients. The Contract Services Group is part of American Water Enterprises, a market-based subsidiary of American Water. As a part of the nation's largest and most geographically diverse publicly traded U.S. water and wastewater utility company, American Water is uniquely qualified to operate and maintain this system.

Please take the time to review this report. It provides details about the source and quality of your drinking water using the data from water quality testing conducted by Suez Water (previously known as United Water) and American Water for your system between January and December 2016.

The Camden Water System is operated through a partnership between American Water and the City of Camden. Through this partnership, which began on February 1, 2016, the City retains ownership of all the water facilities and sets the rates. American Water, as contract operator, provides the day-to-day management of the water system. These organizations work together to provide you with water that meets-and often surpasses-all the health and safety standards set by the United States Environmental Protection Agency (USEPA) and the New Jersey Department of Environmental Protection (NJDEP).

We regularly test the water to be sure that your water meets the safety standards. All the test results are on file with the NJDEP, the agency that monitors and regulates drinking water quality in our state.

The Water Quality Report is provided to customers on an annual basis. This report contains important information about your drinking water. Please read it carefully and feel free to contact us at 856-635-1496 or 100 S 17th Street, Camden, NJ 08105 if you have any questions about your water or your water service. You can also call the EPA Safe Drinking Water Hotline at 1-800-426-4791 with water related questions. If you have specific questions about your water as it relates to your personal health, we suggest that you contact your health care provider.

Sincerely,

James E. Cowley, Jr., P.E.

Project Manager

American Water Enterprises – Contract Services Group

Share This Report

Landlords, businesses, schools, hospitals and other groups are encouraged to share this important water quality information with water users at their location who are not customers. Additional copies of this report are available by contacting our office at 856-635-1496. This report contains important information about your drinking water. If you do not understand it, please have someone translate it for you.

Este informe contiene información muy importante sobre su agua potable. Tradúzcalo o hable con alguien que lo entienda bien.

About American Water

With a history dating back to 1886, American Water is the largest and most geographically diverse U.S. publicly traded water and wastewater utility company. The company employs more than 6,700 dedicated professionals who provide regulated and market-based drinking water, wastewater and other related services to an estimated 15 million people in 47 states and Ontario, Canada. More information can be found by visiting www.amwater.com.

Water Information Sources

- **New Jersey Department of Environmental Protection**

Bureau of Safe Drinking Water: (609) 292-5550

www.state.nj.us/dep

- **US Environmental Protection Agency**

Safe Drinking Water Hotline: 1-800-426-4791

www.epa.gov/safewater

- **American Water Works Association:** www.awwa.org

- **Centers for Disease Control and Prevention:** www.cdc.gov

Public Participation

How You Can Get Involved

Customers can participate in decisions that may affect the quality of water by:

- Contacting the company directly with questions or to discuss issues at 856-635-1496.
- Attending Camden City Council meetings, which take place on the second Tuesday of each month

Our Commitment to Quality

Once again, we proudly present our Annual Water Quality Report, which details the results of water quality testing completed from January to December 2016, a time period for which Suez Water was the operator of record in January 2016 and American Water was the operator of record from February 2016 through December 2016. The purpose of this report is to raise your understanding of drinking water and awareness of the need to protect our drinking water sources. Included in this report are details about where your water comes from, what it contains, and how our water quality results compare to federal and state standards.

We are committed to delivering the best quality drinking water. To that end, we remain vigilant in meeting the challenges of source water protection, water conservation, and community education while continuing to serve the needs of all our water users. We want you to be informed about your drinking water.

How to Contact Us

Thank you... for allowing us to continue to provide you with quality drinking water this year. We ask that all our customers protect our water sources. Please call our office at 856-635-1496 if you have questions.

**American Water – Contract Services
100 South 17th Street, Camden, NJ 08105**

Protecting Your Water Source

What is S.W.A.P.?

SWAP (Source Water Assessment Program) is a program of the New Jersey Department of Environmental Protection (NJDEP) to study existing and potential threats to the quality of public drinking water sources throughout the state. Sources are rated depending upon their contaminant susceptibility.

Susceptibility Ratings for City of Camden System

The table below illustrates the susceptibility ratings for seven contaminant categories (and radon) for each source in the system. The table provides the number of wells and intakes that rated high (H), medium (M), or low (L) for each contaminant category. Source Water Assessment Reports and Summaries are available for public water systems at www.state.nj.us/dep/swap/ or by contacting the NJDEP's Bureau of Safe Drinking Water at (609) 292-5550.

SOURCE WATER ASSESSMENT PROGRAM																									
Sources	Pathogens			Nutrients			Pesticides			VOC's			Inorganics			Radionuclides			Radon			DBP's			
	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L				
Morris North Well Field (4)		4		2	2				4	3		1	4				4			2	2		4		
Morris South Well Field (10)		7	3		9	1			10	3		7	8	2			10			10			10		
Delair Well Field (3)		3			3				3	3			3				3			3			3		
Parkside Well Field (2)			2		2				2	2			2				2					2	2		

Contaminant Categories

NJDEP considered all surface water highly susceptible to pathogens; therefore, all intakes received a high rating for the pathogen category. For the purpose of the Source Water Assessment Program, radionuclides are more of a concern for groundwater than surface water. As a result, surface water intakes' susceptibility to radionuclides was not determined and a low rating was assigned. If a system is rated highly susceptible for a contaminant category, it does not mean a customer is or will be consuming contaminated drinking water. The rating reflects the potential for contamination of source water, not the existence of contamination. Public water systems are required to monitor for regulated contaminants and to install treatment if any contaminants are detected at frequencies and concentrations above allowable levels. As a result of the assessments, NJDEP may customize (change existing) monitoring schedules based on the susceptibility ratings.

Source water protection is a long-term dedication to clean and safe drinking water. It is more cost effective to prevent contamination than to address contamination after the fact. Every member of the community has an important role in source water protection. NJDEP recommends controlling activities and development around drinking water sources whether it is through land acquisition, conservation easements or hazardous waste collection programs. We will continue to keep you informed of SWAP's progress and developments.

Susceptibility Chart Definitions

Pathogens:	Disease-causing organisms such as bacteria and viruses. Common sources are animal and human fecal wastes.
Nutrients:	Compounds, minerals and elements that aid growth, those that are both naturally occurring and man-made. Examples include nitrogen and phosphorus.
Volatile Organic Compounds:	Man-made chemicals used as solvents, degreasers, and gasoline components. Examples include benzene, methyl tertiary butyl ether (MTBE), and vinyl chloride.
Pesticides:	Man-made chemicals used to control pests, weeds and fungus. Common sources include land application and manufacturing centers of pesticides. Examples include herbicides such as atrazine, and insecticides such as chlordane.
Inorganics:	Mineral-based compounds that are both naturally occurring and man-made. Examples include arsenic, asbestos, copper, lead, and nitrate.
Radionuclides:	Radioactive substances that are both naturally occurring and man-made. Examples include radium and uranium.
Radon:	Colorless, odorless, cancer-causing gas that occurs naturally in the environment. For more information go to http://www.nj.gov/dep/rpp/radon/index.htm or call 1-800-648-0394.
Disinfection By-product Precursors:	A common source is naturally occurring organic matter in surface water. Disinfection by-products are formed when the disinfectants (usually chlorine) used to kill pathogens react with dissolved organic material (for example leaves) present in surface water.

Where Your Water Comes From

City of Camden System is a public community water system consisting of 19 wells that draw from the lower Potomac-Raritan-Magothy (PRM) Aquifer. The City of Camden system also has three (3) emergency interconnections:

- New Jersey American Water Company
- Gloucester City Water Department
- Merchantville-Pennsauken Water Commission

None of these emergency interconnections were activated during 2016.

What's in the Source Water before We Treat It?

In general, the sources of drinking water (both tap 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 can pick up substances resulting from the presence of animals or from human activities.

Substances That May Be Present in Source Water Include:

Microbiological Contaminants:	Such as viruses and bacteria, this may come from sewage treatment plants, septic systems, agricultural livestock operations or wildlife.
Inorganic Contaminants:	Such as salts and metals which can be naturally occurring or may result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming.
Pesticides and Herbicides:	These 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 may also come from gas stations, urban stormwater runoff, and septic systems.
Radioactive Contaminants:	These can be naturally occurring or may be the result of oil and gas production and mining activities.

What Treatment Processes are used?

Morris-Delair Water Treatment Plant

This plant has a treatment capacity of 18 million gallons per day (MGD) that predominately removes iron and manganese, volatile organic chemicals (VOCs), and other contaminants found in the raw water. The treatment processes include aeration, sedimentation, filtration, VOC removal, pH adjustment, and chlorine disinfection. The finished water quality is in full compliance with federal and state standards under the "Safe Drinking Water Act" (SDWA). The Morris-Delair facility is the primary source of supply for the city.

Parkside Water Treatment Plant

This plant has a capacity of 3 MGD that also removes iron and manganese, volatile organic chemicals (VOCs) and other contaminants found in the raw water. The treatment processes at Parkside include aeration, pH adjustment, filtration, VOC removal and chlorine disinfection. The Parkside facility is the supplemental source of supply and is in operation mainly during high demand periods. When in service, finished water quality from the facility is in full compliance with federal and state standards under the "Safe Drinking Water Act" (SDWA).

Do I Need to Take Special Precautions?

To ensure that tap water is safe to drink, the U.S. EPA prescribes regulations limiting the amount of certain contaminants in water provided by public water systems. U.S. Food and Drug Administration 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 EPA's Safe Drinking Water Hotline at 1-800-426-4791.

Water Quality Statement

The data presented in the Table of Detected Contaminants is the same data collected to comply with U.S. Environmental Protection Agency and The State of New Jersey monitoring and testing requirements. We have learned through our testing that some contaminants have been detected, however, these contaminants were detected well below the levels set by the EPA to protect public health. To assure high quality water, individual water samples are taken each year for chemical, physical and microbiological tests. Testing is conducted on water collected at the source, during treatment, from the distribution system after treatment and, for lead and copper monitoring, from customers' taps. Testing can pinpoint a potential problem so that preventative action may be taken. The Safe Drinking Water Act regulations allow monitoring waivers to reduce or eliminate the monitoring requirements for asbestos VOCs, and synthetic organic chemicals. The City of Camden system has received monitoring waivers for synthetic organic chemicals and asbestos.

How Do I Read the Table of Detected Contaminants?

To read the table start with the **Contaminant**, and read across from left to right. A “**Yes**” under **Compliance Achieved** means the amount of the substance met government requirements. The column marked **MCLG** (Maximum Contaminant Level Goal) is 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. The shaded column marked **MCL** (Maximum Contaminant Level), is 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. The column marked **Highest Level Detected** shows the highest test results during the year. The column marked **Range Detected** shows the highest and lowest test results for the year. **Typical Source** shows where this substance usually originates. Compare the detected values with the MCL column. To be in compliance, the Highest Level Detected must be lower than the MCL standard. Those substances not listed in the table were not found in the treated water supply. The footnotes and the definitions below will help you interpret the data presented in the Table of Detected Contaminants.

Unless otherwise noted, the data presented in the table below is from testing done in the calendar year of the report. The EPA or the state requires monitoring for certain contaminants less than once per year because the concentrations of these contaminants do not change significantly.

Vulnerable Populations Statement

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 pathogens are available from the Safe Drinking Water Hotline at 1-800-426-4791.

Violations

Tier 1	Any time a situation occurs where there is the potential for human health to be immediately impacted, water suppliers have 24 hours to notify people who may drink the water about the situation.
Tier 2	Any time a water system provides water with levels of a contaminant that exceed EPA or state standards or that hasn't been treated properly, but that doesn't pose an immediate risk to human health, the water system must notify its customers as soon as possible, but within 30 days of the violation.
Tier 3	When water systems violate a drinking water standard that does not have a direct impact on human health (for example, failing to take a required sample on time) the water supplier has up to a year to provide a notice of this situation to its customers.

Ground Water Rule – Tier 3

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 your drinking water meets health standards. During April 2016, we did not complete all monitoring or testing for total coliform, and therefore cannot be sure of the quality of your drinking water during that time.

Inadequately treated or inadequately protected water may contain disease-causing organisms. These organisms can cause symptoms such as diarrhea, nausea, cramps, and associated headaches. Consumer action or use of alternate water supply is not necessary.

Per the Ground Water Rule, any time a Distribution System sample is positive for Total Coliform, the rule requires source water sampling at all active sources.

- *In April 2016, one Distribution System Total Coliform sample tested positive.*
- *While performing source water sampling, eleven samples were required but only ten were collected.*

Corrective Actions Taken

- *Proper repeat sampling was performed at the original distribution site to ensure that there was no risk to public health.*
- *Initiated SOP to ensure 4 LOG Virus Inactivation of Treated Water.*

Total Coliform Rule (TCR) – Tier 3

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 your drinking water meets health standards. During January 2015 to February 2016, we did not complete all monitoring or testing for total coliform, and therefore cannot be sure of the quality of your drinking water during that time. Consumer action or use of alternate water supply is not necessary.

Per 40 C.F.R. §141.853(a), water systems must develop a written sample siting plan that identifies sampling sites and a sample collection schedule that is representative of water quality in the distribution system throughout the entire month.

- *The TCR Sampling Plan did not include a sampling schedule.*
- *There were months when the required amounts of samples were collected at intervals that did not represent the water quality throughout the entire month.*

Corrective Actions Taken

- *The TCR Sampling Plan was revised to include a specific sampling schedule.*
- *All samples are collected at the intervals that represent the water quality throughout the entire month.*

Revised Total Coliform Rule (RTCR) – Tier 3

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 your drinking water meets health standards. During April 2016 to December 2016, we did not complete all monitoring or testing for total coliform, and therefore cannot be sure of the quality of your drinking water during that time. Consumer action or use of alternate water supply is not necessary.

Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, waterborne pathogens may be present or that a potential exists through which contamination may enter the drinking water distribution system. We found coliforms indicating the need to look for potential problems in water treatment or distribution. When this occurs, we are required to conduct assessments to identify problems and to correct any problems that are found.

- *Public Water Systems are required to conduct a Level 1 or Level 2 assessment if conditions indicate they might be vulnerable to contamination. Public Water Systems must fix any sanitary defects within a required timeframe.*
- *A Level 1 Assessment is triggered when a water system exceeds a certain number of positive total coliform samples in a month. The New Jersey Level 1 Assessment form can be found at the following location.*
<http://www.nj.gov/dep/watersupply/pdf/rtcr-l1-large.pdf>
- *During the past year, we were required to conduct one Level 1 assessment due to three samples taken in July 2016 that were Total Coliform Positive. From performing the assessment, it was determined that two corrective actions were needed and both actions were completed.*
- *During the past year zero samples were E. Coli-Positive.*

Chemical Monitoring – Tier 3

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 your drinking water meets health standards. During the January 2012-December 2015, we did not complete all monitoring or testing for inorganic contaminants, and therefore cannot be sure of the quality of your drinking water during that time. Consumer action or use of alternate water supply is not necessary.

Per 40 C.F.R. §141.23(a), groundwater systems shall take a minimum of one sample at every point of entry to distribution systems which representative of each well after treatment. If a system draws water from more than one source and the sources are combined before distribution, the system must sample at an entry point to the distribution system during periods normal operating conditions (e.g. when water representative of all sources is being used)

- *The city of Camden's previous contract operator failed to monitor all wells for inorganic contaminants during the January 2012-December 2015 triennial monitoring period. Monitoring for inorganic contaminants was conducted in February 2014; however, two wells were not in operation at that time.*

Corrective Actions Taken

- *Normal Water Plant operations doesn't involve running all groundwater sources simultaneously. Moving forward, multiple Inorganic Contaminant samples will be collected to ensure water from all groundwater sources is tested.*

Lead and Copper Rule – Tier 3

As per 40 C.F.R §141.91, any water system subject to the requirements of the Lead and Copper Rule shall retain on its premises original records of all sampling data and analyses, reports, surveys, letters, evaluations, schedules, State determinations, and any other information required by 40 C.F.R. §§141.81 through 141.88. Each water system shall retain the records required for no fewer than 12 years.

- *The city of Camden's previous contractor was unable to provide copies of the 2015 lead and copper customer chains of custody (COC) or evidence that documents proper sample collection instructions and procedure, as established in 40 C.F.R §141.86(b).*

Corrective Actions Taken

- *All future Lead and Copper Sampling documentation will be stored on site for a minimum of 12 years.*

Consumer action or use of alternate water supply is not necessary.

N.J.A.C. 7:10 Regulations – Tier 3

As per N.J.A.C. 7:10-11.16(e)(1), groundwater shall be treated for a minimum chlorine contact period of at least 5 minutes for free chlorine residual or at least 30 minutes for combined chlorine residual, to produce the minimum chlorine residual levels required pursuant N.J.A.C. 7:10-11.16(e).

- *The City of Camden PWS was unable to provide chlorine contact time documentation in order to determine if the disinfection treatment meets the requirements of N.J.A.C. 7:10.*

Corrective Actions Taken

- *Contact Time documentation has been submitted showing that both Water Treatment Plants meet chlorine contact time requirements.*

Volatile Organic Compounds Federal – Tier 3

As per N.J.A.C. 7:10-5.4(a), each supplier of water shall submit a compliance sampling report to the Department within the first 10 calendar days of the month following the month in which any test, measurement or analysis is made.

- *Third Quarter 2016 Federal VOC sampling was collected and analyzed within required timeframe. Sample results not submitted by the laboratory to the Department in a timely manner.*

Corrective Actions Taken

- *All sample results that the lab submits directly to the Department will now copy the System Operator.*
- *Sampling paperwork will now indicate how results are to be reported.*

Distribution Notice:

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.

2016 Table of Detected Contaminants							
Regulated Compounds							
Contaminant	Units	Compliant	MCLG	MCL	Highest Level Detected	Range Detected	Typical Source
Disinfectants							
Chlorine Residual	ppm	YES	MRDLG=4	MRDL=4	1.75	0.09 – 1.75	Water additive used to control microbes
Treatment Byproducts							
Five Haloacetic Acids [HAA5] (Stage 2)	ppb	YES	NA	60	12.44 ²	7.86 – 12.44	By-product of drinking water disinfection
Total Trihalomethanes [TTHM] (Stage 2)	ppb	YES	NA	80	34.88 ³	23.00 – 34.88	By-product of drinking water disinfection

1. Haloacetic Acids are the total of Bromoacetic, Dibromoacetic, Dichloroacetic, Monochloroacetic, and Trichloroacetic Acids.
 2. Total Trihalomethanes are the total of Bromoform, Chlorodibromomethane, Chloroform, and Dichlorobromomethane.

Microbiological Contaminants						
Substance (units)	Year Sampled	MCL	MCLG	Highest Monthly % of Positive Samples	Compliance Achieved	Typical Source
Total Coliform Rule Total Coliform bacteria are used as indicators of microbial contamination of drinking water because testing for them is easy. While not disease-causing organisms themselves, they are often found in association with other microbes that are capable of causing disease.						
Total Coliform (TCR)	January 2016 to March 2016	Presence of coliform bacteria in more than 5% of monthly samples.	0	N/A	Yes	Naturally present in the environment
E. Coli (TCR)		E.Coli positive followed by any positive sample	0	N/A	Yes	Human or Animal Fecal Waste
Revised Total Coliform Rule Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, waterborne pathogens may be present or that a potential pathway exists through which contamination may enter the drinking water distribution system. Coliforms indicate the need to look for potential problems in water treatment or distribution. When this occurs, we are required to conduct assessment(s) to identify problems and to correct any problems that were found during these assessments.						
Total Coliform (RTCR)	April 2016 to December 2016	Level 1 Assessment Required if 5% of monthly samples are Positive	0	5% July 2016	One Level 1 Assessment Required	Naturally present in the environment
E. Coli (RTCR)		E.Coli positive followed by any positive sample	0	N/A	Yes	Human or Animal Fecal Waste
MONTHLY TESTS FOUND NO FECAL COLIFORM BACTERIA or E.Coli						

Volatile Organic Compounds							
Chlorobenzene	ppb	YES	50	50	0.130	ND - 0.130	Discharge from chemical and agricultural chemical factories
CIS-1,2-Dichloroethylene	ppb	YES	70	70	0.20	ND - 0.20	Discharge from industrial chemical factories
M-Dichlorobenzene	ppb	YES	600	600	0.09	ND - 0.09	Discharge from industrial chemical factories
Methyl Tertiary Butyl Ether	ppb	YES	70	70	0.40	ND - 0.40	Leaking underground gasoline and fuel oil tanks, gasoline and fuel oil spills
P-Dichlorobenzene	ppb	YES	75	75	0.09	ND - 0.09	Foaming agent, in production of other substances, and byproduct that can form when chlorine used to disinfect drinking water
Trichloroethylene	ppb	YES	1	1	0.30	ND - 0.30	Discharge from metal degreasing sites and other factories
Radiological Contaminates							
Alpha emitters (2013)	pCi/L	YES	0	15	3.64	ND - 3.64	Erosion of natural deposits
Combined Radium (2013)	pCi/L	YES	0	5	1.84	ND - 1.84	Erosion of natural deposits

What is Radon?

Radon is a radioactive gas that occurs naturally in some groundwater. It may pose a health risk when the gas is released from water into air, as occurs while showering, washing dishes and performing other household activities. Radon can move up through the ground and into a home through cracks in the foundation. Compared to radon entering the home through soil, radon entering through tap water is, in most cases, a small source of radon in indoor air. Inhalation of radon gas has been linked to lung cancer; however, the effects of radon ingested in drinking water are not yet clear. If you are concerned about radon in your home, tests are available to determine the total exposure level. The EPA is developing regulations to reduce radon in drinking water. Radon in the air is inexpensive to test and easy to correct. For additional information, call EPA's Radon Hotline at 1-800-SOS-RADON.

Inorganics							
Contaminant	Units	Compliant	MCLG	MCL	Highest Level Detected	Range Detected	Typical Source
Nitrate (as Nitrogen) (2016)	ppm	YES	10	10	1.96	0.34 – 1.96	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Arsenic (2014)	ppb	YES	0	10	1.1	0.91 - 1.1	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Barium (2014)	ppm	YES	2	2	0.0374	0.0198 - 0.0374	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Mercury (2014)	ppb	YES	2	2	0.095	0.051 - 0.095	Erosion of natural deposits; Discharge from refineries and factories; Runoff from landfills; Runoff from cropland
Nickel (2014)	ppb	YES	NA	NA	1.7	0.75 - 1.7	Nickel occurs naturally in soils, groundwater and surface waters and is often used in electroplating, stainless steel and alloy products.
Selenium (2014)	ppb	YES	50	50	3.9	2.6 - 3.9	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines
Total Antimony (2014)	ppb	YES	6	6	0.07	ND - 0.07	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder
Total Thallium (2014)	ppb	YES	0.5	2	0.11	ND - 0.11	Leaching from ore-processing sites; Discharge from electronics, glass, and drug factories

Physical Characteristics					
Contaminant	Units	Optimum Range	Highest Level Detected	Range Detected	Description
pH	S.U.	6.5 – 8.5	9.16	7.31 – 9.16	A measurement of acidity, 7.0 being neutral

Secondary Contaminants						
Contaminant	Units	Below RUL	RUL	Highest Level Detected	Range Detected	Typical Source
Iron	ppm	YES	0.30	ND	ND	Naturally occurring element
Manganese	ppm	YES	0.05	0.0037	ND – 0.0037	Naturally occurring element

Lead & Copper Monitoring							
Tap water samples were collected from 30 homes in the service area as part of our Lead and Copper Monitoring Program							
Lead & Copper	Units	Compliance Achieved	MCLG	Action Level	90th Percentile	Homes Above Action Level	Typical Source
Copper (2015)	ppm	Yes	1.3	1.3	0.146	0	Corrosion of household plumbing systems
Lead (2015)	ppb	Yes	0	15	2.8	1	Corrosion of household plumbing systems

Lead and Copper in Drinking Water

Infants and children who drink water containing lead in excess of the action level could experience delays in their physical or mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure.

Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of time could experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years could suffer liver or kidney damage. People with Wilson's Disease should consult their personal doctor.

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. American Water 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 or at <http://www.epa.gov/safewater/lead>.

Table Definitions

90th Percentile Value:	Of the samples taken, 90% of the values of the results were below the level indicated in the table.
Action Level:	The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
MRDL (Maximum Residual Disinfectant Level):	The highest level of 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 Level 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 contamination.
NA:	Not Applicable
NTU (Nephelometric Turbidity Units):	Measurement of the clarity, or turbidity, of the water.
ND (Not Detected):	Laboratory analysis indicates that the constituent is not present
ppb (parts per billion):	Corresponds to one part substance in one billion parts of water.
ppm (parts per million):	Corresponds to one part substance in one million parts of water.
pCi/L (Picocuries per Liter):	A measure of the radioactivity in water.
RUL:	Recommended Upper Limit
TT (Treatment Technique):	A required process intended to reduce the level of a contaminant in drinking water.

Unregulated Contaminant Monitoring Rule

The City of Camden System participated in the third phase of the Unregulated Contaminant Monitoring Rule 3 (UCMR3) in 2015. Due to the Parkside Water Treatment Plant being Out of Service in 2015, the UCMR3 sampling was completed in 2016. Unregulated contaminants are those for which the EPA has not established drinking water standards. Monitoring assists the EPA in determining the occurrence of these compounds and whether or not regulation is warranted. City of Camden System participated in the third phase of the Unregulated Contaminant Monitoring Rule (UCMR3) in 2016.

Unregulated Compounds (UCMR3) Parkside Water Treatment Plant				
Contaminant	Units	Highest Level Detected	Range Detected	Typical Source
1,4-dioxane	ppb	2.77	2.2 - 2.77	Solvent or solvent stabilizer in manufacture and processing of paper, cotton, textile products, automotive coolant, cosmetics and shampoos
Vanadium	ppb	0.31	0.2 - 0.31	Naturally-occurring elemental metal; used as vanadium pentoxide which is a chemical intermediate and a catalyst
Strontium	ppb	790	600 - 790	Naturally-occurring element; historically, commercial use of strontium has been in the faceplate glass of cathode-ray tube televisions to block x-ray emissions
Chromium (Total)	ppb	0.33	ND - 0.33	Naturally-occurring element; used in making steel and other alloys;
Chromium-6	ppb	0.08	0.04 - 0.08	Naturally-occurring element; used in making steel and other alloys
Chlorate	ppb	670	210 - 670	Agricultural defoliant or desiccant; disinfection byproduct; and used in production of chlorine dioxide

Unregulated Compounds (UCMR3) Morris-Delair Water Treatment Plant				
Contaminant	Units	Highest Level Detected	Range Detected	Typical Source
1,4-dioxane	ppb	0.86	0.07 - 0.86	Solvent or solvent stabilizer in manufacture and processing of paper, cotton, textile products, automotive coolant, cosmetics and shampoos

In accordance with the New Jersey Ground Water Quality Standards, the NJDEP has developed an interim specific groundwater quality criterion of 0.4 µg/L for 1,4-dioxane.

For general information on UCMR3, visit <http://water.epa.gov/lawsregs/rulesregs/sdwa/ucmr/ucmr3> or contact EPA's Safe Drinking Water Hotline at 1-800-426-4791