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ASUS
Fort Jackson

2019 Water Quality Report - Fort Jackson
PWS ID#: 4010501
Palmetto State Utility Services, Inc.
American States Utility Services, Inc.

Dedicated to Delivering Clean Water

Every day, people depend on American States Utility Services, Inc. (ASUS) for the water that enhances their quality of life. We operate and maintain water and wastewater systems on military bases across the country, dedicating ourselves to producing drinking water that meets all state and federal standards and continually striving to adopt new methods for delivering the best quality drinking water to the military installations we serve. As new challenges to drinking water safety emerge, we remain vigilant in meeting the goals of source water protection, water conservation, and community education, while continuing to meet the needs of all of our water users.

Palmetto State Utility Services, Inc., a wholly-owned subsidiary of ASUS, is the sole provider of your water service. Our certified operators ensure the safe delivery of all potable water, taking water samples at approved sites to ensure its quality throughout our system. With a deep commitment to customer care, ASUS works diligently to protect every drop of water. As a utility provider, we constantly analyze our systems to determine which areas might need repair, replacement, or even supplementary facilities. ASUS also puts a strong focus on water efficiency, actively providing educational outreach for customers to further encourage better resource management.

We at ASUS are proud to be able to provide our services to the military personnel, civilians, and family members who live and work at Fort Jackson. We're honored to support the role your military installation plays in defending the country, both at home and abroad. We achieve this goal by always putting our fundamental ideals into practice. We pay special attention to the ultimate measure of success: our customer's peace of mind.

In order to maintain a safe and dependable water supply, we sometimes need to make improvements that will benefit all our customers. With our own team's deeply-rooted military background, we have an intimate understanding of what it takes to make an installation thrive, and we take pride in delivering unparalleled care in this regard.

We are pleased to present you with this annual water quality report and thank you for allowing us to serve you and your family.

Please remember that we are always available to assist you should you ever have any questions or concerns about your water. For more details, you can view our past and current Water Quality Reports at www.asusinc.com.

Sincerely,

Franklin Jones
Assistant Utility Manager
Palmetto State Utility Services, Inc.

Susan Miller
Acting Director of Operations
American States Utility Services, Inc.

Important Information about Your Water

Your Drinking Water Source

Fort Jackson purchases drinking water from the City of Columbia, which treats surface water from the Broad River and Lake Murray. The Installation is divided into two separate areas: Cantonment and Training. The Cantonment area receives its water from Columbia's Canal Water Treatment Plant. The range areas are serviced by nine wells and a connection to the City of Columbia's Lake Murray and Broad River Water Treatment Plants.

What the EPA Wants You to Know

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons, such as those 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 for infections. These people should seek advice about drinking water from their health care providers. EPA/Centers for Disease Control (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 at (800) 426-4791 or www.epa.gov/safewater.

Lead in Home Plumbing

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. We are 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 your drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or www.epa.gov/safewater/lead.

Substances that Could Be in Your Water

In order to ensure that tap water is safe to drink, the U.S. EPA prescribes regulations, which limit the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration (FDA) 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 EPA's Safe Drinking Water Hotline at (800) 426-4791 or www.epa.gov/safewater/lead.

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.

Important Information about Your Water

Substances that Could Be in Your Water (cont'd)

Contaminants that may be present in source water include:

Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.

Inorganic contaminants, such as salts and metals, which can be naturally-occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.

Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses.

Organic chemical contaminants, including synthetic and volatile organic chemicals, which are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff, and septic systems.

Radioactive contaminants, which can be naturally occurring or a result of oil and gas production and mining activities.

2019 Water Quality Test Results

The City of Columbia routinely monitors for contaminants in your drinking water according to Federal and State laws, rules, and regulations. Except where indicated otherwise, this report is based on the results of our monitoring for the period of January 1 to December 31, 2019.

Regulated Substances - Palmetto State Utility Services, Inc.

Substance (unit)	Year	MCL(MRDL)	MCLG(MRDLG)	Amount Detected	Range (Low - High)	Violation?	Typical Source
Chlorine (ppm)	2019	4	4	2.28	1.77-2.71	No	Water additive used to control microbes
Haloacetic Acids (HAAs)	2019	60 (LRAA)	N/A	31	9.0 - 34.1	No	By-product of drinking water chlorination
TTHMs (Total Trihalomethanes) (ppb)	2019	80 (LRAA)	N/A	29	22.0 - 35.4	No	By-product of drinking water disinfection
Total Coliform Bacteria (# positive samples)	2019	1 positive sample/month	TT	7	0 - 7	No	Naturally present in the environment

2019 Water Quality Test Results (cont'd)

Bacteriological Contaminants - Palmetto State Utility Services, Inc.

Contaminants	MCLG	MCL/ TT	Value	Date	Violation	Typical Source
Total Coliform	TT	1 LVA	Positive	Apr-19	No	Naturally present in the environment
Total Coliform	TT	1 LV2A	Positive	Jun-19	No	Naturally present in the environment

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. We found coliforms indicating 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.

Assessment definitions

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.

During the past year we were required to conduct (1) Level 1 assessment(s). (1) Level 1 assessment(s) were completed. We were not required to take corrective actions.

During the past year (1) Level 2 assessments were required to be completed for our water system. (1) Level 2 assessments were completed. In addition, we were required to take (2) corrective actions and we completed (2) of these actions.

Regulated Substances - Palmetto State Utility Services, Inc.

Substance (unit)	Year	MCL (MRDL)	MCLG (MRDLG)	AL	MCLG	Amount Detected (90th Percentile)	Sites above AL/# of Sites	Violation	Typical Source
Copper (ppm)	2019	1.3	1.3	1.3	1.3	0.24	0/30	NO	Corrosion of household systems; erosion of natural deposits
Lead (ppb)	2019	15	0	15	0	11	2/30	NO	Corrosion of household systems; erosion of natural deposits

*Tap water samples were collected for lead and copper analyses from sample sites throughout the community.

Unregulated Contaminant Monitoring Rule - Palmetto State Utility Services, Inc.

Substance (unit)	Year	Amount Detected	Range (Low-High)
HAA6Br	2019	5.2	2.22 – 8.44
HAA9	2019	24	12.40 – 38.37
HAA5	2019	22	9.69 – 29.93
Germanium	2019	ND	N/A
Manganese	2019	1.92	N/A
alpha-hexachlorocyclohexane	2019	ND	N/A
chlorpyrifos	2019	ND	N/A

dimethipin	2019	ND	N/A
ethoprop	2019	ND	N/A
oxyfluorfen	2019	ND	N/A
profenofos	2019	ND	N/A
tebuconazole	2019	ND	N/A
total permethrin (cis- & trans-)	2019	ND	N/A
tribufos	2019	ND	N/A
1-butanol	2019	ND	N/A
2-methoxyethanol	2019	ND	N/A
2-propen-1-ol	2019	ND	N/A
butylated hydroxyanisole	2019	ND	N/A
o-toluidine	2019	ND	N/A
quinoline	2019	ND	N/A

Unregulated contaminants are those for which EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted. In 2019, Palmetto State Utility Services participated in the fourth round of the Unregulated Contaminant Monitoring Rule (UCMR 4). For a copy of the results please call Brad Miano at 803-790-7288.

Regulated Substances - City of Columbia

Source Water - Canal Water Treatment Plant

Substance (unit)	Year	MCL (MRDL)	MCLG (MRDLG)	Amount Detected	Range (Low-High)	Violation	Likely Source
Chlorine Dioxide (ppb)	2019	800	800	666	238-666	NO	Water additive used to control microbes
Chlorite (ppm)	2019	1	0.8	0.675	0.476-0.675	NO	Water additive used to control microbes
Fluoride (ppm)	2019	4	4	0.54	0.51 - 0.54	NO	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories
Nitrate (ppm)	2019	10	10	0.36	0.35 - 0.36	NO	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Sodium (ppm)	2019	N/A	N/A	N/A	N/A	NO	Erosion of natural deposits
Total Organic Carbon (% removal)	2019	TT	N/A	63.8 (35% removal required)	43.6 - 63.8	NO	Naturally present in the environment
Turbidity (NTU)	2019	TT	N/A	0.09	0.04-0.09	NO	Soil runoff
Turbidity (Lowest monthly % of samples meeting limit)	2019	TT	N/A	100	N/A	NO	Soil runoff

2019 Water Quality Test Results (cont'd)

Regulated Substances - City of Columbia

Source Water - Lake Murray Water Treatment Plant

Substance (unit)	Year	MCL (MRDL)	MCLG (MRDLG)	Amount Detected	Range (Low-High)	Violation	Likely Source
Chlorine Dioxide (ppb)	2019	800	800	238	0 - 238	NO	Water additive used to control microbes
Chlorite (ppm)	2019	1	0.8	0.476	0.0 - 0.476	NO	Water additive used to control microbes
Total Organic Carbon (% removal)	2019	TT	N/A	83.4 (35% removal required)	30.9 - 83.4	No	Naturally present in the environment
Turbidity (NTU)	2019	TT	N/A	0.07	0.02 - 0.07	No	Soil runoff
Turbidity (Lowest monthly % of samples meeting limit)	2019	TT	N/A	100	N/A	No	Soil runoff

Source Water Assessment

Columbia gets its water from the Broad River Diversion Canal (Canal) and Lake Murray (Lake). The Broad River collects water from a large portion of northern South Carolina through the Broad River Basin while Lake Murray receives water from the Saluda River Basin. The South Carolina Department of Health and Environmental Control (SCDHEC) periodically assesses the quality of source water for drinking water systems throughout the state. SCDHEC's Source Water Assessment Report is available and can be reviewed at 1136 Washington Street, or by calling (803) 545-3400.

DEFINITIONS

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

LRAA (Locational Running Annual Average): The average of sample analytical results for samples taken at a particular monitoring location during the previous four calendar quarters. Amount Detected values for TTHMs and HAAs are reported as the highest LRAAs.

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 Disinfectant 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.

ND: Not detected

N/A: Not applicable

NTU (Nephelometric Turbidity Units): Measurement of the clarity, or turbidity, of water. Turbidity in excess of 5 NTU is just noticeable to the average person. ppb (parts per billion): One-part substance per billion parts water (or micrograms per liter). ppm (parts per million): One-part substance per million parts water (or milligrams per liter).

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

2019 Water Quality Test Results (cont'd)

Regulated Substances - City of Columbia's Distribution System

Substance (unit)	Year	MCL (MRDL)	MCLG (MRDLG)	Amount Detected	Range	Violation	Likely Source
Chloramines (ppm)	2019	4	4	2.2	1.80 - 2.50	NO	Water additive used to control microbes
Fluoride (ppm)	2019	4	4	0.53	0.51 - 0.54	NO	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Haloacetic Acids (HAAs)	2019	60 (LRAA)	N/A	23.65	10.6 - 36.2	NO	By-product of drinking water disinfection
Nitrate (ppm)	2019	10	10	0.36	0.35-0.36	NO	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
TTHMs (Total Trihalomethanes) (ppb)	2019	80 (LRAA)	N/A	24.44	14.58 - 36.2	NO	By-product of drinking water disinfection
Total Coliform Bacteria (% positive samples)	2019	Presence of coliform bacteria is <5% of monthly samples	N/A	3.0% (Highest monthly percentage positive)	N/A	NO	Naturally present in the environment

Lead and Copper

Substance (unit)	Year	MCL	MCLG	Detected Levels	Range of Detection	Violation	Likely Source
Copper (ppm)	2017	1.3	0	0.096 (90th %); 0-0.45 (range)	No sites exceeded Action Level	NO	Corrosion of household plumbing systems; naturally occurring in the environment.
Lead (ppb)	2017	15	0	3.8 (90th %); 0-13 (range)	0 of 50 sites sampled exceeded Action Level	NO	Corrosion of household plumbing system; naturally occurring in the environment

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