Serving Those Who Serve®

2020 Water Quality Report
Camp Mackall
PWS ID#: NC 03-63-617
Old North Utility Services, Inc.
American States Utility Services, Inc.

ASUS

Dedicated to Delivering Clean Water

Every day, people in the United States depend on American States Utility Services, Inc. (ASUS) for the water and electricity that enhance 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.

At ASUS, we are proud to provide the integral services that truly empower our nation's military communities, from the ground up. With our smart infrastructure systems, we create and maintain the efficiencies that allow installations across the country to focus on their own true mission. Ours is simple: to continue building upon their strength as effectively as possible.

Old North Utility Services, Inc. (ONUS), a wholly-owned subsidiary of ASUS, is the provider of your water service. Our certified operators ensure the safe delivery of all potable water, taking water samples at approved sites to ensure the 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 Camp Mackall. We are 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. 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 at ASUS 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,

Adam Loughman
Utility Manager

Susan Miller
Director, Mid-Atlantic Region

Important Information about Your Water

What the EPA Wants You to Know

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline (800) 426-4791.

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

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 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.

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in source water include microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife; inorganic contaminants, such as salts and metals, which can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming; pesticides and herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses; organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems; and radioactive contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

When You Turn on Your Tap, *Consider the Source*

Camp Mackall receives treated surface water from the Southern Pines Water Treatment Plant (SPWTP). SPWTP treats water from the surface water source, Drowning Creek.

Important Information about Your Water

Source Water Assessment Program

The North Carolina Department of Environmental Quality (DEQ), Public Water Supply (PWS) Section, and Source Water Assessment Program (SWAP) conducted assessments for all drinking water sources across North Carolina. The purpose of the assessments was to determine the susceptibility of each drinking water source (well or surface water intake) to Potential Contaminant Sources (PCSs). The results of the assessment are available in SWAP Assessment Reports that include maps, background information and a relative susceptibility rating of Higher, Moderate or Lower.

The relative susceptibility rating of each source for Old North Utility Services – Camp Mackall was determined by combining the contaminant rating (number and location of PCSs within the assessment area) and the inherent vulnerability rating (i.e., characteristics or existing conditions of the well or watershed and its delineated assessment area). The assessment findings are summarized in the table below:

Susceptibility of Sources to Potential Contaminant Sources (PCSs)

Source Name	Susceptibility Rating	SWAP Report Date
Southern Pines - Drowning Creek	Moderate	September 2020

The complete SWAP Assessment report for Southern Pines Water Treatment Plant may be viewed on the Web at: https://www.ncwater.org/?page=600. Note that because SWAP results and reports are periodically updated by the PWS Section, the results available on this web site may differ from the results that were available at the time this CCR was prepared. If you are unable to access your SWAP report on the web, you may mail a written request for a printed copy to: Source Water Assessment Program – Report Request, 1634 Mail Service Center, Raleigh, NC 27699-1634, or email requests to swap@ncdenr.gov. Please indicate your system name, number, and provide your name, mailing address and phone number. If you have any questions about the SWAP report please contact the Source Water Assessment staff by phone at 919-707-9098.

It is important to understand that a susceptibility rating of "higher" does not imply poor water quality, only the system's potential to become contaminated by PCSs in the assessment area.

Cryptosporidium

Southern Pines Water Treatment Plant monitored for Cryptosporidium throughout the year and found no detections of cryptosporidium. Cryptosporidium is a microbial pathogen found in surface water throughout the U.S. Although filtration removes Cryptosporidium, the most commonly-used filtration methods cannot guarantee 100 percent removal. Our monitoring indicates the presence of these organisms in our source water and/or finished water. Current test methods do not allow us to determine if the organisms are dead or if they are capable of causing disease.

Ingestion of Cryptosporidium may cause cryptosporidiosis, an abdominal infection. Symptoms of infection include nausea, diarrhea, and abdominal cramps. Most healthy individuals can overcome the disease within a few weeks. However, immuno-compromised people, infants and small children, and the elderly are at greater risk of developing life-threatening illness. We encourage immunocompromised individuals to consult their doctor regarding appropriate precautions to take to avoid infection. Cryptosporidium must be ingested to cause disease, and it may be spread through means other than drinking water.

2020 Water Quality Results

ONUS and the Town of Southern Pines routinely monitor for more than 100 contaminants in the drinking water according to Federal and State laws. The table below list all the drinking water contaminants that we detected in the last round of sampling for each particular contaminant group. The presence of contaminants does not necessarily indicate that water poses a health risk. The EPA and the State allow us to monitor for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. Some of the data, though representative of the water quality, is more than one-year-old.

Camp Mackall - Old North Utility Services, Inc.

Microbiological Contaminants

Parameters (units)	MCL Violation Y/N	Your Water	MCLG	MCL	Likely Source
Total Coliform Bacteria	N/A	N/A	N/A	TT (a)	Naturally present in the environment
Fecal Coliform or E. coli	NO	0	0	Routine and repeat samples are total coliform-positive and either is E. coli-positive or system fails to take repeat samples following E. coli-positive routine sample or system fails to analyze total coliform-positive repeat for E. coli (See Note.)	Human and animal fecal waste

Note: If either an original routine fecal coliform sample and/or its repeat sample(s) are E. coli positive, a Tier 1 Violation exists.
(a) If a system collecting 40 or more samples per month finds greater than 5% of monthly samples are positive in one month, an assessment is required.

Lead and Copper Contaminants

Contaminants (units)	Sample Date (b)	Your Water	# of sites found above AL	MCLG	AL	Likely Source
Copper (ppm) (90th percentile)	6/2018-7/2019	0.27	0	1.3	1.3	Corrosion of household plumbing systems; erosions of natural deposits; leaching from wood preservatives
Lead (ppb) (90th percentile)	6/2018-7/2019	< 0.003	0	0	15	Corrosion of household plumbing systems, erosion of natural deposits

* 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 Public Works Commission 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 (1-800-426-4791), or at http://www.epa.gov/safewater/lead.

Disinfection Residuals Summary

Contaminant	Year	MCL Violation Y/N	Your Water (Highest RAA)	Range (Low-High)	MRDLG	MRDL	Likely Source
Chlorine (ppm) (c)	2020	NO	0.70	0.00 – 0.70	4	4	Water additive used to control microbes
Chloramines (ppm)	2020	NO	1.81	0.76 – 2.20	4	4	Water additive used to control microbes

(c) Chlorine disinfection is used only during the month of March each year.

Stage 2 Disinfection Byproduct Compliance - Based upon Locational Running Annual Average (LRAA)

Disinfection Byproduct	Year	MCL Violation Y/N	Your Water (Highest RAA)	Range (Low-High)	MLCG	MCL	Likely Source
TTHM (ppb) Location B01	2020	NO	28.2	28.2 – 28.2	N/A	80	Byproduct of drinking water disinfection
HAA5 (ppb) Location B01	2020	NO	44.0	44.0 – 44.0	N/A	60	Byproduct of drinking water disinfection

Miscellaneous Water Characteristics

Contaminant (units)	Your Water (Low-High)	Secondary MCL
pH	7.05 – 8.50	6.5 – 8.5

2020 Water Quality Results (cont'd)

Source Water Quality - Town of Southern Pines

Microbiological Contaminants

Contaminant (units)	MCL	MGLG	Maximum Detected	Range (Low-High)	Likely Source
Turbidity NTU*	TT=1 NTU	N/A	0.13	0.00 – 0.13	Soil runoff
	TT=% of samples <0.3 NTU	N/A	100% <0.3 NTU	N/A	Soil runoff

Inorganic Contaminants

Contaminant (units)	Date	MCL	MGLG	Maximum Detected	Range (Low-High)	Likely Source
Fluoride (mg/l)	9/2020	4.0	4.0	1.1	0.6 – 1.1	Water additive which promotes strong staff; erosion of natural deposits; discharge from fertilizer and aluminum factories
Copper (mg/l)	7/2019 – 1/2020	AL=1.3	1.3	<0.050 (90th percentile)	<0.050 – 0.218	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (mg/l)	9/2020	AL=0.015	0	<0.003 (90th percentile)	<0.003 – 0.012	Corrosion of household plumbing systems; erosion of natural deposits

Total Organic Carbon (TOC)

Contaminant (units)	MCL	MGLG	Max. Detected	Range Low-High	Likely Source
Total Organic Carbon (TOC) Removal Ratio - Treated Water **	TT	N/A	1.18	1.02 – 1.36	Naturally present in the environment

Disinfectant Residual Summary

Contaminant (units)	MRDLG	MRDL	Max. Detected	Range Low-High	Likely Source
Chlorine (mg/l)	4	4	2.42	1.40 – 3.20	Water additive used to control microbes

Disinfectants/Disinfection By-Products

Disinfection Byproduct	MCL	MGLG	Highest RAA	Range Low-High	Likely source
Total Trihalomethane (ppb)					
TTHM Location B01	80	N/A	27.9	16.7 – 46.8	Byproduct of drinking water disinfection
TTHM Location B02	80	N/A	26.7	18.5 – 40.4	Byproduct of drinking water disinfection
TTHM Location B03	80	N/A	25.8	17.9 – 46.1	Byproduct of drinking water disinfection
TTHM Location B04	80	N/A	26.5	13.8 – 42.5	Byproduct of drinking water disinfection
Total Haloacetic Acids (ppb)					
HAA5 Location B01	60	N/A	53.8	43.6 – 80.1	Byproduct of drinking water disinfection
HAA5 Location B02	60	N/A	54.0	42.8 – 78.5	Byproduct of drinking water disinfection
HAA5 Location B03	60	N/A	50.8	40.5 – 68.6	Byproduct of drinking water disinfection
HAA5 Location B04	60	N/A	29.2	1.2 – 48.4	Byproduct of drinking water disinfection

* Turbidity is the measure of the cloudiness of the water. Turbidity is monitored because it is a good indicator of the effectiveness of our filter treatment system. The turbidity rule requires that 95% or more of the monthly samples must be below 0.3 NTU. ** Southern Pines water system used the removal of Total Organic Carbon (TOC) as the method used to comply with disinfectants/disinfection by-product treatment technique requirements. The TOC removal ratio is required to be greater than 1.0.

2020 Water Quality Results (cont'd)

Source Water Quality - Town of Southern Pines

Miscellaneous Water Characteristics

In addition to the compounds listed earlier, the water is tested daily for the following constituents which are indicators for appearance, taste, and odor.

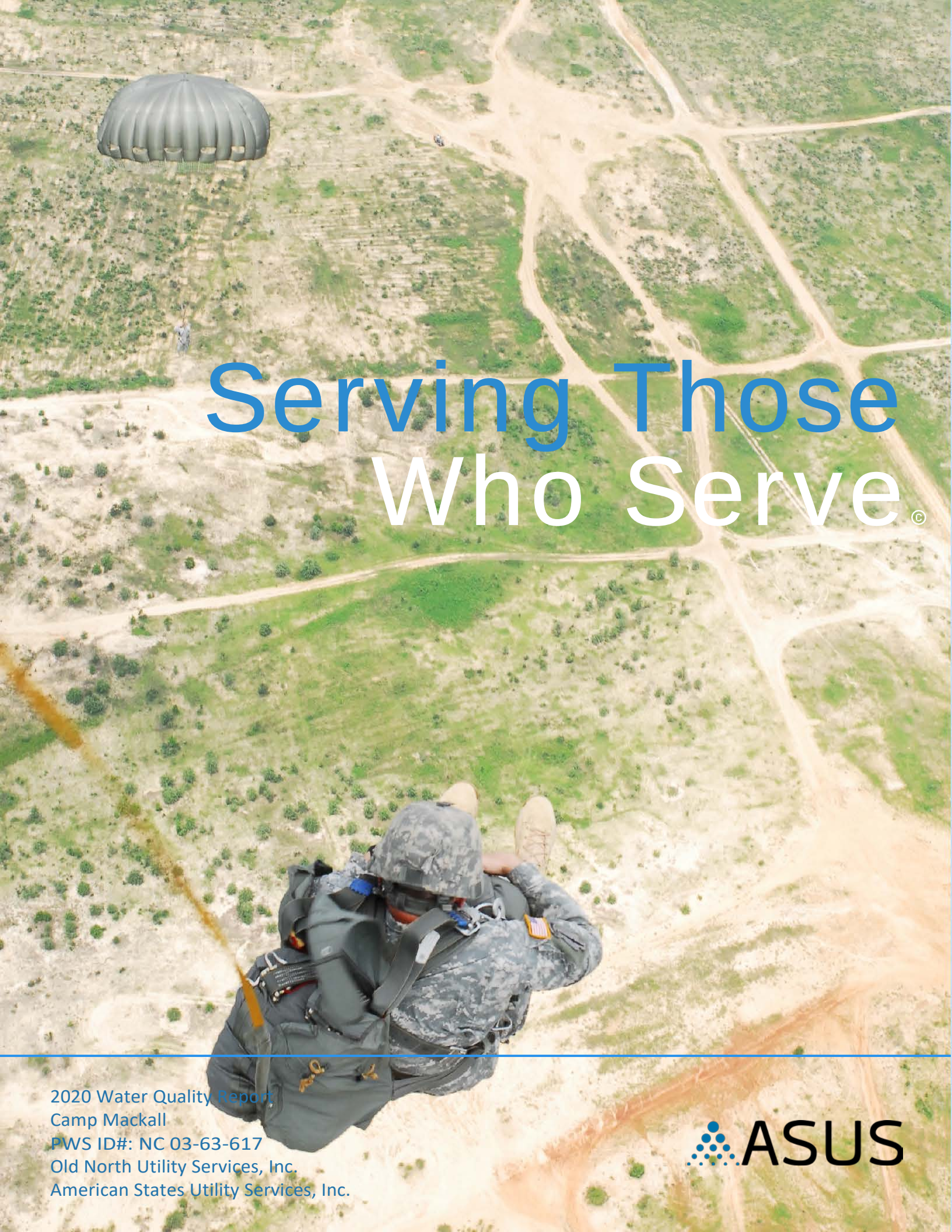
Parameters (units)	
Alkalinity (mg/l)	10.1
Color (mg/l)	4.5
Carbon Dioxide (mg/l)	3.1
Hardness (mg/l)	27.4
Iron (mg/l)	0.025

Parameters (units)	
Manganese (mg/l)	0.008
Chloride (mg/l)	15.7
Orthophosphate (mg/l)	1.11
pH (SU)	6.4 – 8.3

DEFINITIONS

AL = Action Level is the concentration of a contaminant which triggers a treatment or other requirement which a water system must follow.
MCL = Maximum Contaminant Level.
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.
MRDLG = Maximum Residual Disinfectant Level Goal is the level of disinfectant in drinking water below which there is no known or expected risk to health.
MRDL = Maximum Residual Disinfection Level is the highest level of a disinfectant allowed in drinking water.
mg/l = milligram per liter, or parts per million.
NTU = Nepholometric Turbidity Units is a measure for water clarity.
ppb = Part per billion.
TT = Treatment Technique is a required process intended to reduce the level of a contaminant in drinking water.

For more details about this report, or for any questions relating to your drinking water, please contact Meaghan Wright, Environmental Program Administrator of Old North Utility Services, Inc. at (910) 495-1311.



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