



www.doyonutilities.com  
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# Drinking Water Quality Fort Greely Alaska

Second Annual Water Quality Report • June 2010

## Letter from the Site Manager



Mike Lanegan,  
Doyon Utilities Fort  
Greely Site Manager

Doyon Utilities has prepared the following report to provide information to you, the consumer, on the quality of our drinking water for testing year 2009. This report has been prepared as part of state and federal requirements to inform the consumer as mandated by the Safe Drinking Water Act. However, we welcome this opportunity to inform residents and business owners of our high water quality and hope that consumers will contact our office on Fort Greely with any questions or concerns regarding water quality and service.

The results from our 2009 water quality tests are included in this report. The results of which indicate that your water meets or exceeds the state and federal drinking water requirements.

*Who are we?* Doyon Utilities owns and operates the utilities located at Forts Wainwright, Richardson and Greely under a program to privatize utility operations through the Department of Defense. Doyon Utilities submitted its competitive bid for the purchase of the utilities in 2005.



We received notice that we were the successful bidder in September 2007. Upon receiving the award notice, Doyon Utilities quickly began evaluating the utility systems, organizing the construction of our “depots” at each Army Post, and identifying and hiring key positions. On August 15, 2008, the date selected to transfer the utilities to private ownership, Doyon Utilities was staffed, had all necessary equipment, and was ready to assume the critical role of owning, operating and maintaining the utilities.

*Water Quality.* Water is one of the world’s most precious resources and we take seriously the integrity of our supply. Doyon Utilities adheres to strict testing requirements with oversight by the Alaska Department of Environmental Conservation (ADEC) and the Environmental Protection Agency (EPA). The results from our 2009 water quality tests are included in this report. The results confirm that your water meets or exceeds the state and federal drinking water requirements. Source water protection is also a high priority which requires special attention. Doyon Utilities completes water quality tests on its source water (water wells). The test results indicate that Doyon Utilities’ water supply is safe and free of contaminants.

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**Fort Greely Team:** These are just 6 of our 20 employees at Fort Greely. FGA water system operators and maintainers from left to right: Shawn Trulove, David Jerry, Dave Dawe, Nathan Engbretson, Arron Adams and Michael Powers.

## Where does our water come from?

Fort Greely Main Post obtains its water supply from one primary ground water well and one secondary well. The water is very good quality and requires very little treatment and disinfection prior to being distributed to customers.

The treatment process is fairly simple. As water from the primary and/or secondary wells enters the water treatment facility, chemical feed equipment injects a calcium hypochlorite solution into the stream to provide disinfectant to the raw water. We also inject sodium fluoride to promote healthy teeth and gums, especially

*continued inside*

## Drinking Water Quality Report

Doyon Utilities is proud of the high quality water it provides to our customers. This annual water quality report provides information on the source of our water, lists the results of water quality tests that are conducted and contains other important information about water and health.

Doyon Utilities will notify you immediately if there is any reason for concern about your water. We are happy to report to you how we have surpassed established water quality standards. Doyon Utilities is in compliance with the national primary drinking water regulations and has met all testing and monitoring requirements. The EPA has determined that your water is safe at the tested and monitored levels. We have included a table inside outlining the tests conducted and the results of those tests.

*We are proud to report that the water provided by Doyon Utilities meets or exceeds established water quality standards.*



## Water Testing and Your Health

The sources of drinking water from both tap water and bottled water include rivers, lakes, streams, ponds, reservoirs, springs and wells. As water travels over the surface of the land and through the ground, it dissolves naturally occurring minerals and 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 storm 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, storm water runoff and residential uses.
- Organic chemical contaminants, including synthetic and volatile organics, are by-products of industrial processes and petroleum production, and can also come from gas stations, 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, EPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water that must provide the same protection for public health.

Some people may be more vulnerable to contaminants in drinking water than is the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, per-

sons who have undergone organ transplants, persons 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* are available from the Safe Drinking Water Hotline (800-426-4791).

We're happy to answer any other questions about Doyon Utilities and our water quality. For general information or for water quality questions call our site management office at 907-869-3600. Other resources: Environmental Protection Agency's Safe Drinking Water Hotline: 1-800-426-4791. Water Quality Data for community water systems throughout the United States is available at [www.waterdata.com](http://www.waterdata.com).

### Terms and Abbreviations Used

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

**Maximum Contaminant Level (MCL):** 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 technology.

**Maximum Contaminant Level Goal (MCLG):** 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.

**Not Applicable (NA):** When NA is used in the range column, only one sample was taken, therefore, no range exists.

**Not Detectable (ND):** The contaminant is below the detectable limits of the testing method.

**pCi/L:** Picocuries per liter.

**ppb:** Parts per billion or micrograms per liter.

**ppm:** Parts per million or milligrams per liter.

## Drinking Water Test Results

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water hotline at 1-800-426-4791.

Fort Greely routinely monitors for contaminants in your drinking water according to Federal and State laws. Doyon Utilities has a waiver that does not require us to test for asbestos through 2011. While your drinking water meets EPA's standard for arsenic, it does contain low levels of arsenic. EPA's standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water. EPA continues to research the health effects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems. The table at right shows the results for some of our required monitoring for the period 1/1/09 to 12/31/09.

The table lists the Regulated Contaminants required to be monitored by the EPA that were detected in your water. All the substances we found were present in quantities less than the EPA limits for safe drinking water. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. If you would like a complete listing of test results, please call Kathleen Hook at 907-455-1540.

## Lead/Copper in Drinking Water

The EPA Safe Drinking Water Act requires public water systems to test water samples from its customers to determine lead and copper levels. If present, elevated levels of lead can cause serious health problems, especially in pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. There is nothing in the treatment process



that would introduce lead into the water; therefore, Doyon Utilities tests the water at the individual service locations. All housing units and common areas have been fitted with faucet-mounted filters. Doyon Utilities and the Garrison encourages use of filtered water for consumption. The filters are designed to last for 6 months and meet the ANSI/NSF standard for lead removal (Standard 53). Replacement filters will be available from

your housing manager. If abnormal levels of lead or copper are detected in the water supply, Doyon Utilities will notify the residents and implement action to correct the problem. One method to minimize the risk of lead or copper contamination is to let the tap water run for 30 seconds to 2 minutes to flush any water that has been sitting for several hours. It is important to use this approach for drinking water or cooking water. 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>.



Contamination	Sample Date	Violation Y/N	Level Detected	MCLG	MCL	Likely Source of Contamination
The following constituents were detected in low levels. Fort Greely is required to test for these analyses daily:						
Fluoride	Daily, 2009	N	0 - 0.4 ppm	4	4	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
The following constituents were detected in low levels. Fort Greely is required to test for these analyses annually:						
VOC - Xylenes	5/5/09	N	0.00065 ppm	10	10	Discharge from petroleum factories; Discharge from chemical factories
The following constituents were detected in low levels. Fort Greely is required to test for these analyses every three years.						
Arsenic	5/20/08	N	0.724 ppb	0	10	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes
The following constituents are under plan review.						
Lead <sup>1</sup>	4/13/09	N	90% = 11.1 ppb 23.5	0	AL = 15	Corrosion of household plumbing systems
	7/20/09	N	90% = 16.4 ppb 16.4 15.3 22.1 24.0			
Copper <sup>1</sup>	4/13/09	N	90% = 0.15 ppm	1.3	AL = 1.3	Corrosion of household plumbing systems
	7/20/09	N	90% = 0.13 ppm			
<sup>1</sup> Fort Greely conducted their residential copper and lead testing at the housing units between April 13, 2009 and July 20, 2009. A total of 20 samples were collected at each sampling event.						
The following constituents were detected in low levels. Fort Greely is required to test for these analyses every six years.						
Combined Uranium	11/7/06	N	1.5 ppb	0	30	Erosion of natural deposits
Combined Radium (226 & 228)	11/7/06	N	2.16 pCi/L	0	5	Erosion of natural deposits
The following constituents were detected in low levels. Fort Greely is required to test for these analyses every nine years.						
Barium	9/13/05	N	0.0515 ppm	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Chromium	9/13/05	N	7.7 ppb	100	100	Discharge from steel and pulp mills; erosion of natural deposits
Flouride	9/13/05	N	1.04 ppm	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Selenium	9/13/05	N	1.31 ppb	50	50	Discharge petroleum and metal refineries; erosion of natural deposits; discharge from mines
Nickel	9/13/05	N	2.67 ppb	100	100	Occurs naturally in soils, groundwater, and surface waters and is often used in electroplating, stainless steel, and alloy products
Antimony	9/13/05	N	0.17 ppb	6	6	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder
Thallium	9/13/05	N	0.0607 ppb	0.5	2	Leaching from ore-processing sites; discharge from electronics, glass, and drug factories

## Fun Facts

- Without water, the earth would look like the moon.
- All living things need water to live. People can live several weeks without food, but only a few days without water. We should drink six to eight glasses of water each day!
- Water makes up 83% of our blood, 70% of our brain, and 90% of our lungs. Overall, our bodies are 70% water.
- A tomato is about 95% water. An apple, a pineapple, and an ear of corn are each 80% water.

## Hydrant Maintenance

Hydrant maintenance is a top priority for our utility! Twice a year, April and September, we visit each hydrant in our system. We test the water flow at each hydrant and make sure each one is working properly. This is our way to provide superior fire protection to ensure the safety and well being of our consumers.



*Where does our water come from? continued*

younger customers. Once treated, the water is stored in two fifty thousand gallon storage tanks and a one hundred eighty eight gallon storage tank. Five pumps with variable frequency drives maintain pressure in the distribution system. The finished water is tested daily to ensure the pH, chlorine residual and fluoride concentrations are at their optimum levels. In addition to the daily tests, we conduct periodic tests to closely monitor all drinking water contaminants specified by the EPA Safe Drinking Water Act. We are proud to report the results of our water quality tests and allow you to have complete confidence in the water you consume.



*Letter from the Site Manager continued*  
*Doyon Utilities Employees.* You can have the utmost confidence in the dedicated and committed employees responsible for producing and distributing your drinking water. Doyon Utilities' water treatment plant operators and water distribution system personnel are highly trained and certified in the production and distribution of clean, safe water by the Alaska Department of Environmental Conservation. To earn certification, each employee must have passed many courses in water treatment and water distribution, have completed years of job experience, and passed extensive tests. These tests cover a wide range of subjects from hydrology, microbiology, chemistry, and physics to pumps, electricity, chlorination and drinking water regulations.

*Doyon Utilities' Commitment.* Part of Doyon Utilities contract with the government is our commitment to repair and replace utility infrastructure. Our approach to this large and complex task is the development of an Annual Capital Upgrades, Renewals and Replacements Plan. The Plan is a 5-year forward look at the work we intend to conduct on the system. Many factors are considered in identifying and scheduling renewals and replacements such as the age of the existing facilities, design life of the equipment and cost of replacing the existing equipment in kind with a new version, are a few of the factors.

We have projects planned for Fort Greely this upcoming summer. Many construction employees as well as our own workforce will be in public roadways. Please be aware of these personnel on the road way and potential traffic revisions.

Doyon Utilities looks forward to continuing to provide you with exceptional quality service and drinking water for many years to come. Our door is always open!



Construction employees replace a water main associated with the 3rd Street project.



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 PERMIT NO. 8

Complete the puzzle using the word bank and clues below to see how tap water delivers.

**tap**                      **hydrants**  
**pumps**                 **leaks**  
**hydrated**              **water**  
**fluoride**                **infrastructure**  
**bills**                    **utility**  
**potable**                **pressure**

**Just for kids!**

**Across**

- Water flows to fire hydrants through a system of water mains, storage tanks, and \_\_\_\_\_.
- Drinking enough water every day keeps us healthy and \_\_\_\_\_.
- The company that maintains and delivers our tap water is called a water \_\_\_\_\_.
- What kind of water delivers fire protection and safe drinking water?
- What is the main ingredient in common products like canned foods and soft drinks?
- The network of water pipes below the ground is sometimes called the water \_\_\_\_\_.
- \_\_\_\_\_ in the infrastructure can result in wasted water.

**Down**

- What do many water systems add to their water to prevent tooth decay?
- Water that firefighters use to fight fires sometimes comes from \_\_\_\_\_.
- Tap water in the United States and Canada is suitable for drinking and is sometimes called \_\_\_\_\_ water.
- A break in a water main can cause a drop in water \_\_\_\_\_.
- People pay water \_\_\_\_\_ to help maintain their water systems.

## Source Water Assessment

For the last several years, the ADEC has been working on assessments of the vulnerability of the water sources that provide water to all of the public water systems in Alaska. The source water assessment for Fort Greely Water Treatment Plant has been completed and is available for review by contacting Kathleen Hook at 907-455-1540, or by visiting the Noel Wien Library in Fairbanks.

Source Intake	Wellhead Susceptibility	Aquifer Susceptibility	Normal Susceptibility	Water System Vulnerability Rating					
				Bacteria/ Viruses	Nitrates/ Viruses	Organic Chemicals	Heavy Metals	Other Chemicals	Synthetic Organic Chemicals
Well #8	Low	Very High	Medium	Medium	Medium	High	High	High	Medium
Well #9	Low	Very High	Medium	Medium	Medium	High	High	High	Medium

Source Water Assessment Report Executive Summary Data – PWSID# AK2370780

The public water system for Fort Greely–Main Post Well #8 is a Class A water system consisting of 2 source intake(s). The water system is located in Fort Greely and the intake for this Public Water System Information Identification number (PWSID) is a ground water well.

DISCLAIMER: Information provided on this page is automatically generated from a database of Source Water Assessment information. For additional details, please view the actual Executive Summary contained in the Source Water Assessment Report.