Water Quality Data Table 2018

The table below lists all of the drinking water contaminants that we detected during the calendar year of this report (2018). The presence of contaminants in the water does not necessarily indicate the water poses a health risk. Unless otherwise noted, the data presented in this table is from testing done in the calendar year of the report. The EPA and/or the State requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not change frequently. The City of Palmer operates under two waivers for sampling. One is an asbestos waiver; there has never been any piping containing asbestos used within the City, so we are not required to sample for it. We also have a SOC/OOC waiver which eliminates sampling for contaminants that have never been introduced to this area.

Contaminant and Type	MCLG or MRDLG	MCL TT, or MRDL	Your Water	Range		Sample Date	Violation Yes or No	Typical Source
				Low	High			
Disinfectants & Disinfectant by-products								
Chlorine Residual (ppm)	NA	4.0	0.86	0.14	0.86	2018	No	Drinking water disinfectant
TTHMs [Total Trihalomethanes] (ppb)	NA	80	4	NA	4	2018	No	By-product of drinking water disinfection
Inorganic Contaminants								
Barium (ppm)	2	2	0.0502	0.0208	0.0502	2013	No	Erosion of natural deposits
Fluoride (ppm)	4	4	0.166	NA	0.166	2013	No	Erosion of natural deposits, water additive that promotes strong teeth
Nitrate [measured as Nitrogen] (ppm)	10	10	0.529	0.000	0.529	2018	No	Runoff from fertilizer use; leaching from septic tanks, sewage, erosion of natural deposits
Radioactive Contaminants								
Radium (combined 226/228) (pCi/L)	0	5	0.240	0.170	0.240	2017	No	Erosion of natural deposits
Uranium (ppm)	0	30	0.0003	NA	0.0003	2013	No	Erosion of natural deposits

Contaminant and Type	MCLG	AL	Your Water	Sample Date	# Samples Exceeding AL	Exceeds AL Y or N	Typical Source
Inorganic Contaminants							
Lead-action level at consumer taps (ppb)	0	15	2.16	2016	0	No	Corrosion of household plumbing systems, erosion of natural deposits
Copper-action level at consumer taps (ppm)	1.3	1.3	0.141	2016	0	No	Corrosion of household plumbing systems, erosion of natural deposits

Additional Contaminants

In an effort to ensure the safest water possible, the State requires us to monitor some contaminants not required by Federal regulations. Of those contaminants only the one listed below was found in your water

Contaminant	State MCL	Your Water	Violation	Explanation and Comment	
Nickel		8.97 ug/L	No	2013	

Violations and Exceedances

Failure to take one out of nine total coliform water samples in April 2018.

Unit Descriptions

Term	Definition
ug/L	Number of micrograms of substance per one Liter of water
ppm	Parts per million, or milligrams per liter (mg/L)
ppb	Parts per billion, or micrograms per liter (µ/L)
pCi/L	Picocuries per liter (measure of radioactivity)
NA	Not Applicable
ND	Not Detected
NR	Monitoring not required, but recommended

Important Drinking Water Definitions

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.
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 is feasible using the best available treatment technology.
TT	Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water.
AL	Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
Variances & Exemptions	State or EPA permission not to meet anMCL or a treatment technique under certain conditions.
MRDLG	Maximum residual disinfection level goal: The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of use of disinfectants to control microbial contaminants
MRDL	Maximum residual disinfection 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.
MNR	Monitored Not Regulated.
MPL	State assigned Maximum Permissable Level.

City of Palmer
231 W. Evergreen Avenue
Palmer, AK 99645

This is your 2018 City of Palmer Annual Water Quality Report. For more information, contact Alycia Anderson at the City of Palmer—745-3400

Stay up-to-date!

The City of Palmer has a Facebook page, a Twitter account, and a hotline (761-1358) that we use to share information about events, changes in services, project information, etc.

Visit www.palmerak.org for more information.

How is my drinking water treated?

Your water is treated by disinfection. Disinfection involves the injection of sodium hypochlorite into the water at the treatment facility. Sodium hypochlorite is used to kill dangerous bacteria and microorganisms that may be in the water. Drinking water disinfection is considered to be one of the major public health advances of the 20th century.

Help keep your drinking water safe!

Report any suspicious behavior and activities that you notice around City reservoirs and water wells to the Palmer Police at 745-4811 or Public Works at 745-3400.

Protection of drinking water is everyone's responsibility!

You can help protect your community's drinking water source in several ways:

Eliminate

Eliminate excess use of lawn & garden fertilizers and pesticides. They contain hazardous chemicals that can reach your drinking water source.

Pick up

Clean up after your pets

Dispose

Dispose of chemicals properly; take used motor oil to a recycling center.

Volunteer

Palmer Soil & Water Conservation District is a local organization in Palmer, check them out at www.palmersoilandwater.org. Use EPA's Adopt Your Watershed to locate groups in your community.

2018 ANNUAL DRINKING WATER QUALITY REPORT

PALMER WATER SYSTEM ID # AK226020

We are pleased to present this year's Annual Water Quality Report (Consumer Confidence Report) as required by the Safe Drinking Water Act (SDWA). This report is designed to provide details about where your water comes from, what it contains, and how it compares to standards set by regulatory agencies. This report is a snapshot of last year's water quality. We are committed to providing you with information because informed customers are our best allies.

Do I need to take special precautions?

Some people may be more vulnerable to contaminants in drinking water than the general population. Immune-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/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 Water Drinking Hotline (800-426-4791).

Cross Connection Control Survey

The purpose of this survey is to determine whether a cross-connection may exist at your home or business. A cross connection is an unprotected or improper connection to a public water distribution system that may cause contamination or pollution to enter the system. We are responsible for enforcing cross-connection control regulations and ensuring that no contaminants can, under any flow conditions, enter the distribution system. If you have any of the devices listed below please contact us so that we can discuss the issue, and if needed, survey your connection and assist you in isolating it if that is necessary.

- Boiler/ Radiant heater (water heaters not included)
- Underground lawn sprinkler system
- Pool or hot tub (whirlpool tubs not included)
- Additional sources of water on the property
- Decorative pond
- Watering trough

Should I be worried about arsenic in my water?

No. While other communities in the Mat–Su Valley experience issues with arsenic in their water supplies, the City has never detected any level of arsenic in the water.

Your water was tested in 2017 and no arsenic was detected.

Arsenic testing occurs once in a three year period, so your water will be tested again between 2020 and 2022.

Water Hardness Scale

Degree of Hardness	Grains per Gallon	ppm (mg/L)
Soft	<1.0	<17.1
Slightly Hard	1.0-3.5	17.1-60
Moderately Hard	3.5-7.0	60-120
Hard	7.0-10.5	120-180
Very Hard	>10.5	>180

On the Hardness scale the City of Palmer's water is classified as hard at 171 ppm or 9.98 gpg.

Information About Lead

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing.

The City of Palmer is responsible for providing high quality drinking water but cannot control the variety of materials used in plumbing components in your residence. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested.

Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline at 1-800-426-4791 or at http://www.epa.gov/safewater/lead.

Cryptosporidium Monitoring

Cryptosporidium is a microbial pathogen found in water throughout the U.S. Although disinfection removes cryptosporidium the most commonly used methods cannot guarantee 100% removal. Our monitoring indicated the presence of these organisms in our finished water in Spring 2016. Current test methods do not allow us to determine if the organisms are dead or capable of causing illness. Ingestion of cryptosporidium may cause cryptosporidiosis, an abdominal infection. Symptoms of an infection include nausea, diarrhea, and abdominal cramps. Most healthy individuals can overcome the illness in a few weeks. However, immune-compromised people are at a greater risk of developing life-threatening illness. We encourage immune-compromised individuals to consult their doctor regarding appropriate precautions to take to avoid infection. Cryptosporidium must be ingested to cause illness and it may be spread through means other than drinking water.

Where does your water come from?

Your water comes from three different groundwater wells which are numbered 1, 4, and 5. The State of Alaska Department of Environmental Conservation (ADEC) conducted source water assessments for all three wells. Wells 4 and 5 are located at 950 E. Cope Industrial Way (latitude +61° 35.150′ and longitude -149° 05.795′). Well 1 is located at 11971 E. Scott Road (latitude +61°36.466′ and longitude -149° 08.979′). The production of water is primarily through alternating operation of wells 4 and 5; though they are capable of simultaneous operation if required. Wells 4 and 5 provide 90% of your water. Well 1 runs as needed and supplies 10% of your water. The source water assessment may be obtained by calling Public Works at 745-3400.

The well heads received a susceptibility of low and the well aquifer received susceptibility ratings ranging from low to very high depending on the well. Combining these scores produces an overall susceptibility of low to medium for the sources. In addition, this water system has received a vulnerability rating of medium for bacteria/viruses, medium to high for nitrates/nitrites, low to high for volatile organic chemicals, low to high for heavy metals, other organic chemicals, and for synthetic organic chemicals.

Water Conservation Tips

Did you know that the average Palmer household uses approximately 150 gallons of water per day, which works out to be ~38 gallons per person per day? There are many low and no-cost ways to conserve water. Small changes can make a big difference – try one today!

- Turn off the faucet while brushing your teeth.
- Only run the washing machine and dishwasher when you have a full load
- Use low flow shower head and faucet aerators.
- Fix leaks.
- Install a dual flush or low flow toilet or put a conversion kit on the existing toilets.
- Adjust sprinklers so only the yard and garden are being watered. Water during the cooler times of the day to reduce evaporation.

Teach your kids about water conservation to ensure a future generation that uses water wisely. Make it a family effort to reduce next month's water bill!

Household Leaks

The City of Palmer will notify you when a leak is detected through your water meter to help prevent you from having a high water bill. The most common cause is a leaking toilet. If you need assistance finding the leak an experienced operator will come to your house to help locate it, free of charge!

Why are there contaminants in my drinking water?

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 (EPA) Safe Drinking Water Hotline (800-426-4791). 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 from humans or animals, microbial contaminants, agricultural operations, wildlife, inorganic contaminants, industrial or domestic wastewater discharges, oil and gas production, mining, pesticides and herbicides, or organic chemical contaminants. 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. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water which must provide the same protection for public health. Reporting suspicious vehicles or activities near your water supply will greatly help in protecting your water supply.

Monitoring & Reporting of Compliance Data Violations

Failure to take one of nine total coliform water samples in April 2018.