



City of Kenai  
Public Works Department  
210 Fidalgo Avenue  
Kenai, Alaska 99611  
283-7535 Ext. 236

## 2008 Drinking Water Quality Report City of Kenai Public Water System

We are pleased to present this year's Annual Water Quality Report. This report is designed to inform you about the quality water and services we deliver to you every day. Our constant goal is to provide you with a safe and dependable supply of drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. The State of Alaska has provided a "Source Water Assessment" report to our water system. A copy of this report containing our source water vulnerabilities is available to you by contacting our office. Our water system will utilize this report to develop a protection plan for our source water. We are committed to ensuring the quality of your water.

Our water source is ground water from the Beaver Creek Aquifer and is produced from three deep wells located near the Kenai Spur Highway and Beaver Loop Road.

This report shows our water quality and what it means. If you have any questions about this report or concerning your water utility, please contact:

We want our community to be informed about their water system. If you want to learn more, please attend any of our regularly scheduled city council meetings. They are held on the first and third Wednesdays of each month at Kenai City Hall, 210 Fidalgo Avenue, Kenai, Alaska, starting at 7 p.m.

The City of Kenai Public Water Department routinely monitors for constituents in your drinking water according to Federal and State laws. The following table shows the results of our monitoring for the period of **January 1 to December 31, 2008**. All sources of drinking water are subject to potential contamination by naturally occurring or man-made constituents. Those constituents can be microbes, organic or inorganic chemicals, or radioactive materials. All drinking water, including bottled water, may reasonably be expected to contain at least small amounts of these contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. 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 microbiological contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

MCL's are set by the Environmental Protection Agency at very stringent levels. To understand the possible health effects described for many regulated constituents, a person would have to drink 2 liters of water every day at the MCL level for a lifetime to have a one-in-a-million chance of having the described health effect.

In our continuing efforts to maintain a safe and dependable water supply, it may be necessary to make improvements in your water system. The costs of these improvements may be reflected in the rate structure. Rate adjustments may be necessary in order to address these improvements.

Please call our office if you have questions. City employees work diligently to provide top quality water to every home. We ask that all our customers help us to protect our water sources, which are the heart of our community, our way of life and our children's future.

To help you better understand the terms and abbreviations in the following table, we have provided the following definitions.



### Definitions

**(90<sup>th</sup> Percentile)** 90<sup>th</sup> percentile means, the value of the 90<sup>th</sup> sample out of 100 samples. (i.e.) sample #90 out of 100 samples, sample #18 out of 20 samples.

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

**(MCL) – Maximum Contaminant Level:** The "Maximum Allowed" (MCL) 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.

**(MCLG) – Maximum Contaminant Level Goal:** The "Goal" (MCLG) 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.

**(ND) – Not Detected.**

**(pCi/L) – Picocuries Per Liter:** Picocuries per liter is a measure of the radioactivity in water.

**(ppb) – one part per billion** corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.

## Results of Monitoring for Regulated Contaminants – 2008

We test our source water for many regulated contaminants. All water test results for the 2008 compliance period that had any detectable level are listed in the table below (including the results from the most recent tests taken prior to 2008). All test results met the allowable limits in effect for 2008 except for arsenic.

**Table of Contaminants – City of Kenai Water System**

Contaminant	Date	Level	Measurement	MCLG	MCL	Source
Arsenic	9/9/08	Low 5.12 High 31.1	ppb	0	10	Erosion of Natural Deposits
Fluoride	4/8/08	322.00	ppb	4000.0	4000.0	Erosion of Natural Deposits
Barium	4/8/08	74.3	ppb	2000.0	2000.0	Erosion of Natural Deposits
Chromium	4/8/08	1.62	ppb	100	100	Erosion of Natural Deposits
Selenium	4/8/08	.576	ppb	50	50	Erosion of Natural Deposits
Nickel	4/8/08	.371	ppb	100	100	Erosion of Natural Deposits
Alpha emitters	4/12/06	.0 to 4.1	pCi/L	0	15	Erosion of Natural Deposits
Beta/photon emitters	4/12/06	3.0 to 7.9	pCi/L	0	50*	Decay of natural & Man-made Deposits
Combined Radium	4/12/06	.04 to .62	pCi/L	0	5	Erosion of Natural Deposits
Uranium	4/12/06	ND to 4.1	ppb	0	30	Erosion of Natural Deposits

\*EPA considers 50 pCi/L to be the level of concern for beta particles.

**Water Distribution System**

Contaminant	Date	Level	Measurement	MCLG	MCL	Source
Lead**	8/8/07	3.20	ppb	0.0	15	House plumbing
Copper**	8/7/07	128.00	ppb	1,300	1,300	House plumbing
Trihalomethanes	8/21/07	2.68	ppb	n/a	80	By-product of drinking water chlorination
Haloacetic Acids	8/21/07	4.24	ppb	n/a	60	

\*\*90<sup>th</sup> Percentile. The City took 20 samples for lead and copper and only one was over the action level.

The water from Beaver Creek Aquifer does have some color to it. The color is from tannins or organics in nature and is especially prevalent in Well No. 2. The color is aesthetic only and does not affect the sanitation or the quality of the water. The City of Kenai does not add any chemicals to our drinking water except sodium hypochlorite (liquid chlorine), which is a disinfectant.

There are many regulations pertaining to sampling and monitoring of our water system. Since we had a waiver for Synthetic Organic Compounds (SOC), Other Organic Compounds (OOC) and for Asbestos, we did not test for them during this time period.

### Arsenic

In January 2006, EPA lowered the maximum allowable level for arsenic in drinking water from 50 ppb to 10 ppb. Some people who drink water containing arsenic in excess of the MCL over many years could experience skin damage or problems with their circulatory system and may have an increased risk of getting cancer. Some of our source water exceeds the new lower limits (results range from 5.12 ppb to 31.1 ppb). The City of Kenai obtained final approval of arsenic exception on November 5, 2007, and it is required that the City meet the new arsenic maximum contamination level no later than the December 31, 2009 expiration date. The City continues to look for new water sources that meet EPA water standards.

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