



# Consumer Confidence Report (CCR)

## 2015 Water Quality Report Marine Corps Installations Pacific Marine Corps Base Camp Mujuk Pohang, Republic of Korea

### Introduction

This is an annual report on the quality of tap water delivered to Marine Corps Base (MCB), Camp Mujuk. The purpose of this report is to provide you, our customers, with general information about the quality of water you drink.

### What is a Consumer Confidence Report?

In 1996, Congress amended the Safe Drinking Water Act (SDWA) and required all community water systems in the United States to provide their customers with a brief annual water quality report called a Consumer Confidence Report (CCR). Although this law does not apply overseas and the Korea Environmental Governing Standards (KEGS) do not specifically require annual water quality reports to be developed for customers, it is Marine Corps Installations Pacific (MCIPAC) policy to prepare annual water quality reports modeled after the SDWA CCR.

### Is my Water Safe?

Our water is safe to drink. MCB Camp Mujuk Environmental personnel are committed to providing safe drinking water to you at all times. Our routine monitoring program, which follows water quality standards and monitoring requirements set forth in the KEGS, enables us to maintain optimal water quality on Camp Mujuk.

Last year, as in years past, your drinking water has been meeting health-based water quality standards contained in the KEGS.

### Do I need to take Special Precautions?

Our water is safe to drink. Our monitoring program allows us to prevent potential health impacts that might occur if we drank water containing contaminants over long periods of time above the standards set forth in the KEGS. However, some people may be more vulnerable to contaminants than the general population. For example, immunocompromised individuals such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, the elderly, and infants can be particularly at risk from contaminants. These individuals should seek medical advice about drinking water from their health care providers if they have questions.

### Are Contaminants in my Drinking Water?

All drinking water, including bottled water, may reasonably be expected to contain small amounts of impurities dissolved in the water. The presence of impurities in the water does not necessarily indicate that the water poses a health risk. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, naturally-occurring radioactive material, and can pick up substances resulting from the presence of animals or human activity. Microbial contaminants, such as viruses and bacteria, may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife. Inorganic contaminants, such as salts and metals, 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 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, are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater 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, the Environmental Protection Agency (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. In Korea, the Government of Korea (GOK) and the US Forces, Korea, also regulate the quality of drinking water. Our monitoring program allows us to prevent potential health impacts that may occur if we drink water containing contaminants over long periods of time above the standards set forth in the KEGS.

### Camp Mujuk Water System Information

The MCB Camp Mujuk drinking water system is operated and maintained by the Facility Maintenance Office (FMO). The water is distributed from the Galpyong water treatment plant (WTP) to Camp Mujuk. The two surface water sources (Jinjeon Reservoir and O-eo Reservoir) provide water to Galpyong WTP, and water from reservoirs is treated by Galpyong WTP. Supplied water from city is further treated by a water treatment plant on base.

### Monitoring of Your Drinking Water

We are committed to providing safe drinking water to you at all times. We use only EPA and GOK approved laboratory methods to analyze your drinking water. Trained personnel collect water samples from the distribution system and residents' taps. Samples are then shipped to an accredited laboratory where a full spectrum of water quality analyses is performed. The US Public Health Command Region – Pacific, Environmental Laboratory and contracted personnel collected all required routine monitoring samples in 2015, in which one (1) sampling event exceeded the KEGS Action Level (AL) for Copper during July 2015. A public notice was issued and a routine flushing program was conducted. Follow-up repeat samples were below the Copper AL. Results from the sampling are located on the next page.



For More Information Contact:

**MCB Camp Mujuk**  
**Environmental Protection Specialist**  
**DSN: 767-3051**

# 2015 Water Quality Table

<b>Inorganic Contaminants<sup>1</sup></b>	<b>Violation? Yes/No</b>	<b>Units</b>	<b>Highest Level Detected</b>	<b>MCL</b>	<b>AL</b>	<b>Likely Source of Contamination</b>
Sodium	No	mg/L	9.3	200	N/A	Erosion of natural deposits Runoff from fertilizer use; leaching septic tanks/sewage; erosion of natural deposits
Barium	No	mg/L	0.01	2.0		
Total Nitrate/Nitrite	No	mg/L	0.46	10		
<b>Microbial Contaminants</b>	<b>Violation? Yes/No</b>	<b>Units</b>	<b>Highest Level Detected</b>	<b>MCL</b>	<b>AL</b>	<b>Likely Source of Contamination</b>
Total Coliform Bacteria	No	N/A	N/A	>1 positive sample per month, or any repeat sample is positive	N/A	Naturally present in the environment
<b>Synthetic Organic Chemicals</b>	<b>Violation? Yes/No</b>	<b>Units</b>	<b>Highest Level Detected</b>	<b>MCL</b>	<b>AL</b>	<b>Likely Source of Contamination</b>
No exceedances in CY2015.						
<b>Radionuclides</b>	<b>Violation? Yes/No</b>	<b>Units</b>	<b>Highest Level Detected</b>	<b>MCL</b>	<b>AL</b>	<b>Likely Source of Contamination</b>
No exceedances in CY2015.						
<b>Residual Disinfectants</b>	<b>Violation? Yes/No</b>	<b>Units</b>	<b>Highest Level Detected</b>	<b>MCL</b>	<b>AL</b>	<b>Likely Source of Contamination</b>
Free Chlorine	No	mg/L	1.19	N/A	N/A	Water additive use to control microbes
<b>Disinfectant/Disinfection Byproducts</b>	<b>Violation? Yes/No</b>	<b>Units</b>	<b>Annual Average</b>	<b>MCL<sup>2</sup></b>	<b>AL</b>	<b>Likely Source of Contamination</b>
Total Trihalomethanes	No	mg/L	0.002	0.08	N/A	By-products of drinking water chlorination
Haloacetic Acids	No	mg/L	0.041	0.06		
<b>Lead and Copper</b>	<b>Violation? Yes/No</b>	<b>Units</b>	<b>90<sup>th</sup> Percentile Value</b>	<b>Sites Exceeding AL / No. of Sites</b>	<b>AL<sup>3</sup></b>	<b>Likely Source of Contamination</b>
Lead	No	mg/L	0.0044	0 / 10	0.015	Corrosion from household plumbing systems
Copper	Yes <sup>4</sup>	mg/L	1.5	2 / 10	1.3	Corrosion from household plumbing systems
<p><b>Abbreviations Used:</b>  <b>AL:</b> action level  <b>CY:</b> calendar year  <b>MCL:</b> maximum contaminant level  <b>mg/L:</b> milligrams per liter  <b>N/A:</b> not applicable</p> <p><b>Definitions Used:</b>  <b>MCL:</b> Maximum Contaminant Level: The highest level of a contaminant that is allowed in drinking water.  <b>AL:</b> Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow</p> <p><b>Notes:</b>  1. 11 other Inorganic Contaminants were monitored in CY15, but results were non-detectable.  2. The MCL for Total Trihalomethanes and Haloacetic Acids is monitored annually.  3. The AL for Lead and Copper is based on a 90<sup>th</sup> percentile value – i.e., no more than 10% of all sampled taps.  4. During July 2015, the AL for copper was exceeded. A routine flushing program was conducted, and follow-up repeat samples were below the copper AL.</p>						

# Frequently Asked Questions

## Why does the water sometimes look rusty?

Rusty or reddish tinted water may occur because of a sudden change in pressure due to flushing of a fire hydrant, etc. Iron causes the discoloration and is not a health risk. The normal flow of water will usually clear the mains within two hours or less. Check your water by flushing a commode bowl three times every 15 to 20 minutes. If you live on or near the end of a long distribution line, additional flushing may be required. Galvanized iron pipes or fittings within a home or building may also cause discolored water. Running the water will clear the piping system. If the hot water is rusty, the water heater may need to be flushed.

## What is a Boil Water Notice?

Any time a drop in pressure occurs from a water main break or system maintenance, Camp Mujuk Environmental will issue a Boil Water Notice and immediate sampling requirements go into effect. Boil Water Notices in these cases are precautionary and do NOT necessarily mean that contamination has been detected or is suspected. In other cases, if total coliform bacteria are detected as part of our routine sampling program, a Boil Water notice will also go into effect as a precaution while corrective measures are taken. In this case, resampling continues until the corrective measures are completed.

## Is it okay to drink from a garden hose?

The water that supplies the water hose is safe but a garden hose is treated with special chemicals and can contain bacteria and other substances.

## Will using a home water filter make the water safer or healthier?

Most filters improve the taste, smell and appearance of water, but they do not necessarily make the water safer or healthier. If you use filters, please keep in mind that they require regular maintenance and replacement or the filter itself can impact water quality.

## What can I do to improve the quality of my drinking water?

Running the cold water tap for 30 seconds prior to use helps to flush out small amounts of metals that may leach into water that has been sitting in metal pipes overnight. Water used for consumption should always come from the cold water tap. Hot water has more potential to leach metals into the water.

## How will I know if my water is not safe to drink?

Your water supplier must notify you if your water does not meet standards or if there is a waterborne disease emergency. The notice will describe any precautions you need to take, such as boiling your water.

## I don't like the taste/smell/appearance of my tap water? What's wrong with it?

Even when water meets standards, you may still object to its taste, smell, or appearance. Taste, smell and appearance are also known as aesthetic characteristics and do not pose adverse health effects. Common complaints about water aesthetics include: temporary cloudiness (typically caused by air bubbles) or chlorine taste (which can be improved by letting the water stand exposed to the air).

## Does the water system have a lead problem?

The Korea Environmental Governing Standards (KEGS) states 90% of samples must be below the action level. The water system met that criterion in 2015. The water system will continue to be sampled for lead, and the next samples will be taken between July and August 2016. 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. 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 the water for drinking or cooking.

## Is a Korean translation of the CCR available?

All sections of the CCR are written in English. Please contact the Environmental Protection Specialist at 767-3051 for Korean translation.

수돗물 품질 요약보고서(CCR)는 영어로 작성되었습니다. 한국어 번역이 필요하신 분은 환경 보호 전문가에게 문의하여 주십시오.

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