

Consumer Confidence Report 2017

Marine Corps Air Station Iwakuni

Drinking Water System



This report reflects monitoring data collected in 2016 and will be updated annually.

Marine Corps Air Station (MCAS) Iwakuni is pleased to provide you with this annual Consumer Confidence Report (CCR) for the Drinking Water System which supports MCAS Iwakuni, Japan. This report provides information about the water delivered to MCAS in 2016. It describes where your water comes from, what it contains, and how it compares to standards for safe drinking water.

Our goal is to provide safe and dependable drinking water. During 2016, drinking water at MCAS Iwakuni met all Japan Environmental Governing Standards (JEGS) drinking water health standards.

Source of Water

The source of the drinking water at MCAS Iwakuni is the Nishiki River. The raw water is treated at the Nishimi Water Purification Plant, run by the Iwakuni City Waterworks, and then conveyed by pipelines to MCAS Iwakuni. The plant employs full conventional water treatment including chemical coagulation, flocculation, sedimentation, filtration, and disinfection (chlorination). The Nishimi Water Purification Plant provides MCAS Iwakuni data on the raw water processed by the plant, as well as the finished water it sends to the installation for human consumption. Pump stations on the North, South and Monzen sides distribute the water throughout the MCAS Iwakuni distribution system.

Drinking Water Standards

Our drinking water is required to meet the water quality standards established in the Japan Environmental Governing Standards (JEGS). The JEGS are Department of Defense (DoD) governing standards intended to ensure DoD activities and installations in Japan protect human health and the environment, and to ensure safe drinking water is provided to all DoD personnel and their families.



To continually ensure that our water is safe to drink, the JEGS require us to regularly monitor and test our water for contaminants. MCAS Iwakuni vigilantly safeguards its water supplies and we are proud to report that our system did not violate any JEGS maximum contaminant levels (MCLs) in 2016.

Possible Source of Contaminants

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 Environmental Protection Agency's Safe Drinking Water Hotline (800-426-4791), or visiting the EPA website at <https://www.epa.gov/dwstandardsregulations>.

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.

Potential Contaminants in Drinking Water

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 water 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 storm water 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 storm water runoff, and septic systems.
- Radioactive contaminants, which can be naturally- occurring or be the result of oil and gas production and mining activities.

Other Potential Contaminants

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. MCAS Iwakuni 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 the 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 at <https://www.epa.gov/safewater/lead>.



Important Health Information

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as those 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. Environmental Protection Agency (EPA)/Centers for Disease Control and Prevention (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).

Water Quality Data Table

The following table lists all of the drinking water contaminants detected at MCAS Iwakuni. The presence of contaminants does not necessarily indicate that the water poses a health risk. All substances detected in MCAS Iwakuni's drinking water are below the allowed levels and meet JEGS requirements.

CONTAMINANTS (UNITS)	MCL or AL	Highest Level Detected	Lowest Level Detected	Year of Sample	Possible Source of Contamination	Violation
MICROBIOLOGICAL						
Total Coliform (positive samples/month)	0	0	0	Monthly 2016	Naturally present in the environment. Used as an indicator that other potentially harmful bacteria may be present.	No
DISINFECTANTS & DISINFECTION BYPRODUCTS						
Residual Chlorine (ppm)	MRDL=4.0	0.35	0.10	2016	Water additive used to control microbes	No
Total Trihalomethanes (ppb)	80	22	12	2016	Byproduct of drinking water disinfection	No
Haloacetic Acids (HAA5) (ppb)	60	5.0	3.0	2016	Byproduct of drinking water disinfection	No
INORGANIC CHEMICALS						
Arsenic (ppm)	0.010	0.0069	ND	2015	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes	No
Barium (ppm)	2	0.32	0.00460	2015	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits	No
Fluoride (ppm)	4	0.11	0.11	2016	Water additive which promotes strong teeth; Erosion of natural deposits; Discharge from fertilizer and aluminum factories	No
Nitrite (ppm)	1	0.32	0.32	2015	Runoff from fertilizer use; Leaking from septic tanks; Sewage; Erosion of natural deposits	No
Sodium (ppm)	200	5.9	5.9	2016	Naturally occurring	No
Copper (ppm)	AL=1.3	0.00232	<0.002	2015	Internal corrosion of household plumbing systems; Erosion of natural deposits	No
Iron(ppm)	0.3	0.024	ND	2016	Internal corrosion of household plumbing systems; Erosion of natural deposits	No
Lead (ppm)	AL=0.015	ND	ND	2015	Internal corrosion of household plumbing systems; Erosion of natural deposits	No
Nickel (ppm)	0.1	0.00520	ND	2015	Erosion of natural deposits	No

MCAS Iwakuni monitors for many contaminants and only those detected by laboratory analysis or at sampling locations are listed above.

Abbreviations and Definitions:

AL (Action Level): The concentration of a contaminant in water that establishes the appropriate treatment for a water system.

MCL (Maximum Contaminant Level): The highest level of a contaminant allowed in drinking water.

MRDL (Maximum Residual Disinfectant Level): The level of a disinfectant added for water treatment measured at the consumer's tap, which may not be exceeded without the unacceptable possibility of adverse health effects.

ND Not Detected.

ppb parts per billion or micrograms per liter

ppm parts per million or milligrams per liter

Important Information About Your Drinking Water

Drinking Water Monitoring

MCAS Iwakuni uses Japanese and EPA approved laboratory methods to analyze our drinking water and monitors drinking water for the following constituents.

Constituent	Frequency
pH, Conductivity, Turbidity, Chlorine Residue, Water Temperature, and Water Pressure	Hourly
Fluoride and Turbidity	Daily
Disinfection byproducts (Total Trihalomethanes (TTHM) and Haloacetic Acids (HAA5))	Monthly
Total Coliform	Monthly
Lead, Copper, Inorganic Chemicals, and Organic Chemicals	Annually
PCBs, Herbicides, and Pesticides	Once every 3 years
Radionuclides	Once every 4 years
Asbestos	Once every 9 years

For more information on this report or water quality, please contact Jerome Jackson the MCAS Iwakuni Environmental Division Water Program Manager at 253-5388 or jerome.jackson@usmc.mil.



The table on page 3 lists constituents detected during the latest round of required sampling. Only those constituents detected are listed. The presence of a contaminant does not necessarily indicate the water poses a health risk. As such, MCAS Iwakuni's drinking water is safe and fit for human consumption.