Consumer Confidence Report
Drinking Water Systems 2023
Commander, Fleet Activities Sasebo

Issued in accordance with OPNAVINST 5090.1D and OPNAV M-5090.1, implemented in 2021.
This report is updated annually and reflects monitoring data collected in 2023.

The Navy is pleased to provide the annual Consumer Confidence Report (CCR) of Drinking Water Systems that support Sasebo Main Base, Hario Housing, Akasaki, Iorizaki, Harioshima, Maebata, and Yokose. This report provides information about the water delivered to Commander, Fleet Activities Sasebo (CFAS) in calendar year 2023. It describes where our water comes from, what it contains, and how it compares to standards for safe drinking water. **The drinking water at CFAS is safe to drink. Our goal is, and always has been, to provide safe and dependable drinking water.**

Source of Water

Potable drinking water at CFAS is purchased from two sources:

1. Sasebo City Waterworks Bureau
2. Saikai City Waterworks Bureau

The Sasebo City Waterworks Bureau provides drinking water to Main Base, Maebata, Hario Housing, Akasaki, and Iorizaki. The Saikai City Waterworks Bureau provides drinking water to Yokose. These Waterworks Bureaus filter and chlorinate the drinking water before it is provided to CFAS. Both waterworks obtain their water from one or more of the following surface water sources: Yamanota Water Treatment Plant, Hirota Water Treatment Plant, and Saikai City Chubu Water Treatment Plant. Harioshima Ordnance Area continues to receive clean hauled and containerized water to three holding tanks. The water truck filling point, located on CFAS Main Base, is monitored for all primary and secondary drinking water contaminants on a regular basis.

Water Distribution Systems

NAVFAC Far East Public Works Department (PWD) at CFAS operates the water distribution system servicing your area. The distribution system is comprised of pipes, valves, storage tanks and pumps, which maintain a minimum positive water pressure of 20 pounds per square inch (psi) at all times. The Sasebo City and Saikai City Waterworks Bureaus do not fluorinate the water supplies. NAVFAC PWD supplements chlorination to improve water provided by Saikai City Waterworks Bureau only at Yokose.

Water Quality

This year, as in years past, CFAS drinking water met all criteria established in the Japan Environmental Governing Standards (JEGS) 2022, Commander Navy Installations Command Instruction 5090.1A, and applicable sections of the National Primary Drinking Water regulations promulgated under the Safe Drinking Water Act of 1974. The JEGS intent is to ensure Department of Defense (DoD) activities and installations in Japan protect human health and the natural environment through the promulgation of specific environmental compliance criteria. Our drinking water standards are derived from the same standards used in the U.S. to ensure that safe drinking water is available to all installation personnel. The standards require us to monitor and test our water for contaminants on a regular basis to ensure it is safe to drink.

Possible Source of Contaminants

As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals. It can also pick up other contaminants resulting from the presence of animals or human activity. Drinking water, including bottled water, may reasonably be expected to contain trace amounts of some 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 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. 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 naturally occur or result from urban storm water run-off, industrial or domestic wastewater discharge, 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 naturally-occur or be the result of oil and gas production and mining activities.
- **Disinfection Byproducts** can form in water when disinfectants, such as chlorine used to control microbial pathogens, combine with naturally occurring materials found in source water.

More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency (EPA) Safe Drinking Water Hotline at 1-800-426-4791 or visiting the EPA website at https://www.epa.gov/ground-water-and-drinking-water/table-regulated-drinking-water-contaminants.

Other Potential Contaminants

Lead

Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Infants and children who drink water containing lead in excess of the action level could experience delays in their physical or mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure. **CFAS lead sampling results meet the requirements for drinking water set forth in the JEGS and the EPA Lead and Copper Rule.** When water has been unused for several hours, you can further minimize the potential for lead exposure by flushing the tap for 30 seconds to two minutes before using the water for drinking or cooking. Information on lead in drinking water is available at https://www.epa.gov/ground-water-and-drinking-water/basic-information-about-lead-drinking-water.

Lead in Priority Areas (LIPA) Sampling (Screening for Lead at Tap Sources)

CFAS samples all drinking water faucets for Lead at Priority Areas every five years in an effort to reduce children's potential exposure (CNIC Instruction 5090.6). Priority Areas include DoD schools, child development centers, and youth centers across CFAS. The Navy LIPA screening level was lowered to 15 parts per billion (ppb) lead from the 20 ppb used in the first round of sampling (2014) as a result of guidance updates (OPNAV45, Mar 2019). Sampling was performed at CFAS in June and July 2019 at over 430 faucets in eight facilities. Results were received 28 AUG 2019. Thirty (30) faucets initially exceeded the screening level, and the faucets were taken out of service pending further analysis and corrective action. Seventeen (17) faucets were subsequently cleared with aerator maintenance. Thirteen (13) faucets were replaced as a corrective action. The new faucets were cleared 01 MAY 2020 by lead testing with results below the screening level. Notification and results summaries were provided to parents and caregivers after initial sampling and after corrective actions. The notifications are available at https://cnrj.cnic.navy.mil/Operations-and-Management/Water-Quality-Information/Lead-in-Priority-Area-Sampling-Program/.

The EJ King High School renovation (Building 1665) and new construction (Building 1669) project was completed in August 2021. As Building 1665 was unoccupied from January 2019 through the completion of the renovation project, its faucets were not tested during the 2019 CFAS LIPA sampling event. Navy Environmental Personnel conducted LIPA testing at EJ King High School Buildings 1665 and 1669 in accordance with Navy and EPA guidelines at the completion of the construction and renovation project. In newly constructed Building 1669, all 76 samples were below the Navy screening level of 15 ppb for lead in drinking water in schools and Child Development Centers. No additional action was needed in this building.

In renovated Building 1665, 82 samples were collected. Of these, fifteen (15) outlets tested higher than the 15 ppb screening level for lead. Six (6) faucets were subsequently cleared with aerator maintenance. Follow-up testing indicated that nine (9) outlets required additional corrective measures. Eight (8) outlets required replacement of faucets, and one (1) outlet required replacement of plumbing upstream. All corrective measures were completed, and additional testing in March of 2023 showed that the lead levels in Building 1665 are all below the screening level of 15 ppb. No additional action for this building was needed.

CFAS sampled for LIPA in 2024, but these results are not applicable to the 2023 Calendar Year. CFAS will take all necessary steps to address any issues with faucets that test to the revised standard of samples above 10 ppb. This is ahead of the official forthcoming directive to adopt this standard.

PFAS

What are per- and polyfluoroalkyl substances and where do they come from?

Per- and polyfluoroalkyl substances (PFAS) are a group of thousands of man-made chemicals. PFAS have been used in a variety of industries and consumer products around the globe, including in the U.S., since the 1940s. PFAS have been used to make coatings and products that are used as oil and water repellents for carpets, clothing, paper packaging for food, and cookware. They are also contained in some foams (aqueous film-forming foam or AFFF) currently used for fighting petroleum fires at airfields and in industrial fire suppression processes. PFAS chemicals are persistent in the environment

and some are persistent in the human body – meaning they do not break down and they can accumulate over time.

Is there a regulation for PFAS in drinking water?

On April 10, 2024, the US EPA established MCLs for a subset of PFAS chemicals. EPA requires implementation of sampling in accordance with the new MCLs within three years of the publication date and implementation of any required treatment within five years.

Chemical	Maximum Contaminant Level Goal (MCLG)	Maximum Contaminant Level (MCL)
PFOA	0	4.0 ppt
PFOS	0	4.0 ppt
PFNA	10 ppt	10 ppt
PFHxS	10 ppt	10 ppt
HFPO-DA (GenX chemicals)	10 ppt	10 ppt
Mixture of two or more: PFNA, PFHxS, HFPO-DA, and PFBS	Hazard Index of 1	Hazard Index of 1

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 and are non-enforceable public health goals.
Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed in drinking water. MCLs set as close to MCLGs as feasible using the best available treatment technology and taking cost into consideration. MCLs are enforceable standards.
ppt: parts per trillion
Hazard Index (HI): The hazard Index is a long-established approach that EPA regularly uses understand health risk from a chemical mixture (i.e., exposure to multiple chemicals). The HI is made up of fractions. Each fraction compares the level of each PFAS measured in the water to the health-based water concentration.

These limits did not apply for the 2023 calendar year because they had not been published. However, the DoD proactively promulgated policies to monitor drinking water for PFAS at all service owned and operated water systems at a minimum of every two years. The DoD policy states that if water sampling results confirm that drinking water contains PFOA and PFOS at individual or combined concentrations greater than the 2016 EPA health advisory (HA) level of 70 ppt, water systems must take immediate action to reduce exposure to PFOS or PFAS. For levels less than 70 ppt but above the 4 ppt level (draft at the time of policy publication), DoD committed to planning for implementation of the levels once EPA's published MCLs take effect.

Has CFAS tested its water for PFAS in 2023?

Yes. In January and August 2023 samples were collected from Akasaki, Hario Housing, Harioshima, Iorizaki, Maebata, Main Base, and Yokose.

PFAS Detected but below the new PFAS MCLs

We are informing you that 1 of 29 PFAS compounds covered by the sampling method were detected above the method reporting limit (MRL) for ADONA. The results are provided in the table VIII. EPA

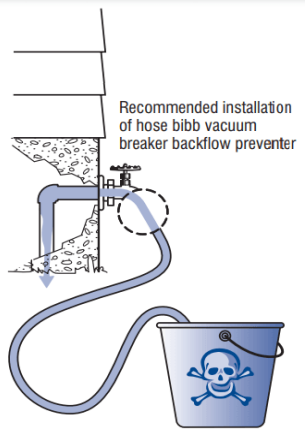
does not have a HA or MCL for all of these compounds at this time. PFOA, ADONA, PFBA, PFPEeA, and PFBA were detected but below the new MCL if applicable. As the regulated chemicals were below the new MCLs, there is no immediate cause for concern, but we will continue to monitor the drinking water closely.

Drinking Water Monitoring

CFAS uses EPA approved laboratory methods to analyze drinking water. The EPA and JEGS allow some contaminants to be monitored less than once per year because the concentrations of these contaminants do not change frequently. For example, Lead and Copper and Volatile Organic Compounds (VOCs) were sampled in 2018, and Radionuclides and Synthetic Organic Compounds (SOCs) were sampled in 2019; these are monitored every three years and their levels are not expected to vary significantly from year to year. Also, the water samples for each method were collected from multiple locations. For example, Total Coliform is monitored at 26 locations each month throughout CFAS, including 12 locations at Main Base. The collected samples are analyzed individually. Frequencies of constituents sampled at CFAS are provided below.

Constituent	**Frequency**
pH, Turbidity, Chlorine Residual	Daily
Total Coliform	Monthly
Nitrates and Nitrites	Quarterly
Disinfection Byproducts (DBPs)[1]	Quarterly and Annually[2]
Inorganic Chemicals	Annually
Volatile Organic Compounds (VOCs)	Every 3 years
Synthetic Organic Compounds (SOCs)	Every 3 years
Lead and Copper	Every 3 years
Radionuclides	Every 3 years
Asbestos	Every 9 years
PFAS	Every 2 years[3]

[1] Total Trihalomethanes (TTHM) and Haloacetic Acids (HAA5). [2] Main Base and Hario Housing DBPs are monitored quarterly, other sites annually. Annual sampling of DBPs is performed in August when it is warmer. Harioshima hauled water is monitored at Main Base and Harioshima. [3] PFAS is monitored more frequently depending on the concentrations found.



Cross-connection and Backflow Prevention Tip

Did you know that any connection between a public drinking water system and a separate source of questionable quality is considered a cross-connection?

For example, an ordinary garden hose submerged in a bucket of water, car radiator, or swimming pool can result in backflow contamination. To protect our water supply, a simple screw-on vacuum breaker must always be attached to the faucet when a garden hose is used.

Vacuum Breaker

Tables I – IX list all the constituents detected above laboratory detectable limits at each one of the CFAS drinking water systems during sampling in 2023. A complete list of constituents analyzed in 2023 including informative data from other years is shown in these tables. The presence of contaminants does not necessarily indicate that the water poses a health risk. None of the samples exceeded the JEGS and other applicable drinking water health standards. As such, **CFAS' drinking water is safe and fit for human consumption**.

The Surface Water Treatment Rule

Surface water is a common source of water within the United States and the rest of the world. As Japanese water authorities, The City of Sasebo and the City of Saikai Water Treatment Plants are not required to adhere to the American water regulations and standards for surface water. However, this does not mean that the water is not safe to drink. CFA Sasebo Public Works monitors the drinking water received from The City of Sasebo and the City of Saikai to ensure all 7 systems meet the required American water regulations and standards to include the Surface Water Treatment Rule imposed in the United States. In 2023, CFA Sasebo Public Works started work with Naval Facilities Engineering Systems Command (NAVFAC) Pacific (PAC) in the development of a compliance plan to demonstrate that the Japanese water authorities of the City of Sasebo and the city of Saikai use a host of high technological and effective treatment methods that either meet or surpass the required treatment techniques of an American water authority. The compliance plan is projected to be completed in late 2024 and requires the approval of Commander Navy Installations Command (CNIC) subject matter experts on drinking water to ensure that the Japanese water authority is complying with the Surface Water treatment Rule (SWTR).

Important Health Information

Some individuals may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised people, such as those undergoing chemotherapy, those who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, the elderly, and infants can be particularly at risk from infections. These individuals should seek advice about drinking water from their health care providers. The U.S. Environmental Protection Agency (EPA) and the Center for Disease Control and Prevention have established guidelines on the appropriate means to lessen the risk of infection by cryptosporidium and other microbial contaminants. This information can be obtained by calling the EPA Safe Drinking Water Hotline at 1-800-426-4791.

Frequently Asked Questions

Does the annual Consumer Confidence Report indicate there is something wrong with the water, or that it's unsafe?

Each U.S. Navy overseas installation is required by CNIC policy to provide its customers with a water quality report known as a Consumer Confidence Report (CCR). The CCR is an overview of the water quality delivered from your community water system. This report lists the regulated contaminants the community water system detected in the treated water, and the level at which they were found for the preceding calendar year. Any exceedances of applicable regulations or guidance will be reported.

Why does the water sometimes look rusty?

Rusty or reddish tinted water may occur when a sudden change in pressure in the water distribution system causes rust in the distribution pipes to become dislodged. Iron causes the discoloration; it is not a health risk. If water looks rusty, flush your tap for three minutes or until clear before using water.

Running the water will clear the piping system. If hot tap water is rusty, the water heater may need to be flushed.

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 aesthetic characteristics and do not pose health risks. 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). If you want to improve the taste, smell, and appearance of your water, you can install a home water filter. Please keep in mind that filters require regular maintenance and replacement, and if ignored, water taste, smell, or appearance issues may reoccur.

Installation Water Quality Board

The Installation Commanding Officer has established an Installation Water Quality Board (IWQB) to ensure that there is a reliable supply of drinking water for all persons using CFAS facilities.

Installation Commander…….. 252-3456
Chief Staff Officer……... 252-3444
Public Works Officer……... 252-3452
U.S. Naval Clinic…… 252-2586
Public Affairs Officer ……...….. 252-3029
Public Works Production Director…….. 252-2210
Public Works Environmental Director…… 252-3369

For questions on drinking water in general please contact:
CFAS Public Works Department-Environmental Division at 252-3369

TABLE I
SASEBO MAIN BASE – DRINKING WATER CONSTITUENTS DETECTED IN 2023

Contaminant	Unit of Measurement	Detected Level		Standard (MCL/ MRDL)	Violation?	Possible Sources of Contamination
		High	Low		Yes / No	
INORGANIC CONTAMINANTS						
Barium	mg/L	0.00067	-	2.0	No	Erosion of natural deposits.
Nitrate (as Nitrogen)	mg/L	0.80	0.44	10	No	Runoff from fertilizer and erosion of natural deposits.
Sodium	mg/L	7.5	-	-	No	Erosion of natural deposits.
DISINFECTANTS & DISINFECTION BYPRODUCTS						
Residual Chlorine	mg/L	1.02	0.22	4.0*	No	Disinfectant added for water treatment.
Total Trihalomethanes	mg/L	0.0150	0.0078	0.080	No	By-product of drinking water chlorination.
Halo Acetic Acids	mg/L	0.0180	0.0058	0.060	No	By-product of drinking water chlorination.
BACTERIA						
Total Coliform	Presence	Negative		> 1+/mo.	No	Treatment or distribution system issues.
OTHER CONTAMINANTS OF CONCERN						
PCBs	mg/L	Not Detected		Various	No	Industrial activity, accidental release.
Pesticides	mg/L	Not Detected		Various	No	Agricultural activities.
Radionuclides	Various	Low to Not Detected		Various	No	Erosion of natural deposits.
Asbestos	Fibers/L	Not Detected		7 Million F/L	No	Improper waste disposal and erosion of natural deposits.

Notes:
PFAS Results are shown in Table VIII
CFAS monitors for many contaminants, only those detected during laboratory analysis are listed above.
* Residual Chlorine - Maximum Residual Disinfectant Level allowed in drinking water.

Abbreviations and Definitions:
AL: Action Level.
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.
mg/L: milligrams per Liter.
ppt: parts per trillion, or nanograms per Liter
- : dash is one sample per water source based on sampling plan; no separate High and Low values.

TABLE II
HARIO HOUSING – DRINKING WATER CONSTITUENTS DETECTED IN 2023

Contaminant	Unit of Measurement	Detected Level		Standard (MCL/ MRDL)	Violation?	Possible Sources of Contamination
		High	Low		Yes / No	
INORGANIC CONTAMINANTS						
Barium	mg/L	0.0160	-	2.0	No	Erosion of natural deposits.
Nitrate (as Nitrogen)	mg/L	0.82	0.27	10	No	Runoff from fertilizer and erosion of natural deposits.
Sodium	mg/L	11	-	-	No	Erosion of natural deposits.
DISINFECTANTS & DISINFECTION BYPRODUCTS						
Residual Chlorine	mg/L	0.92	0.24	4.0*	No	Disinfectant added for water treatment.
Total Trihalomethanes	mg/L	0.030	0.0180	0.080	No	By-product of drinking water chlorination.
Halo Acetic Acids	mg/L	0.0250	0.0120	0.060	No	By-product of drinking water chlorination.
BACTERIA						
Total Coliform	Presence	Negative		> 1+/mo.	No	Treatment or distribution system issues.
OTHER CONTAMINANTS OF CONCERN						
PCBs	mg/L	Not Detected		Various	No	Industrial activity, accidental release.
Pesticides	mg/L	Low to Not Detected		Various	No	Agricultural activities.
Radionuclides	Various	Low to Not Detected		Various	No	Erosion of natural deposits.
Asbestos	Fibers/L	Not Detected		7 Million F/L	No	Improper waste disposal and erosion of natural deposits.

Notes:
PFAS Results are shown in Table VIII
CFAS monitors for many contaminants, only those detected during laboratory analysis are listed above.
* Residual Chlorine - Maximum Residual Disinfectant Level.

Abbreviations and Definitions:
AL: Action Level.
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.
mg/L: milligrams per Liter.
ppt: parts per trillion, or nanograms per Liter
- : dash is one sample per water source based on sampling plan; no separate High and Low values.

TABLE III
AKASAKI FUEL TERMINAL – DRINKING WATER CONSTITUENTS DETECTED IN 2023

Contaminant	Unit of Measurement	Detected Level		Standard (MCL/ MRDL)	Violation?	Possible Sources of Contamination
		High	Low		Yes / No	
INORGANIC CONTAMINANTS						
Barium	mg/L	0.00680	-	2.0	No	Erosion of natural deposits.
Nitrate (as Nitrogen)	mg/L	0.63	0.45	10	No	Runoff from fertilizer and erosion of natural deposits.
Sodium	mg/L	6.9	-	-	No	Erosion of natural deposits.
DISINFECTANTS & DISINFECTION BYPRODUCTS						
Residual Chlorine	mg/L	0.79	0.56	4.0*	No	Disinfectant added for water treatment.
Total Trihalomethanes	mg/L	0.032	-	0.080	No	By-product of drinking water chlorination.
Halo Acetic Acids	mg/L	0.0170	-	0.060	No	By-product of drinking water chlorination.
BACTERIA						
Total Coliform	Presence	Negative		> 1+/mo.	No	Treatment or distribution system issues.
OTHER CONTAMINANTS OF CONCERN						
PCBs	mg/L	Not Detected		Various	No	Industrial activity, accidental release.
Pesticides	mg/L	Not Detected		Various	No	Agricultural activities.
Radionuclides	Various	Low to Not Detected		Various	No	Erosion of natural deposits.
Asbestos	Fibers/L	Not Detected		7 Million F/L	No	Improper waste disposal and erosion of natural deposits.

Notes:
PFAS Results are shown in Table VIII
CFAS monitors for many contaminants, only those detected during laboratory analysis are listed above.
* Residual Chlorine - Maximum Residual Disinfectant Level.

Abbreviations and Definitions:
AL: Action Level.
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.
mg/L: milligrams per Liter.
ppt: parts per trillion, or nanograms per Liter
- : dash is one sample per water source based on sampling plan; no separate High and Low values.

TABLE IV
HARIOSHIMA ORDNANCE AREA* – DRINKING WATER CONSTITUENTS DETECTED IN 2023

Contaminant	Unit of Measurement	Detected Level		Standard (MCL/ MRDL)	Violation?	Possible Sources of Contamination
		High	Low		Yes / No	
INORGANIC CONTAMINANTS						
Barium	mg/L	0.00630	-	2.0	No	Erosion of natural deposits.
Nitrate (as Nitrogen)	mg/L	0.66	0.47	10	No	Runoff from fertilizer and erosion of natural deposits.
Sodium	mg/L	7.0	-	-	No	Erosion of natural deposits.
DISINFECTANTS & DISINFECTION BYPRODUCTS						
Residual Chlorine	mg/L	0.81	0.26	4.0**	No	Disinfectant added for water treatment.
Total Trihalomethanes	mg/L	0.0230	0.0220	0.080	No	By-product of drinking water chlorination.
Halo Acetic Acids	mg/L	0.0130	0.0120		No	By-product of drinking water chlorination.
BACTERIA						
Total Coliform	Presence	Negative		> 1+/mo.	No	Treatment or distribution system issues.
OTHER CONTAMINANTS OF CONCERN						
PCBs	mg/L	Not Detected		Various	No	Industrial activity, accidental release.
Pesticides	mg/L	Not Detected		Various	No	Agricultural activities.
Radionuclides	Various	Low to Not Detected		Various	No	Erosion of natural deposits.
Asbestos	Fibers/L	Not Detected		7 Million F/L	No	Improper waste disposal and erosion of natural deposits.

Notes:
PFAS Results are shown in Table VIII
CFAS monitors for many contaminants, only those detected during laboratory analysis are listed above.

* Harioshima Ordnance Area continues to receive hauled, containerized water to three holding tanks adjacent to the facilities using the water. The water truck filling point, which is located on CFAS Main Base, is monitored for all primary and secondary drinking water contaminants on a regular basis. These results shown on Table IV include inorganics and disinfectant byproducts, which were measured on Main Base, and residual chlorine, which is measured at Main Base and Harioshima.
** Residual Chlorine - Maximum Residual Disinfectant Level allowed in drinking water.

Abbreviations and Definitions:
AL: Action Level.
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.
mg/L: milligrams per Liter.
ppt: parts per trillion, or nanograms per Liter
- : dash is one sample per water source based on sampling plan; no separate High and Low values.

TABLE V
IORIZAKI FUEL TERMINAL – DRINKING WATER CONSTITUENTS DETECTED IN 2023

Contaminant	Unit of Measurement	Detected Level		Standard (MCL/ MRDL)	Violation?	Possible Sources of Contamination
		High	Low		Yes / No	
INORGANIC CONTAMINANTS						
Barium	mg/L	0.00650	-	2.0	No	Erosion of natural deposits.
Nitrate (as Nitrogen)	mg/L	0.64	0.45	10	No	Runoff from fertilizer and erosion of natural deposits.
Sodium	mg/L	7.0	-	-	No	Erosion of natural deposits.
DISINFECTANTS & DISINFECTION BYPRODUCTS						
Residual Chlorine	mg/L	0.52	0.11	4.0*	No	Disinfectant added for water treatment.
Total Trihalomethanes	mg/L	0.0330	0.0250	0.080	No	By-product of drinking water chlorination.
Halo Acetic Acids	mg/L	0.0130	0.0130	0.060	No	By-product of drinking water chlorination.
BACTERIA						
Total Coliform	Presence	Negative		> 1+/mo.	No	Treatment or distribution system issues.
OTHER CONTAMINANTS OF CONCERN						
PCBs	mg/L	Not Detected		Various	No	Industrial activity, accidental release.
Pesticides	mg/L	Not Detected		Various	No	Agricultural activities.
Radionuclides	Various	Low to Not Detected		Various	No	Erosion of natural deposits.
Asbestos	Fibers/L	Not Detected		7 Million F/L	No	Improper waste disposal and erosion of natural deposits.

Notes:
PFAS Results are shown in Table VIII
CFAS monitors for many contaminants, only those detected during laboratory analysis are listed above.
* Residual Chlorine - Maximum Residual Disinfectant Level.

Abbreviations and Definitions:
AL: Action Level.
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.
mg/L: milligrams per Liter.
ppt: parts per trillion, or nanograms per Liter
- : dash is one sample per water source based on sampling plan; no separate High and Low values.

TABLE VI
MAEBATA ORDNANCE AREA – DRINKING WATER CONSTITUENTS DETECTED IN 2023

Contaminant	Unit of Measurement	Detected Level		Standard (MCL/ MRDL)	Violation?	Possible Sources of Contamination
		High	Low		Yes / No	
INORGANIC CONTAMINANTS						
Barium	mg/L	0.0160	-	2.0	No	Erosion of natural deposits.
Nitrate (as Nitrogen)	mg/L	0.74	0.21	10	No	Runoff from fertilizer and erosion of natural deposits.
Sodium	mg/L	11	-	-	No	Erosion of natural deposits.
DISINFECTANTS & DISINFECTION BYPRODUCTS						
Residual Chlorine	mg/L	1.00	0.28	4.0*	No	Disinfectant added for water treatment.
Total Trihalomethanes	mg/L	0.0400	0.0320	0.080	No	By-product of drinking water chlorination.
Halo Acetic Acids	mg/L	0.0250	0.0230	0.060	No	By-product of drinking water chlorination.
BACTERIA						
Total Coliform	Presence	Negative		> 1+/mo.	No	Treatment or distribution system issues.
OTHER CONTAMINANTS OF CONCERN						
PCBs	mg/L	Not Detected		Various	No	Industrial activity, accidental release.
Pesticides	mg/L	Not Detected		Various	No	Agricultural activities.
Radionuclides	Various	Low to Not Detected		Various	No	Erosion of natural deposits.
Asbestos	Fibers/L	Not Detected		7 Million F/L	No	Improper waste disposal and erosion of natural deposits.

Notes:
PFAS Results are shown in Table VIII
CFAS monitors for many contaminants, only those detected during laboratory analysis are listed above.
* Residual Chlorine - Maximum Residual Disinfectant Level.

Abbreviations and Definitions:
AL: Action Level.
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.
mg/L: milligrams per Liter.
ppt: parts per trillion, or nanograms per Liter
- : dash is one sample per water source based on sampling plan; no separate High and Low values.

TABLE VII
YOKOSE FUEL TERMINAL – DRINKING WATER CONSTITUENTS DETECTED IN 2023

Contaminant	Unit of Measurement	Detected Level		Standard (MCL/ MRDL)	Violation?	Possible Sources of Contamination
		High	Low		Yes / No	
INORGANIC CONTAMINANTS						
Barium	mg/L	0.0100	-	2.0	No	Erosion of natural deposits.
Nitrate (as Nitrogen)	mg/L	1.3	1.1	10	No	Runoff from fertilizer and erosion of natural deposits.
Sodium	mg/L	10	-	-	No	Erosion of natural deposits.
DISINFECTANTS & DISINFECTION BYPRODUCTS						
Residual Chlorine	mg/L	0.73	0.10	4.0*	No	Disinfectant added for water treatment.
Total Trihalomethanes	mg/L	0.030	0.021	0.080	No	By-product of drinking water chlorination.
Halo Acetic Acids	mg/L	0.0190	0.0120	0.060	No	By-product of drinking water chlorination.
BACTERIA						
Total Coliform	Presence	Negative		> 1+/mo.	No	Treatment or distribution system issues.
OTHER CONTAMINANTS OF CONCERN						
PCBs	mg/L	Not Detected		Various	No	Industrial activity, accidental release.
Pesticides	mg/L	Not Detected		Various	No	Agricultural activities.
Radionuclides	Various	Low to Not Detected		Various	No	Erosion of natural deposits.
Asbestos	Fibers/L	Not Detected		7 Million F/L	No	Improper waste disposal and erosion of natural deposits.

Notes:
PFAS Results are shown in Table VIII
CFAS monitors for many contaminants, only those detected during laboratory analysis are listed above.
* Residual Chlorine - Maximum Residual Disinfectant Level.

Abbreviations and Definitions:
AL: Action Level.
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.
mg/L: milligrams per Liter.
ppt: parts per trillion, or nanograms per Liter
- : dash is one sample per water source based on sampling plan; no separate High and Low values.

TABLE VIII
PFAS AND PFOA TESTING CONDUCTED AT CFAS IN 2023

Location	Contaminant	Unit of Measurement	Detected Level		Above MRL?	HA	Violation?	Possible Sources of Contamination
			High	Low			Yes / No	
	CONTAMINANTS DETECTED							
Akasaki	4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ng/L	1.8	-	No	70	No	Plastics/Coatings
Akasaki	4,8-Dioxa-3H-perfluorononanoic Acid (ADONA)	ng/L	6.5*	-	Yes*	70	No	Plastics/Coatings
Yokose	Perfluoro-n-octanoic acid (PFOA)	ng/L	2.2	-	No	70	No	Fire Fighting Foams, Surface Finishes, Sealants
Yokose	Perfluoropentanoic acid (PFPeA)	ng/L	2.4	-	No	70	No	Material and Fabric Coatings, Fire Fighting Foams
Maebata	Perfluorobutanoic acid (PFBA)	ng/L	2.2	-	No	70	No	Fabric Coatings, Food Packaging
Maebata	Perfluorooctanoic acid (PFOA)	ng/L	2.2	-	No	70	No	Material and Fabric Coatings, Food Packaging
Hario Housing	Perfluorobutanoic acid (PFBA)	ng/L	2.0	-	No	70	No	Fabric Coatings, Food Packaging
Hario Housing	Perfluorooctanoic acid (PFOA)	ng/L	2.4	-	No	70	No	Material and Fabric Coatings, Food Packaging

Notes:
In cases where there is a contaminant listed in repetition, it was detected with a different EPA Analytical Method. CFAS is required to test for PFAS/PFOA using EPA Analytical Method 537.1 and Method 533
* Tested above the MRL with EPA method 533. This results in enhanced testing frequency for this constituent, but it is well below the project Health Advisory level

Abbreviations and Definitions:
HA: Health Advisory Level
ng/L: nanograms per Liter
MRL: minimum reporting limit

- : dash is one sample per water source based on sampling plan; no separate High and Low values.

TABLE IX
COPPER AND LEAD TESTING AT CFAS in 2021*

Location	Contaminant	# Samples Exceeding AL	90th %	AL (mg/L)	Violation?	Possible Sources of Contamination
Main Base	Copper	0	0.045	1.3	No	Corrosion of household plumbing systems. Erosion of natural deposits.
Main Base	Lead	0	0.0012	0.015	No	Corrosion of household plumbing systems. Erosion of natural deposits.
Hario Housing	Copper	0	0.031	1.3	No	Corrosion of household plumbing systems. Erosion of natural deposits.
Hario Housing	Lead	0	0.0014	0.015	No	Corrosion of household plumbing systems. Erosion of natural deposits.
Akasaki	Copper	0	0.0079	1.3	No	Corrosion of household plumbing systems. Erosion of natural deposits.
Akasaki	Lead	0	0.0015	0.015	No	Corrosion of household plumbing systems. Erosion of natural deposits.
Harioshima	Copper	0	0.046	1.3	No	Corrosion of household plumbing systems. Erosion of natural deposits.
Harioshima	Lead	0	0.001	0.015	No	Corrosion of household plumbing systems. Erosion of natural deposits.
Iorizaki	Copper	0	0.020	1.3	No	Corrosion of household plumbing systems. Erosion of natural deposits.
Iorizaki	Lead	0	0.0014	0.015	No	Corrosion of household plumbing systems. Erosion of natural deposits.
Maebata	Copper	0	0.045	1.3	No	Corrosion of household plumbing systems. Erosion of natural deposits.
Maebata	Lead	0	0.0008	0.015	No	Corrosion of household plumbing systems. Erosion of natural deposits.
Yokose	Copper	0	0.0365	1.3	No	Corrosion of household plumbing systems. Erosion of natural deposits.
Yokose	Lead	0	0.0003	0.015	No	Corrosion of household plumbing systems. Erosion of natural deposits.

Notes:
*Although this is the 2023 Consumer Confidence Report, Copper and Lead remain to be an important topic to regulatory agencies and water consumers. This information is provided for enhanced transparency and for concerns by the public and was collected in 2021. Data was not collected in 2023 as it was not required due to the low levels of lead and copper in drinking water at CFAS.

Abbreviations and Definitions:
AL: Action Level.
mg/L: milligrams per Liter.
- : dash is one sample per water source based on sampling plan; no separate High and Low values.