

# Incirlik Air Base CY 2023 Consumer Confidence Report

**REPORT SUMMARY:** Incirlik Air Base is pleased to provide you the 2023 Consumer Confidence/Annual Water Quality Report. This report complies with the notification requirements found in 40 CFR 141, *National Primary Drinking Water Regulations* and Department of the Air Force Instruction 48-144, *Drinking Water Surveillance Program*. This report is designed to provide details about where your water comes from, what it contains, information about specific contaminants of interest, 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.

Drinking water quality is monitored in accordance with the U.S. Department of Defense Final Governing Standards for Turkey (FGS-T). Last year, Bioenvironmental Engineering (BE) conducted tests for over 80 contaminants, and only 7 were detected. This information is detailed in the Water Quality Data Table, below.

**We are pleased to report that Incirlik AB's drinking water is safe and meets all federal requirements.**

## Water Quality Data Table

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the number of contaminants in water provided by public water systems. The table below lists the drinking water contaminants that we detected during the calendar year of this report.

Contaminants	MCLG	MCL	Average	Range	Sample Date	Violation	Typical Source
				(Low – High)			
<b>Disinfectants &amp; Disinfection By-Products</b> (There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants)							
Chlorine (as Cl <sub>2</sub> ) (mg/L)	4	4	0.81	0.12-2.1	2023	No	Disinfectant to control microbiological contaminants
Haloacetic Acids (HAA5) (mg/L)	NA	0.060	0.0009	<0.0015-0.0039	2023	No	By-product of drinking water chlorination
Total Trihalomethanes (TTHMs) (mg/L)	NA	0.080	0.016	<0.0005-0.066	2023	No	By-product of drinking water disinfection
<b>Inorganic Contaminants</b>							
Fluoride (mg/L)	1.5	4.0	0.83	<0.1-2.3	2023	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Lead - source water (mg/L)	NA	0.010	ND	ND	2023	No	Corrosion of household plumbing systems; Erosion of natural deposits
Nitrate [measured as Nitrogen] (mg/L)	10	10	8.15	5-10.8	2023	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Nitrite [measured as Nitrogen] (mg/L)	0.5	0.5	0.006	<0.01-0.04	2023	No	
<b>Microbiological Contaminants</b>							
Total Coliform (RTCR)	NA	TT	NA	NA	2023	No	Naturally present in the environment
<b>Volatile Organic Contaminants</b>							
Trichloroethylene (mg/L)	0	5	0.0007	<0.0001-0.002	2023	No	Discharge from metal degreasing sites and other factories. This contaminant is being reported based on

## CONTAMINANTS AND REGULATIONS

### Information on Nitrates

Incirlik AB is surrounded in large part by agricultural land, therefore the nitrate levels in the drinking water are closely monitored. Nitrate levels may be affected by rainfall or agricultural activity. Nitrate concentrations in drinking water above 10 mg/L is a health risk for **infants** and **small children**. Nitrate concentrations during the CY23 were below 10 mg/L at the water treatment plant.

### Information on 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. Incirlik Air Base 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 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 or at <http://www.epa.gov/safewater/lead>.

### Information on Per- and Polyfluoroalkyl Substances (PFAS)

PFAS are a group of thousands of man-made chemicals. They 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 such as aqueous film-forming foam, used for fighting petroleum fires at airfields and in industrial fire suppression processes. PFAS compounds are persistent in the environment and some are persistent in humans— meaning they do not break down and can accumulate over time.

In 2016, the Environmental Protection Agency (EPA) established a lifetime health advisory (LHA) level at 70 parts per trillion (ppt) for individual or combined concentrations of perfluorooctanoic acid (PFOA) and perfluorooctanesulfonic acid (PFOS). Both compounds are types of PFAS. On 10 April 2024, the EPA published new drinking water standards for certain PFAS under the Safe Drinking Water Act (SDWA). AF is reviewing the EPA's new rule now, and will incorporate these standards into future sampling and analysis efforts.

Out of an abundance of caution, the DoD pursued PFAS testing and response actions beyond EPA requirements. In 2020, the DoD established a policy to monitor drinking water for 17 PFAS compounds at all service owned and operated water systems. While not a EPA requirement, in 2023, DoD improved upon its PFAS water monitoring policy by expanding the list of PFAS compounds monitored to 29, implementing continued monitoring of systems with detectable PFAS, and requiring initial mitigation planning. Current sampling in support of this effort is ongoing at Incirlik AB.

## INSTALLATION WATER INITIATIVES

### Base Backflow Prevention Initiative

The 39<sup>th</sup> Civil Engineering Squadron currently has a project in the works to repair and install water backflow preventers base wide. Backflow Preventers are used to protect the base water supply from potential contamination. The water flows one-way from the water treatment plant into housing or dorm unit's piping and stops the water from flowing backwards into the main water supply. The project is currently in the draft phase, which will begin construction in July and be completed by November of 2024.

### Water Conservation Tips

Did you know that the average U.S. household uses approximately 400 gallons of water per day or 100 gallons per person per day? Luckily, there are many low-cost and no-cost ways to conserve water. Small changes can make a big difference!

- Take short showers - a 5-minute shower uses 4 to 5 gallons of water compared to up to 50 gallons for a bath.
- Shut off water while brushing your teeth, washing your hair and shaving and save up to 500 gallons a month.
- Run your clothes washer and dishwasher only when they are full. You can save up to 1,000 gallons a month.
- Visit [www.epa.gov/watersense](http://www.epa.gov/watersense) for more information.

## WATER SOURCE AND QUALITY

### Where does our water come from?

There is one distinct Public Water System at Incirlik AB serving a population of approximately 4,000 people. Incirlik AB's water source is derived from five wells that are located on the installation. These wells each pull from the Karanse Formation Aquifer. Before the groundwater is used for human consumption, it is treated and purified at the Water Treatment Plant (WTP) by mechanical filtration, reverse osmosis water purification, with chlorine for disinfection, and hydrofluorosilicic acid for dental health. Water is then pumped to several storage tanks that feed and maintain pressure in the water distribution system. In order to ensure that Incirlik AB's water is safe to drink, the FGS-T requires monitoring of the water system and places limits on the concentration of contaminants in the water.

### But the water tastes bad, is it still safe?

The Safe Drinking Water Act and EPA deal primarily with the health effects of water. There are several additional constituents common in ground water that may impact the taste of our water. Most of these constituents are minerals, including calcium and sodium. Other factors that may impact taste include pH and water hardness. However, if your water has a strong chemical odor and taste that lingers after flushing your tap, call BE for further guidance.

### I got sick after drinking water on base, what do I do?

If you suspect an illness is tied to the water you had on any US government facility on base, it is imperative that you seek treatment at the base MTF and mention any potential sources of the illness. This course of action not only allows you to get the medical care you need but empowers medics to investigate the food and water quality to prevent the illness of others.

### A few words about water quality.

The sources of drinking water (both tap 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 sometimes radioactive materials. It may also pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be in source water include:

- **Radioactive contaminants:** which can be naturally occurring or be the result of oil and gas production and mining activities.
- **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 stormwater 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 stormwater runoff, and residential uses.
- **Organic chemical contaminants:** including synthetic and volatile organic chemicals, which are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.

Drinking water may reasonably be expected to contain at least small amounts of some contaminants. These contaminants are monitored on a quarterly basis by BE, and daily by Civil Engineering (CE) to make sure they are compliant with FGS-T standards. 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 EPA's Safe Drinking Water Hotline.

REPORT DEFINITONS	
Term	Definition
ppm	parts per million, or milligrams per liter (mg/L)
ppb	parts per billion, or micrograms per liter (µg/L)
% Positive samples/month	Percent of samples taken monthly that were positive
NA	Not Applicable
ND	Not Detected
NR	Monitoring not required but recommended.
RTCR	Revised Total Coliform Rule: revision to the 1989 Total Coliform Rule (TCR) and is intended to improve public health protection.

REPORT DEFINITONS	
Term	Definition
MCL	Maximum Contaminant Level: the level of 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: Level of contaminant in drinking water below which there are no known or expected risk to health. MCLGs allow for a margin of safety.
TT	Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water.

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