



USAG HUMPHREYS WATER QUALITY REPORT FOR WATER PROVIDED THROUGHOUT 2024 K-16



A water quality report shares a snapshot of the overall drinking water quality provided to our community during the previous year. Included are details about where our water comes from, what it contains, and how it compares against established drinking water standards. Our constant goal is to operate and monitor our treatment systems in a way that provide you with a safe and dependable supply of drinking water. We are committed to ensuring the quality of our water.

So how is our water quality? We are proud that our drinking water meets or goes beyond all the established water quality standards applicable to K-16. As shown in this summary and its supporting tables, our system again had no reported exceedances of drinking water standards occurred during the 2024 monitoring period.

What are our drinking water sources? The K-16 potable water system obtains purchased water from the City of Sungnam.

Did you know? As water travels over land or through the ground it dissolves naturally occurring minerals and substances resulting from the presence of animals or from human activity. 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 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, stormwater runoff, and residences.
- Organic chemical contaminants- including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, 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.

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 water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Department of Public Health-Environmental Health at 737-5703.

This report contains important information about your drinking water. Have someone translate it for you or speak with someone who understands it.
이 보고서에는 귀하의 식수에 대한 중요한 내용이 실려있습니다. 그러므로 이 보고서를 이해할 수 있는 사람한테 번역해 달라고 부탁드립니다.

How is our drinking water treated? The water treatment process consists of filtration using bag and cartridge filter units, and disinfection with sodium hypochlorite. Water is first filtered through three 5-micron pore size bag filter units operating in parallel, then through three 1-micron cartridge filter units, also operating in parallel. Following filtration, sodium hypochlorite is added before the water enters a clearwell tank. After treatment, water is tested to ensure that our drinking water quality standards are met.

How is water quality monitored? USFK Manual 4715.05, Environmental Governing Standards, allows us to monitor certain parameters less frequently than annually because the concentrations of these parameters are relatively stable. Some of our data, though representative, is more than one year old. Water quality testing is conducted based on the parameter group and specified frequency as shown in Table 1.

Table 1. Parameter Groups and Monitoring Frequencies

Parameter Group	# of Parameters	Parameter Examples	Monitoring Frequency *
Physicochemical parameters	3	Turbidity, pH, chlorine	Every 4 hours
Biological parameters	2	Total coliform, e-coli	Monthly
Inorganic metals	15	Primary metals, nitrates	Annually
Asbestos	1	Asbestos	Every 9 years
Volatile organic compounds (VOCs)	21	Benzene, TCE, PCE	Annually
Synthetic organic compounds (SOCs)	34	Pesticides, PCB	Four consecutive quarterly samples every 3 years
Sum of five haloacetic acids (HAA5)	5	Monochloroacetic acid, dichloroacetic acid	Quarterly
Total trihalomethanes (TTHMs)	4	Bromoform, chloroform	Quarterly
Bromate	1	Bromate	Monthly
Lead and copper	2	Lead, copper	Triennially
Radionuclide compounds	4	Gross alpha, Radium 226, Radium 228, Uranium	Every 4 years

*: As per USFK Manual 4715.05



Drinking Water Monitoring results. Listed in Tables 2 through 3 below are 5 parameters detected in treated groundwater during the reporting period. All are below maximum contaminant levels allowed. Many other compounds are tested for but were not detected and are therefore not listed. Remember, the presence of contaminants does not necessarily indicate that the water poses a health risk.

Table 2. K-16 Groundwater Treatment Plant

Contaminants	MCL	Highest Level Detected	Range of Detection (if multiple samples)	Year Sampled	Violation	Typical Sources
Inorganic Chemicals						
Barium (ppm)	2.0	0.018	No Range	2024	None	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Nitrate (ppm)	10	2.24	No Range	2024	None	Runoff from fertilizer use; leaching from sewage; erosion of natural deposits

Table 3. Distribution System Lead, Copper, and Disinfection Byproducts

Contaminants	MCL or AL	Average Level Detected	Range of Detection (if multiple samples)	Year Sampled	MCL/AL Violation	Typical Sources
TTHMs ¹ (ppb)	80	22.7	17.2 – 28	2024	None	By-product of drinking water disinfection
HAA5 (ppb)	60	13.0	7.2 – 27	2024	None	By-product of drinking water disinfection
Copper (ppm)	AL = 1.3	0.013 ²	0 ³	2022 ⁴	None	Corrosion of household plumbing systems; Erosion of natural deposits

Tables definitions, abbreviations, and notes

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

HAA5 Haloacetic acids (five): sum of the concentrations of monochloroacetic acid, dichloroacetic acid, trichloroacetic acid, monobromoacetic acid, and dibromoacetic acid

NA Not applicable

MCL Maximum Contaminant Level: The highest level of a contaminant that is allowed in drinking water. MCLs are set as close as feasible using the best available treatment technology.

ND Not detected at testing limits

ppb Parts per billion or micrograms per liter (µg/L)

ppm Parts per million or milligrams per liter (mg/L)

TTHM Trihalomethanes

Table Notes:

1. Some people who drink water containing TTHMs in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous systems, and may have an increased risk of getting cancer.
2. This number represents the 90th percentile value of the samples collected
3. Number of samples above the action level
4. In accordance with USFK Manual 4715.05, lead and copper monitoring frequency has been reduced to every 3 years.

Important health information: 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 microbial contaminants are available from the Environmental Health Program Manager at 737-5703.

Elevated lead levels, if present, 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. USAG Humphreys 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 www.epa.gov/safewater/lead.

Why is my water cloudy / discolored? During its journey to your taps, there are a number of ways in which the appearance of your water may be affected, and occasionally it can become discolored. The most common cause of discoloration is a change in the flow or pressure within the pipes – for example as a result of a burst main in your area. The change in pressure may dislodge sediment deposits, such as iron or manganese, which may turn the water brown for a short period. Your water may also appear cloudy, or white, on occasion. If you fill a glass of water and it clears from the bottom upwards then this means your water is just a little more aerated than usual. The bubbles will disappear if the water is left to stand. In most cases, discolored water is not harmful and can be cleared by running cold kitchen tap at a steady flow until it clears. If the water does not clear after 20 minutes, please contact the Directorate of Public Works (DPW) Environmental Division or Environmental Health for advice.

Where can you get more information? If you have any questions or would like additional information on your drinking water, please contact below:

DPW Environmental Division for compliance related questions
Mr. O, Song Chan at DSN: 756-1059
Email: songchan.o2.ln@army.mil

Environmental Health for health-related questions
Mr. Evan Schmidt. DSN: 737-5703
Email: evan.c.schmidt.civ@health.mil

If you would like to share your thoughts and/or concerns about our water quality, please be informed that the Directorate of Public Works does not hold regular public meetings about the water system. If you have any questions or concerns regarding the K-16 water system or water quality, please do not hesitate in contacting our Drinking Water Program Manager at (315) 756-1059.

Steps we can all can take to conserve our drinking water:

CALENDAR YEAR 2024 K-16 WATER QUALITY REPORT



Use the washer and dishwasher only when necessary.



Older dishwashers can use up to 56 litres per load
Front-load washers use up to 60 litres per wash



Flush toilets only when necessary.



Toilets that are not low-flow, can use up to 26 litres of water per flush



Minimize shower time and bath levels.



Reducing showers to less than 5 minutes can save up to 4,500 litres per month

<https://www.lehighbridge.ca/living-here/water/>