Kirtland Air Force Base
Annual Drinking Water Quality Consumer Confidence Report
(Report Year 2024)

A guide to understanding the quality of the drinking water supplied to you.

Dear Valued Drinking Water Customer,
Kirtland Air Force Base (KAFB) is pleased to present the annual Consumer Confidence Report (CCR) of our drinking water quality. The CCR summarizes the quality of water delivered by KAFB during calendar year 2024. Our installation is fortunate to have an excellent groundwater source and to have the distribution system monitored and maintained in top condition. In 2024, there were no primary drinking water contaminants exceeding state or federal standards.

Please be aware of the efforts continually made by KAFB staff members to provide the highest quality of drinking water by improving the treatment process and protecting the groundwater source. KAFB is committed to supplying you with the best drinking water possible.

MICHAEL J. POWER, Colonel, USAF
Commander, 377th Air Base Wing
Kirtland Air Force Base

Bioenvironmental Engineering
Under the "CCR Rule" of the Federal Safe Drinking Water Act (SDWA), community water systems are required to report water quality information to the consuming public. This report details where our water comes from, what it contains, and the health risks our water testing and treatment procedures prevent. A table is also included to show the specific contaminants that were detected in our drinking water.

The 377th Operational Medical Readiness Squadron, Bioenvironmental Engineering Flight, is pleased to report that **KAFB had no drinking water violations and that our drinking water met all SDWA standards during calendar year 2024.**

We encourage our valued customers to be informed about their water. If you have questions or concerns about decisions affecting your drinking water quality, public participation, or about this report, please feel free to call KAFB's water system administrative contact, Mr. Andrew Brandsma, at (505) 846-4259 or by email at andrew.d.brandsma.civ@health.mil.

Where does KAFB's drinking water come from?
The drinking water distributed to you is pumped from a groundwater source known as the Albuquerque Basin Regional Aquifer within the Santa Fe Formation. KAFB is capable of drawing its water from six different wells within the Albuquerque Basin Regional Aquifer.

In 2024, a total of 791,603,579 gallons of water were pumped from these wells. The water from the wells is mixed together, chlorinated, stored, and distributed. Chlorination is the treatment process used to prevent bacteria growth while the water is stored and distributed through the system.

Additionally, water pumped and treated by the Albuquerque Bernalillo County Water Utility Authority (ABCWUA) can be distributed throughout the base during high water demands or during alternate water supply needs. KAFB did not purchase any water from ABCWUA during 2024.

Family Housing
Since May 2006, ABCWUA has been providing drinking water and maintenance responsibilities of the potable water distribution system in the majority of the KAFB family housing areas. The Maxwell housing area is the only housing site that continues to receive drinking water, monitoring, reporting, and maintenance services from KAFB. KAFB family housing areas that receive drinking water from ABCWUA do not receive the KAFB CCR. For more information on water provided to KAFB family housing by the ABCWUA, call the ABCWUA Information Line at 505-842-9287 or go to their website at: https://www.abcwua.org/. For emergency water system repairs, call the 24-hour ABCWUA Emergency Repair Hotline at 505-842-9287.

Source Water Protection
Through the 1996 reauthorization of the Safe Drinking Water Act, Congress authorized the U.S. Environmental Protection Agency (EPA) to require each state to develop and implement a Source Water Assessment and Protection Program. The New Mexico Source Water Assessment and Protection Program is part of a national effort to gather information on public drinking water source areas and to inform water consumers about any risks to their water supply posed by potential sources of contamination.

The Source Water Assessment of public water systems throughout New Mexico include 1) determining the source water protection area for the community's water system, 2) taking inventory of potential contaminant sources within the source water protection area, 3) determining the susceptibility of the water supply to potential sources of contamination, and 4) making the assessment available to the public.

During 2002, the New Mexico Environment Department - Drinking Water Bureau (NMED-DWB) conducted site visits, collected information on KAFB's production wells, and identified materials used or stored in the areas around KAFB wells that could be potential contaminants. As part of the assessment, wells were ranked on a Susceptibility Scale. The susceptibilities of KAFB wells range from moderate to moderately low. These rankings are largely influenced by the presence of possible contaminants that exist on an active U.S. Air Force installation as part of normal operations, and are all moderate to moderately low, meaning the wells are not likely to become contaminated.

Source Water Susceptibility
A water system's susceptibility is a combination of 1) the sensitivity of the water source to contamination due to the characteristics of the source area and of the wells, and 2) the vulnerability of the water source to contamination due to prevalence and proximity of possible contaminants in the areas around the wells. As a result of industrial operations and materials in a well area, the well's vulnerability may be somewhat higher. The NMED-DWB evaluation is presented in an August 22, 2002 report titled, "Source Water Assessment of Kirtland Air Force Base Water System-Public Water supply System #NM3567701." The 2002 report remains applicable to the KAFB water supply system today.

The KAFB Environmental Management Section manages a comprehensive program to ensure that base facilities comply with environmental laws and regulations. The program includes air, water, petroleum storage tank, hazardous material/waste, and solid waste compliance activities. Environmental restoration activities including investigations, monitoring, and cleanup are performed by the Air Force Civil Engineering Center/Environmental Management (AFCEC/CZ). Even though potential sources of contaminants exist around KAFB's water supply wells, these potential sources of contamination are closely managed and monitored under AFCEC/CZ.

The SDWA requires the results of the source water assessment to be available to water consumers. To meet this requirement, NMED-DWB will provide copies of this report to the public upon request. To obtain a copy of KAFB's Source Water Assessment, contact the NMED-DWB in Santa Fe, New Mexico, toll free at 877-654-8720.

Bulk Fuels Facility Cleanup Project

In November 1999, the Air Force detected evidence of a fuel leak in an underground pipeline at the Bulk Fuels Facility on KAFB, New Mexico. Through a unique partnership between the Air Force, regulators, and the Albuquerque community, significant progress has been made to clean up the fuel plume and to ensure drinking water supply wells continue to provide safe, clean drinking water to KAFB consumers. To date, no fuel contaminants from the leak have been detected in KAFB's drinking water. For more information on the progress of the cleanup operation, please visit: https://www.kirtland.af.mil/Home/BFF/.

Information on Water Contaminants

In order to ensure that tap water is safe to drink, the EPA prescribes regulations that limit the amount of certain contaminants in water provided by public

water systems. However, Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water that must provide the same protection for public health. This CCR does not identify or address the quality of bottled drinking water.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of contaminants. The presence of contaminants does not necessarily indicate the 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 at 800-426-4791.

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, in some cases, radioactive material, and can pick up substances resulting from the presence of animals and human activity. Contaminants that may be present in source water include:

·Microbial contamination 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 that are byproducts of industrial processes and petroleum production. Organic chemical contaminants also can come from urban storm water runoff and septic systems.

·Radioactive contaminants, which can be naturally occurring or the result of oil and gas production and mining activities.

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, persons 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. The EPA/Centers for Disease Control and Prevention guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline at 800-426-4791.

Information on Coliform Bacteria
Coliforms are bacteria that are naturally present in the environment and used as an indicator that other, potentially harmful bacteria, may be present. Coliform bacteria are generally not harmful themselves. During 2024, 0 of 335 samples taken had detectable total coliform bacteria. KAFB did not exceed the MCL for Total Coliform Bacteria.

Additional Information for Arsenic
KAFB water does not exceed regulatory levels for arsenic. However, consumers often inquire about these compounds, so the following information is provided.

While your drinking water meets the EPA's standard for arsenic, it does contain low levels of arsenic. The EPA's standard balances the current understanding of arsenic's possible health effects against the cost of removing arsenic from drinking water. The EPA continues to research the health effects of low-level arsenic, which is a mineral known to cause cancer in humans at high concentrations and linked to other health effects such as skin damage and circulatory problems.

While drinking water samples from one of the six wells has previously shown elevated levels of arsenic, this source water is blended with water from the five other wells in a 2-million-gallon blending tank. The result of this blending means the drinking water provided to you, the consumer, contains levels of arsenic well below the Maximum Contaminant Level (MCL). The blending tank was connected to the water distribution system in 2006 to assist in the long-term solution of maintaining compliance with the arsenic MCL of 10 ppb. These improvements continue to support KAFB's compliance with the drinking water standard for arsenic.

Additional Information for Lead
KAFB water does not exceed regulatory levels for lead and copper. Lead and copper rarely occur naturally in drinking water at levels above national standards; however, elevated levels of these compounds can cause serious health problems, especially for pregnant women and young children. Too much lead in the human body can cause negative health effects including serious damage to the brain, kidneys, nervous system, and red blood cells. Long-term exposure to high levels of copper can result in stomach and intestinal problems. Lead and copper are most commonly found in household drinking water when the plumbing system has corroded. This is not usually a concern in older homes (built before 1982), because a protective mineral layer has built up inside the pipes. A significant source of lead in household water is from lead solder used to join pipes. In 2024, Kirtland AFB conducted a survey of all service lines on base as part of the Revised Lead and Copper Rule to determine the presence of lead in the system. No lead service lines were identified during this survey and a complete inventory can be found at: https://www.kirtland.af.mil/Portals/52/KAFB%20LSLI%20Public%20Version%2031Jan2025_1.pdf.

The use of lead solder was discontinued in New Mexico in 1987. KAFB drinking water sampling for lead and copper has not indicated levels exceeding the applicable MCL. KAFB 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 the 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 EPA's Safe Drinking Water Hotline at 800-426-4791 or at: https://www.epa.gov/ground-water-and-drinking-water/basic-information-about-lead-drinking-water.

In 2024, lead and copper compliance samples were collected from residences within the Maxwell housing area. Lead and copper results from this sampling event were within EPA standards. KAFB does not conduct lead and copper sampling in those military housing areas where the drinking water is supplied by ABCWUA.

Additional Information for Fluoride
KAFB does not fluoridate its drinking water. The average naturally occurring fluoride level at KAFB is approximately 0.56 ppm compared to the EPA's standard of 4 ppm. The Centers for Disease Control and Prevention recommends that children 3-16 years of age who drink community water with fluoride levels between 0.3 ppm and 0.6 ppm receive fluoride supplements. If you have questions about whether you or your dependents may need fluoride supplements, you should call your pediatric caregiver.

Additional Information for Nitrate

KAFB water does not exceed regulatory levels for nitrate. Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant, you should ask for advice from your health care provider.

Additional information for the Fifth Unregulated Contaminant Monitoring Rule (UCMR5)

As part of an on-going evaluation program the EPA has required us to monitor some additional contaminants and chemicals. Information collected through the monitoring of these contaminants and chemicals will help to ensure that future decisions on drinking water standards are based on sound science.

Water Quality Table of Detected Compounds

KAFB staff use EPA-approved sampling and laboratory methods to monitor your drinking water. Bioenvironmental Engineering staff are state-certified samplers and collect water samples from the entry points of the water distribution system, from the residents' taps, and from other representative points throughout the distribution system. These samples are provided to a certified laboratory where all the required water quality analysis is performed.

The table below provides information about those contaminants that were detected in KAFB's water supply in 2023-2024. The table lists only those compounds that were detected at levels equal to or greater than laboratory method detection limits. All detected compounds were at concentrations below any primary Maximum Contaminant Level (MCL).

Key To Table Definitions

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

LRAA: Locational Running Annual Average over the previous four quarters.

MCL: Maximum Contaminant Level. The highest level of a contaminant that is allowed in drinking water. MCLs are as close as possible to the MCLG.

MCLG: Maximum Contaminant Level Goal. The level of contaminant of drinking water below which there is no known or expected risk to health. MCLGs have a built-in margin of safety.

MRDL: Maximum Residual Disinfectant Level. The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

MRDLG: Maximum Residual Disinfection Level Goal. The level of drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

NA: Not Applicable. MCL, AL, or MCLG has not been established for his contaminant.

ND: Not Detected. The compound is not present at a level above the detection limit of laboratory instruments.

pCi/L: Picocuries per liter. A measure of radioactivity in water.

ppb: Parts per billion. A unit of measure equivalent to a single penny in $10,000,000.

ppm: Parts per million. A unit of measure equivalent to a single penny in $10,000.

Range: The range represents the actual detected concentrations of a contaminant from the lowest to the highest analytical values reported during the sampling period. No range is reported for contaminants where one sampling event is required per year for compliance reporting.

Primary Regulated Contaminant	Unit	MCL (or AL)	MCLG	Highest Level Detected	Range Detected	Sample Year	Violation	Likely Source of Contamination	Health Effects
Inorganic Contaminants									
Arsenic	ppb	10	0	2.4	N/A	2024	No	Erosion of natural deposits; runoff from orchards, runoff from glass and electronics production wastes	Some people who drink water containing arsenic in excess of the MCL over many years could experience skin damage or problems with their circulatory system and may have an increased risk of getting cancer.
Barium	ppm	2	2	0.13	N/A	2024	No	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits.	Some people who drink water containing barium in excess of the MCL over many years could experience an increase in blood pressure.
Fluoride	ppm	4	4	0.56	N/A	2024	No	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories	Some people who drink water containing fluoride in excess of the MCL over many years could get bone disease, including pain and tenderness of the bones. Fluoride in drinking water at half the MCL or more may cause mottling of children's teeth, usually in children less than nine years old. Mottling also known as dental fluorosis, may include brown staining and/or pitting of the teeth, and occurs only in developing teeth before they erupt from the gums.
Selenium	ppb	50	50	5.1	N/A	2024	No	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines	Selenium is an essential nutrient. However, some people who drink water containing selenium in excess of the MCL over many years could experience hair or fingernail losses, numbness in fingers or toes, or problems with circulation.
Sodium	mg/L	N/A	N/A	26	N/A	2024	No	Erosion of natural deposits	Sodium is an essential nutrient and is needed to maintain body fluid volume and blood pressure. Excessive intake may cause increased blood pressure.
Disinfectants & Disinfection By-Products									
Chlorine	ppm	4 (MRDL)	4 (MRDLG)	1.73[(4)]	0.1 - 2.5	2024	No	Water additive used to control microbes	Some people who use water containing chlorine well in excess of the MRDL could experience irritating effects to their eyes and nose. Some people who drink water containing chlorine well in excess of the MRDL could experience stomach discomfort.
Haloacetic Acids (HAA5)	ppb	60	N/A	2.33[(5)]	0 - 4.65	2024	No	Byproduct of drinking water disinfection	Some people who drink water containing haloacetic acids in excess of the MCL over many years may have an increased risk of getting cancer.
Total Trihalomethanes (TTHM)	ppb	80	N/A	20.85[(5)]	9.59 - 32.1	2024	No	Byproduct of drinking water disinfection.	Some people who drink water containing trihalomethanes 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.
Nitrates & Nitrites									
Total Nitrates & Nitrites	mg/L	10	10	0.58	N/A	2024	No	Agricultural runoff	People who consume water with levels in excess of the MCL may have an increased risk of cancer.
Microbiological Contaminants									
Total Coliform Bacteria	0 Detected		0	N/A	N/A	2024	No	N/A	Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, bacteria may be present.

Primary Regulated Contaminant	Unit	MCL (or AL)	MCLG	Highest Level Detected	Range Detected	Sample Year	Violation	Likely Source of Contamination	Health Effects
Radioactive Contaminants									
Beta/Photon Emitters	pCi/L	50[3]	0	1.93	1.93	2024	No	Decay of natural and man-made deposits	Certain minerals are radioactive and may emit forms of radiation known as photons and beta radiation. Some people who drink water containing beta and photon emitters in excess of the MCL over many years may have an increased risk of getting cancer.
Uranium	ug/L	1.4	0	1.4	N/A	2024	No	Erosion of natural deposits.	Some people who drink water containing uranium in excess of the MCL over many years may have an increased risk of getting cancer and kidney toxicity.
Lead and Copper									
Lead	ppb	15 (AL)	0	0.96[2]	ND – 4.7	2024	No	Corrosion of household plumbing systems; erosion of natural deposits	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.
Copper	ppm	1.3 (AL)	1.3	0.027[2]	0.0019 – 0.075	2024	No	Corrosion of household plumbing systems; erosion of natural deposits	Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of time could experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years could suffer liver or kidney damage. People with Wilson's Disease should consult their personal doctor.
UCMR5									
Lithium	ug/L	N/A	N/A	21.2[1]	18.3-21.2	2023	No	Erosion of natural deposits	The EPA continues to assess the literature for health effects information, identify data gaps, and determine the need for future studies to improve our understanding of the possible health risks associated with lithium in drinking water.

Table Notes

(1) This value represents the most recent round of sampling.
(2) This value represents the 90th percentile value used for compliance reporting. Ninety percent of results in the test set were below this level.
(3) The EPA considers 50 pCi/L to be the level of concern for beta particles.
(4) This represents the annual average of monthly test results, the value used for compliance reporting.
(5) This number represents the Locational Running Annual Average over the previous four quarters, which is the value used for compliance reporting.