

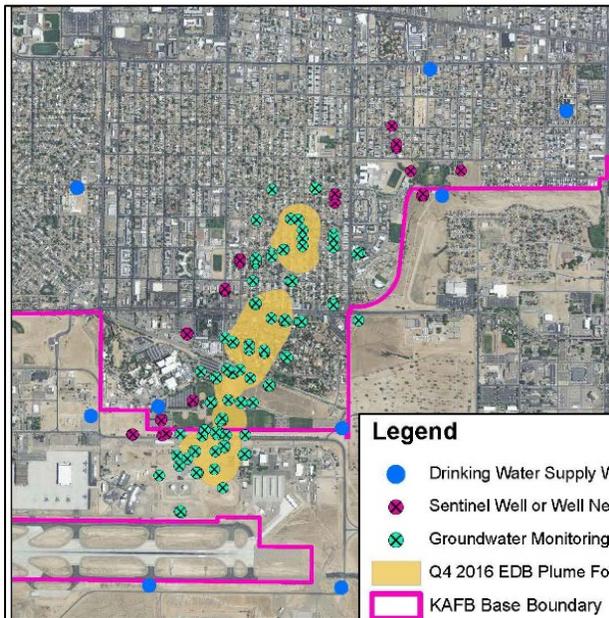


Fact Sheet: Bulk Fuels Facility Cleanup Project

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In 1999, the Air Force discovered a leak in the off-loading section of the Bulk Fuels Facility storage area at Kirtland AFB. Underground pipelines that moved aviation fuel to aircraft had developed holes and leaked fuel into the surrounding soil over several decades.



Once in the subsurface soil, or vadose zone, fuel migrated down approximately 480 to 500 feet, or roughly the height of a 45-story building, to the groundwater. The types of leaked fuels included aviation gasoline with the additive ethylene dibromide (EDB), used from 1953 to 1975, and jet propellant JP-4 and JP-8, used from 1975 and 1993. Upon discovery of the leak, the underground pipelines were sealed off and removed from service. Kirtland AFB replaced the BFF with a state-of-the-art fueling system in 2011.

The New Mexico Environment Department, or NMED, has jurisdiction for the BFF cleanup. Many phases of environmental investigation have been conducted to determine the extent of contamination along

with interim cleanup activities. These investigations identified and located the fuel-related compounds in soil, soil vapor, and groundwater; while interim cleanup activities have removed contamination from the soil, soil vapor, and groundwater.

One interim activity for the EDB plume is a groundwater pump and treat system that removes dissolved EDB groundwater and treats it to drinking water standards. The objective of the system is to prevent further movement of the EDB plume toward community drinking water supply wells. These wells are sampled monthly to ensure there are no detections of fuel-related contaminants. Shallow and deep sentinel “early warning” wells located between the plumes and drinking water supply wells are sampled four times a year.

These activities continue to ensure that the Albuquerque Bernalillo County Water Utility Authority, (Water Authority), Veterans Affairs Medical Center, and Kirtland AFB community drinking water supply wells continue to provide safe, clean drinking water to Albuquerque residents.

FAQs:

Q1. What are the Air Force's plans if the fuel contamination does reach the on-base or off-base drinking water supply wells?

A1. Air Force and NMED subject matter experts do not believe fuel contaminants will reach any drinking water supply well. In the remote possibility that drinking water supply wells are impacted, whether on-base or off-base, the water supply wells will be taken out of service. Additionally, the Water Authority passed a resolution in 2014 stating it would shut down any affected well. The Veterans Affairs Medical Center has the infrastructure in place to use Water Authority water, if need be.

Q2. Should there be a concern about exposure to fuel contaminants in the neighborhoods?

A2. Surface soil contamination has only occurred at the BFF offloading area which is not accessible to the general public. Contaminated surface soil has been excavated to depth of 20 feet and removed to a regulated off-site disposal company. There is no off-base surface or near-surface soil contamination. Additionally, groundwater contaminants are too deep (approximately 480 feet) to cause vapors to enter homes and buildings, or expose residents using local parks.

Q3. How does leaked fuel behave underground?

A3. The fuel will take the path of least resistance from the surface down through the layers of soil, into the "vadose zone" (soil area above the water table) until it finally reaches the water table. Fuel contaminants may remain in pore spaces or attach to soil particles. Once it has reached the water table, fuel may dissolve in groundwater or, if present in high enough concentrations, float on top of the groundwater. The complex layers of soil in this area caused the leaked fuel to move downward through the more permeable soil layers (rocks, gravel, and sand) until it hit the water table.

Q4. How can we really be certain that there is no EDB in the drinking water supply wells?

A4. The drinking water supply wells in the vicinity of the plumes are tested monthly and show no detections of any fuel-related contaminants. Shallow and deep sentinel wells (early detection wells) are tested quarterly and also show no detections of any fuel-related contaminants. The extensive groundwater monitoring network, confirms that the plume has never reached any drinking water wells.

Q5. Are our gardens in danger of being contaminated?

A5. No, water supplied by the Water Authority is safe for irrigation. There is no off-base surface or near-surface soil contamination, and groundwater contaminants are too deep to allow vapors to contaminate garden crops.

Q6. How is the EDB-contaminated groundwater treated and how is it used?

A6. The extracted EDB-contaminated groundwater is pumped to an on-base groundwater treatment facility. At the facility, the EDB-contaminated groundwater is treated using granular activated carbon to absorb EDB from the water and treat it to meet drinking water standards. The treated water is used to irrigate the on-base golf course or is gravity-fed into a well to replenish the aquifer under a NMED permit.

Q7. How much is the Air Force prepared to spend to clean up the BFF site?

A7. The Air Force remains committed to seeing this cleanup to its end and covering all necessary costs associated with achieving this goal. There is a robust and comprehensive cleanup program that receives funding on a yearly basis through a congressional appropriation. The Air Force is required to comply with its Resource Conservation and Recovery Act permit, which includes the BFF cleanup.

For More Information

www.kirtlandjetfuelremediation.com is a project-specific website available to provide information related to the fuel spill investigation to the public.

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