Fact Sheet: Bulk Fuels Facility Cleanup Project

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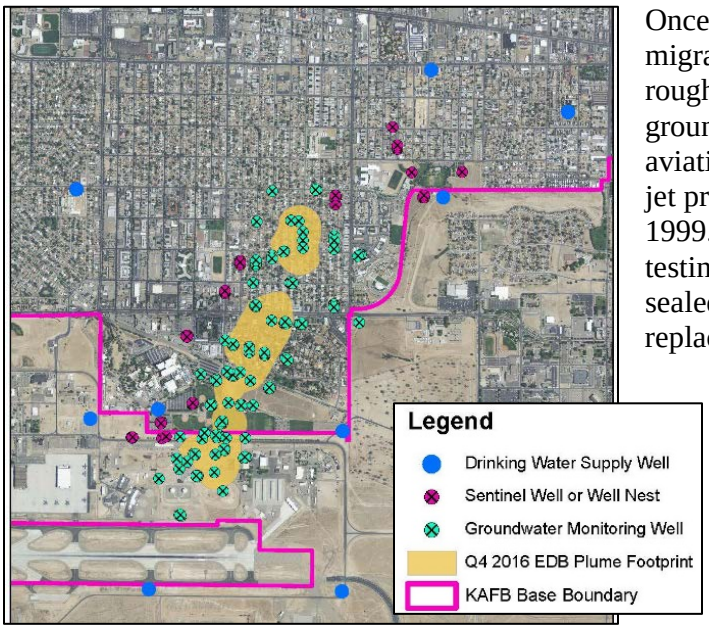
In late 1999, the Air Force discovered a leak in the off-loading area of the Bulk Fuels Facility storage area at Kirtland AFB. Underground pipelines that moved aviation fuel to aircraft had developed holes and leaked fuels into the subsurface soil over several decades.



Once in the subsurface soil, or vadose zone, fuel migrated down approximately 480 to 500 feet, roughly the height of a 45-story building, to the groundwater. The types of leaked fuels included aviation gasoline, used from 1953 to 1975, and jet propellant JP-4 and JP-8, used from 1975 to 1999. Upon discovery of the leak and further testing of the underground pipelines, they were sealed off and removed from service. They were replaced by a state-of-the-art fueling system.

Many phases of environmental investigation have been conducted to determine the extent of contamination and identify effective cleanup, or remediation, approaches. Interim cleanup activities are continuing under New Mexico Environment Department, or NMED, oversight. These investigations and interim measures have helped to identify the fuel-related compounds in soil, soil vapor, and groundwater, and where they are located.

The operation of a groundwater pump and treat system continues to remove contaminated groundwater. This prevents further migration toward drinking water supply wells and treats it to drinking water standards. All community water supply system wells near the plume are sampled monthly to ensure there are no detections of fuel contaminants in drinking water wells. Sentinel “early warning” wells located between the plume and drinking water supply are sampled four times a year.

These measures, approved by NMED, continue to ensure that the Albuquerque Bernalillo County Water Utility Authority, Veterans Affairs Health Care System, and Kirtland AFB water production wells provide safe, clean drinking water.

FAQs:

Q1. What are the Air Force's plans if the fuel contamination does reach the drinking water wells off base, in the residential areas or at the VA?
A1. The Air Force and NMED will not allow any fuel contaminants to reach any drinking water supply well. In the remote possibility that production wells are impacted, they will be taken offline and out of service. Additionally, the Water Utility Authority passed a resolution in 2014 stating it would shut down any affected well. The VA has the infrastructure in place to use Water Utility Authority water. On base, a contaminated drinking water well would be taken offline and out of service.

Q2. Should there be a concern about past exposure to fuel contaminants in the neighborhoods?
A2. Surface soil contamination has only occurred at the BFF industrial area which is not accessible to the general public. Contaminated soil has been excavated and removed for off-site disposal. There is no off-base surface or near-surface soil contamination, and groundwater contaminants are too deep to allow vapors to enter homes and buildings, contaminate garden crops 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 top 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, attach to soil particles, 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 "sideways" down through the more permeable soil layers until it hit the water table.

Q4. How can we really be certain that there is no EDB in the drinking water production wells?
A4. The drinking water wells are tested monthly and show no detections of any fuel-related contaminant. Sentinel wells (early detection wells) are tested quarterly and also show no detections of any fuel-related contaminant. The extensive monitoring network, which has defined the vertical and horizontal shape of the plume, confirms that the plume has never reached any drinking water well. Additional monitoring wells are being drilled in 2018.

Q5. Are our gardens in danger of being contaminated?
A5. No, water supplied by the Water Utility 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 water treated and how is it used?
A6. The groundwater treatment system pumps contaminated groundwater into the treatment facility on-base and treats it to drinking water standards. The treated water is used to irrigate the on-base golf course and added to the aquifer under a permit from NMED.

Q6. How much is the Air Force prepared to spend to clean up this fuel plume, to include the cost of new wells or well-head treatment?
A6. The Air Force remains committed to seeing this cleanup to its end and covering the necessary costs associated with achieving this goal. The AF has a robust and comprehensive cleanup program and receives funding on a yearly basis through congressional appropriations. The Air Force is required to comply with its Resource Conservation and Recovery Act permit, which includes the BFF cleanup.

For More Information
www.kirtland.af.mil/Home/Environment/ is a project-specific website available to provide information related to the fuel spill investigation to the public.