Kirtland Air Force Base
Bulk Fuels Facility Leak Cleanup

Public Meeting
November 4, 2021 (6:00—7:30 PM)

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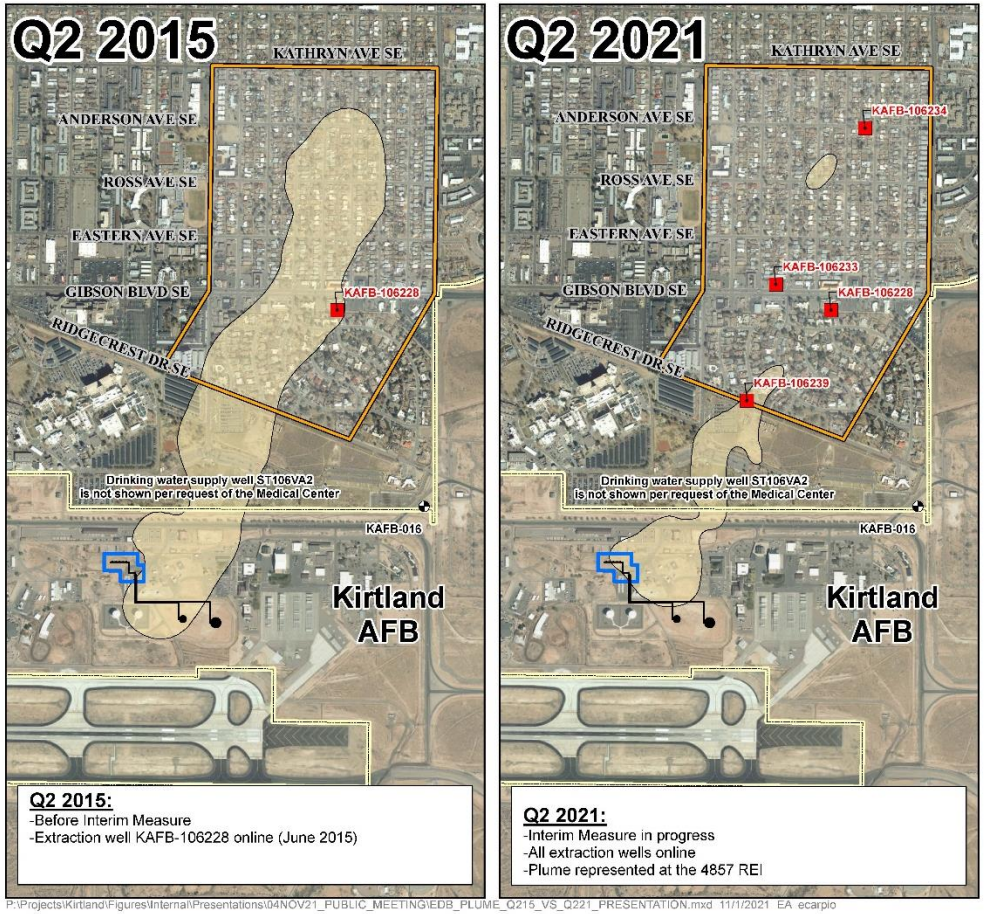
Discussion Topics

- **Status update: Ethylene Dibromide (EDB) interim corrective measure pump and treat**
  - Status of EDB plume north of Ridgecrest Drive, SE
  - Volume of groundwater treated
- **Benzene Plume Stability**
- **Recent Field Work:**
  - New injection well KAFB-106IN2 back flushing
  - KAFB-106IN2 Site Restoration
  - Status Update ISB Pilot Study and decommissioning
- **Upcoming field work**
  - Install electrical service to downhole pump at KAFB-106IN2
  - Continue quarterly routine groundwater monitoring
  - Continue semi-annual routine soil vapor sampling
  - Continue operation and maintenance of the GWTS
  - Shallow soil vapor monitoring well installation and sampling
- **Upcoming activities**

EDB Plume – 2015 vs 2021

EDB PLUME - 2015 vs 2021



Legend

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- Drinking Water Supply Well
- Kirtland AFB Extraction Well
- Kirtland AFB Installation Fence Boundary
- Former Fuel Transfer Lines
- Former Aboveground Storage Tank
- Bulk Fuels Facility (SWMUs ST-106/SS-111)
- Interim Measure Operational Area
- Dissolved-Phase EDB ≥ 0.05 µg/L (EPA MCL)

0 700 1,400 2,800
Feet

General Notes:
-Aerial imagery provided by ESRI Online service
-EDB plume models generated with C-Tech MVS Premier Version 9.94

Acronym(s):
AFB = Air Force Base
EDB = 1,2-dibromoethane (ethylene dibromide)
EPA MCL = Environmental Protection Agency maximum contaminant level
REI = reference elevation interval
SWMU = solid waste management unit
µg/L = microgram(s) per liter
Q2 = quarter 2
Q4 = quarter 4

Plume maps are based on actual measurements and not simulations

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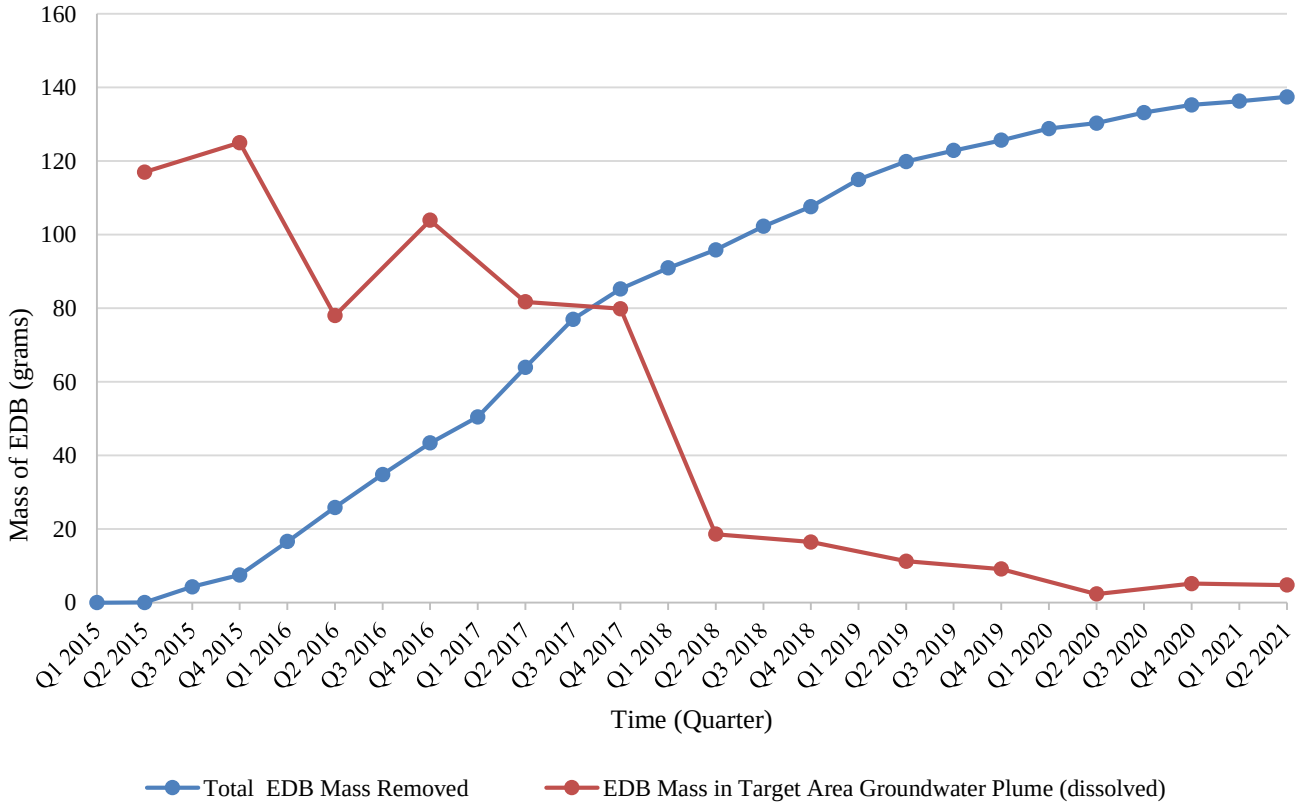
Status Update: EDB Interim Measure

EDB Mass in Groundwater vs. Time



Pump and treat interim measure has achieved over an estimated 96% reduction in mass of the dissolved EDB groundwater plume since 2015

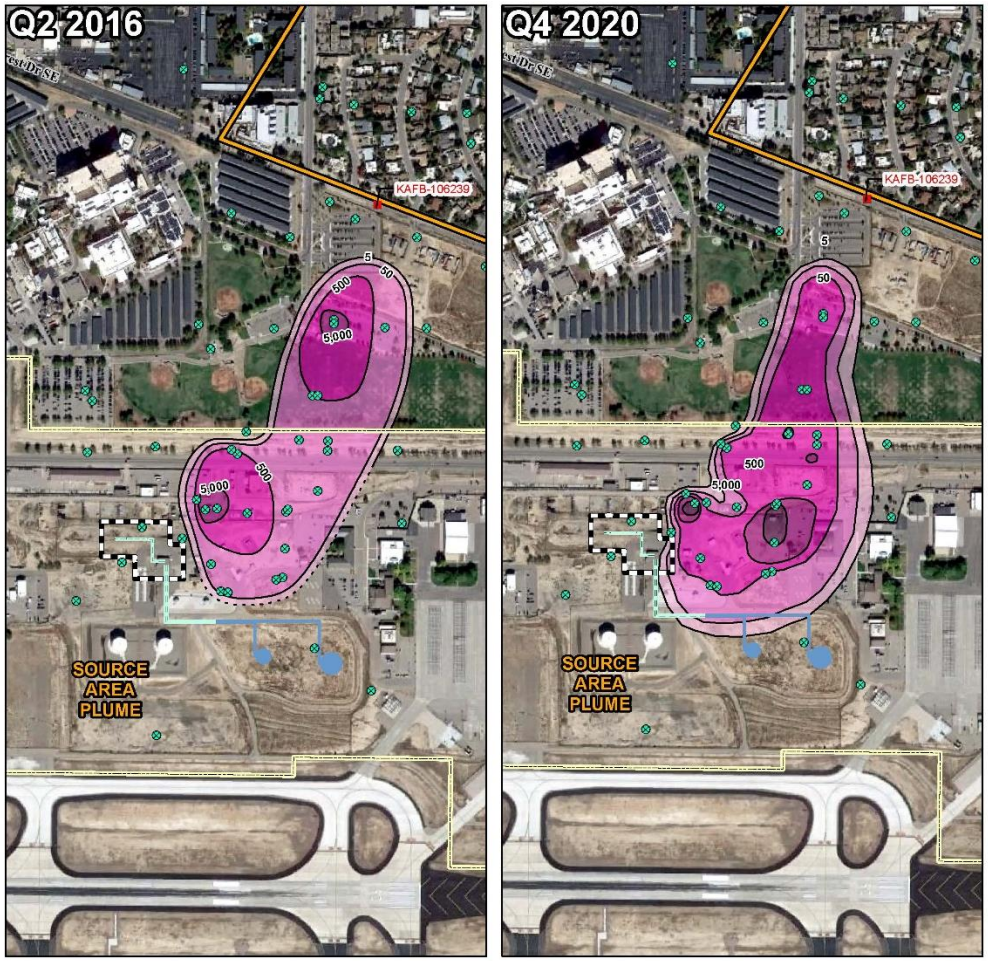
Status update: EDB Interim Measure

Over 1.2 billion gallons of groundwater have been treated, to date, using granular activated carbon to remove EDB to at or below federal drinking water standards

Groundwater Treatment System (GWTS) on Kirtland AFB

Groundwater is treated in much the same way that a filter removes dissolved contaminants in a pitcher of drinking water

Benzene Plume Stability



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- Benzene plume located south of Ridgecrest Dr SE
- Benzene plume has been stable and does not threaten people (no complete exposure pathway)

Plume maps are based on actual measurements and not simulations

Injection Well Activities Completed KAFB-106IN2

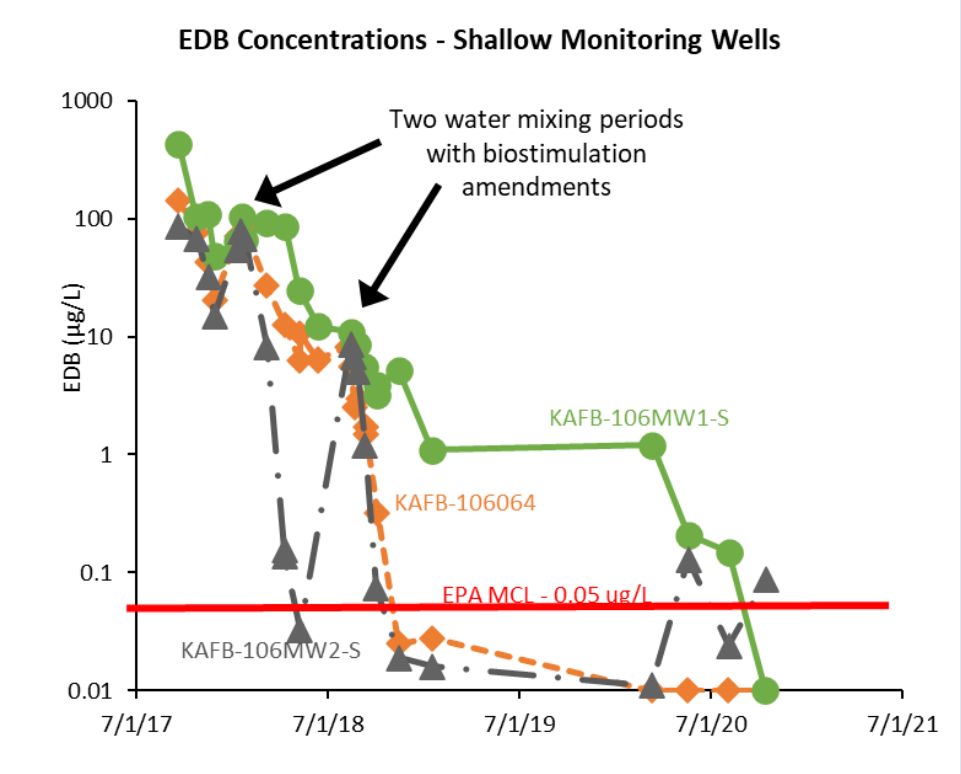
- Site restoration completed:
  - Site was graded and tilled
  - Site was reseeded
  - Gravel mulch placed to minimize wind and water erosion
  - Silt fence will remain until site achieves 70% growth

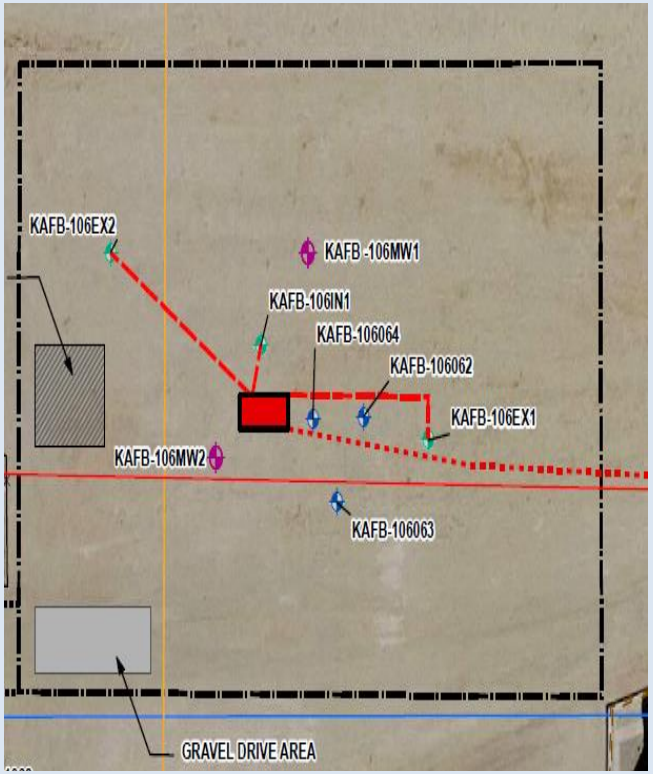
Status Update: ISB Pilot Study

- Purpose: The ISB test was an effort to test an innovative technology at the site to treat EDB contamination in groundwater. This test provided information that could be used for future clean-up efforts.
- ISB Technology: ISB technologies inject food grade amendments into contaminated groundwater. These amendments stimulate the action of naturally occurring microbes in the groundwater to break down EDB into non-toxic compounds.
- Results: The ISB pilot test has been completed. Results show that EDB can be reduced by orders of magnitude using this technology.
- Status: The Revised Final Report that addressed previous regulatory comments is in review with NMED. No further tests are planned, but this technology will be considered for future clean-up actions. The system is undergoing decommissioning.

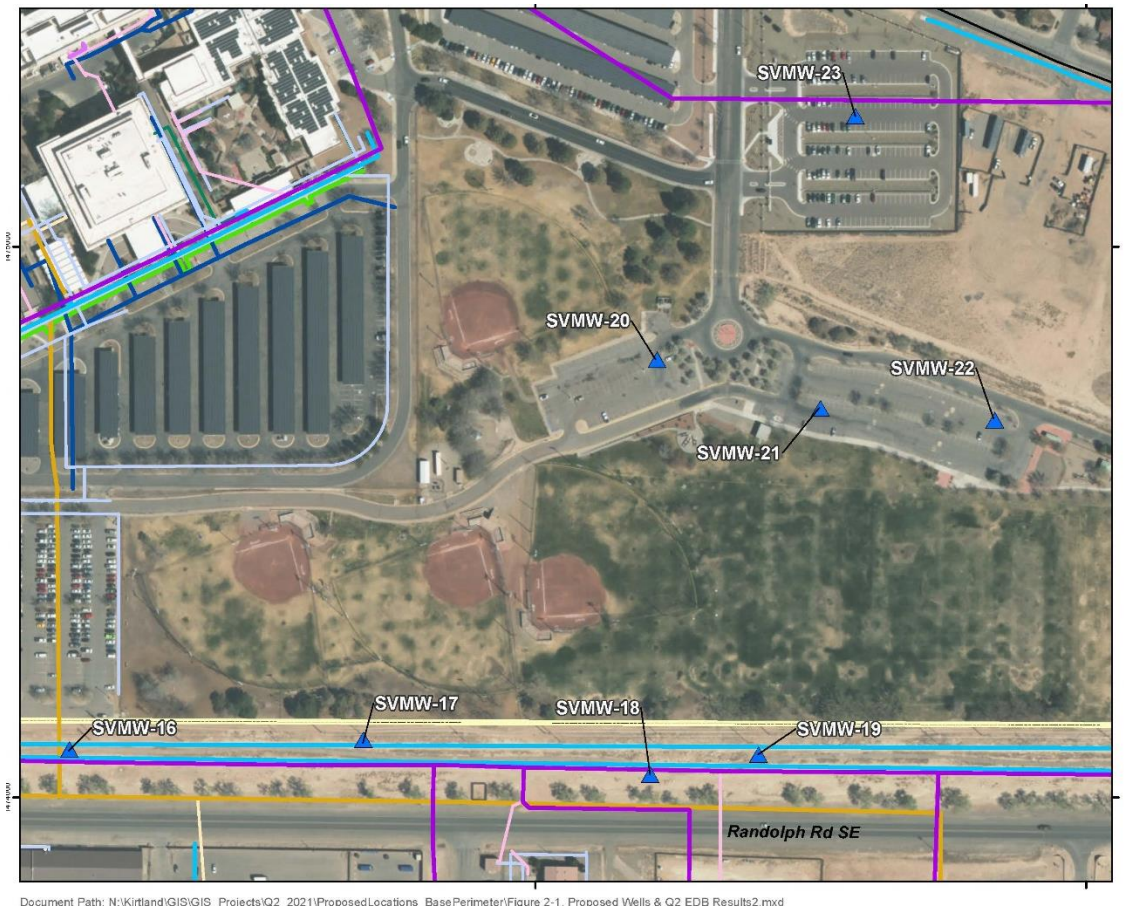
Status Update: ISB Pilot Study

- Monitoring of ISB Pilot Test is complete
- Data shows degradation of EDB greater than 2 orders of magnitude





Shallow Soil Vapor Monitoring Well Installation and Sampling



- A total of eight soil vapor monitoring wells
- Three sample ports per well
- Wells will be constructed to 15 feet below ground surface
- Data will be evaluated after a winter and summer sampling events are completed
- Wells are permanent and will be incorporated into the routine soil vapor monitoring program

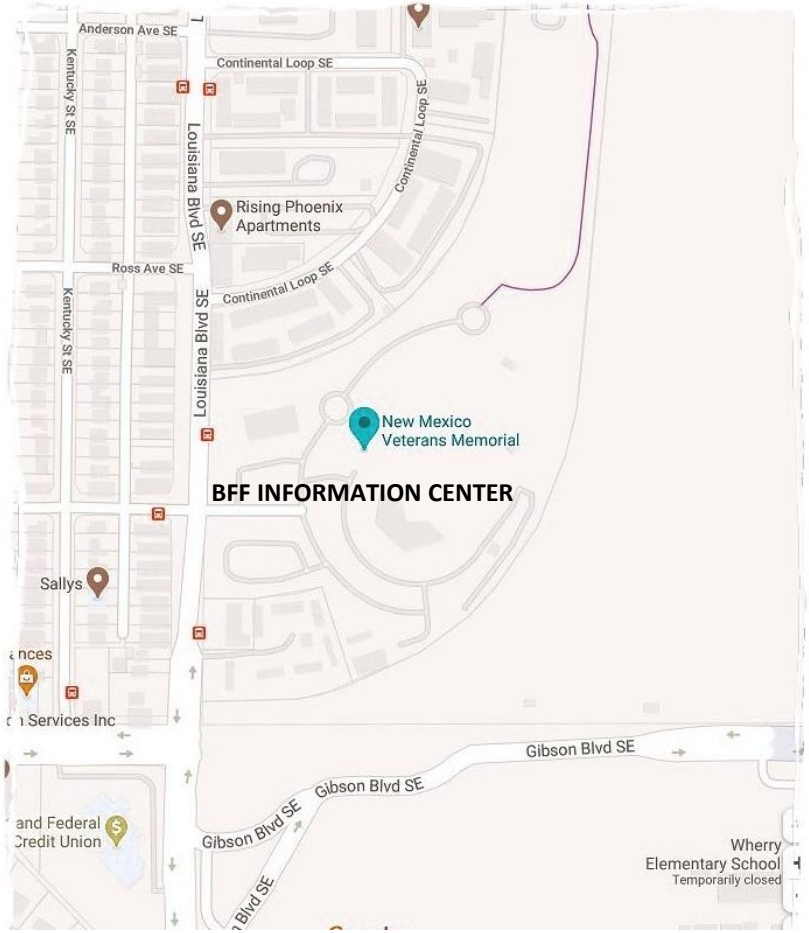
Upcoming Activities

Scheduled for 2022 or underway

- Continue to operate the Groundwater Treatment System
- Continue groundwater and soil vapor monitoring
- Groundwater elevation gauging
- Installation of eight permanent shallow soil vapor wells
- Collect shallow soil vapor samples winter and summer events

Community Outreach

- We welcome your input and look forward to seeing you at the next public meeting tentatively scheduled for 04/22/22.
- The AFCEC Administrative Record is up to date. We encourage the public to access the record. Simply type https://ar.afcec-cloud.af.mil/ into your browser, select “Kirtland AFB” from the scroll down menu, and then select “search”.



Questions?

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Additional information:

Online at https://www.kirtland.af.mil/Home/BFF/ and https://ar.afcec-cloud.af.mil/ or visit our New Information Station at the New Mexico Veterans Memorial at 1100 Louisiana Blvd SE, Albuquerque, NM