# Kekaha Brownfields Program


## Environmental Testing Results

Sampling was recently completed on the eastern half of the former Kekaha Sugar Mill property, also known as the Lot B property. This area was historically used for camp housing and seed dipping operations that supported the Sugar Mill. The work was funded by the U.S. Environmental Protection Agency (EPA) through a Community-wide Brownfields Assessment Grant and Aloun Farms, the property owner.

## What happened?

- Environmental testing began on April 21, 2025 and took about two weeks, ending on May 4, 2025.
- All testing followed a Sampling Analysis Plan approved by the EPA and Hawai'i Department of Health (DOH).

## How was testing done?

- The property was divided into 15 "decision units" (DUs) to characterize soil contamination.
- Each DU was sampled using **Multi-Increment Sampling (MIS)**, which combines small soil samples within individual DUs and mixes them together into one combined sample. This gives a more accurate picture of overall soil quality across each DU.
- Samples were collected from three depths:
  - Shallow: 1 - 1.5 feet below ground surface (bgs)
  - Middle: 1.5 - 3 feet bgs
  - Deep: 3 - 4.5 feet bgs
- A total of 46 samples were collected and sent to a certified lab for analysis in accordance with the Sampling Analysis Plan.
- Sample testing results were compared against **DOH's Tier I/II Environmental Action Levels (EAL)**, which are the most conservative criteria for unrestricted land uses like housing, schools, daycares, etc.

## What did the results show?

- **Findings show that no contaminants exceeded DOH screening levels in the areas planned for development.** (DU-2, DU-4 through DU-15)
- Testing detected lead, petroleum, and dioxins/furans in ditch sediments above DOH's screening levels. While these findings do not pose an immediate risk to residents, further testing and cleanup may be required. (DITCH-A and DITCH-B)
- Reference the graphic and table behind this page.

## What's next?

- The soil results are very encouraging for future development. **Aloun Farms intends to redevelop the site for family and workforce housing.**
- DOH is currently reviewing the Phase II Environmental Site Assessment report, submitted on Sept. 4, 2025. The review process may take three to six months.
- If approved, the property owner will work with DOH and other necessary agencies to move forward with development plans.
- The owner will work with DOH to determine the best way to address the findings in the ditch.

## Questions?

Contact Ana Española
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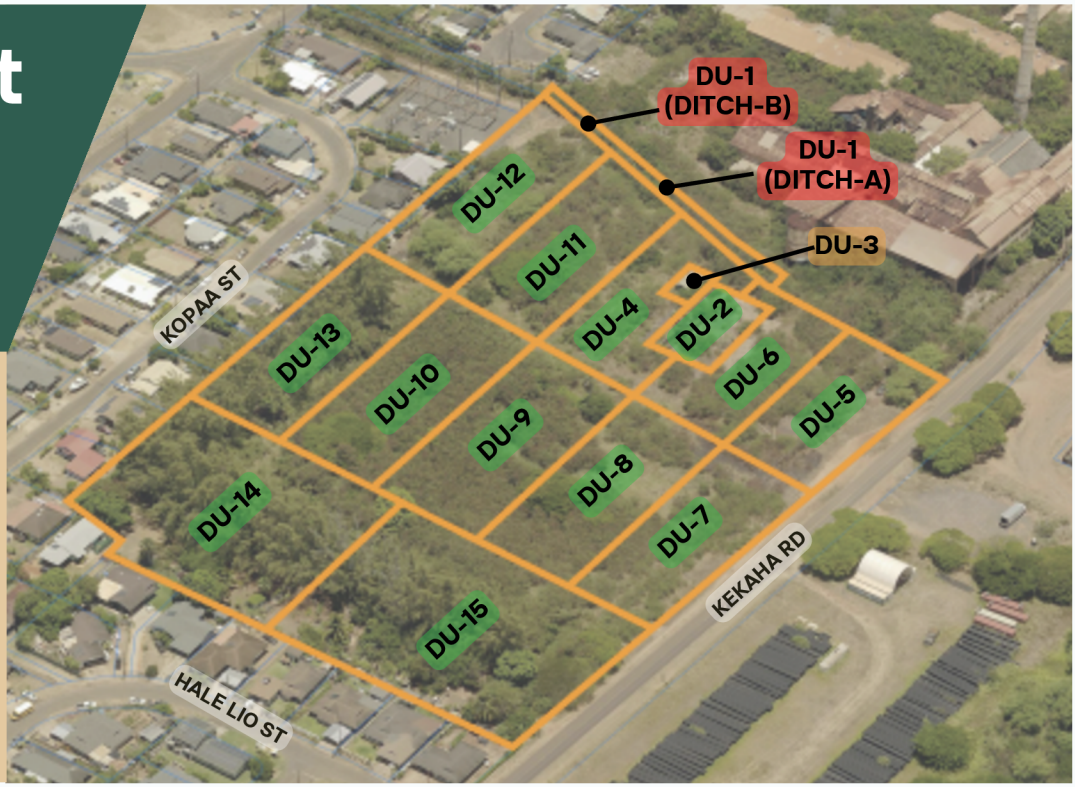
**Website**

# Decision Unit (DU) Status

The property was divided into fifteen (15) DUs to characterize soil contamination. Key findings:

- **DU-2, DU-4 through DU-15:** No exceedances.
- **DU-1 (Ditch-A and Ditch-B):** Lead, petroleum, and dioxins/furans were detected above DOH's screening levels.
- **DU-3:** No exceedances but more sampling may be needed under existing concrete pad.




| Contaminant Group | Possible Sources | Was it Detected? | Exceed DOH's Environmental Action Level (EAL)? |
|---|---|---|---|
| Petroleum Hydrocarbons (DRO & ORO) | Fuel storage, machinery leaks, ditch runoff | Elevated levels in upstream ditch sediment | Yes, in **DITCH-A** |
| Polycyclic Aromatic Hydrocarbons (PAHs) | Burning of organic material, fuel use | Low levels in soil and ditch sediment | No |
| Pentachlorophenol (PCP) | Treating wood in seed dipping tanks | Low levels in soil and ditch sediment | No |
| Metals (Lead, Arsenic, Chromium, Mercury, etc.) | Lead-based paint, pesticide, industrial residues | Lead detected at elevated levels in the ditch. Arsenic detected at very low levels in soil which is typical in Hawai'i. | Yes, lead in **DITCH-A** and **DITCH-B** No for arsenic |
| Organochlorine Pesticides (OCPs) | Pest control, like DDT, used during plantation | Low levels in soil | No |
| Polychlorinated Biphenyls (PCBs) | Old electrical equipment | Not detected | No |
| Chlorinated Herbicides | Sugarcane field treatment | Not detected | No |
| Dioxins & Furans | By-products from burning and industrial processes | Slightly elevated levels in downstream ditch | Yes, in **DITCH-B** |

Stantec

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