

Project: Firing Range Remediation

Location: Diamond Head Crater, Hawaii

Client: Hawaii Army National Guard

Periods of Performance: Jan.-May 2007

Work Performed:

The project was a technology demonstration of an innovative hybrid remediation process developed by Brice that employed conventional particle separation technology with an innovative dry screening process. The subsequent soil remediation resulted in the removal of particulate lead from the former firing ranges at the Site and reduced the volume of lead in these former firing range areas. Consequently, the short and long-term risks to human health and ecological receptors were reduced.



The Site is a former HIARNG facility located at the Diamond Head Crater State Monument on the island of Oahu. The site included a formerly used training area consisting of two small arms firing ranges; a rifle range and a pistol range contaminated with legacy lead from former training activities.

This area is under lease to the State of Hawaii Department of Land and Natural Resources (DLNR), and is slated for transfer to DLNR for public use.

The purpose of this remedial action was to recover particulate lead from

impacted soil originating from the former ranges at Fort Ruger while providing an evaluation of the hybrid particle separation technology. The cleanup criterion for residual total lead concentrations in soil was identified as the U.S. Environmental Protection Agency (USEPA) Region IX residential PRG of 400 mg/kg (USEPA). In addition, the action level for TCLP lead was identified as 5.0 mg/L for disposition of materials not meeting the USEPA residential PRG, as non-hazardous waste.



Brice mobilized to the site in January and commenced processing of approximately 20,000 tons of impacted soil. Their scope of work included excavation and haul, processing, and backfilling/grading. All processed soil met replacement criteria and was returned as backfill and seeded. Recovered lead was shipped to a lead recycler for reuse.

