Final

Demolition Report Demolish Abandoned Tank Cleaning Water Piping and JP-5 Pipeline and Appurtenances RED HILL BULK FUEL STORAGE FACILITY, NAVSUP FLEET LOGISTICS CENTER, JOINT BASE PEARL HARBOR-HICKAM, HAWAI'I

June 2012

Department of the Navy Naval Facilities Engineering Command, Hawaii 400 Marshall Road JBPHH, HI 96860-3139



NAVEAC HAWAII

Contract Number N62742-09-D-1959, CTO HC06

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Contract Number N62742-09-D-1959, CTO HC06

Executive Summary

The Department of the Navy, Navy Facilities Engineering Command Hawaii (NAVFAC Hawaii), retained Engineering/Remediation Resources Group, Inc. (ERRG), under Fixed-Price Remedial Action Contract No. N62742-09-D-1959, Contract Task Order HC06, to demolish various abandoned pipelines and appurtenances within the Red Hill Bulk Fuel Storage Facility (RHBFSF), on the island of Oahu, Hawaii. The work began on February 7, 2011, and was completed on July 20, 2011. A contract modification for additional demolition work that included demolishing abandoned water pipelines and a former train charging station was awarded on November 4, 2011; fieldwork for the additional demolition work began on February 28, 2012, and was completed on March 30, 2012. Fieldwork was performed in compliance with contract documents, approved planning documents, and applicable guidance documents and regulations. General site control was maintained throughout the project, including environmental protection, fire prevention, and waste management procedures.

In general, the scope of work performed under the initial project contract and subsequent contract modification comprised demolition, removal, and recycling of piping and appurtenances from within RHBFSF. Table 1 summarizes the piping and appurtenances that were demolished for this project. Work was completed at the following locations within RHBFSF:

- Adit 3 Tunnel
- Lower Access Tunnel
- Pearl Harbor Tunnel
- Zone 7
- Adit 6 Tunnel

Demolition of pipelines involved cutting pipe with pneumatic saws to prevent spark or ignition sources. Generally, pipelines were cut into approximate 6.5-foot sections for removal from the tunnel. Appurtenances were also demolished using pneumatic hand tools to disassemble components of the appurtenances, except for the transfer pump and former train charging station, which were demolished using manual hand tools and wrenches. Prior to demolition, pipelines were cold tapped, as applicable, and any liquid found was removed via vacuum truck provided by Naval Supply Fleet Logistics Center or ERRG's subcontractor, Pacific Commercial Services, Ltd. Liquid wastes were tested prior to being taken off site and disposed of in accordance with state and federal regulations as identified in the Site Health and Safety Plan. An estimated 4,300 gallons of wastewater and approximately 300 gallons of JP-5 slop were disposed of from the pipelines. Four drums of lead waste and one drum of asbestos waste were also

disposed of in accordance with state and federal regulations. Metal from the steel piping, appurtenances, and other metal components was recycled to the greatest extent practicable.

On September 27, 2011, a pre-final inspection was conducted of the work performed under the initial project contract. Punchlist items identified during the pre-final inspection were addressed by ERRG and subsequently accepted by NAVFAC Hawaii on September 30, 2011. A second pre-final inspection for the additional demolition work associated with the subsequent contract modification was performed on April 2, 2012. Punchlist items identified during the second pre-final inspection were addressed by ERRG and subsequently accepted by NAVFAC Hawaii during the final inspection on April 12, 2012. This demolition report documents all the project field activities occurring from February 2011 through to the final inspection in April 2012.

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Acronyms and Abbreviations

BTEX benzene, toluene, ethylbenzene, and xylenes

CQCP Construction Quality Control Plan

EPA U.S. Environmental Protection Agency

ERRG Engineering/Remediation Resources Group, Inc.

JBPHH Joint Base Pearl Harbor-Hickam

JP-5 jet propellant 5

NAVFAC Naval Facilities Engineering Command NAVSUP FLC Naval Supply Fleet Logistics Center

Navy Department of the Navy

NEA negative exposure assessment

NIOSH National Institute of Occupational Safety and Health

OSHA Occupational Safety and Health Administration

PCS Pacific Commercial Services, Ltd
PPE personal protective equipment

QC quality control

RCRA Resource Conservation and Recovery Act

RHBFSF Red Hill Bulk Fuel Storage Facility

SHSP Site Health and Safety Plan

TCLP toxicity characteristic leaching procedure

TPH total petroleum hydrocarbons

Section 1. Introduction

The Department of the Navy (Navy), Navy Facilities Engineering Command (NAVFAC) Hawaii, retained Engineering/Remediation Resources Group, Inc. (ERRG), under Fixed-Price Remedial Action Contract No. N62742-09-D-1959, Contract Task Order HC06, to demolish various abandoned pipelines and appurtenances within the Red Hill Bulk Fuel Storage Facility (RHBFSF), on the island of Oahu, Hawaii. The purpose of the demolition project was to remove pipelines and appurtenances that were severely corroded and abandoned and therefore no longer served any uses in naval support operations at RHBFSF.

This Demolition Report details the work performed for demolition, removal, and recycling of piping and associated appurtenances. Table 1 summarizes the demolished items as required by the project scope of work. Work was performed in accordance with contract documents, applicable regulations, and the approved Site Work Plan, which included the Construction Quality Control Plan (CQCP) and Site Health and Safety Plan (SHSP) (Navy, 2011a). Fieldwork was completed between February 7, 2011, and March 30, 2012.

The remainder of this report is organized as follows:

- Section 2, Site Background summarizes the site location and history.
- Section 3, General Site Procedures presents the overall site procedures followed to meet the
 objectives outlined in the planning and contract documents.
- Section 4, Fieldwork describes each task that was performed as part of the demolition activities at the site.
- Section 5, Waste Disposal summarizes waste handling, characterization, and disposal practices performed during the project.
- Section 6, References lists the documents and guidance used to prepare this report.

Figures and tables are presented following Section 6. In addition, the following supplemental information is appended to this report:

- Appendix A, Laboratory Analytical Report
- Appendix B, As-Built Drawings
- Appendix C, Photographic Logs
- Appendix D, Waste Disposal Documentation

Section 1 Introduction

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Section 2. Site Background

This section contains general information about the project, including location and background information pertaining to the RHBFSF.

2.1. SITE LOCATION

The RHBFSF is located within the Red Hill Ridge, north-northeast of Joint Base Pearl Harbor-Hickam (JBPHH), on the island of Oahu, Hawaii. Figure 1 shows the approximate location of the RHBFSF. Work was completed in the following locations within the RHBFSF, as shown on Figure 2:

- Adit 3 Tunnel
- Lower Access Tunnel
- Pearl Harbor Tunnel
- Zone 7
- Adit 6 Tunnel

2.2. SITE HISTORY

The RHBFSF is an active fuel facility that includes 20 underground storage tanks, each with a capacity of 12.5 million gallons, and a series of tunnels and pipelines that transmit fuel to and from the Pearl Harbor Naval Base (now referred to as JBPHH). The tanks are located in pairs intermittently along the Lower Access Tunnel, flanking the both sides of the tunnel. The RHBFSF was constructed prior to World War II to support naval activities in the Pacific (Navy, 2010).

In 1960, a tank cleaning system, including approximately 5,600 linear feet of a line inch water pipeline, Tank S311, and a 300-horsepower transfer pump, was installed at the facility. The line water pipeline and Tank S311 were later converted to transport waste fuel and fuel/water materials (slop service). Tank S311 is still used for slop oil service. In 2002, the line was cleaned and abandoned because it had experienced multiple failures. The line was dilapidated, obstructed entry to the lower access tunnel, and required removal (Navy, 2010).

Most of the existing inch-diameter jet propellant 5 (JP-5) piping in the lower tunnel had been previously removed, while the cross tunnel piping, pig launcher (a device used to clean the pipelines), manifold, and valves remained in place. However, the pipes and their associated appurtenances were severely corroded and in need of removal (Navy, 2010).

The project work conducted under this contract removed the remaining (b) inch pipeline as well as the residual JP-5 piping.

Section 2 Site Background

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Section 3. General Site Procedures

The following sections describe the overarching procedures for site controls, quality control, health and safety, security clearance, and photograph permitting. Section 4 describes specific field work procedures for removal of the pipelines.

3.1. SITE CONTROL

Site control was maintained throughout the duration of the project and was performed in accordance with the approved Work Plan, including the SHSP (Navy, 2011a). The following site control measures were implemented:

- Environmental protection procedures to prevent unnecessary damage to the areas surrounding the worksite. Procedures included good housekeeping, preventive maintenance, visual inspections, and recordkeeping.
- Site access restrictions that only allowed preapproved personnel with acceptable background screening results to perform work at the RHBFSF (see Section 3.4)
- Fire prevention procedures to reduce the potential for fire or explosion. Procedures included work with spark-resistant tools, restrictions on hot work and smoking, and proper material handling procedures. A marine chemist performed inspections, and a Hot Work Permit issued by the Federal Fire Department was used as applicable.
- Waste management procedures to ensure proper storage and disposal of petroleum-impacted materials, in accordance with local, state, and federal transportation regulations, as applicable.
- Installation of caution signs along the train tracks during demolition activities.

3.2. QUALITY CONTROL

Work activities associated with this project were performed in accordance with the approved CQCP (Navy, 2011a), which was developed to establish standard quality control (QC) procedures for ERRG and subcontractor personnel during performance of their work on this project. The CQCP established procedures to control and document the following:

- The quality of the techniques, materials, and equipment used during the project to ensure that they met contract specifications and applicable government standards.
- The timeliness of performance through integration of quality functions (such as inspections, audits, documentation, etc.) within routine project schedules.
- The framework for communicating QC procedures and requirements to the individuals who worked on this project.

General Site Procedures

QC procedures were implemented at the start of the project and performed throughout the duration of field activities. A three-phase QC system, including preparatory, initial, and follow-up inspections, was implemented to document quality during field activities. Inspections and reviews were conducted to ensure that the work met or exceeded the regulatory requirements, project plans, and specifications. QC documentation developed during the course of the project was submitted in accordance with the CQCP, and is maintained in the project files.

The appropriate project stakeholders (ERRG, Navy, and Naval Supply Fleet Logistics Center [NAVSUP FLC] personnel) mutually agreed to eliminate the Mutual Understanding Meeting during the preconstruction meeting because of the numerous partnering contracts implemented between NAVFAC Hawaii and ERRG and the team's demonstration in familiarity with the QC system.

3.3. HEALTH AND SAFETY

Work activities associated with this project were performed in accordance with the approved SHSP (Navy, 2011a), which was developed to define the protocols necessary for protecting on-site personnel from the hazards associated with the work. A Certified Industrial Hygienist was consulted during development of the SHSP to ensure potential safety concerns were properly addressed in the plan. Work was performed in accordance with applicable regulations and guidelines of the Occupational Safety and Health Administration (OSHA) and U.S. Army Corps of Engineers' Consolidated Engineer Manual 385-1-1 (U.S. Army Corps of Engineers, 2008). The following safety-related documents were prepared during the fieldwork portion of this project:

- Meeting records from tailgate safety meetings held at the start of each workday.
- Machinery and mechanized equipment certification forms prepared for motorized equipment used on the site.
- Daily equipment inspection forms for motorized equipment used on site.
- Hot work permits issued by the Federal Fire Department and approved by a marine chemist for welding activities.

Copies of the safety-related documents are maintained with the project files in accordance with the project plans and are maintained in the project files.

3.4. SECURITY CLEARANCE AND COORDINATION

The RHBFSF is considered a high-security facility, requiring clearance for all entrants. Field staff was required to complete a P-85 security form and submit fingerprints and identification for security review prior to gaining access to the RHBFSF. Short-term staff (i.e., required on site for less than 1 week) was escorted by a government employee with site access, maintaining sight at all times.

3.5. PHOTOGRAPH PERMITS

Photograph permits were obtained throughout the duration of the fieldwork. Photographers were identified, and photographs were submitted to security for review and approval prior to distribution to the public. Appendix C contains a photograph log of the project.

General Site Procedures

Section 3

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The following sections describe the specific field activities and the deviations from the Site Work Plan. Fieldwork included the following tasks:

- Pre-Mobilization Sampling
- Mobilization and Site Preparation
- Air Monitoring
- Demolition of Components Adit 3 Tunnel
- Demolition of Components Lower Access Tunnel
- Demolition of Components Pearl Harbor Tunnel
- Demolition of Components Zone 7
- Demolition of Components Adit 6 Tunnel
- Site Inspections and Demobilization

Field activities were completed in two phases between February 7, 2011, and March 30, 2012. Work performed under the initial project contract was completed from February 7, 2011, through July 20, 2011, and work completed under a contract modification was completed February 28, 2012, through March 30, 2012. Table 1 summarizes the demolished items, including system type, location, length, respective report section reference, and whether the work was completed under the initial contract or the contract modification. Activities are discussed in detail in the following subsections. Supporting information, including laboratory analytical reports (Appendix A), updated as-built drawings (Appendix B), and a photographic log (Appendix C), are also provided in this report.

4.1. PRE-MOBILIZATION SAMPLING

Prior to the start of pipeline removal activities, ERRG performed a visual inspection of materials and equipment to be affected by the work to identify any potential hazardous materials that might result in environmental or health and safety impacts to project personnel. The visual inspection identified potential lead-based paint and asbestos-containing materials that required sampling and laboratory analysis and materials that required special handling.

A representative number of samples of the pipeline paint coatings (suspected of containing high concentrations of lead) and the pipe wrappings (suspected of containing asbestos) were collected. Twenty-four samples for lead analysis and three samples for asbestos analysis were collected from

various locations on the pipelines and appurtenances. Samples were collected in accordance with standard industry practice and the NAVFAC Pacific Project Procedures Manual (Navy, 2007). Figure 3 shows the approximate locations where samples were collected.

Samples were submitted to (b) (4) in Honolulu, Hawaii, for analysis of lead by National Institute for Occupational Safety and Health (NIOSH) Method 7082 (NIOSH, 2003) and analysis of bulk asbestos by U.S. Environmental Protection Agency (EPA) Methods 600/R-93-116 and 600/M4-82-020 (EPA, 1993 and 1982). Analytical results indicated concentrations of lead ranged from 930 to 310,000 milligrams per kilogram. Asbestos was not detected in any of the pipe wrapping samples. Tables 2 and 3 summarize the analytical results for lead and asbestos, respectively. Appendix A provides the complete analytical laboratory reports and chain-of-custody documentation. Because the lead concentrations in the pipe coatings were elevated, a negative exposure assessment (NEA) was performed to determine if a potential safety hazard exist for exposure to lead during demolition activities (see Section 4.3). In addition, paint chip debris generated during the pipeline cutting activities was collected and disposed of as hazardous waste.

4.2. MOBILIZATION AND SITE PREPARATION

Mobilization and site preparation activities for this project included setting up temporary construction facilities and traffic control devices, reviewing on-site procedures, mobilizing equipment to the RHBFSF, and coordinating with subcontractors and facility personnel. Because the RHBFSF remained operational for the duration of the project, ERRG also coordinated with other Navy contractors, operators, and facility personnel to minimize the interruption to ongoing operations as much as possible. To minimize handling and storage of equipment on site, equipment was mobilized to the RHBFSF in accordance with the field schedule and on an as-needed basis.

Existing conditions at the RHBFSF were visually inspected during mobilization. Photographs were taken to document general site conditions and the condition of any features that had the potential to be impacted during the work. No findings of potential project impacts were documented during these inspections. Appendix C provides photographic logs documenting pre-mobilization site conditions.

4.3. AIR MONITORING

Because pre-mobilization sampling identified lead in pipe coatings at concentrations ranging from 930 to 310,000 milligrams per kilogram, a NEA was performed to evaluate whether demolition activities might result in lead concentrations in the breathing zone greater than the OSHA's permissible exposure limit of 30 micrograms per cubic meter of air averaged over an 8-hour period (Title 29 Code of Federal Regulations Section 1910.1025). The NEA was performed by air sampling.

The NEA was conducted on March 7, 2011, with additional air sampling events on March 17 and April 17, 2011, to verify the accuracy of the NEA results. On March 7, 2011, the first day of cutting,

crewmembers wore Level C personal protective equipment (PPE), which included full-face personal airpurifying respirators, Tyvek, hardhat, work boots, and gloves, as well as an AirChek 52 air sampling
device. No further pipe cutting was performed until air monitoring results were received from the
analytical laboratory. Lead concentrations were nondetect in all samples. Based on the analytical data, it
was concluded that, if the work and safety procedures and methods specified in the project plans were
followed, exposure to airborne lead would not pose a risk to project personnel performing demolition
activities in Level D PPE. Following confirmation of lead concentrations, crewmembers downgraded
PPE to Level D and resumed pipe cutting activities. Air sampling was conducted in accordance with
NIOSH Method 7300. Table 4 summarizes the air sampling results, and Appendix A provides the
complete laboratory reports.

4.4. DEMOLITION OF COMPONENTS – ADIT 3 TUNNEL

Adit 3 provides outdoor access to and egress from the Lower Access Tunnel, as shown on the schematic diagram provided on Figure 2. The following features, both inside and outside of the Adit 3 tunnel, were demolished:

- Truck Fill Stand
- Inch Slop and Former Water Pipeline
- Inch Water Pipeline
- Inch Water Pipeline

ERRG and its subcontractor, FOPCO, Inc., performed the mechanical demolition of pipelines and components in Adit 3. The following subsections describe the demolition activities performed on each of the site features listed above.

4.4.1. Truck Fill Stand

An abandoned truck fill stand was located (b) (3) (A)

fill stand, several gate valves, small pipes, and a concrete box were visible and designated for removal by NAVSUP FLC.

Because little information was available on the layout of the fill stand and associated piping, (b) (4) was subcontracted to perform utility location using both toning and electromagnetic surveying techniques. Subsurface utilities were located on February 7, 2011. Locations of identified utilities and system piping were marked with paint on the grass and asphalt.

The aboveground components of the fill stand were removed, and the surrounding area was excavated to uncover the associated subsurface piping. The excavation did not exceed 5 feet below grade, and a safe slope was maintained throughout excavation activities.

The below-grade piping was removed and cut back to the extent possible. The pipeline sections remaining in place were plugged with concrete and the area was subsequently backfilled. Following backfill, grass seed mixture was spread on the ground surface by hand to encourage revegetation of the disturbed area. The following components from the former truck fill stand were removed:

- Concrete vault
- Truck fill stand
- Eyewash station
- Steel pipes various sizes ((b) (3) (A)
- Eight gate valves various sizes

Figure B-1 in Appendix B provides a drawing of the former truck fill stand area and demolished components.

4.4.2. (b-Inch Slop and Former Water Pipeline

The former slop pipeline, (b) (3) (A) included a included a (b) (3) (A) (Section 4.5.1). The entire pipeline was marked for demolition, of which approximately feet was within the Adit 3 Tunnel.

Prior to demolition, the pipeline was investigated to ensure that the line was clean and inert, which involved removing several 2-inch plugs along the length of the pipeline. A five-gas meter was used to test the atmosphere inside of the pipe. The pipe was found to be an empty pipe and monitored gas concentrations did not exceed action levels specified in the SHSP. As an additional precaution, the pipe was vented for 2 days at the terminus of the pipeline located at Waste Oil Tank S311 where the pipeline was accessible through a blank flange.

The pipeline was then removed by cutting it with a pneumatic reciprocating saw powered by a generator (b) (3) (A)

Cut pieces of pipe were stockpiled and removed via cart to on-site roll-off bins for recycling. The pipeline was then cut flush with the (b) (3) (A) and plugged with concrete.

Figures B-2, B-3, and B-4 in Appendix B provide drawings showing the location of the former pipeline and demolished components.

4.4.3. 10-Inch Water Pipeline

A former of the water pipeline ran roughly of the office of the line of the li

(b) (3) (A) The pipeline then terminated, open-ended, in the water treatment and pump room approximately feet above the pump room floor. The total length of the pipeline was approximately feet from the (b) (3) (A) to the pipeline terminus in the pump room, although the actual starting location of the pipeline was unknown.

Three cold taps were performed on the pipeline prior to demolition. The first cold tap was performed at the apparent low point in Adit 3, (b) (3) (A) the second near the (b) (3) (A), and the third inside the water treatment and pump room. All three taps released pressurized clear liquid, presumably residual non-potable water, and ERRG drained the liquid into drums for removal from the Adit 3 Tunnel. NAVSUP FLC conducted the required sampling and analyses and removed the stored liquids in the drums by vacuum truck (see Section 5.2). Approximately 3,400 gallons of liquid was drained and removed from the pipeline. A five-gas meter was not required to test the atmosphere inside of the empty pipe following draining because the pipelines had a previous use as a water line.

The pipeline was then removed by cutting it with a pneumatic reciprocating saw powered by a generator (b) (3) (A) Higher elevation cuts were made using a snorkel lift. Cut pieces of pipe were stockpiled until their removal by cart to on-site roll-off bins for recycling. The pipeline was cut flush with the (b) (3) (A) and capped with concrete.

Figures B-2 and B-3 provide drawings showing the location of the former pipeline and demolished components.

4.4.4. Inch Water Pipeline

The former of the water pipeline began (b) (3) (A) as a of-inch pipeline that increased in diameter to off inches (b) (3) (A).

The pipeline ran along the tunnel wall (b) (3) (A)

Approximately of the firewall, the pipe curved down and penetrated into the floor, and resurfaced on the other side of the 3Y intersection, where it (b) (3) (A)

and eventually decreased in diameter to office via a flange (see Section 4.6.2). The office hoch pipeline was approximately of the long, with (b) feet located in the (b) (3) (A)

The office hoch pipeline ran below an existing of inch slop line. In addition, the office hoch pipeline was equipped with periodic supports that consisted of double wall-mounted brackets in the (b) (3) (A)

which connected it to the parallel of the pipeline, and single wall-mounted brackets in the (b) (3) (A)

A cold tap was performed on the pipeline prior to demolition at the apparent low point in (b) (3) directly across from the sump pump. The tap provided pressurized clear liquid, presumably residual non-potable water, and ERRG drained the liquid into drums for removal from the (b) (3) (A). NAVSUP FLC conducted the required sampling and analyses and removed the stored liquids in the drums by vacuum truck (see Section 5.2). Approximately 150 gallons of liquid was removed from the pipeline. A five-gas

meter was used to test the atmosphere inside of the empty pipe following draining, and the meter indicated none of the monitored gases were present at concentrations equal to or greater than the action levels specified in the SHSP (Navy, 2011a).

During pipe cutting activities, remnant clear liquid was found in the pipe. ERRG drained 40 gallons of the clear liquid into containers. On-site visual and olfactory observations of the remnant clear liquid found no sheen on the surface or petroleum odor. Based on the pipe's use as a water line and observations of the clear liquid, NAVFAC Hawaii personnel confirmed that the liquid was likely water. The water was disposed of by discharge onto the unpaved, grassy area adjacent to the laydown yard.

The pipeline was then removed by cutting it with a pneumatic hacksaw powered by an air compressor (b) (3) (A)

Cut pieces of pipe were staged in-place, on the ground underneath the existing of the pipeline. The pipes were stored out of the walkway, until their removal by cart to the on-site roll-off bins for recycling. In addition, a foot-long, inch aluminum pipe was cut from the firewall (b) (3) (A)

to gain access to cut the offinch pipeline. Demolition of the inch pipeline also included removal of the single wall-mounted bracket supports (b) (3) (A)

were left in-place because they continued to support the offinch slop line and were unlikely to pose a walking hazard in the tunnel. Pipes and metal supports were removed from the tunnel official and transported to the roll-off bins for metal recycling with a backhoe. The pipe was cut flush and capped with concrete in the two locations where the pipeline penetrated the floor and resurfaced. Additionally, the pipe was left in place for future use as a wall conduit at the location where the pipeline penetrated the (b) (3) (A)

Figures B-2, B-3, and B-4 in Appendix B provide drawings showing the location of the former pipeline and demolished components.

4.5. DEMOLITION OF COMPONENTS – LOWER ACCESS TUNNEL

The Lower Access Tunnel is the main artery connecting the tank pairs and the Pearl Harbor Tunnel, as shown on the schematic provided on Figure 2. Work was performed along the entire Lower Access Tunnel and consisted of demolishing the following site features:

- Inch Slop and Former Water Pipeline
- Inch Water Pipeline
- Transfer Pump
- Train Charging Station

ERRG and its subcontractor, FOPCO, Inc., performed the mechanical demolition of components in the Lower Access Tunnel. The following subsections describe the demolition activities performed at each of the site features listed above.

4.5.1. Inch Slop and Former Water Pipeline

As stated in Section 4.4.2, the former slop system included a finch pipeline (b) (3) (A)

While approximately feet of the pipeline was within Adit 3, roughly (b) (3) (A) feet of the pipeline continued through the Lower Access Tunnel.

Clear liquids, presumably rinsate remaining from the previous flushing of the slop line, were found in the inch pipeline in the location near Tank 2 and were drained into drums prior to demolition. NAVSUP FLC conducted the required sampling and analyses and removed the stored liquids in the drums by vacuum truck (see Section 5.2). Approximately gallons of liquid was drained and removed from the pipeline.

The inch pipeline was equipped with periodic supports, connecting it to a parallel inch compressed air pipeline. Demolition of the inch pipeline also included removal of the supports. Brackets were recommended initially as replacement supports; however, were later deemed unnecessary.

The pipeline was removed by cutting it into sections with a pneumatic reciprocating saw powered by an electric generator (b) (3) (A)

The pipeline penetrated through three concrete firewalls (b) (3) (A)

Each pipeline penetration was hammered through the concrete firewall and the remaining hole encased with concrete. Cut pieces of pipe were stockpiled until their removal via cart to on-site roll-off bins for recycling.

Figures B-4, B-5 and B-6 in Appendix B provide drawings showing the location of the former pipeline.

4.5.2. Inch Water Pipeline

The former bill inch water pipeline consisted of approximately feet of pipe. The pipeline begar (b) feet from the firewall located in between the (b) (3) (A) intersection in the Pearl Harbor Tunnel near an electrical panel, ran through the Pearl Harbor Tunnel, proceeded to the Lower Access Tunnel, and ended at the (b) (3) (A) in the Lower Access Tunnel. The pipeline ran overhead on supported beams attached to the ceiling (b) (3) (A) and were secured to the beam with u-bolts. As the pipeline veered (b) (3) (A) it extended down from the ceiling toward and along the wall, where it then ran between an active (b-inch JP-5 line and an active (b) inch fuel oil line. The linch pipeline was closed with a blind flange on the pipe end (b) (3) (A) and welded shut with an elliptical head cap on the pipe end (b) (3) (A)

A cold tap was performed on the pipeline at the apparent low point prior to demolition. The tap provided pressurized clear liquid, and ERRG drained the liquid into drums for removal from the Lower Access Tunnel. NAVSUP FLC conducted the required sampling and analyses and removed the stored liquids in the drums by vacuum truck (see Section 5.2). Approximately 100 gallons of liquid was removed from the pipeline. A five-gas meter was used to test the atmosphere inside of the empty pipe following draining, and the meter indicated none of the monitored gases were present at concentrations equal to or greater than the action levels specified in the SHSP (Navy, 2011a).

The pipeline was then removed by cutting it with a pneumatic hacksaw powered by a generator (b)(3)(A)

The pipes were supported with a contractor lift during cutting and slowly lowered down with the lift from the ceiling supports. Cut pieces of pipe were staged in-place, on the ground, underneath the (b-inch fuel oil line. The pipes were stored out of the walkway until their removal via cart to the on-site roll-off bins for recycling. In addition, supporting metal pipe brackets and ceiling pipe clamps were removed and disposed of in the on-site roll-off bins for recycling. Pipes and brackets were removed out of the tunnel (b) (3) (A)

and transported to the roll-off bins for metal recycling with a backhoe. In the two locations where the pipeline passed through firewalls, the pipeline was cut flush with the wall and the remaining hole encased with concrete.

Figure B-4 in Appendix B provides a drawing showing the location of the former pipeline and demolished components.

4.5.3. Transfer Pump

An abandoned transfer pump was housed in a room (b) (3) (A)

The 300-horsepower transfer pump and associated valves were disassembled with non-sparking tools and removed from the area. The following components were removed:

- 300-horsepower centrifugal pump
- Six gate valves
- One Cla-Val
- Various piping

Two concrete slabs in the transfer pump room were also removed, including the slab upon which the transfer pump had been supported and the slab located near the Tank 2 sampling lines. The slabs were hammered out to below grade and repoured to be flush with the existing floor. Rebar was placed within the slab for support, which was overlain with aggregate base and concrete.

Figure B-5 provides a drawing showing the location of the transfer pump room and former transfer pump, and demolished components.

4.5.4. Train Charging Station

An abandoned train charging station was located in the Lower Access Tunnel near Tank 2, outside of the Transfer Pump room. The associated motor and stator unit weighed approximately 1,000 pounds and was mounted on a rectangular equipment stand comprised of steel supports. The components were disassembled into pieces of manageable weight and size using hand tools and cordless drills. The charging motor was connected to a junction box with breakers and other miscellaneous components inside. It was unbolted from the concrete and dismantled. The junction box was connected to a timing control mechanism that was mounted on a plywood backing. The metal components were separated from the wood. All components were staged in the Transfer Pump room until they were later removed and recycled. The plywood backing was disposed of in the trash bin.

The components were removed later from the tunnel via cart to Adit 3. The components were removed from the cart using a chainfall hoist and were then transported using a backhoe to the roll-off bins for metal recycling.

Figure B-5 provides a drawing of the approximate location of the former train charging station.

4.6. DEMOLITION OF COMPONENTS - PEARL HARBOR TUNNEL

The Pearl Harbor Tunnel provides the Pearl Harbor Naval Base (now referred to as JBPHH) access to the fuel tanks, as shown on the schematic provided on Figure 2. Work performed in the Pearl Harbor Tunnel consisted of demolishing the following site features:

- Inch Water Pipeline
- Inch Water Pipeline

The following subsections describe the demolition activities performed by ERRG at each of the site features listed above.

4.6.1. Inch Water Pipeline

The former inch water pipeline consisted of approximately feet of piping. The pipeline ran the length of the (b) (3) (A) in the Pearl Harbor Tunnel, beginning near an electrical panel (b) feet away from the firewall located in between the (b) (3) (A) in the Pearl Harbor Tunnel and ending at the point where the tunnel (b) (3) (A). The pipeline ran overhead alongside the feet inch water pipeline (see Section 4.5.2), on supported beams attached to the ceiling, and were secured to the beam with u-bolts. The pipeline was initially closed with a concrete plug on one end, near the electrical panel, and welded shut with an elliptical head cap on the other end, in the pipeline ran overhead alongside the range of the pipeline was initially closed with a concrete plug on one end, near the electrical panel, and welded shut with an elliptical head cap on the other end, in the pipeline range of the pipe

A cold tap was not required because the pipe appeared to be decommissioned previously. The pipeline was removed by cutting it with a pneumatic hacksaw powered by a generator (b) (3) (A)

The pipes were supported with a contractor lift during cutting and slowly lowered down with the lift from the ceiling supports. Cut pieces of pipe were staged in placed, on the ground, underneath the active inch large pipelines, and out of the walkway until they could be removed by cart to on-site roll-off bins for recycling. In addition, supporting metal pipe brackets and clamps were removed and disposed of in the on-site roll-off bins for recycling. Pipes and brackets were removed out of the tunnel (b) (3) (A)

and transported to the roll-off bins for metal recycling with a backhoe.

Figure B-4 in Appendix B provides a drawing showing the approximate location of the former pipeline and demolished components.

4.6.2. Inch Water Pipeline

A former inch water pipeline ran for feet (b) (3) (A)

The inch water pipeline originated from the inch pipeline (b) (3) (A)

The inch water pipeline (see Section 4.4.4) reduced down at a flange to inches in diameter. The inch pipeline then terminated open-ended, (b) (3) (A)

As previously stated in Section 4.4.4, cold tapping and atmosphere testing were performed on the portion of the pipeline, from which the inch pipeline originated. The pipeline was removed by cutting it with a pneumatic hacksaw powered by a compressor (b) (3) (A) and stockpiled on the floor out of the walkway, until it could be removed by cart to on-site roll-off bins for recycling. In addition, metal supports were unbolted and removed from the inch pipeline. Pipes and metal supports were removed out of the tunnel (b) (3) (A) and transported to the roll-off bins for metal recycling with a backhoe.

Figure B-4 in Appendix B provides a drawing showing the approximate location of the former pipeline and demolished components.

4.7. DEMOLITION OF COMPONENTS - ZONE 7

For the purposes of this report, Zone 7 is considered to be the area from Tanks 15 and 16 through Tanks 19 and 20, including the gauging station, operator's office, and Zone 7 proper, as shown on the schematic provided on Figure 2. Work was performed throughout the Zone 7 area and consisted of demolishing the following site features:

- Inch Water Pipeline
- Inch Water Pipeline
- Inch JP-5 Slop Pipeline

- Inch JP-5 Slop Pipeline
- Pig Launchers
- Pumps and Tank
- Electrical Equipment

The following subsections describe the demolition activities performed by ERRG of each of the site features listed above.

4.7.1. Inch Water Pipeline

The former —inch water piping system included approximately —inch pipe that traversed from (b) (3) (A) — as well as from (b) (3) (A) — connecting to a perpendicular (1-inch water pipeline (Section 4.7.2). An additional —inch pipe was also removed from the (b) (3) (A) — The section of piping in the (b) (3) (A) — connected (b) (3) to the (1-inch fire suppression supply pipeline. This section of pipe was removed at the request of NAVSUP FLC during the initial mobilization under a contract modification.

The pipelines were removed by cutting them into sections with a pneumatic hacksaw powered by an electric compressor powered (b) (3) (A)

Cut pieces of pipe were stockpiled and removed by cart to on-site roll-off bins for recycling.

Figures B-7 and B-8 in Appendix B provide drawings showing the location of the former pipeline and demolished components.

4.7.2. Inch Water Pipeline

The former inch water pipeline consisted of approximately feet of pipe connecting the inch pig launcher (b) (3) (A) (Section 4.7.5) to the 600-gallon tank in Zone 7 (Section 4.7.6).

The pipeline was tapped prior to removal and was found to be full of what appeared to be water, which was subsequently drained into drums for removal from Zone 7. To characterize the waste for disposal, samples were collected of the water, and shipped to (b) (4) in Honolulu, Hawaii, for analysis of total petroleum hydrocarbon (TPH) as diesel-range organics by EPA SW-846 Method 8015; benzene, toluene, ethylbenzene, and xylenes (BTEX) by EPA SW-846 Method 8260; Resources Conservation and Recovery Act (RCRA) 8 metals by EPA SW-846 Methods 6010B and 7470A, and pH by EPA Method 150.1. Pacific Commercial Services, LTD (PCS) was then retained to appropriately dispose of the waste, which was removed from the drums by vacuum truck. Appendix D provides the waste disposal documentation. Section 5 further discusses waste disposal activities.

The pipelines were removed by cutting them into sections with a pneumatic reciprocating saw powered by an electric compressor located (b) (3) (A) Cut pieces of pipe were stockpiled and removed by cart to on-site roll-off bins for recycling.

Figures B-7, B-8, and B-9 in Appendix B provide drawings showing the location of the former pipeline and demolished components.

4.7.3. Inch JP-5 Slop Pipeline

The pipeline was tapped prior to removal and was found to be full of JP-5 slop, which was subsequently discharged to drums for removal from Zone 7. To characterize the waste for disposal, samples were collected of the slop and shipped to (b) (4) in Honolulu, Hawaii, for analysis of TPH as diesel-, and residual-range organics by EPA SW-846 Method 8015; TPH as gasoline-range organics and BTEX by EPA SW-846 Method 8260; RCRA 8 metals by toxicity characteristic leaching procedure (TCLP) by EPA SW-846 Methods 1311 and 8260B; and ignitability by EPA SW-846 Method 1010. PCS was retained to appropriately dispose of the waste, which was removed from the drums by vacuum truck. Appendix D provides the waste disposal documentation. Section 5 further discusses waste disposal activities.

The pipelines were removed by cutting them into sections with a pneumatic reciprocating saw powered by an electric compressor located inside of Zone 7. Cut pieces of pipe were stockpiled and removed by cart to on-site roll-off bins for recycling.

Figures B-7 and B-8 in Appendix B provide drawings showing the location of the former pipeline and demolished components.

4.7.4. Inch JP-5 Slop Pipeline

The former nch JP-5 slop pipeline consisted of approximately feet of pipe, consisting of two parallel pipes, beginning in Zone 7 and terminating at pipe plugs in the (b) (3) (A) area. Each pipeline was also equipped with a tee and traversed from (b) (3) (A).

The pipelines were opened at flanges and found to have a small amount of JP-5 slop, which was discharged to drums for removal from Zone 7. To characterize the waste for disposal, samples of the slop were collected and shipped to (b) (4) in Honolulu, Hawaii, for analysis of TPH as diesel-, and residual-range organics by EPA SW-846 Method 8015; TPH as gasoline-range organics and

BTEX by EPA SW-846 Method 8260; RCRA 8 metals by toxicity characteristic leaching procedure (TCLP) by EPA SW-846 Methods 1311 and 8260B; and flash point by EPA SW-846 Method 1010. PCS was retained to appropriately dispose of the waste, which was removed from the drums by vacuum truck. Appendix D provides the waste disposal documentation. Section 5 further discusses waste disposal activities.

The pipelines were removed by cutting them with a pneumatic reciprocating saw powered by an electric compressor located inside of Zone 7. Cut pieces of pipe were stockpiled and removed by cart to on-site roll-off bins for recycling.

Figures B-7 and B-9 in Appendix B provide drawings showing the location of the former pipeline and demolished components.

4.7.5. Pig Launchers

A (b) (3) (A) -inch pig launcher were removed as part of the project as discussed in the following subsections.

4.7.5.1. Inch Pig Launcher

The abandoned slop system included a inch pig launcher that was located near the lower entrance to the maintenance elevator, Elevator 73. The launching station was equipped with a run of inch pipe, a gate valve, and a inch drain that dropped down into the concrete slab. The associated inch pipeline ran from the pig launcher to two inch gate valve manifolds and into the (b) (3) (A)

The drains on the pig launcher were opened, and the launcher and associated piping were found to be dry. The pig launcher was disassembled with pneumatic hand tools and a reciprocating saw powered by an electric compressor located inside of Zone 7. The components were then removed by cart to on-site roll-off bins for recycling.

At the request of NAVSUP FLC, the inch pipeline was cut inches from the (b) (3) (A) and a blind flange was installed. Welding (i.e., hot work) was necessary to install the blind flange, requiring a Hot Work Permit. (b) (6) , marine chemist, inspected the area, and the Federal Fire Department issued the Hot Work Permit. Hot work was also used to cut the inch gate valve casing into manageable pieces for removal from the tunnel. The welding procedures were prepared and submitted to the Navy Technical Representative and NAVSUP FLC for review and approval prior to performing the work.

Figure B-7 in Appendix B provides a drawing showing the location of the former pig launcher and demolished components.

4.7.5.2. Inch Pig Launcher

As part of the abandoned slop system, an inch pig launcher was located near (b) (3) (A) and was the terminus of the inch piping in Zone 7. The launching station was equipped with a run of inch piping, a gate valve, and a inch water connection.

The pig launcher was opened, drained, cold tapped, and found to have a small amount of JP-5 slop, which was subsequently removed to drums for appropriate disposal by PCS. Appendix D provides the waste disposal documentation.

The pig launcher was disassembled with pneumatic hand tools powered by an electric compressor located inside of Zone 7 and removed via cart to on-site roll-off bins for recycling.

Figures B-7 in Appendix B provides a drawing showing the location of the former pig launcher and demolished components.

4.7.6. Pumps and Tank

Two abandoned pump motors (300 and 800 gallons per minute) and a 600-gallon steel tank were demolished within Zone 7. ERRG coordinated with NAVSUP FLC personnel to obtain power sources for the pumps, which were subsequently locked out and tagged out prior to work. The pump motors and tank were then disassembled using pneumatic hand tools and removed from the tunnel for recycling.

Figures B-7 and B-8 in Appendix B provide drawings showing the location of the former pumps and tank and demolished components.

4.7.7. Electrical Equipment

Two abandoned electrical transformers were removed from the gauging station area. Pneumatic hand tools were used to demolish the equipment, and the components were removed from the tunnel for recycling. The concrete pads were also removed.

4.8. DEMOLITION OF COMPONENTS - ADIT 6 TUNNEL

Adit 6 provides (b) (3) (A) (currently inoperable) and is located at the (b) (3) of the lower main access road. Work was performed along the (b) (3) (A) and within the maintenance (b) (3) (A) and consisted of demolition of the following features:

- Inch JP-5 Slop Pipeline
- Inch JP-5 Slop Pipeline (b) (3) (A)

ERRG and FOPCO, Inc. performed the mechanical demolition of the site features in Adit 6, as discussed in the following subsections.

4.8.1. (I-Inch JP-5 Slop Pipeline

The former one pipeline consisted of approximately 450 feet of pipe running through the (b) (3) Tunnel. The terminus of the pipeline was blind flanged at the (b) (3) (A) and (b) feet below (b) (3) in Zone 7 (see Section 4.8.2), while the actual start of the pipeline is unknown. The pipeline drops below grade through the concrete slab approximately (b) (3) (A)

Prior to demolition, the blind flange at the pipe terminus was loosened and removed, and the pipeline was observed to be empty of fluids. The pipe was then removed by cutting it with a pneumatic reciprocating saw powered by an electric compressor (b) (3) (A)

Cut pieces of pipe were stockpiled and removed by hand cart to on-site roll-off bins for recycling.

A inch pipeline, which extended from the inch pipeline to the sump pump located in the (b) (3) was also cut approximately (b) inches from the (b) (3) (A). At the request of NAVSUP FLC, a flange was welded to the pipe end and a blind flange was installed. This hot work was also done in accordance with the Hot Work Permit issued by the Federal Fire Department and approved by the marine chemist.

Figures B-10 and B-11 in Appendix B provide drawings showing the location of the former pipeline and demolished components.

4.8.2. (-Inch JP-5 Slop Pipeline - (b) (3) (A) Shaft

The (b) inch JP-5 slop pipeline (b) (3) (A) described in the previous section, continued down the (b) (3) (A) shaft for approximately feet before emerging into Zone 7. The (b) (3) (A) shaft is equipped with steel platforms at foot increments and connected by steel ladders and acts as an emergency exit from the Lower Access Tunnel and as part of the facility ventilation system.

Before work began in the shaft, ERRG consulted (b) (4)
a structural engineering firm, to provide an analysis of the structural integrity of existing platforms and ladders. Two engineers were escorted on site to perform a visual inspection. Based on observations during the inspection and follow-up research, not enough information was available to determine whether the existing platforms met the requirements of the project-specific fall protection plan. A design was developed to provide the required anchor point support (designated as 5,000 pounds per person by OSHA), which included installation of a beam under the existing platforms. Harnessed crewmembers were then able to anchor their fall protection properly (Navy, 2011b).

The pipe was removed by cutting it with a pneumatic reciprocating saw powered by an electric generator (b) (3) (A)

Cut pieces of pipe were lowered by chainfall hoist to the bottom of the elevator shaft and removed through the Lower Access Tunnel and (b) (3) (A) by cart to on-site roll-off bins for recycling.

Figures B-10 and B-11 in Appendix B provide drawings showing the location of the former pipeline and demolished components.

4.9. SITE INSPECTIONS AND DEMOBILIZATION

Site inspections and demobilization were performed following the completion of initial contract work and contract modification work. As part of the demobilization effort, equipment, materials, and supplies not belonging to NAVFAC Hawaii were removed from the RHBFSF. Demobilization for the initial contract was performed for 2 days on August 15 and 16, 2012. On September 27, 2011, a pre-final inspection was conducted for work performed under the initial contract. Five punchlist items were identified during the inspection. The punchlist items were subsequently addressed, and NAVFAC Hawaii accepted all work on September 30, 2011.

During the pre-final inspection on September 27, 2011, NAVFAC Hawaii identified additional work that was necessary and issued a contract modification to cover the additional work as identified in Table 1. Demobilization for contract modification work was performed for 3 days from March 28 to March 30, 2012. On April 2, 2012, a pre-final inspection for the contract modification work was conducted. Two punchlist items were identified during the inspection. The punchlist items were subsequently addressed, and NAVFAC Hawaii accepted all contract modification work during a final inspection performed on April 12, 2012.

Section 5. Waste Disposal

Wastes were disposed of in accordance with Navy and NAVSUP FLC requirements and with local, state, and federal standards. The following sections detail the disposal of metals and liquid wastes generated during demolition activities.

5.1. METALS RECYCLING

ERRG retained the services of (b) (4) a metals recycler, to transport and recycle steel pipe, appurtenances, and other metal components. A total of approximately 168.58 tons of metal was removed from the RHBFSF. Appendix D provides receipts of recycle and related documentation.

5.2. LIQUID WASTE

The liquid waste discovered throughout the project consisted of water with debris and JP-5 slop. The liquid waste was containerized in 55-gallon drums that were temporarily staged outside of the tunnel for off-site disposal in accordance with the Waste Management Plan (Navy, 2011a). Liquids were removed from the drums by vacuum trucks provided by the NAVFAC FLC or PCS. Liquid was found in the following site features:

- Tunnel: approximately 3,400 gallons of water and debris in the pipeline
- (b)(3)(A) Tunnel: approximately 150 gallons of water and debris in the 670-foot-long definition in the first pipeline
- (b) (3) (A) Tunnel: approximately 700 gallons of water and debris in the former water pipeline
- (b) (3) (A) Tunnel: approximately 100 gallons of water and debris in the 450-foot-long water pipeline
- Zone 7: approximately 200 gallons of water/debris in the inch pipeline
- Zone 7: approximately 150 gallons of JP-5 slop in the nipeline
- Zone 7: approximately 150 gallons of JP-5 slop in the inch pipeline
- Zone 7: small amount of JP-5 slop in the inch pig launcher

Liquids from the inch and inch and inch upper water pipeline (b) (3) (A) and the inch and inch slop and former water pipeline located (b) (3) (A) were characterized and removed by NAVSUP FLC.

Waste Disposal

The remaining liquids were characterized by ERRG and removed and disposed of by PCS. To properly characterize the waste, liquid samples were collected and analyzed were for TPH as gasoline-, diesel-, and residual-range organics; BTEX; TCLP RCRA 8 metals; and ignitability for JP-5 slop and TPH as diesel-range organics; BTEX; RCRA 8 metals; and pH for wastewater. Laboratory analytical results of the liquid samples indicated the waste was nonhazardous and acceptable for disposal at the designated disposal facilities. The JP-5 slop was transported to PVT Land Company, Ltd.'s disposal facility in Waianae, Hawaii, and all other liquid wastewater was transported to Unitek Solvents Services, Inc.'s disposal facility in Kapolei, Hawaii. Appendix D provides the disposal manifests and supporting documentation.

5.3. LEAD AND ASBESTOS WASTES

Lead debris, including lead paint chips, generated during pipeline cutting activities was vacuumed with a commercial wet and dry shop vacuum using a high-efficiency particulate air grade filter. Vacuum bags with lead debris were contained in 55-gallon drums displaying a Hazardous Waste label.

Gaskets potentially containing asbestos were also encountered during demolition activities. Gaskets were collected and contained in 55-gallon drums displaying a Hazardous Waste label. Four drums of lead waste and one drum of asbestos waste were generated during project activities. ERRG contracted PCS to remove, transport, and dispose of the lead and asbestos wastes. Lead and asbestos were disposed of at the designated facility Clean Harbors San Jose, LLC in San Jose, California, and PVT Land Company, Ltd. in Waianae, Hawaii. Appendix D provides the disposal manifests and supporting documentation.

Section 6. References

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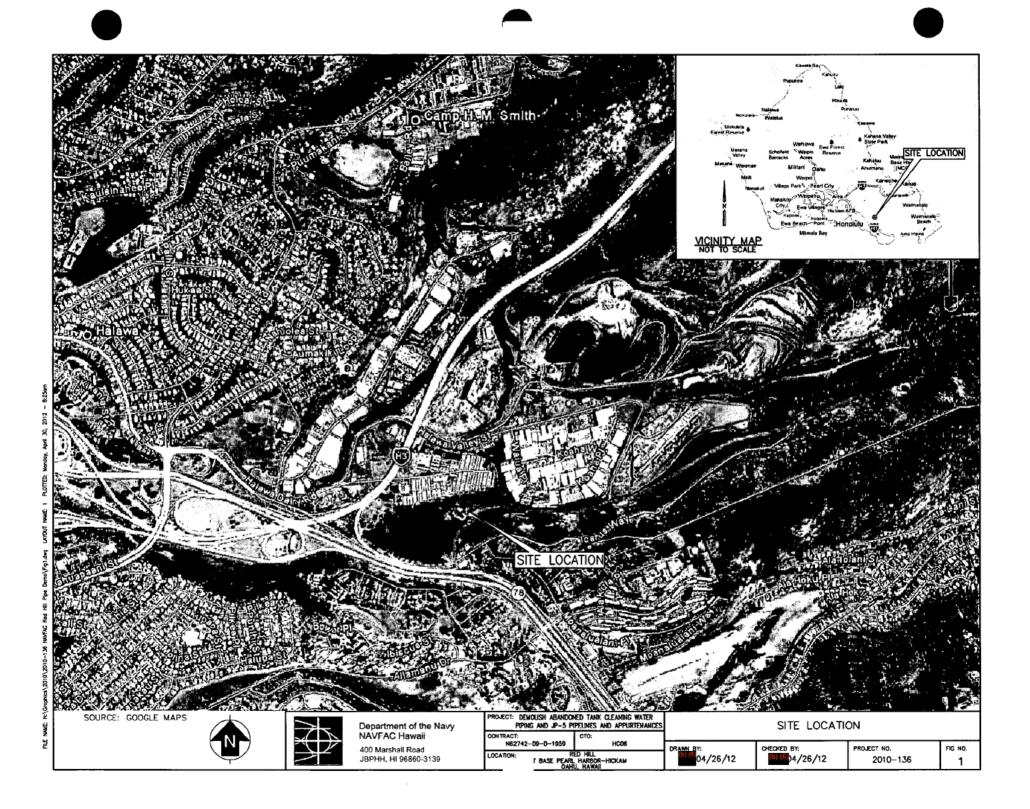
Section 6

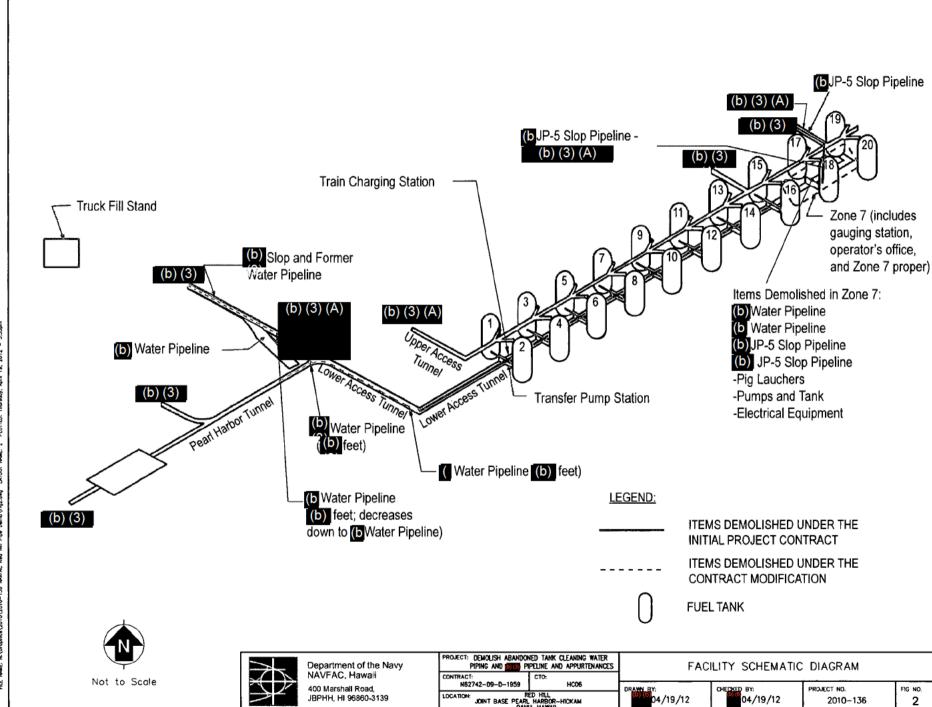
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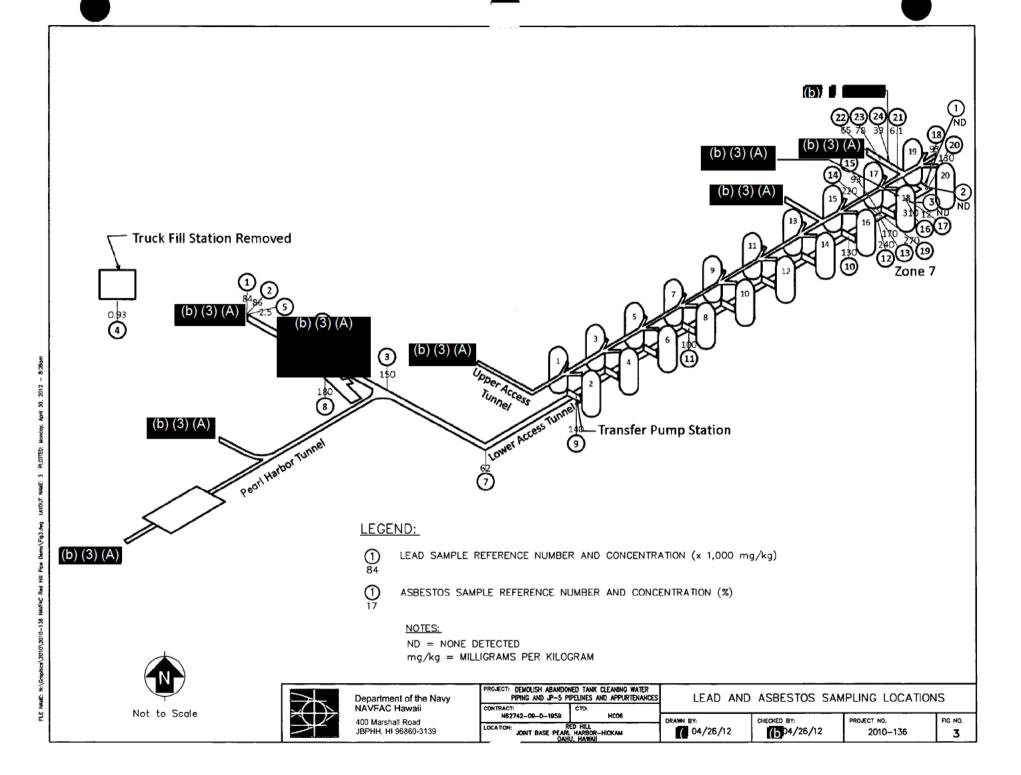
Figures

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Tables

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Table 1. Demolition Summary

System Type	Demolished Component	Location	Length	Report Section Reference
	Initial Project C	ontract		
Water Line System	Truck Fill Stand	(b) (3) (A)	N/A	4.4.1
Slop Line System and	nch Slop and Former	(b) (3) (A)	600	4.4.2
Former Water Line System	Water Pipeline	(b) (3) (A) (b) (3)	4600	4.5.1
Water Line System	nch Water Pipeline	(b) (3) (A)	600	4.4.3
Water Line System	Transfer Pump	(b) (3) (A) (b) (3)	N/A	4.5.3
JP-5 Slop Line System	nch Water Pipeline	Zone 7	200	4.7.1
JP-5 Slop Line System	Inch Water Pipeline	Zone 7	250	4.7.2
JP-5 Slop Line System	nch JP-5 Slop Pipeline	Zone 7	450	4.7.3
JP-5 Pipeline System	Inch (B)(3)(A) Slop Pipeline	Zone 7	265	4.7.4
JP-5 Pipeline System	Inch Pig Launcher	Zone 7	N/A	4.7.5.1
JP-5 Slop Line System	nch Pig Launcher	Zone 7	N/A	4.7.5.2
JP-5 Slop Line System	Pumps and Tank	Zone 7	N/A	4.7.6
N/A	Electrical Equipment	Zone 7	N/A	4.7.7
JP-5 Slop Line System	nch JP-5 Slop Pipeline	(b) (3) (A)	450	4.8.1
JP-5 Slop Line System	Inch JP-5 Slop Pipeline - (b) (3) (A) Shaft	(b) (3) (A) (b) (3) (A)	150	4.8.2
	Contract Modif	cation		
Water System Line	-Inch Water Pipeline	(b) (3) (A)	600	4.4.4
		(b) (3) (A) (b) (3)	30	4.4.4
		(b) (3) (A)	40	4.4.4
Water System Line	-Inch Water Pipeline	(b) (3) (A) (b) (3)	450	4.5.2
N/A	Train Charging Station	Lower Access Tunnel	N/A	4.5.4
Water System Line	-Inch Water Pipeline	(b) (3) (A)	140	4.6.1
Water System Line	-Inch Water Pipeline	(b) (3) (A)	90	4.6.2
JP-5 Slop Line System	-Inch Water Pipeline	Zone 7	50	4.7.1

N/A = Not Applicable

Table 2. Paint Sampling - Total Lead Analysis Summary

Sample No.	Project Component	Sample Location and Description	Date	Result ¹ (mg/kg)
1	-inch water pipeline	(b)(3)(A)	01/13/2011	84,000
2	inch water pipeline	(D)	01/13/2011	86,000
3	inch slop and former water pipeline		01/13/2011	150,000
4	Truck fill stand		02/15/2011	930
5	inch water pipeline		02/15/2011	2,500
6	inch slop and former water pipeline		02/15/2011	2,300
7	inch slop pipeline		02/15/2011	62,000
8	inch water pipeline		02/15/2011	180,00
9	inch slop and former water pipeline		02/15/2011	140,00
10	inch slop and former water pipeline		02/15/2011	130,00
11	inch slop and former water pipeline		02/15/2011	100,00
12	inch (b)(3)(A) slop pipeline		03/11/2011	240,00
13	ola-inch ola slop pipeline		03/11/2011	170,00
14	ol-inch ola slop pipeline		03/11/2011	220,00
15	o-inch (6)(3)(A) slop pipeline		03/11/2011	97,000
16	^{© 3} -inch manifold		03/11/2011	310,00
17	or -inch pig launcher		03/11/2011	12,000
18	-inch pig launcher		03/11/2011	93,000
19	-inch water pipeline		03/11/2011	270,00
20	-inch water pipeline		03/11/2011	130,00
21	Top platform in the (b) (3)		06/09/2011	6,100
22	୍ର-inch <mark>ଭଞ୍ଜୟା</mark> slop pipeline		06/09/2011	65,000
23	inch slop pipeline		06/09/2011	78,000
24	nch slop pipeline		06/09/2011	39,000

mg/kg = milligrams per kilogram

¹ Results were compared to Occupational Safety and Health Administration guidelines for occupational safety. Detections greater than 400 mg/kg were considered to contain lead.

Table 3. Pipe Wrap Sampling - Asbestos Analysis Summary

Sample No.	Project Component	Sample Location	Date	Result (mg/kg)
1	-inch water pipeline	(b) (3) (A)	02/03/2011	Not Detected
2	inch pig launcher		02/03/2011	Not Detected
3	inch pig launcher		02/03/2011	Not Detected

mg/kg = milligrams per kilogram

Table 4. Air Sampling - Lead Analysis Summary

Sample No.	Date	Work Activity	Air Volume (liter)	Total (µg)	Concentration (mg/m³)
0307-001	03/07/2011	Began cutting	720	<0.38	<0.00052
0307-002	03/07/2011	the slop pipeline	754	<0.38	<0.00050
0307-003*	03/07/2011	(b) (3) (A)	764	<0.38	<0.00049
0307-004	03/07/2011		720	<0.38	<0.00052
0307-005*	03/07/2011		720	<0.38	<0.00052
0307-006	03/07/2011	-	760	<0.38	<0.00049
0317-001	03/17/2011	Continued	902	0.78	0.00086
0317-002	03/17/2011	cutting the	894	<0.38	<0.00042
0317-003	03/17/2011	pipeline	910	<0.38	<0.00041
0317-004*	03/17/2011	approximately (b) (3) (A)	910	<0.38	<0.00041
0317-005	03/17/2011		908	<0.38	<0.00041
0317-006*	03/17/2011		910	<0.38	NA
0413-001	04/13/2011	Continued	920	2.5	0.0028
0413-002*	04/13/2011	disassembly of the	920	<0.38	<0.00041
0413-003	04/13/2011	pipelines 🚾	921	2.4	0.0027
0413-004	04/13/2011		922	2.6	0.0029
0413-005	04/13/2011		919	10	0.011
0413-006*	04/13/2011		921	<0.38	<0.00041

mg/m³ = milligrams per cubic meter

NA = not available

μg = micrograms

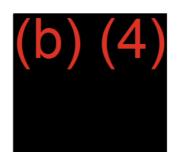
< = not detected at concentration greater than laboratory reporting limit

^{* =} Sample blanks sent to the laboratory.

Appendix A -Laboratory Analytical Reports

Appendix A. Laboratory Analytical Reports

Lead Paint/Asbestos Results – (b) (4)



LABORATORY DIVISION ANALYTICAL REPORT



Tuesday, January 18, 2011





LA3 = 101812





ERRG

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Phone Number: Facsimile:

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Email:

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Honolulu HI 96813

(b) (4) Job No: 20110058

Your Project: 2010-136 Pipeline demolition

	Lead, total (paint chips)								
NIOSH	Method: 7082 LEAD by FAAS								
Sample No.	Your Sample Description	Sample Type	Results	Units	Date Submitted	Date Analyzed			
20110113001	001 Under stair, paint chip, black over red 12/2/10	UNK	84000	mg/kg	1/13/2011	1/13/2011			
Comments	MRL = 83 mg/kg								
20110113001	001 Under stair, paint chip, black over red 12/2/10	DUP	86000	mg/kg	1/13/2011	1/13/2011			
Comments	MRL = 83 mg/kg				1				
20110113002	002 Past airlock, paint chip fragments, red 12/2/10	UNK	150000	mg/kg	1/13/2011	1/13/2011			
Comments	MRL = 92 mg/kg								

All Quality Control data are acceptable unless otherwise noted.

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Phone Number: Facsimile: (b) (6)

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Honolulu HI 96813

(b) (4) Job No: 20110058

Your Project: 2010-136 Pipeline demolition

General Comments

All analysts participate in interlaboratory quality control testing to continuously document proflency. The samples analyses subject of this analytical report were conducted in general accordance with the procedures associated with the" analytical method" referenced above. Modifications to this methodology may have been made based upon the analyst's professional judgment and / or sample matrix effects encountered. The analysis of sample relates only to the sample analyzed, and may or may not be representative of the original source of the material submitted for our analysis. This report is not to be duplicated except in full without the expressed written permission of (b) (4). This report should not be construed as an endorsement for a product or a service by the AlHA or any affiliated organizations. Sample and associated sampling / collection data is reported as provided by client. For air samples, results are calculated based on the reported air volumes. Results have not been corrected for blank determinations unless noted in remarks. Unless otherwise indicated the sample condition at the time of receipt was acceptable.

Results and Symbols Definitions

UNK = sample submitted for this evaluation / analysis.

DUP = duplicate sample analysis of the UNK sample.

REP = replicate sample analysis which is a second preparation of the UNK sample analysis.

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> This testing result is greater than the numerical value listed.

< This testing result is less than the numerical value listed.

ND = NOT DETECTED which means the analyte, if present below our stated detection limit/ level.

RPD = Relative Percent Deviation [unk-dup]/ave(unk,dup)*100.

= Analytical methods marked with an "#" are not within our AIHA Scope of Accreditation.

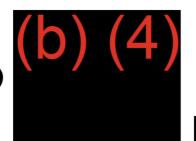
MRL = Method Reporting Limit.



DID (b) (4) FORENSIC DIVISION COLLECT THESE SAMPLES?

No

Laboratory Manager



(b) (4) LABORATORY DIVISION ANALYTICAL REPORT



Tuesday, February 08, 2011









(b) (6)

Comments

ERRG 677 Ala Moana Blvd. Suite 308

Honolulu HI 96813

(b) (4) Job No: 20110178

Your Project: Pipeline Demolition, 2/3/11

Phone Number:

Facsimile:

(b) (6) (808) 533-6010

Email:

	Bulk Asbestos Determination									
Sample No.	Your Sample Description	Asbestos Present? / Type	%v/v	Other Fibrous	% v/v	Matrix	% v/v	Date Received	Date Analyzed	
20110203024	003 RED HILL (b) (3) (A) PIPE WRAP	NONE <			< 40	< 40 Calcite + quartz + polymeric		2/3/2011	2/8/2011	
<u>Layer</u>	Whole Sample Basis					binder + paint				
Comments	Brown mastic/oil like material with	brown fibers and gra	y paint	t. Visual estimatio	on: <1%	·•				
20110203025	004 RED HILL (b) (3) (A) PIG LAUNCHER	NONE DETECTED	< 1	Synthetic fiber (undulose extinction)	< 40	Calcite + quartz + polymeric	> 60	2/3/2011	2/8/2011	
<u>Layer</u>	Mastic/oil and fibers			extinction		binder				

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Brown mastic/oil like material with brown fibers, and silver and orange paint. Visual estimation: <1%.

Brown mastic/oil with brown fibers

Ms. **ERRG**

677 Ala Moana Blvd. Suite 308

Phone Number: Facsimile:

(808) 533-6010

Email:

Honolulu HI

96813

(b) (4) Job No: 20110178

Your Project:

Pipeline Demolition, 2/3/11

Bulk Asbestos Determination

Sample No.	Your Sample Description	Asbestos Present? / Type	%v/v	Other Fibrous	% v/v	Matrix	% v /v	Date Received	Date Analyzed
20110203025	004 RED HILL (b) (3) (A) PIG LAUNCHER	NONE DETECTED	< 1	None Detected	< 1	Paint + calcite	> 99	2/3/2011	2/8/2011
Layer	<u>Paint</u>								
Comments	Brown mastic/oil like material with	brown fibers, and sile	er and	l orange paint. Vi	sual es	timation: <	:1%.		
	Silver and orange paint								
20110203026	005 RED HILL (b) (3) (A) PIG LAUNCHER	NONE DETECTED	<1	Synthetic fiber (undulose extinction)	< 40	Calcite + quartz + polymeric	> 60	2/3/2011	2/8/2011
Layer	Mastic/oil and fibers			extinction)		binder			
Comments	Brown mastic/oil like material with	brown fibers, and sile	/er pai	nt. Visual estimati	on: <1	%.			
	Brown mastic/oil with brown fibers								
20110203026	005 RED HILL (b) (3) (A) PIG LAUNCHER	NONE DETECTED	<1	None Detected	< 1	Paint + calcite	> 99	2/3/2011	2/8/2011
Layer	<u>Paint</u>								
Comments	Brown mastic/oil like material with	brown fibers, and sil	ver pai	nt. Visual estimat	on: <1	%.			
	Silver and orange paint								

Ms. (b) (6)

ERRG

677 Ala Moana Blvd. Suite 308

Honolulu HI 96813

(b) (4) Job No: 20110178

Your Project: Pipeline Demolition, 2/3/11

Phone Number: (808) 533-6000 Facsimile: (808) 533-6010

Email:

General Comments

The bulk samples analyses subject of this analytical report were conducted in general accordance with the procedures outlined in the United States Environmental Protection Agency's "Interim Method for the Determination of Asbestos in Bulk Insulation Samples" (EPA-600/M4-82-020, Dec. 1982) and/ or "Method for Determination of Asbestos in bulk Building Materials" (EPA-600/R-93-116, July 1993). The analysis of each bulk sample relates only to the material examined, and may or may not represent the overall composition of its original source. Floor tile and other resinously bound materials, when analyzed by the EPA methods referenced above may yield false negative results because of limitations in separating closely bound fibers and in detecting fibers of small length and diameter. Alternative methods of identification, including Transmission Electron Microscopy (TEM) may or may not be applicable and suffer from serious analytical limitations of their own including a lack of standardized or accredited methodology. We utilize calibrated visual area estimation on a routine basis and do not conduct point counting unless specifically requested to do so. Estimated error for the visual determinations presented are 50% relative (1 to 5%); 25% relative (6 to 25%) and 20% (>26% v/v). Whole sample percentage results are estimated on the basis of the relative "volume" of each readily discernable layer. We will not separate layers which in our opinion are not readily discernable. This report is not to be duplicated except in full without the expressed written permission of (b) (4) This report does not represent a product endorsement by the AIHA, NIST or any affiliated organizations. Unless otherwise indicated, the sample condition at the time of receipt was acceptable.

Results and Symbols Definitions

None Detected = asbestos was not observed in the sample.

Tr = TRACE, i.e., asbestos WAS detected above our detection limits of 0.1% but BELOW quantifiable limits of 1.0%. Point counting must be used for concentration ranges below 1%.

- > This testing result is greater than the numerical value listed.
- < This testing result is less than the numerical value listed.

= Analytical methods marked with an "#" are not within our AIHA Scope of Accreditation.

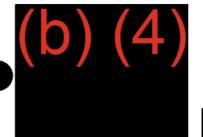


DID (b) (4) FORENSIC DIVISION COLLECT THESE SAMPLES?

<u>No</u>

Laboratory Manager

(b) (4) is an AIHA CAPT, IHLAP, ELLAP and EMLAP ACCREDITED LABORATORY (Accreditation No. 101812) in the scope of work listed on the AIHA website (www.aiha.org). (b) (4) is a NIST NVLAP ACCREDITED LABORATORY (NVLAP Lab Code 200655-0). (b) (4) is an ANALYTICAL FACILITY ACCREDITED in accordance with the recognized ISO/IEC 17025:2005.



LABORATORY DIVISION ANALYTICAL REPORT



Tuesday, February 22, 2011



Ms. (b) (6)

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(b) (4) Job No: 20110276 Your Project: RED HILL Phone Number: (b) (6)

Facsimile: (808) 533-6010

Email: (600) 533-0010 @errg.com

 Lead	۱, ۱	tota	<u>al (</u>	pa	<u>int</u>	chi	ps	<u> </u>

NIOSH	Method: 7082 LEAD by FAAS					
Sample No.	Your Sample Description	Sample Type	Results	Units	Date Submitted	Date Analyzed
20110215033	0214-001 OUTSIDE (5)(3)(A), SILVER PAINT TRUCK STAND	UNK	930	mg/kg	2/15/2011	2/16/2011
Comments	MRL = 39 mg/kg, sample limited (< 0.25g)					
20110215034	0214-002 INSIDE TUNNEL, TOP OF WATER LINE- ENTRY	UNK	2500	mg/kg	2/15/2011	2/16/2011
Comments	MRL = 63 mg/kg, sample limited (< 0.25g)					
20110215035	0214-003 INSIDE TUNNEL, BOTTOM [913] WATER LINE-PUMP ROOM DOOR	UNK	2300	mg/kg	2/15/2011	2/16/2011
Comments	MRL = 51 mg/kg, sample limited (< 0.25g)					
20110215036	0214-004 INSIDE TUNNEL WATER LINE- RUSTED	UNK	62000	mg/kg	2/15/2011	2/16/2011
Comments	MRL = 39 mg/kg					

All Quality Control data are acceptable unless otherwise noted.

(b) (4) is an AIHA CAPT, IHLAP, ELLAP and EMLAP ACCREDITED LABORATORY (Accreditation No. 101812) in the scope of work listed on the AIHA website (www.aiha.org). (b) (4) is a NIST NVLAP ACCREDITED LABORATORY (NVLAP Lab Code 200655-0). (b) (4) is an ANALYTICAL FACILITY ACCREDITED in accordance with the recognized ISO/ IEC 17025:2005.

Ms.

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677 Ala Moana Blvd. Suite 308

Honolulu HI

96813

(b) (4) Job No: 20110276 Your Project:

RED HILL

Phone Number:

Facsimile:

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General Comments

All analysts participate in interlaboratory quality control testing to continuously document profiency. The samples analyses subject of this analytical report were conducted in general accordance with the procedures associated with the" analytical method" referenced above. Modifications to this methodology may have been made based upon the analyst's professional judgment and / or sample matrix effects encountered. The analysis of sample relates only to the sample analyzed, and may or may not be representative of the original source of the material submitted for our analysis. This report is not to be duplicated except in full without the expressed written permission of (b) (4) This report should not be construed as an endorsement for a product or a service by the AIHA or any affiliated organizations. Sample and associated sampling / collection data is reported as provided by client. For air samples, results are calculated based on the reported air volumes. Results have not been corrected for blank determinations unless noted in remarks. Unless otherwise indicated the sample condition at the time of receipt was acceptable.

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< This testing result is less than the numerical value listed.

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RPD = Relative Percent Deviation [unk-dup]/ave(unk,dup)*100.

= Analytical methods marked with an "#" are not within our AIHA Scope of Accreditation.

MRL = Method Reporting Limit.



DID (b) (4) FORENSIC DIVISION COLLECT THESE SAMPLES?

Nο

Laboratory Manager



LABORATORY DIVISION ANALYTICAL REPORT



Thursday, March 17, 2011



ERRG

677 Ala Moana Blvd. Suite 308

Honolulu HI 96813

(b) (4) Job No: 20110442

Your Project: Red Hill 03/10/11 Phone Number: (b) (6)

Facsimile: (808) 533-6010

@errg.com Email:

Lead, total (paint chips)									
NIOSH	Method: 7082 LEAD by FAAS								
Sample No.	Your Sample Description	Sample Type	Results	Units	Date Submitted	Date Analyzed			
20110311043	0310-001 Pump Room of	UNK	180000	mg/kg	3/11/2011	3/17/2011			
Comments	MRL = 110 mg/kg; Sample limited < 0.25g								
20110311044	0310-002 Tank #2, New Paint Outside P.R.	UNK	140000	mg/kg	3/11/2011	3/17/2011			
Comments	MRL = 76 mg/kg; Sample limited < 0.25g								
20110311045	0310-003 Tank #16, End of ^{ອງອງ}	UNK	130000	mg/kg	3/11/2011	3/17/2011			
Comments	MRL = 80 mg/kg; Sample limited < 0.25g								
20110311046	0310-004 Tank #8 ^{ତାତା}	UNK	100000	mg/kg	3/11/2011	3/17/2011			
Comments	MRL = 68 mg/kg; Sample limited < 0.25g								

All Quality Control data are acceptable unless otherwise noted.

is an AIHA CAPT, IHLAP, ELLAP and EMLAP ACCREDITED LABORATORY (Accreditation No. is a NIST NVLAP ACCREDITED 101812) in the scope of work listed on the AIHA website (www.aiha.org). (b) (4) LABORATORY (NVLAP Lab Code 200655-0). (b) (4) is an ANALYTICAL FACILITY ACCREDITED in accordance with the recognized ISO/IEC 17025:2005.

ERRG

677 Ala Moana Blvd. Suite 308

Honolulu HI 96813

b) (4) Job No: 20110442

Red Hill 03/10/11 Your Project:

Phone Number:

Facsimile: Email:

(808) 533-6010

@errg.com

General Comments

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< This testing result is less than the numerical value listed.

ND = NOT DETECTED which means the analyte, if present below our stated detection limit/ level.

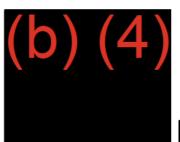
RPD = Relative Percent Deviation [unk-dup]/ave(unk,dup)*100.
= Analytical methods marked with an "#" are not within our AlHA Scope of Accreditation.

MRL = Method Reporting Limit.

DID (b) (4) FORENSIC DIVISION COLLECT THESE SAMPLES?

<u>No</u>

Laboratory Manager



LABORATORY DIVISION ANALYTICAL REPORT



Thursday, March 17, 2011



AIHA LAP, LLC ACCREDITED LABORATORY

LA3 = 101812



LAS# 101812



Phone Number: (b) (6)

Facsimile:

(808) 533-6010

Email:

(b) (6)

677 Ala Moana Blvd. Suite 308

ERRG

Honolulu HI 96813

(b) (4) Job No: 20110443

Your Project: Red Hill 03/09/11

	Lead, tota	l (paint ch	ips)			***************************************
NIOSH	Method: 7082 LEAD by FAAS					
Sample No.	Your Sample Description	Sample Type	Results	Units	Date Submitted	Date Analyzed
20110311047	0309-01 (b) (3) (A)	UNK	240000	mg/kg	3/11/2011	3/17/2011
Comments	MRL = 39 mg/kg; Sample limited < 0.25g				<u></u>	
20110311048	0309-02 (b) (3) (A) #2	UNK	170000	mg/kg	3/11/2011	3/17/2011
Comments	MRL = 38 mg/kg					
20110311049	0309-03 (b) (3) (A)	UNK	220000	mg/kg	3/11/2011	3/17/2011
Comments	MRL = 40 mg/kg; Sample limited < 0.25g					
20442244252		1,15,117	07000		0/44/0044	0/47/0044
20110311050	0309-04 (b) (3) (A) MRL = 80 mg/kg; Sample limited < 0.25g	UNK	97000	mg/kg	3/11/2011	3/17/2011
Comments	WINE - 60 Hig/kg, Sample littlied < 0.25g					

is an AIHA CAPT, IHLAP, ELLAP and EMLAP ACCREDITED LABORATORY (Accreditation No. 101812) in the scope of work listed on the AIHA website (www.aiha.org). (b) (4) is a NIST NVLAP ACCREDITED ABORATORY (NVLAP Lab Code 200655-0). (b) (4) is an ANALYTICAL FACILITY ACCREDITED in accordance is a NIST NVLAP ACCREDITED LABORATORY (NVLAP Lab Code 200655-0). (b) (4) with the recognized ISO/IEC 17025:2005.

ERRG

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Phone Number: Facsimile:

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96813 Honolulu HI

(b) (4) **Job No**: 20110443

Your Project: Red Hill 03/09/11

	Lead, total (paint chips)										
NIOSH	Method: 7082 LEAD by FAAS										
Sample No.	Your Sample Description	Sample Type	Results	Units	Date Submitted	Date Analyzed					
20110311051 Comments	0309-05(b) (3) (A) MRL = 39 mg/kg	UNK	310000	mg/kg	3/11/2011	3/17/2011					
20110311052 Comments	0309-06 (b) (3) (A) PIG LAUNCHER MRL = 41 mg/kg; Sample limited < 0.25g	UNK	12000	mg/kg	3/11/2011	3/17/2011					
20110311053 Comments	0309-07 (b) (3) (A) PIG LAUNCHER MRL = 37 mg/kg	UNK	93000	mg/kg	3/11/2011	3/17/2011					
20110311054 Comments	0309-08 (b) (3) (A) WATER LINE MRL = 39 mg/kg; Sample limited < 0.25g	UNK	270000	mg/kg	3/11/2011	3/17/2011					
20110311055 Comments	0309-09 (b) (3) (A) WATER LINE MRL = 39 mg/kg; Sample limited < 0.25g	UNK	130000	mg/kg	3/11/2011	3/17/2011					

All Quality Control data are acceptable unless otherwise noted.

FRRG

677 Ala Moana Blvd. Suite 308

Honolulu HI 96813

(b) (4) Job No: 20110443

Your Project: Red Hill 03/09/11

Phone Number:

Facsimile:

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@errg.com

General Comments

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REP = replicate sample analysis which is a second preparation of the UNK sample analysis.

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> This testing result is greater than the numerical value listed.

< This testing result is less than the numerical value listed.

ND = NOT DETECTED which means the analyte, if present below our stated detection limit/ level.

RPD = Relative Percent Deviation [unk-dup]/ave(unk,dup)*100.

= Analytical methods marked with an "#" are not within our AIHA Scope of Accreditation.

MRL = Method Reporting Limit.

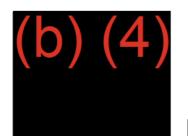


DID (b) (4) FORENSIC DIVISION COLLECT THESE SAMPLES?

<u>No</u>

b) (6)

Laboratory Manager



LABORATORY DIVISION ANALYTICAL REPORT



Tuesday, June 14, 2011

LAS# 101812



MIN ANNUAL PROPERTY OF

LAB # 101812

ERRG

677 Ala Moana Blvd. Suite 308

Honolulu HI 96813

(b) (4) Job No: 20111238 Your Project: RED HILL Phone Number:

Facsimile:

Email:

(b) (6) (808) 533-6010

AIHA LAP, LLC ACCREDITED LABORATORY

NAME AND STATE OF COLUMN

LAB# 101812

(800) 333-00

(6) @errg.com

Lead, total (paint chips)							
NIOSH	Method: 7082 LEAD	by FAAS					
Sample No.	Your Sample Description		Sample Type	Results	Units	Date Submitted	Date Analyzed
20110609071 Comments	0608-01 (b) (3) (A) MRL = 38 mg/kg	TUNNEL 06/08/11	UNK	39000	mg/kg	6/9/2011	6/13/2011
20110609072 Comments	0608-02 (b) (3) (A) 06/08/11 MRL = 40 mg/kg		UNK	6100	mg/kg	6/9/2011	6/13/2011
20110609073 Comments	0608-03 (b) (3) (A) MRL = 40 mg/kg	06/08/11	UNK	65000	mg/kg	6/9/2011	6/13/2011
20110609074 Comments	0608-04 (b) (3) (A) MRL = 40 mg/kg	06/08/11	UNK	78000	mg/kg	6/9/2011	6/13/2011

(b) (4) is an AIHA CAPT, IHLAP, ELLAP and EMLAP ACCREDITED LABORATORY (Accreditation No. 101812) in the scope of work listed on the AIHA website (www.aiha.org). (b) (4) is a NIST NVLAP ACCREDITED LABORATORY (NVLAP Lab Code 200655-0). (b) (4) is an ANALYTICAL FACILITY ACCREDITED in accordance with the recognized ISO/IEC 17025:2005.

ERRG

677 Ala Moana Blvd. Suite 308

Honolulu HI

96813

(b) (4) Job No: 20111238 **RED HILL** Your Project:

Phone Number:

Facsimile: Email:

(808) 533-6010

@errg.com

		Lead, tota	al (paint ch	ips)		
NIOSH	Method:	7082 LEAD by FAAS				
Commis No	Varra Samuela F	No o o o di unti o u	Sample	Posuite	l Imita	Dat

Sample No.	Your Sample Description	Sample Type	Results	Units	Date Submitted	Date Analyzed	
20110609074	0608-04 (b) (3) (A)	06/08/11	REP	61000	mg/kg	6/9/2011	6/13/2011
Comments	MRL = 40 mg/kg						

All Quality Control data are acceptable unless otherwise noted.

General Comments

All analysts participate in interlaboratory quality control testing to continuously document profiency. The samples analyses subject of this analytical report were conducted in general accordance with the procedures associated with the" analytical method" referenced above. Modifications to this methodology may have been made based upon the analyst's professional judgment and / or sample matrix effects encountered. The analysis of sample relates only to the sample analyzed, and may or may not be representative of the original source of the material submitted for our analysis. This report is not to be duplicated except in full without the expressed written permission of (6) (4) This report should not be construed as an endorser for a product or a service by the AIHA or any affiliated organizations. Sample and associated sampling / collection data is reported as provided by This report should not be construed as an endorsement client. For air samples, results are calculated based on the reported air volumes. Results have not been corrected for blank determinations unless noted in remarks. Unless otherwise indicated the sample condition at the time of receipt was acceptable.

Results and Symbols Definitions

UNK = sample submitted for this evaluation / analysis.

DUP = duplicate sample analysis of the UNK sample.

REP = replicate sample analysis which is a second preparation of the UNK sample analysis.

Tr = TRACE, i.e., the analyte of interest was, to a reasonable degree of scientific certainty present, but was BELOW the quantifiable limits of this determination (stated).

> This testing result is greater than the numerical value listed.

< This testing result is less than the numerical value listed.

ND = NOT DETECTED which means the analyte, if present below our stated detection limit/ level.

RPD = Relative Percent Deviation [unk-dup]/ave(unk,dup)*100.

= Analytical methods marked with an "#" are not within our AIHA Scope of Accreditation.

MRL = Method Reporting Limit.



DID (b) (4) FORENSIC DIVISION COLLECT THESE SAMPLES?

No

Laboratory Manager

is an AIHA CAPT, IHLAP, ELLAP and EMLAP ACCREDITED LABORATORY (Accreditation No. 101812) in the scope of work listed on the AlHA website (www.aiha.org). (b) (4) is a NIST NVLAP ACCREDITED LABORATORY (NVLAP Lab Code 200655-0). (b) (4) is an ANALYTICAL FACILITY ACCREDITED in accordance with the recognized ISO/IEC 17025:2005.

Air Sampling Results – (b) (4)



(b) (6) ERRG 677 Ala Moana Blvd #308 Honolulu, HI 96813 March 11, 2011

DOH ELAP# 11626

Account# 22335

Login# L235386

Dear (b) (6)

Enclosed are the analytical results for the samples received by our laboratory on March 10, 2011. All test results meet the quality control requirements of AIHA and NELAC unless otherwise stated in this report. All samples on the chain of custody were received in good condition unless otherwise noted.

Results in this report are based on the sampling data provided by the client and refer only to the samples as they were received at the laboratory. Unless otherwise requested, all samples will be discarded 14 days from the date of this report.

Please contact (b) (6) this report.

, if you would like any additional information regarding

Thank you for using (b) (4)

Sincerely,

(b)(4)



(b) (6) Laboratory Director

Enclosure(s)



LABORATORY ANALYSIS REPORT

6601 Kirkville Road

East Syracuse, NY 13057

(315) 432-5227

FAX: (315) 437-0571

www (b) (4) .com

Client

: Engineering/Remediation Resources Group

Site

: Red Hill

Project No.

: Pipe Demo

Date Sampled

: 07-MAR-11

Date Received : 10-MAR-11

Date Analyzed : 11-MAR-11

Report ID

: 684086

Lead

Sample ID	Lab ID	Air Vol liter	Total ug	Conc mg/m3
Dumpic 15	2000 22	4.4.002		
0307-001	L235386-1	720	<0.38	<0.00052
0307-002	L235386-2	754	<0.38	<0.00050
0307-006	L235386-3	760	<0.38	<0.00049
0307-003	L235386-4	764	<0.38	<0.00049
0307-004	L235386-5	720	<0.38	<0.00052
0307-005	L235386-6	720	<0.38	<0.00052
LAB BLANK	L235386-7	NA	<0.38	NA

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

Level of quantitation: 0.38 ug

Analytical Method : mod. NIOSH 7300/ mod. OSHA 125G; ICP

OSHA PEL (TWA) : 0.05 mg/m3

Collection Media : Filter Submitted by: cju

Approved by : DEH

Date: 11-MAR-11 NYS DOH #: 11626

Account No.: 22335

Login No. : L235386

QC by: (b)

< -Less Than > -Greater Than

mg -Milligrams

ug -Micrograms

m3 -Cubic Meters l -Liters

kg -Kilograms NS -Not Specified

NA -Not Applicable

ND -Not Detected

ppm -Parts per Million



6601 Kirkville Road East Syracuse, NY 13057

FAX: (315) 437-0571

(b) (4) .com

(315) 432-5227

LABORATORY FOOTNOTE REPORT

Client Name : Engineering/Remediation Resources Group

Site : Red Hill Project No. : Pipe Demo

Date Sampled: 07-MAR-11 Account No.: 22335 Date Received: 10-MAR-11 Login No.: L235386

Date Analyzed: 11-MAR-11

Unless otherwise noted below, all quality control results associated with the samples were within established control limits.

Unrounded results are carried through the calculations that yield the final result and the final result is rounded to the number of significant figures appropriate to the accuracy of the analytical method. Please note that results appearing in the columns preceding the final result column may have been rounded in order to fit the report format and therefore, if carried through the calculations, may not yield an identical final result to the one reported.

The stated LOQs for each analyte represent the demonstrated LOQ concentrations prior to correction for desorption efficiency (if applicable).

L235386 (Report ID: 684086):

The Lead results are considered accurate to within 101% +/-6.7

based on a 95% confidence interval. The estimated uncertainty applies to the media, technology, and SOP(s) referenced in this report and does not account for any uncertainty associated with the sampling process.

Reported results reflect elemental analysis of the requested metals. Certain compounds may not be solubilized during digestion, resulting in data that is biased low.

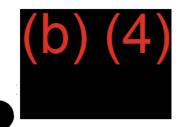
SOPs: MT-SOP-9(11), im-mwvfilt(14)

< -Less Than > -Greater Than NA -Not Applicable mg -Milligrams ug -Micrograms ND -Not Detected m3 -Cubic Meters
1 -Liters

kg -Kilograms NS -Not Specified

(b) (4		Check if change	Report To	(b) (6)			Invoice To :	Engineer in Remedia; (07) Ala Mona Blvd. Honolube, HI 9681	tion lesoure Gr
\		of address		677 AL	A MOANA	BLVD Ste ?	308	07) Ala Parana Bird.	Ste 308
	Nave	Client ? yes		HUNDE	MU, HI	70013	- RUS -	Honduly HI 9681	
	New	no no	Phone No.	(808) 5	33-19000		Phone No. :	808-533-6000	
			Fax No.	(808)	533-10	10		808-533-6010	
		.38 6		: RED		Project : PIPE			b) (6)
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Next Day by 6pm	100%	Email / Fax Resu	ults To : (b) (6)		@ ER	RG. COM			
Next Day by Noon	150%	Email Address :			@ERRG.C	Fax No.:_(808)	533-60	10	<u>.</u>
Same day	200%					5101			
Sample Identifi	cation	Date Sampled	Collection Medium	*Air Volume (Liters)	Passive Monitors (Min)	Analysis	Requested	Method Reference	Specific DL Needed
1. 🖁 307-001		3/7/11	R UW NCE	720	360	lead		NIOSA 7300	
2. 8307-002		3/7/11		754	377				
3. \$307-00U		3/7/11		760	380				•.
4. \$307-003		3/7/11		704	382				
5. \$307-004		3/1/11		720	300				
6. B307-005		3/7/11		720	300				
			-						
7. MA 8. 1						,			
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9. ** 10.55									
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List description of ind	-	-		=	:	at our normal rate. If	you agree please	oneon 163 outerwise	CHECK NO.
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Chain of Custody	<u> </u>	Print Name			Signature	9 ,	1	Date/Time	
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	()	Samples received	anter 3pm will ha	considered as n	ext ua iness	. * sample coile	ction time X LPM = A	Air Vol. Page	of /

. . .



(b) (6) ERRG 677 Ala Moana Blvd #308 Honolulu, HI 96813 March 23, 2011

DOH ELAP# 11626

Account# 22335

Login# L236099

Dear (b) (6)

Enclosed are the analytical results for the samples received by our laboratory on March 21, 2011. All test results meet the quality control requirements of AIHA and NELAC unless otherwise stated in this report. All samples on the chain of custody were received in good condition unless otherwise noted.

Results in this report are based on the sampling data provided by the client and refer only to the samples as they were received at the laboratory. Unless otherwise requested, all samples will be discarded 14 days from the date of this report.

Please contact (b) (6) at (b) (6) at (b) (6), if you would like any additional information regarding this report.

Thank you for using (b) (4)

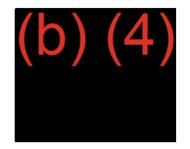
Sincerely,

(b) (4)



(b) (6) Laboratory Director

Enclosure(s)



LABORATORY ANALYSIS REPORT

6601 Kirkville Road

East Syracuse, NY 13057

(315) 432-5227

FAX: (315) 437-0571

www (b) (4) .com

Client : Engineering/Remediation Resources Group

Site : Red Hill Project No. : Pipe Demo

Date Sampled : 17-MAR-11 Account No.: 22335
Date Received : 21-MAR-11 Login No. : L236099

Date Analyzed : 21-MAR-11 - 22-MAR-11

Report ID : 685444

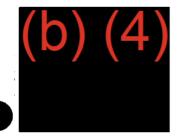
Lead

Sample ID	Lab_ID	Air Vol _liter	Total uq	Conc _mg/m3
0317-001	L236099-1	902	0.78	0.00086
0317-002	L236099-2	894	<0.38	<0.00042
0317-003	L236099-3	910	<0.38	<0.00041
0317-004	L236099-4	910	<0.38	<0.00041
0317-005	L236099-5	908	<0.38	<0.00041
0317-006	L236099-6	910	<0.38	<0.00041
LAB BLANK	L236099-7	NA	<0.38	NA

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

Level of quantitation: 0.38 ug Submitted by: cju Analytical Method : mod. NIOSH 7300/ mod. OSHA 125G; ICP Approved by : DEH

Collection Media : Filter QC by: (b)



6601 Kirkville Road East Syracuse, NY 13057

FAX: (315) 437-0571

(315) 432-5227

LABORATORY FOOTNOTE REPORT

Client Name : Engineering/Remediation Resources Group

Site : Red Hill Project No. : Pipe Demo

Date Sampled: 17-MAR-11 Account No.: 22335 Date Received: 21-MAR-11 Login No.: L236099

Date Analyzed: 21-MAR-11 - 22-MAR-11

Unless otherwise noted below, all quality control results associated with the samples were within established control limits.

Unrounded results are carried through the calculations that yield the final result and the final result is rounded to the number of significant figures appropriate to the accuracy of the analytical method. Please note that results appearing in the columns preceeding the final result column may have been rounded in order to fit the report format and therefore, if carried through the calculations, may not yield an identical final result to the one reported.

The stated LOQs for each analyte represent the demonstrated LOQ concentrations prior to correction for desorption efficiency (if applicable).

L236099 (Report ID: 685444):

The Lead results are considered accurate to within 101% +/-6.7

based on a 95% confidence interval. The estimated uncertainty applies to the media, technology, and SOP(s) referenced in this report and does not account for any uncertainty associated with the sampling process.

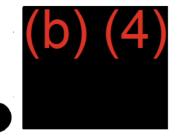
Reported results reflect elemental analysis of the requested metals. Certain compounds may not be solubilized during digestion, resulting in data that is biased low.

SOPs: MT-SOP-9(12), im-mwvfilt(14)

< -Less Than > -Greater Than NA -Not Applicable mg -Milligrams ug -Micrograms ND -Not Detected m3 -Cubic Meters 1 -Liters kg -Kilograms NS -Not Specified

ppm -Parts per Million

(b) (4		Check if change of address	Report To	(b) (6)	i Moana	Blyd St. 308	Invoice To: En	gineering/Re RESOUTCES	mediation Group
				Honoly	u, HI 91	6813	<u>(e</u>	Resources 17 Ala Moo 1001414, HI 109-533-6	na Blydste
	New	Client ? U yes	Phone No.	(908) 5	33-6000		Phone No.: 9	09-533-6	9000
		•	Fax No.	(808)5	33-6010)	Fax No.:	08-533-0	0100
			Site Name	יי מאט ווי	\ . <i></i>	Project : D.D.		npled By : <mark>(b) (6</mark>)	
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3 Business Days	50%	. Credit Card	No. :			Card Holder Name : _			(p.:)
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Next Day by Noon	150%	Email Address	(b) (6)		. com	7g.com Fax No.: (808)	533-6010)	
Same day	200%								
의 Sample Identifi	cation	Date Sampled	Collection	*Air Volume (Liters)	Passive Monitors (Min)	Analysis R	equested	Method Reference	Specific DL Needed
1. 图17-001		3/17/11	AIC	902	451	Lead		N105H 7300	
2.0317-002		3/17/11	1	894	447				
3. 0317-003		3/17/11		910	455				
4. \$317-004		3/17/11		910	455				
5. \$317-005		3/17/11		908	454				
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9. 1	-								
9. 1. 10. 46									
11.								,	
	normally add	a laboratory blan	k for each anal	yte. We will char	rge you for this	at our normal rate. If yo	u agree please che	ck "Yes" otherwise	check "No".
List description of ind	ustry or proc	ess / interference	's present in sa	mpling area:					
Comments:									
Chain of Custody		Print Name			Signatur	9		Date/Time	
Relinquished by :	/b\ /				Jigilatan		3/18/1	1 / 4:45	3
Received by LAB:	(D)	0)					3/21/11	935	
		Samples received	after 3pm will be	considered as ne	ext day iness	. * sample collecti	on time X LPM = Air V	ol. Page 1	of



(b) (6) ERRG 677 Ala Moana Blvd #308 Honolulu, HI 96813 April 29, 2011

DOH ELAP# 11626

Account# 22335

Login# L238672

Dear (b) (6)

Enclosed are the analytical results for the samples received by our laboratory on April 22, 2011. All test results meet the quality control requirements of AIHA and NELAC unless otherwise stated in this report. All samples on the chain of custody were received in good condition unless otherwise noted.

Results in this report are based on the sampling data provided by the client and refer only to the samples as they were received at the laboratory. Unless otherwise requested, all samples will be discarded 14 days from the date of this report.

Please contact (b) (6) at (b) (6) at (b) (6), if you would like any additional information regarding this report.

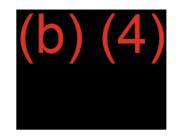
Thank you for using (b) (4)

Sincerely,

(b) (6)

Enclosure(s)

Laboratory Director



LABORATORY ANALYSIS REPORT

6601 Kirkville Road

East Syracuse, NY 13057

(315) 432-5227

FAX: (315) 437-0571

www (b) (4) .com

Client : Engineering/Remediation Resources Group

Site : RED HILL Project No. : PIPE DEMO

Date Sampled : 13-APR-11 Account No.: 22335
Date Received : 22-APR-11 Login No. : L238672

Date Analyzed : 25-APR-11
Report ID : 689836

Lead

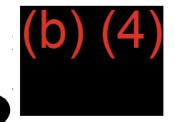
	Sample ID	Lab ID	Air Vol _liter	Total ug	Conc mg/m3
	0413-001	L238672-1	920	2.5	0.0028
	0413-002	L238672-2	920	<0.38	<0.00041
	0413-003	L238672-3	921	2.4	0.0027
^	0413-004	L238672-4	922	2.6	0.0029
	0413-005	L238672-5	919	10	0.011
	0413-006	L238672-6	921	<0.38	<0.00041
	8	L238672-7	40	<0.38	<0.0094

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

Level of quantitation: 0.38 ug Submitted by: cju
Analytical Method : mod. NIOSH 7300/ mod. OSHA 125G; ICP Approved by : LLS

OSHA PEL (TWA) : 0.05 mg/m3 Date : 27-APR-11 NYS DOH # : 11626

Collection Media : Filter QC by: (b) (6)



6601 Kirkville Road East Syracuse, NY 13057

PAX: (315) 437-0571

www. (b) (4) .com

(315) 432-5227

LABORATORY FOOTNOTE REPORT

Client Name : Engineering/Remediation Resources Group

Site : RED HILL Project No. : PIPE DEMO

Date Sampled : 13-APR-11 Account No.: 22335 Date Received: 22-APR-11 Login No. : L238672

Date Analyzed: 25-APR-11

Unless otherwise noted below, all quality control results associated with the samples were within established control limits.

Unrounded results are carried through the calculations that yield the final result and the final result is rounded to the number of significant figures appropriate to the accuracy of the analytical method. Please note that results appearing in the columns preceeding the final result column may have been rounded in order to fit the report format and therefore, if carried through the calculations, may not yield an identical final result to the one reported.

The stated LOQs for each analyte represent the demonstrated LOQ concentrations prior to correction for desorption efficiency (if applicable).

L238672 (Report ID: 689836):

The Lead results are considered accurate to within 101% +/-6.7 based on a 95% confidence interval. The estimated uncertainty applies to the media,

technology, and SOF(s) referenced in this report and does not account for any uncertainty associated with the sampling process.

Reported results reflect elemental analysis of the requested metals. Certain compounds may not be solubilized during digestion, resulting in data that is biased low.

SOPs: MT-SOP-9(12), im-mwvfilt(14)

L238672 (Report ID: 689836):

Received with intake uncapped. Affect on results is unknown.

< -Less Than > -Greater Than mg -Milligrams

m3 -Cubic Meters

kg -Kilograms NS -Not Specified

NA -Not Applicable

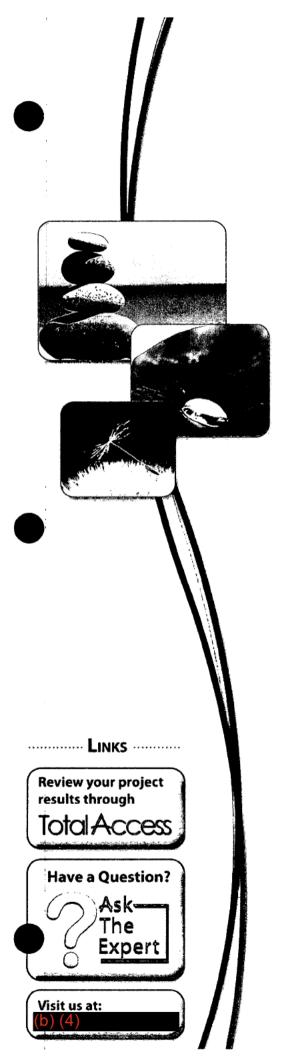
ug -Micrograms ND -Not Detected

1 -Liters ppm -Parts per Million

(b) (4)	Check of add	if change	Report To* :	17 ALA MO	ANA BL	VD STE 308	lńvoice To⁺ : <u>E</u>	RESOUR	LES E	ROUP, INC
		Client? yes	H	DNOLKLY	L, HI 91	2814				BLVD STE 308
	1011 0	no 🔀	Phone No.* : (9	2m1522	- (0000		Phone No. : (8	NOLULI		6014
		~	Cell No.* : (8				Fax/Email : <u>/</u> 2			
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	Name :	RED HI	- -	Projec	t: P P	E DEMO		mpled By:	(b) (6)	
Need Results By*:	(surcharge)	X Samples subn					mitted using the			[™] Program.
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Same day Sample		Date Sampled	Collection	Sample*:	Sample Units*:					Metals Technique Required,
	tion*	(mm/dd/yy)	Medium	Volume, Time, or Area	L, ml, min., in2, cm2, ft2	Analysis Re	quested*	Method R	eference*	ICAP or ICPMS^ (^Additional Cost)
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or Hexavalent Chrom	ium: process	must be listed for e	each sample subm	nitted (ex. we	lding, plating	, painting, etc.)*:				
or Crystalline Silica: f	orm(s) of silic	a needed must be	indicated (Quartz,	Cristobalite,	and/or Tridy	mite)*:				
ist description of indu							· · · · · · · · · · · · · · · · · · ·			
omments: * REC	UD 13PC	WHICE NO	TON COC	A	**	GCUA INTAKE	UNCAMPED C	}_		
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Received by LAB :	(D))							4/2/11	1035
Samples received	after 3pm wi	Il be considered as	next day's busine	ess.		fallure to complete to in your samples bein		Page		of

I AR ORIGINAL

Waste Sampling Results – Test America





ANALYTICAL REPORT



Job ID: HUD0051

Client Project/Site: Red Hill Pipe Demolition Project (2010-136)

Client Project Description:

Red Hill Pipe Demolition Project (2010-136)

For:

ERRG, Inc Honolulu 677 Ala Moana Blvd Honolulu, HI 96813



Authorized for release by: 04/26/2011 02:50:18 PM

(b) (6) Project Manager

(6) (a) (b) (4) .com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Page 1 of 36 04/26/2011

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Cover Page	1
Table of Contents	2
Definitions	3
Case Narrative	4
Sample Summary	6
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Client Sample Results	8
Surrogate Summary	10
QC Sample Results	11
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Chronicle	19
Certification Summary	20
Method Summary	21
Subcontract Data	22
Level II, Seattle	22
Chain of Custody	34

Qualifier Defi >n/Glossary

Client: ERRG, Inc Honolulu

Project/Site: Red Hill Pipe Demolition Project (2010-136)

(b) (4) Job ID: HUD0051

ualifiers

CMS Volatiles

-	Qualifier	Qualifier Description
1	M1	The MS and/or MSD were outside the acceptance limits due to sample matrix interference. See Blank Spike (LCS).
	П	Analyte was not detected and is reported as less than the LOD

GC Semivolatiles

Qualifier	Qualifier Description
J	Estimated value. Analyte detected at a level less than the Reporting Limit/Limit of Quantitation and greater than or equal to the Detection
	Limit
Q1	Does not match typical pattern
Z 9	Unable to calculate surrogate recovery due to matrix interference.
Metals	
Qualifier	Qualifier Description
J	Estimated: The analyte was positively identified; the quantitation is an estimation
U	Undetected at the Limit of Detection.

Glossary

bbreviation	These commonly used abbreviations may or may not be present in this report.
*	Listed under the "D" column to designate that the result is reported on a dry weight basis.
PA	United States Environmental Protection Agency
1D	Not Detected above the reporting level.
/IDL	Method Detection Limit
RL	Reporting Limit
RE, RE1 (etc.)	Indicates a Re-extraction or Reanalysis of the sample.
	Percent Recovery
b	Relative Percent Difference, a measure of the relative difference between two points.

Case Narrative

Client: ERRG, Inc Honolulu

Project/Site: Red Hill Pipe Demolition Project (2010-136)

(b) (4) Job ID: HUD0051

Job ID: HUD0051

Laboratory: (b) (4)

Narrative

Sample/cooler was received at 10 degrees C on ice and intact 4/12/2011 3:15:00 PM Samples were delivered to (b) (4) to be run according to the Department of Defense Quality Service Manual version 4.2 (DODQSM4.2).

Laboratory: (b) (4)

Narrative

CASE NARRATIVE

Client(b) (4)

Project: HUD0051 Report Number: 580-25598-1

This case narrative is in the form of an exception report, where only the anomalies related to this report, method specific performance and/or QA/QC issues are discussed. If there are no issues to report, this narrative will include a statement that documents that there are no relevant data issues.

Following DoD QSM guidelines, manual integrations were performed only when necessary and are in compliance with the laboratory's standard operating procedure, Acceptable Manual Integration Practices, SOP No.: Q-S-002. The reason(s) for manual integration have been documented on the affected chromatogram(s), which is/are provided in the raw data package. The raw data also includes the original chromatogram(s) prior to any manual integration being performed. Manual integrations are detailed in the manual integration summary forms following this narrative.

It should be noted that samples with elevated Limits of Quantitation (LOQs) resulting from a dilution may not be able to satisfy customer reporting limits in some cases. Such increases in the LOQs are an unavoidable but acceptable consequence of sample dilution that enables quantification of target analytes within the calibration range of the instrument or that reduces the interferences thereby enabling the quantification of target analytes.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT

The samples were received on 04/14/2011; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 0.1 C.

Note: All samples which require thermal preservation are considered acceptable if the arrival temperature is within 2C of the required temperature or method specified range. For samples with a specified temperature of 4C, samples with a temperature ranging from just above freezing temperature of water to 6C shall be acceptable. Samples that are hand delivered immediately following collection may not meet these criteria, however they will be deemed acceptable according to NELAC standards, if there is evidence that the chilling process has begun, such as arrival on ice, etc.

TOTAL RECOVERABLE METALS (ICP)

Samples HUD0051-01 (580-25598-1) and HUD0051-02 (580-25598-2) were analyzed for total recoverable metals (ICP) in accordance with EPA SW-846 Method 6010B. The samples were prepared and analyzed on 04/15/2011.

No difficulties were encountered during the metals analyses.

All quality control parameters were within the acceptance limits.

TOTAL MERCURY

Samples HUD0051-01 (580-25598-1) and HUD0051-02 (580-25598-2) were analyzed for total mercury in accordance with EPA SW-846 Methods 7470A. The samples were prepared and analyzed on 04/18/2011.

No difficulties were encountered during the mercury analyses.

(b) (4)

Case I ative

Client: ERRG, Inc Honolulu

Project/Site: Red Hill Pipe Demolition Project (2010-136)

(b) (4) Job ID: HUD0051

b ID: HUD0051 (Continued)

Laboratory: (b) (4)

(Continued)

All quality control parameters were within the acceptance limits.

Sample Summary

Client: ERRG, Inc Honolulu

Project/Site: Red Hill Pipe Demolition Project (2010-136)

(b) (4) Job ID: HUD0051

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	
HUD0051-01	RHPD-A	Water - NonPotable	04/12/11 02:40	04/12/11 15:15	
HUD0051-02	RHPD-B	Water - NonPotable	04/12/11 02:42	04/12/11 15:15	

Detection mmary

Client: ERRG, Inc Honolulu

Project/Site: Red Hill Pipe Demolition Project (2010-136)

(b) (4) Job ID: HUD0051

ient Sample ID: RHPD-A						Lat	Sample ID	: HUD0051-01
Analyte	Result	Qualifier	LOQ	DL	Unit	Dil Fac) Method	Prep Type
Benzene	3.43		2.40	0.301	ug/L	1.00	EPA 8260	total
Ethylbenzene	16.7		2.40	0.341	ug/L	1.00	EPA 8260	total
m,p-Xylene	101		2.40	0.782	ug/L	1.00	EPA 8260	total
o-Xylene	51.6		2.40	0.375	ug/L	1.00	EPA 8260	total
Toluene	31.0		2.40	0.374	ug/L	1.00	EPA 8260	total
DRO	3850	Q1	85.5	11.6	ug/L	1.00	EPA 8015	total
Barium	0.055		0.010	0.00050	mg/L	1	6010B	Total Recovera
Lead	0.012	J	0.030	0.0021	mg/L	1	6010B	Total Recovera
Selenium	0.030	J	0.10	0.0042	mg/L	1	6010B	Total Recovera
pH	5.71		1.00	1.00	pH Units	1.00	EPA 150.1	total

Client Sample ID: RHPD-B						La	Lab Sample ID: HUD0051-0		
 Analyte	Result	Qualifier	LOQ	DL	Unit	Dil Fac	D	Method	Prep Type
Benzene	3.17		2.40	0.301	ug/L	1.00	_	EPA 8260	total
Ethylbenzene	15.1		2.40	0.341	ug/L	1.00		EPA 8260	total
m,p-Xylene	93.2		2.40	0.782	ug/L	1.00		EPA 8260	total
o-Xylene	48.3		2.40	0.375	ug/L	1.00		EPA 8260	total
Toluene	27.6		2.40	0.374	ug/L	1.00		EPA 8260	total
DRO	3490	Q1	85.9	11.7	ug/L	1.00		EPA 8015	total
Barium	0.065		0.010	0.00050	mg/L	1		6010B	Total Recovera
Lead	0.016	J	0.030	0.0021	mg/L	1		6010B	Total Recovera
Selenium	0.034	J	0.10	0.0042	mg/L	1		6010B	Total Recovera
_pH	5.72		1.00	1.00	pH Units	1.00		EPA 150.1	total

Analyticai Data

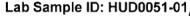
Client: ERRG, Inc Honolulu

Project/Site: Red Hill Pipe Demolition Project (2010-136)

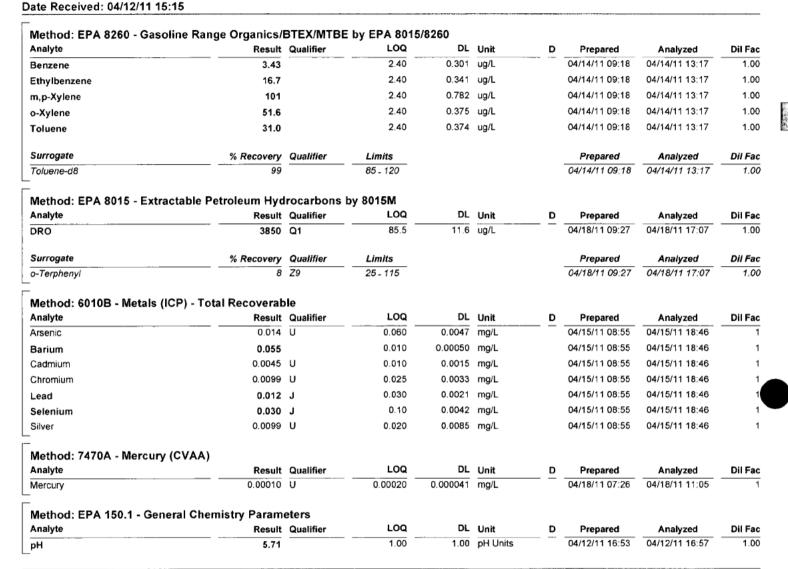
(b) (4) Job ID: HUD0051

Client Sample ID: RHPD-A

Date Collected: 04/12/11 02:40



Matrix: Water - NonPotable



Client Sample ID: RHPD-B

Date Collected: 04/12/11 02:42

Lab Sample ID: HUD0051-02

Matrix: Water - NonPotable

Date Received: 04/12/11 15:15

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	3.17		2.40	0.301	ug/L		04/14/11 09:18	04/14/11 13:42	1.00
Ethylbenzene	15.1		2.40	0.341	ug/L		04/14/11 09:18	04/14/11 13:42	1.00
m,p-Xylene	93.2		2.40	0.782	ug/L		04/14/11 09:18	04/14/11 13:42	1.00
o-Xylene	48.3		2.40	0.375	ug/L		04/14/11 09:18	04/14/11 13:42	1.00
Toluene	27.6		2.40	0.374	ug/L		04/14/11 09:18	04/14/11 13:42	1.00
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8	99		85 - 120				04/14/11 09:18	04/14/11 13:42	1.00

Method: EPA 8015 - Extractable Petroleum Hydrocarbons by 8015M										
Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac	
DRO	3490	Q1	85.9	11.7	ug/L		04/18/11 09:27	04/18/11 17:55	1.00	

(b) (4)

Analyt Data

Client: ERRG, Inc Honolulu

Project/Site: Red Hill Pipe Demolition Project (2010-136)

(b) (4) Job ID: HUD0051

te Collected: 04/12/11 02:42

Lab Sample ID: HUD0051-02

Matrix: Water - NonPotable

Date Received: 04/12/11 15:15

Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	70		25 - 115				04/18/11 09:27	04/18/11 17:55	1.00
Method: 6010B - Metals (IC	CP) - Total Recoverat	ole							
Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.014	U	0.060	0.0047	mg/L		04/15/11 08:55	04/15/11 18:52	1
Barium	0.065		0.010	0.00050	mg/L		04/15/11 08:55	04/15/11 18:52	1
Cadmium	0.0045	U	0.010	0.0015	mg/L		04/15/11 08:55	04/15/11 18:52	1
Chromium	0.0099	U	0.025	0.0033	mg/L		04/15/11 08:55	04/15/11 18:52	1
Lead	0.016	J	0.030	0.0021	mg/L		04/15/11 08:55	04/15/11 18:52	1
Selenium	0.034	J	0.10	0.0042	mg/L		04/15/11 08:55	04/15/11 18:52	1
Silver	0.0099	U	0.020	0.0085	mg/L		04/15/11 08:55	04/15/11 18:52	1
Method: 7470A - Mercury ((CVAA)								
Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00010	U	0.00020	0.000041	mg/L		04/18/11 07:26	04/18/11 10:14	1
Method: EPA 150.1 - Gene	ral Chemistry Param	eters							
Analyte	•	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Н	5.72		1.00	1.00	pH Units		04/12/11 16:53	04/12/11 17:01	1.00

Surrogate Summary

Client: ERRG, Inc Honolulu

Lab Sample ID

11D0079-BLK1

11D0079-BS1

11D0079-MS1

HUD0051-01

HUD0051-02

Surrogate Legend TOL = Toluene-d8

11D0079-MSD1

Project/Site: Red Hill Pipe Demolition Project (2010-136)

Client Sample ID 11D0079-BLK1

11D0079-BS1

RHPD-A

RHPD-A

RHPD-A

RHPD-B

(b) (4) Job ID: HUD0051

Method: EPA 8260 - Gasoline Range Organics/BTEX/MTBE by EPA 8015/8260

Matrix: Water - NonPotable

TOL (85-120)

99

97

90

88

99

99

Prep Type: total

Percent Surrogate Recovery (Acceptance Limits)

Method: EPA 8015 - Extractable Petroleum Hydrocarbons by 8015M

Matrix: Water - NonPotable Prep Type: total

			Percent Surrogate Recovery (Acceptance Limits)
		ОТРН	
Lab Sample ID	Client Sample ID	(25-115)	
11D0057-BLK1	11D0057-BLK1	63	
11D0057-BS2	11D0057-BS2	82	
11D0057-BSD2	11D0057-BSD2	77	
11D0057-MS1	RHPD-A	83	
HUD0051-01	RHPD-A	8 Z9	
HUD0051-02	RHPD-B	70	
Surrogate Legend			

OTPH = o-Terphenyl

(b) (4) 04/26/2011

Page 10 of 36

Client: ERRG, Inc Honolulu

Project/Site: Red Hill Pipe Demolition Project (2010-136)

Job ID: HUD0051

ethod: EPA 8260 - Gasoline Range Organics/BTEX/MTBE by EPA 8015/8260

Client Sample ID: 11D0079-BLK1 Lab Sample ID: 11D0079-BLK1

Matrix: Water - NonPotable Prep Type: total Prep Batch: 11D0079 P - lunda Databu 44D0070

Analysis Batch: 11D0079							F	rep Batch: 11L	00079_P
	Blank	Blank							
Analyte	Result	Qualifier	LOQ	DL.	Unit	Đ	Prepared	Analyzed	Dil Fac
Benzene	<2.00	U	2.40	0.301	ug/L		04/14/11 09:18	04/14/11 12:51	1.00
Ethylbenzene	<2.00	U	2.40	0.341	ug/L		04/14/11 09:18	04/14/11 12:51	1.00
m,p-Xylene	<2.00	U	2.40	0.782	ug/L		04/14/11 09:18	04/14/11 12:51	1.00
o-Xylene	<2.00	U	2.40	0.375	ug/L		04/14/11 09:18	04/14/11 12:51	1.00
Toluene	<2.00	U	2.40	0.374	ug/L		04/14/11 09:18	04/14/11 12:51	1.00
	Blank	Blank							
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac

% Recovery Qualifier 04/14/11 09:18 04/14/11 12:51 85 - 120 Toluene-d8 Client Sample ID: 11D0079-BS1 Lab Sample ID: 11D0079-BS1

Matrix: Water - NonPotable Prep Type: total Prep Batch: 11D0079_P Analysis Batch: 11D0079

	Spike	LCS	LCS				% Rec.	
Analyte	Added	Result	Qualifier	Unit	D	% Rec	Limits	
Benzene	24.9	25.9		ug/L	_	104	75 - 120	
Ethylbenzene	24.8	24.0		ug/L		97	80 - 120	
m,p-Xylene	50.0	48.8		ug/L		98	70 - 120	
o-Xylene	24.8	23.7		ug/L		96	80 - 120	
Toluene	25.0	24.1		ug/L		96	60 - 120	

% Recovery Qualifier Limits Surrogate 97 Toluene-d8 85 - 120

LCS LCS

Lab Sample ID: 11D0079-MS1 Client Sample ID: RHPD-A Prep Type: total Matrix: Water - NonPotable

Analysis Batch: 11D0079 Prep Batch: 11D0079 P

Allalysis Datell. 11D0070									Top Buton. TIB	· · · · · · · · · · · · · · · · · · ·
_	Sample	Sample	Spike	Matrix Spike	Matrix Spil	ke			% Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	% Rec	Limits	
Benzene	3.43		24.9	25.3		ug/L		88	75 - 120	
Ethylbenzene	16.7		24.8	34.4	M1	ug/L		71	80 - 120	
m,p-Xylene	101		50.0	123	M1	ug/L		45	70 - 120	
o-Xylene	51.6		24.8	61.9	M1	ug/L		42	80 - 120	
Toluene	31.0		25.0	46.0		ug/L		60	60 - 120	
	Matrix Spike	Matrix Spike								

Surrogate % Recovery Qualifier Limits Toluene-d8 85 - 120

90

Lab Sample ID: 11D0079-MSD1 Client Sample ID: RHPD-A Matrix: Water - NonPotable Prep Type: total

Analysis Batch: 11D0079 Prep Batch: 11D0079 P

								_				
-	Sample	Sample	Spike Matr	ix Spike Dup	Matrix Spil	ke Dup			% Rec.		RPD	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	Ð	% Rec	Limits	RPD	Limit	
Benzene	3.43		24.9	25.5		ug/L		89	75 - 120	0.5	25	
Ethylbenzene	16.7		24.8	34.0	M1	ug/L		70	80 - 120	1	25	
m,p-Xylene	101		50.0	120	M1	ug/L		39	70 - 120	3	25	
Xylene	51.6		24.8	61.4	M1	ug/L		40	80 - 120	0.9	25	
roluene	31.0		25.0	45.1	M1	ug/L		56	60 - 120	2	25	

Quality Control Data

Client: ERRG, Inc Honolulu

Project/Site: Red Hill Pipe Demolition Project (2010-136)

Job ID: HUD0051

Method: EPA 8260 - Gasoline Range Organics/BTEX/MTBE by EPA 8015/8260 (Continued)

Lab Sample ID: 11D0079-MSD1 Matrix: Water - NonPotable

Analysis Batch: 11D0079

Client Sample ID: RHPD-A

Prep Type: total

Prep Batch: 11D0079_P

Prep Batch: 11D0057_P

Prep Batch: 11D0057_P

Prep Type: total

Matrix Spike Dup Matrix Spike Dup

% Recovery Qualifier Surrogate Toluene-d8

88

Limits 85 - 120

Method: EPA 8015 - Extractable Petroleum Hydrocarbons by 8015M

Lab Sample ID: 11D0057-BLK1 Client Sample ID: 11D0057-BLK1 Prep Type: total

Matrix: Water - NonPotable Analysis Batch: 11D0057

Blank Blank

Result Qualifier LOG DL Unit Prepared Analyzed Dil Fac Analyte DRO 28.5 J 82.5 11.2 ug/L 04/18/11 09:45 04/18/11 15:47 1.00

Blank Blank

% Recovery Qualifier Limits Prepared Analyzed Dil Fac Surrogate o-Terphenyl 63 25 - 115 04/18/11 09:45 04/18/11 15:47 1.00

Lab Sample ID: 11D0057-BS2 Client Sample ID: 11D0057-BS2 Prep Type: total

Matrix: Water - NonPotable Analysis Batch: 11D0057

Spike LCS LCS % Rec. Added Result Qualifier Limits Analyte Unit D % Rec

DRO 5000 4280 ug/L 86 50 - 120

LCS LCS

% Recovery Qualifier Limits Surrogate 25 - 115 o-Terphenyl 82

Lab Sample ID: 11D0057-BSD2 Client Sample ID: 11D0057-BSD2

Matrix: Water - NonPotable

Prep Batch: 11D0057 P Analysis Batch: 11D0057 Spike LCS Dup LCS Dup

% Rec. RPD Added Result Qualifier % Rec Limits RPD Limit Unit D Analyte 50 - 120 30 5000 3970 79 8 DRO ug/L

LCS Dup LCS Dup

% Recovery Qualifier Limits Surrogate

25 - 115 o-Terphenyl

Client Sample ID: RHPD-A Lab Sample ID: 11D0057-MS1

Prep Type: total Matrix: Water - NonPotable

Prep Batch: 11D0057_P Analysis Batch: 11D0057 Snike Matrix Spike Matrix Spike % Rec. Sample Sample

Result Qualifier Added Result Qualifier Unit % Rec Limits Analyte 5620 DRO 3850 Q1 9520 uq/L 101 50 - 120

Matrix Spike Matrix Spike

Limits Surrogate % Recovery Qualifier

25 - 115 o-Terphenyl 83

Quality C ol Data

Client: ERRG, Inc Honolulu

Project/Site: Red Hill Pipe Demolition Project (2010-136)

Job ID: HUD0051

04/15/11 17:36

04/15/11 08:55

ethod: 6010B - Metals (ICP)

Lab Sample ID: MB 580-84082/19-A Client Sample ID: MB 580-84082/19-A

0.0099 U

Matrix: Water

Prep Type: Total Recoverable Prep Batch: 84082 Analysis Batch: 84137

	MB	MB							
Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.014	U	0.060	0.0047	mg/L		04/15/11 08:55	04/15/11 17:36	1
Barium	0.0010	U	0.010	0.00050	mg/L		04/15/11 08:55	04/15/11 17:36	1
Cadmium	0.0045	U	0.010	0.0015	mg/L		04/15/11 08:55	04/15/11 17:36	1
Chromium	0.0099	U	0.025	0.0033	mg/L		04/15/11 08:55	04/15/11 17:36	1
Lead	0.0050	U	0.030	0.0021	mg/L		04/15/11 08:55	04/15/11 17:36	1
Selenium	0.0058	U	0.10	0.0042	mg/L		04/15/11 08:55	04/15/11 17:36	1

Lab Sample ID: LCS 580-84082/20-A Client Sample ID: LCS 580-84082/20-A

0.020

0.0085 mg/L

Matrix: Water

Silver

Prep Type: Total Recoverable Analysis Batch: 84137 Prep Batch: 84082

	Spike	LCS	LCS				% Rec.	
Analyte	Added	Result	Qualifier	Unit	D	% Rec	Limits	
Arsenic	4.00	3.93		mg/L		98	80 - 120	
Barium	4.00	3.90		mg/L		97	80 - 120	
Cadmium	0.100	0.0961		mg/L		96	80 - 120	
Chromium	0.400	0.403		mg/L		101	80 - 120	
Lead	1.00	0.995		mg/L		100	80 - 120	
Selenium	4.00	3.99		mg/L		100	80 - 120	
Silver	0.600	0.604		mg/L		101	80 - 120	

ab Sample ID: LCSD 580-84082/21-A Client Sample ID: LCSD 580-84082/21-A

Matrix: Water

Silver

Prep Type: Total Recoverable Analysis Batch: 84137 Prep Batch: 84082

inal, old Batom of it.								,,,,,,,,		
	Spike	LCSD	LCSD				% Rec.		RPD	
Analyte	Added	Result	Qualifier	Unit	D	% Rec	Limits	RPD	Limit	
Arsenic	4.00	4.08	•	mg/L	_	102	80 - 120	4	20	
Barium	4.00	4.01		mg/L		100	80 - 120	3	20	
Cadmium	0.100	0.0991		mg/L		99	80 - 120	3	20	
Chromium	0.400	0.412		mg/L		103	80 - 120	2	20	
Lead	1.00	1.02		mg/L		102	80 - 120	3	20	
Selenium	4.00	4.12		mg/L		103	80 - 120	3	20	
Silver	0.600	0.628		ma/L		105	80 - 120	4	20	

Lab Sample ID: LCSSRM 580-84082/22-A Client Sample ID: LCSSRM 580-84082/22-A Matrix: Water Prep Type: Total Recoverable

Analysis Batch: 84137							Prep B	atch: 84082
	Spike	LCSSRM	LCSSRM				% Rec.	
Analyte	Added	Result	Qualifier	Unit	D	% Rec	Limits	
Arsenic	4.00	3.97		mg/L		99	80 - 120	
Barium	4.00	3.96		mg/L		99	80 - 120	
Cadmium	0.100	0.0961		mg/L		96	80 - 120	
Chromium	0.400	0.402		mg/L		100	80 - 120	
Lead	1.00	0.993		mg/L		99	80 - 120	
Selenium	4.00	4.00		mg/L		100	80 - 120	

0.609

mg/L

102

75 - 120

0.600

Quality Control Data

Client: ERRG, Inc Honolulu

Project/Site: Red Hill Pipe Demolition Project (2010-136)

Job ID: HUD0051

Method: 6010B - Metals (ICP) (Continued)

Client Sample ID: 580-25409-D-1-G MS Lab Sample ID: 580-25409-D-1-G MS

Matrix: Water

Prep Type: Total Recoverable Prep Batch: 84082 Analysis Batch: 84137

	Sample	Sample	Spike	MS	MS				% Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	% Rec	Limits	
Arsenic	0.014		4.00	4.34		mg/L	_	108	80 - 120	
Barium	0.96		4.00	4.82		mg/L		97	80 - 120	
Cadmium	0.0045		0.100	0.100		mg/L		100	80 - 120	
Chromium	0.0099		0.400	0.379		mg/L		95	80 - 120	
Lead	0.0050		1.00	1.01		mg/L		101	80 - 120	
Selenium	0.0058		4.00	4.28		mg/L		107	80 - 120	
Silver	0.0099		0.600	0.696		mg/L		116	80 - 120	

Lab Sample ID: 580-25409-D-1-H MSD Client Sample ID: 580-25409-D-1-H MSD

Matrix: Water

Analysis Batch: 84137

Prep Type: Total Recoverable Prep Batch: 84082

& Rec.	RPD
Limits RPD	Limit
30 - 120 0	20
30 - 120 1	20
30 - 120 1	20
30 - 120 2	20
30 - 120 0	20
30 - 120 0	20
30 - 120 0	20
3	30 - 120 2 30 - 120 0 30 - 120 0

Client Sample ID: 580-25409-D-1-F DU Lab Sample ID: 580-25409-D-1-F DU Prep Type: Total Recoverable

Matrix: Water

Analysis Batch: 94127

Prop Batch: 94092

1	Analysis Batch: 84137							Prep Ba	tcn: 8	4082
	_	Sample	Sample	DU	DU					RPD
	Analyte	Result	Qualifier	Result	Qualifier	Unit	D	F	RPD	Limit
	Arsenic	0.014		0.014	U	mg/L			NC	20
	Barium	0.96		0.950		mg/L			0.8	20
	Cadmium	0.0045		0.0045	U	mg/L			NC	20
	Chromium	0.0099		0.0099	U	mg/L			NC	20
11.0	Lead	0.0050		0.0050	U	mg/L			NC	20
-	Selenium	0.0058		0.0058	U	mg/L			NC	20
	Silver	0.0099		0.0099	U	mg/L			NC	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 580-84144/21-A Client Sample ID: MB 580-84144/21-A

Matrix: Water

Analysis Batch: 84231

Prep Type: Total/NA

Prep Batch: 84144

MB MB LOQ DL Unit Dil Fac Analyte Result Qualifier Prepared Analyzed 04/18/11 07:26 0.00010 U 0.00020 04/18/11 09:53 Mercury 0.000041 mg/L

Lab Sample ID: LCS 580-84144/22-A Client Sample ID: LCS 580-84144/22-A

Prep Type: Total/NA Matrix: Water Analysis Batch: 84231 Prep Batch: 84144

Spike LCS LCS

% Rec. Added Result Qualifier Limits Unit % Rec Analyte 0.00200 Mercury 0.00212 mg/L 106 80 - 120

Quality C ol Data

Project/Site: Red Hill Pipe Demolition Project (2010-136)

Job ID: HUD0051 Client: ERRG, Inc Honolulu

								_			
Lab Sample ID: LCSD 580-84144/2	23-A					Cli	ent Sa	ample ID	: LCSD 58		
Matrix: Water									Prep Ty	-	
Analysis Batch: 84231			Spike	LCSD	LCSD				% Rec.	Batch:	04144 RPE
Analyte			Added		Qualifier	Unit	D	% Rec	Limits	RPD	Limi
Mercury			0.00200	0.00211	Qualifier	mg/L		105	80 - 120	1	20
-											
Lab Sample ID: LCSSRM 580-8414	14/24-A					Client	Samp	ole ID: Lo	CSSRM 58	0-8414	4/24-A
Matrix: Water							-		Prep Ty		
Analysis Batch: 84231									Prep	Batch:	84144
			Spike	LCSSRM	LCSSRM				% Rec.		
Analyte			Added	Result	Qualifier	Unit	D	% Rec	Limits		
Mercury			0.00200	0.00212		mg/L		106	75 - 125		
Lab Sample ID: 580-25598-1 MS								Client 9	Sample ID:	HUD00	051-01
Matrix: Water									Prep Ty		
Analysis Batch: 84231										Batch:	
•	Sample	Sample	Spike	MS	MS				% Rec.		
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	% Rec	Limits		
Mercury	0.00010	U	0.00200	0.00205		mg/L		103	80 - 120		
Lab Sample ID: 580-25598-1 MSD								Client S	Sample ID:	HUD00	051-01
Matrix: Water									Prep Ty		
Analysis Batch: 84231										Batch:	
•	Sample	Sample	Spike	MSD	MSD				% Rec.		RPD
nalyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	% Rec	Limits	RPD	Limi
ercury	0.00010	U	0.00200	0.00207		mg/L		104	80 - 120	1	20
Lab Sample ID: 580-25598-1 DU								Client S	Sample ID:	HUD00	051-01
Matrix: Water									Prep Ty		
Analysis Batch: 84231										Batch:	
•	Sample	Sample		DU	DU						RPD
Analyte	Result	Qualifier		Result	Qualifier	Unit	D			RPD	Limi
Mercury	0.00010	U		0.00010	U	mg/L				NC	20
lethod: EPA 150.1 - General	Chemis	try Paran	neters								
Lab Sample ID: 11D0065-DUP1								Clic	ent Sample	e ID: Ri	IPD-A
Matrix: Water - NonPotable										р Туре	
Analysis Batch: 11D0065								1	Prep Batch		
•	Sample	Sample		Duplicate	Duplicate				-		RPD
Analyte	Result	Qualifier		Result	Qualifier	Unit	D			RPD	Limi
рН	5.71			5.72		pH Units				0.2	20
Lab Sample ID: 11D0065-DUP2								Clie	ent Sample	e ID: Rł	HPD-A
Matrix: Water - NonPotable									Pre	р Туре	: tota
Analysis Batch: 11D0065								- 1	Prep Batch	ı: 11D0	065_F
	Sample	Sample		Duplicate	Duplicate						RPD
Analyte	Result	Qualifier		Result	Qualifier	Unit	D			RPD	Limit
				***		177					

QC Association Summary

Client: ERRG, Inc Honolulu

Project/Site: Red Hill Pipe Demolition Project (2010-136)

(b) (4) Job ID: HUD0051

GCMS Volatiles

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
11D0079-BS1	11D0079-B\$1	total	Water - NonPotable	EPA 8260	11D0079_P
11D0079-BLK1	11D0079-BLK1	total	Water - NonPotable	EPA 8260	11D0079_P
HUD0051-01	RHPD-A	total	Water - NonPotable	EPA 8260	11D0079_P
HUD0051-02	RHPD-B	total	Water - NonPotable	EPA 8260	11D0079_P
11D0079-MS1	RHPD-A	total	Water - NonPotable	EPA 8260	11D0079_P
11D0079-MSD1	RHPD-A	total	Water - NonPotable	EPA 8260	11D0079_P

Prep Batch: 11D0079_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
11D0079-BS1	11D0079-BS1	total	Water -	EPA 5030/5035	
			NonPotable		
11D0079-BLK1	11D0079-BLK1	total	Water -	EPA 5030/5035	
			NonPotable		
HUD0051-01	RHPD-A	total	Water -	EPA 5030/5035	
			NonPotable		
HUD0051-02	RHPD-B	total	Water -	EPA 5030/5035	
			NonPotable		
11D0079-MS1	RHPD-A	total	Water -	EPA 5030/5035	
			NonPotable		
11D0079-MSD1	RHPD-A	total	Water -	EPA 5030/5035	
			NonPotable		

GC Semivolatiles

Analysis Batch: 11D0057

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
11D0057-BLK1	11D0057-BLK1	total	Water - NonPotable	EPA 8015	11D0057_P
11D0057-BS2	11D0057-BS2	total	Water - NonPotable	EPA 8015	11D0057_P
11D0057-BSD2	11D0057-B\$D2	total	Water - NonPotable	EPA 8015	11D0057_P
11D0057-MS1	RHPD-A	total	Water - NonPotable	EPA 8015	11D0057_P
HUD0051-01	RHPD-A	total	Water - NonPotable	EPA 8015	11D0057_P
HUD0051-02	RHPD-B	total	Water - NonPotable	EPA 8015	11D0057_P

Prep Batch: 11D0057_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
11D0057-BLK1	11D0057-BLK1	total	Water - NonPotable	EPA 3510 GC	
11D0057-BS2	11D0057-BS2	total	Water - NonPotable	EPA 3510 GC	
11D0057-BSD2	11D0057-BSD2	total	Water - NonPotable	EPA 3510 GC	
11D0057-MS1	RHPD-A	total	Water - NonPotable	EPA 3510 GC	
HUD0051-01	RHPD-A	total	Water - NonPotable	EPA 3510 GC	
HUD0051-02	RHPD-B	total	Water - NonPotable	EPA 3510 GC	

etals

rep Batch: 84082

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 580-84082/19-A	MB 580-84082/19-A	Total Recoverable	Water	3005A	
580-25409-D-1-F DU	580-25409-D-1-F DU	Total Recoverable	Water	3005A	
LCS 580-84082/20-A	LCS 580-84082/20-A	Total Recoverable	Water	3005A	
LCSD 580-84082/21-A	LCSD 580-84082/21-A	Total Recoverable	Water	3005A	
LCSSRM 580-84082/22-A	LCSSRM 580-84082/22-A	Total Recoverable	Water	3005A	
580-25409-D-1-G MS	580-25409-D-1-G MS	Total Recoverable	Water	3005A	
580-25409-D-1-H MSD	580-25409-D-1-H MSD	Total Recoverable	Water	3005A	
HUD0051-01	RHPD-A	Total Recoverable	Water - NonPotable	3005A	
HUD0051-02	RHPD-B	Total Recoverable	Water - NonPotable	3005A	

Analysis Batch: 84137

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 580-84082/19-A	MB 580-84082/19-A	Total Recoverable	Water	6010B	84082
LCS 580-84082/20-A	LCS 580-84082/20-A	Total Recoverable	Water	6010B	84082
LCSD 580-84082/21-A	LCSD 580-84082/21-A	Total Recoverable	Water	6010B	84082
LCSSRM 580-84082/22-A	LCSSRM 580-84082/22-A	Total Recoverable	Water	6010B	84082
580-25409-D-1-F DU	580-25409-D-1-F DU	Total Recoverable	Water	6010B	84082
580-25409-D-1-G MS	580-25409-D-1-G MS	Total Recoverable	Water	6010B	84082
580-25409-D-1-H MSD	580-25409-D-1-H MSD	Total Recoverable	Water	6010B	84082
HUD0051-01	RHPD-A	Total Recoverable	Water - NonPotable	6010B	84082
HUD0051-02	RHPD-B	Total Recoverable	Water - NonPotable	6010B	84082

rep Batch: 84144

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
HUD0051-01	RHPD-A	Total/NA	Water - NonPotable	7470A	
580-25598-1 DU	HUD0051-01	Total/NA	Water	7470A	
MB 580-84144/21-A	MB 580-84144/21-A	Total/NA	Water	7470A	
LCS 580-84144/22-A	LCS 580-84144/22-A	Total/NA	Water	7470A	
LCSD 580-84144/23-A	LCSD 580-84144/23-A	Total/NA	Water	7470A	
LCSSRM 580-84144/24-A	LCSSRM 580-84144/24-A	Total/NA	Water	7470A	
580-25598-1 MS	HUD0051-01	Total/NA	Water	7470A	
580-25598-1 MSD	HUD0051-01	Total/NA	Water	7470A	
HUD0051-02	RHPD-B	Total/NA	Water - NonPotable	7470A	

Analysis Batch: 84231

ab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
IB 580-84144/21-A	MB 580-84144/21-A	Total/NA	Water	7470A	84144
CS 580-84144/22-A	LCS 580-84144/22-A	Total/NA	Water	7470A	84144
CSD 580-84144/23-A	LCSD 580-84144/23-A	Total/NA	Water	7470A	84144
CSSRM 580-84144/24-A	LCSSRM 580-84144/24-A	Total/NA	Water	7470A	84144
UD0051-02	RHPD-B	Total/NA	Water - NonPotable	7470A	84144
UD0051-01	RHPD-A	Total/NA	Water - NonPotable	7470A	84144
80-25598-1 DU	HUD0051-01	Total/NA	Water	7470A	84144
80-25598-1 MS	HUD0051-01	Total/NA	Water	7470A	84144
0-25598-1 MSD	HUD0051-01	Total/NA	Water	7470A	84144

04/26/2011

QC Association Summary

Client: ERRG, Inc Honolulu

Project/Site: Red Hill Pipe Demolition Project (2010-136)

(b) (4) Job ID: HUD0051

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vv	et		ne	m
		v	10	,

Analys	is Ba	tch: '	111	D0065
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Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
HUD0051-01	RHPD-A	total	Water -	EPA 150.1	11D0065_P
11D0065-DUP1	RHPD-A	total	NonPotable Water -	EPA 150.1	11D0065_P
HUD0051-02	RHPD-B	total	NonPotable Water -	EPA 150.1	11D0065 P
11D0065-DUP2	RHPD-A	total	NonPotable Water -	EPA 150.1	11D0065 P
1100065-0082	RHPD-A	lotai	NonPotable	EFA 130,1	11D0005_P

Prep Batch: 11D0065_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
HUD0051-01	RHPD-A	total	Water -	Default Prep	
			NonPotable	GenChem	
11D0065-DUP1	RHPD-A	total	Water -	Default Prep	
			NonPotable	GenChem	
HUD0051-02	RHPD-B	total	Water -	Default Prep	
			NonPotable	GenChem	
11D0065-DUP2	RHPD-A	total	Water -	Default Prep	
			NonPotable	GenChem	

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te Collected: 04/12/11 02:40
Date Received: 04/12/11 15:15

Lab Sample ID: HUD0051-01 Matrix: Water - NonPotable

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	Or Analyzed	Analyst	Lab
total	Prep	EPA 5030/5035		1.00	11D0079_P	04/14/11 09:18	DJK	(b) (4)
total	Analysis	EPA 8260		1.00	11D0079	04/14/11 13:17	DK	(b) (4)
total	Prep	EPA 3510 GC		1.04	11D0057_P	04/18/11 09:27	KB	(b) (4)
total	Analysis	EPA 8015		1.00	11D0057	04/18/11 17:07	DEB	(b) (4)
Total Recoverable	Prep	3005A			84082	04/15/11 08:55	PAB	(b) (4)
Total Recoverable	Analysis	6010B		1	84137	04/15/11 18:46	SP	(b) (4)
Total/NA	Prep	7470A			84144	04/18/11 07:26	PAB	(b) (4)
Total/NA	Analysis	7470A		1	84231	04/18/11 11:05	FCW	(b) (4)
total	Prep	Default Prep GenChem		1.00	11D0065_P	04/12/11 16:53	JLM	(b) (4)
total	Analysis	EPA 150.1		1.00	11D0065	04/12/11 16:57	JLM	(b) (4)

Client Sample ID: RHPD-B Date Collected: 04/12/11 02:42 Date Received: 04/12/11 15:15 Lab Sample ID: HUD0051-02 Matrix: Water - NonPotable

		Batch	Batch		Dilution	Batch	Prepared		
	Ргер Туре	Type	Method	Run	Factor	Number	Or Analyzed	Analyst	Lab
	total	Prep	EPA 5030/5035		1.00	11D0079_P	04/14/11 09:18	DJK	(b) (4)
	total	Analysis	EPA 8260		1.00	11D0079	04/14/11 13:42	DK	(b) (4)
	tal	Prep	EPA 3510 GC		1.04	11D0057_P	04/18/11 09:27	KB	(b) (4)
9	otal	Analysis	EPA 8015		1.00	11D0057	04/18/11 17:55	DEB	(b) (4)
	Total Recoverable	Prep	3005A			84082	04/15/11 08:55	PAB	(b) (4)
	Total Recoverable	Analysis	6010B		1	84137	04/15/11 18:52	SP	(b) (4)
	Total/NA	Prep	7470A			84144	04/18/11 07:26	PAB	(b) (4)
	Total/NA	Analysis	7470A		1	84231	04/18/11 10:14	FCW	(b) (4)
	total	Prep	Default Prep		1.00	11D0065_P	04/12/11 16:53	JLM	(b) (4)
	total	Analysis	GenChem EPA 150.1		1.00	11D0065	04/12/11 17:01	JLM	(b) (4)

Certification Summary

Client: ERRG, Inc Honolulu

Project/Site: Red Hill Pipe Demolition Project (2010-136)

(b) (4) Job ID: HUD0051

Laboratory	Authority	Program	EPA Region	Certification ID
(b) (4)		USDA		(b) (4)
(b) (4)	Florida	NELAC	4	(b) (4)
(b) (4)	Hawaii	State Program	9	
(b) (4)	L-A-B	DoD ELAP	0	(b) (4)
(b) (4)		USDA		(b) (4)
(b) (4)	Alaska	Alaska UST	10	(b) (4)
(b) (4)	California	NELAC Secondary AB	9	(b) (4)
(b) (4)	Florida	NELAC Secondary AB	4	(b) (4)
(b) (4)	L-A-B	DoD ELAP	0	(b) (4)
(b) (4)	L-A-B	ISO/IEC 17025	0	(b) (4)
(b) (4)	Louisiana	NELAC Secondary AB	6	(b) (4)
(b) (4)	Montana	MT DEQ UST	8	
(b) (4)	Oregon	NELAC Primary AB	10	(b) (4)
(b) (4)	Washington	State Program	10	(b) (4)

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

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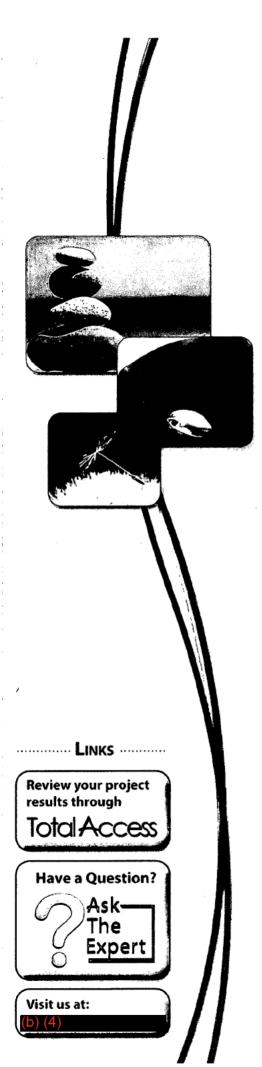
Project/Site: Red Hill Pipe Demolition Project (2010-136)

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:







THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT



(b) (4) Job ID: 580-25598-1 Client Project/Site: HUD0051

For:

(b) (4) (b) (4)

Attn: (b) (6)



Authorized for release by: 04/20/2011 01:02:51 PM

(b) (6

Project Manager I

(b) (6)

1@(b) (4)

Results relate only to the items tested and the sample(s) as received by the laboratory. The test results in this report meet all 2003 NELAC requirements for accredited parameters, exceptions are noted in this report. Pursuant to NELAC, this report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.



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Case Narrative

Client: (b) (4) (b) (4)
Project/Site: HUD0051

(b) (4) Job ID: 580-25598-1

Job ID: 580-25598-1

Laboratory: (b) (4)

Narrative

CASE NARRATIVE

Client: (b) (4) (b) (4)

Project: HUD0051 Report Number: 580-25598-1

This case narrative is in the form of an exception report, where only the anomalies related to this report, method specific performance and/or QA/QC issues are discussed. If there are no issues to report, this narrative will include a statement that documents that there are no relevant data issues.

Following DoD QSM guidelines, manual integrations were performed only when necessary and are in compliance with the laboratory's standard operating procedure, Acceptable Manual Integration Practices, SOP No.: Q-S-002. The reason(s) for manual integration have been documented on the affected chromatogram(s), which is/are provided in the raw data package. The raw data also includes the original chromatogram(s) prior to any manual integration being performed. Manual integrations are detailed in the manual integration summary forms following this narrative.

It should be noted that samples with elevated Limits of Quantitation (LOQs) resulting from a dilution may not be able to satisfy customer reporting limits in some cases. Such increases in the LOQs are an unavoidable but acceptable consequence of sample dilution that enables quantification of target analytes within the calibration range of the instrument or that reduces the interferences thereby enabling the quantification of target analytes.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT

The samples were received on 04/14/2011; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 0.1 C.

Note: All samples which require thermal preservation are considered acceptable if the arrival temperature is within 2C of the required temperature or method specified range. For samples with a specified temperature of 4C, samples with a temperature ranging from just above freezing temperature of water to 6C shall be acceptable. Samples that are hand delivered immediately following collection may not meet these criteria, however they will be deemed acceptable according to NELAC standards, if there is evidence that the chilling process has begun, such as arrival on ice, etc.

TOTAL RECOVERABLE METALS (ICP)

Samples HUD0051-01 (580-25598-1) and HUD0051-02 (580-25598-2) were analyzed for total recoverable metals (ICP) in accordance with EPA SW-846 Method 6010B. The samples were prepared and analyzed on 04/15/2011.

No difficulties were encountered during the metals analyses.

All quality control parameters were within the acceptance limits.

TOTAL MERCURY

Samples HUD0051-01 (580-25598-1) and HUD0051-02 (580-25598-2) were analyzed for total mercury in accordance with EPA SW-846 Methods 7470A. The samples were prepared and analyzed on 04/18/2011.

No difficulties were encountered during the mercury analyses.

All quality control parameters were within the acceptance limits.

(b) (4)

Qualifier Defin 1/Glossary

Client: (b) (4) (b) (4)
Project/Site: HUD0051

Percent Recovery

%R RPD (b) (4) Job ID: 580-25598-1

ualifiers etals Qualifier Qualifier Description Estimated: The analyte was positively identified; the quantitation is an estimation U Undetected at the Limit of Detection. Glossary Abbreviation These commonly used abbreviations may or may not be present in this report. Listed under the "D" column to designate that the result is reported on a dry weight basis. EPA United States Environmental Protection Agency ND Not Detected above the reporting level. MDL Method Detection Limit Reporting Limit Indicates a Re-extraction or Reanalysis of the sample. RE, RE1 (etc.)

Relative Percent Difference, a measure of the relative difference between two points.

Z

Analytical Data

Client: (b) (4)

Client Sample ID: HUD0051-01

Date Collected: 04/12/11 02:40

Date Received: 04/14/11 09:40

Project/Site: HUD0051

Job ID: 580-25598-1

Lab Sample ID: 580-25598-1

04/18/11 10:26 04/18/11 14:05

Matrix: Water

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.014	U	0.060	0.0047	mg/L		04/15/11 11:55	04/15/11 21:46	1
Barium	0.055		0.010	0.00050	mg/L		04/15/11 11:55	04/15/11 21:46	1
Cadmium	0.0045	U	0.010	0.0015	mg/L		04/15/11 11:55	04/15/11 21:46	1
Chromium	0.0099	U	0.025	0.0033	mg/L		04/15/11 11:55	04/15/11 21:46	1
Lead	0.012	J	0.030	0.0021	mg/L		04/15/11 11:55	04/15/11 21:46	1
Selenium	0.030	J	0.10	0.0042	mg/L		04/15/11 11:55	04/15/11 21:46	1
Silver	0.0099	U	0.020	0.0085	mg/L		04/15/11 11:55	04/15/11 21:46	1
Method: 7470A - Mercury (CVAA)									
Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac

Client Sample ID: HUD0051-02 Lab Sample ID: 580-25598-2

0.00020

0.00010 U

Date Collected: 04/12/11 02:42 Date Received: 04/14/11 09:40

Mercury

Matrix: Water

0.000041 mg/L

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.014	U	0.060	0.0047	mg/L		04/15/11 11:55	04/15/11 21:52	1
Barium	0.065		0.010	0.00050	mg/L		04/15/11 11:55	04/15/11 21:52	1
Cadmium	0.0045	U	0.010	0.0015	mg/L		04/15/11 11:55	04/15/11 21:52	1
Chromium	0.0099	U	0.025	0.0033	mg/L		04/15/11 11:55	04/15/11 21:52	1
Lead	0.016	J	0.030	0,0021	mg/L		04/15/11 11:55	04/15/11 21:52	1
Selenium	0.034	J	0.10	0.0042	mg/L		04/15/11 11:55	04/15/11 21:52	1
Silver	0.0099	U	0.020	0.0085	mg/L		04/15/11 11:55	04/15/11 21:52	1
Method: 7470A - Mercury (CVAA)									
Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00010	U	0.00020	0.000041	mg/L		04/18/11 10:26	04/18/11 13:14	1

Project/Site: HUD0051

Job ID: 580-25598-1

ethod: 6010B - Metals (ICP)

Lab Sample ID: MB 580-84082/19-A

Matrix: Water

Analysis Batch: 84137

Client Sample ID: MB 580-84082/19-A

Prep Type: Total Recoverable

Prep Batch: 84082

	MB	MB							
Analyte	Result	Qualifier	LOQ	DL.	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.014	U	0.060	0.0047	mg/L		04/15/11 11:55	04/15/11 20:36	1
Barium	0.0010	U	0.010	0.00050	mg/L		04/15/11 11:55	04/15/11 20:36	1
Cadmium	0.0045	U	0.010	0.0015	mg/L		04/15/11 11:55	04/15/11 20:36	1
Chromium	0.0099	U	0.025	0.0033	mg/L		04/15/11 11:55	04/15/11 20:36	1
Lead	0.0050	U	0.030	0.0021	mg/L		04/15/11 11:55	04/15/11 20:36	1
Selenium	0.0058	U	0.10	0.0042	mg/L		04/15/11 11:55	04/15/11 20:36	1
Silver	0.0099	U	0.020	0.0085	mg/L		04/15/11 11:55	04/15/11 20:36	1

Lab Sample ID: LCS 580-84082/20-A Client Sample ID: LCS 580-84082/20-A

Matrix: Water

Analysis Batch: 84137

Prep Type: Total Recoverable Prep Batch: 84082

	Spike	LCS	LCS				% Rec.	
Analyte	Added	Result	Qualifier	Unit	D	% Rec	Limits	
Arsenic	4.00	3.93		mg/L		98	80 - 120	
Barium	4.00	3.90		mg/L		97	80 - 120	
Cadmium	0.100	0.0961		mg/L		96	80 - 120	
Chromium	0.400	0.403		mg/L		101	80 - 120	
Lead	1.00	0.995		mg/L		100	80 - 120	
Selenium	4.00	3.99		mg/L		100	80 - 120	
Silver	0.600	0.604		mg/L		101	80 - 120	

ab Sample ID: LCSD 580-84082/21-A Client Sample ID: LCSD 580-84082/21-A

Matrix: Water

Analysis Batch: 84137

Prep Type: Total Recoverable

Prep Batch: 84082

	Spike	LCSD	LCSD				% Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	% Rec	Limits	RPD	Limit
Arsenic	4.00	4.08		mg/L		102	80 - 120	4	20
Barium	4.00	4.01		mg/L		100	80 - 120	3	20
Cadmium	0.100	0.0991		mg/L		99	80 - 120	3	20
Chromium	0.400	0.412		mg/L		103	80 - 120	2	20
Lead	1.00	1.02		mg/L		102	80 - 120	3	20
Selenium	4.00	4.12		mg/L		103	80 - 120	3	20
Silver	0.600	0.628		mg/L		105	80 - 120	4	20

Lab Sample ID: LCSSRM 580-84082/22-A Client Sample ID: LCSSRM 580-84082/22-A

Matrix: Water

Analysis Ratch: 84137

Prep Type: Total Recoverable

Prep Batch: 84082

Allalysis Datch: 04131							riep D	ALCII: 04002
	Spike	LCSSRM	LCSSRM				% Rec.	
Analyte	Added	Result	Qualifier	Unit	D	% Rec	Limits	
Arsenic	4.00	3,97		mg/L		99	80 - 120	
Barium	4.00	3,96		mg/L		99	80 - 120	
Cadmium	0.100	0.0961		mg/L		96	80 - 120	
Chromium	0.400	0.402		mg/L		100	80 - 120	
Lead	1.00	0.993		mg/L		99	80 - 120	
Selenium	4.00	4.00		mg/L		100	80 - 120	
Silver	0,600	0.609		mg/L		102	75 - 120	



Quality Control Data

Client: (b) (4) (b) (4)

Method: 7470A - Mercury (CVAA)

Project/Site: HUD0051

(b) (4) Job ID: 580-25598-1

Lab Sample ID: MB 580-84144/21-A Client Sample ID: MB 580-84144/21-A

Matrix: Water Prep Type: Total/NA
Analysis Batch: 84231 Prep Batch: 84144

MB MB

 Analyte
 Result
 Qualifier
 LOQ
 DL
 Unit
 D
 Prepared
 Analyzed
 Dil Fac

 Mercury
 0.00010
 U
 0.00020
 0.00041
 mg/L
 04/18/11 10:26
 04/18/11 12:53
 1

Lab Sample ID: LCS 580-84144/22-A Client Sample ID: LCS 580-84144/22-A

Matrix: Water Prep Type: Total/NA
Analysis Batch: 84231 Prep Batch: 84144

 Analyte
 LCS LCS
 % Rec.

 Analyte
 Added
 Result Qualifier
 Unit D % Rec Limits

 Mercury
 0.00200
 0.00212
 mg/L
 106
 80 - 120

Lab Sample ID: LCSD 580-84144/23-A Client Sample ID: LCSD 580-84144/23-A

Madein Made

Matrix: Water Prep Type: Total/NA
Analysis Batch: 84231 Prep Batch: 84144

Mercury 0.00200 0.00211 mg/L 105 80 - 120 1 20

Lab Sample ID: LCSSRM 580-84144/24-A

Client Sample ID: LCSSRM 580-84144/24-A

Matrix: Water Prep Type: Total/NA
Analysis Batch: 84231 Prep Batch: 84144

Spike LCSSRM LCSSRM % Rec.

 Analyte
 Added
 Result Qualifier
 Unit
 D
 % Rec
 Limits

 Mercury
 0.00200
 0.00212
 mg/L
 106
 75 - 125

Lab Sample ID: 580-25598-1 MS Client Sample ID: HUD0051-01

Matrix: Water Prep Type: Total/NA
Analysis Batch: 84231 Prep Batch: 84144

Sample Sample Spike MS MS %Rec.

Analyte Result Qualifier Added Result Qualifier Unit D %Rec Limits

 Analyte
 Result Mercury
 Qualifier
 Added Occurrence
 Result Qualifier Occurrence
 Qualifier Occurrence
 Unit Occurrence
 D % Rec Limits

 Mercury
 0.00010
 U 0.00200
 0.00205
 mg/L
 103
 80 - 120

Lab Sample ID: 580-25598-1 MSD Client Sample ID: HUD0051-01

Matrix: Water Prep Type: Total/NA
Analysis Batch: 84231 Prep Batch: 84144

Analysis Batch: 84231

Sample Sample Spike MSD MSD % Rec. RPD

Analyte Result Qualifier Added Result Qualifier Unit D % Rec Limits RPD Limit

 Analyte
 Result Qualifier
 Added Added
 Result Qualifier
 Unit
 D % Rec Limits
 RPD Limit

 Mercury
 0.00010
 U 0.00200
 0.00207
 mg/L
 104
 80 - 120
 1
 20

Lab Sample ID: 580-25598-1 DU Client Sample ID: HUD0051-01

Matrix: Water Prep Type: Total/NA

Analysis Batch: 84231 Prep Batch: 84144

 Analyte
 Result
 Qualifier
 Result
 Qualifier
 Result
 Qualifier
 Unit
 D
 RPD
 Limit

 Mercury
 0.00010
 U
 0.00010
 U
 mg/L
 NC
 20

(b) (4)



(3)

Client: (b) (4) (b) (4)
Project/Site: HUD0051

Job ID: 580-25598-1

Lab Sample ID: 580-25598-1

Matrix: Water

lient Sample ID: HUD0051-01 e Collected: 04/12/11 02:40 Date Received: 04/14/11 09:40

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	Or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			84082	04/15/11 11:55	PAB	(b) (4)
Total Recoverable	Analysis	6010B		1	84137	04/15/11 21:46	SP	(b) (4)
Total/NA	Prep	7470A			84144	04/18/11 10:26	PAB	(b) (4)
Total/NA	Analysis	7470A		1	84231	04/18/11 14:05	FCW	(b) (4)

Lab Sample ID: 580-25598-2

Matrix: Water

Date Collected: 04/12/11 02:42 Date Received: 04/14/11 09:40

Client Sample ID: HUD0051-02

_								
	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	Or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			84082	04/15/11 11:55	PAB	(b) (4)
Total Recoverable	Analysis	6010B		1	84137	04/15/11 21:52	SP	(b) (4)
Total/NA	Prep	7470A			84144	04/18/11 10:26	PAB	(b) (4)
Total/NA	Analysis	7470A		1	84231	04/18/11 13:14	FCW	(b) (4)

Certification oummary

Client: (b) (4)

(b) (4)

Project/Site: HUD0051

(b) (4) Job ID: 580-25598-1

Laboratory	Authority	Program	EPA Region	Certification ID
(b) (4)		USDA		P330-08-00099
(b) (4)	Alaska	Alaska UST	10	UST-022
(b) (4)	California	NELAC Secondary AB	9	1115CA
(b) (4)	Florida	NELAC Secondary AB	4	E871074
(b) (4)	L-A-B	DoD ELAP	0	L2236
(b) (4)	L-A-B	ISO/IEC 17025	0	L2236
(b) (4)	Louisiana	NELAC Secondary AB	6	05016
(b) (4)	Montana	MT DEQ UST	8	
(b) (4)	Oregon	NELAC Primary AB	10	WA100007
(b) (4)	Washington	State Program	10	C553

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

Ö

(b) (4)

Sample 5 mary

Client: (b) (4) (b) (4)
Project/Site: HUD0051

(b) (4) Job ID: 580-25598-1

		A.C. The state of		·
Sample ID	Client Sample ID	Matrix	Collected	Received
580-25598-1	HUD0051-01	Water	04/12/11 02:40	04/14/11 09:40
580-25598-2	HUD0051-02	Water	04/12/11 02:42	04/14/11 09:40

g

(b) (4)

Project Location: Hawaii

Receipt Temperature:

°C

Ice:

No MS/MSD needed for water samples per Task Order 006. Send Navy EDD with Level IV Data Package. First metal is \$22.50, next metals costs \$10. Mercury is \$30.

Analysis Units Due Expires Interlab Price Surch Comments Sample ID: HUD0051-01 (RHPD-A - Water - NonPotable) Sampled: 04/12/11 02:40 DOD Arsenic Total 6010 04/26/11 10/09/11 02:40 0% DOD ug/L \$22.50 10/09/11 02:40 \$10.00 0% DOD DOD Barium Total 6010 04/26/11 ug/L DOD DOD Cadmium Total 6010 04/26/11 10/09/11 02:40 \$10.00 0% ug/L \$10.00 0% DOD Chromium Total 6010 ug/L 04/26/11 10/09/11 02:40 DOD 10/09/11 02:40 \$10.00 0% DOD DOD Lead Total 6010 ug/L 04/26/11 DOD Mercury Total 7470 ug/L 04/26/11 05/10/11 02:40 \$30.00 0% DOD 04/26/11 10/09/11 02:40 0% DOD DOD Selenium Total 6010 ug/L \$10.00 0% DOD Silver Total 6010 04/26/11 10/09/11 02:40 \$10.00 DOD ug/L Containers Supplied: 250 mL Plastic HNO3

Sample ID: HUD0051-02 (RH	10-0-110	iter - Norm Otabi	Sampled:	04/12/11 02:42		
DOD Arsenic Total 6010	ug/L	04/26/11	10/09/11 02:42	\$22.50	0%	DOD
DOD Barium Total 6010	ug/L	04/26/11	10/09/11 02:42	\$10.00	0%	DOD
DOD Cadmium Total 6010	ug/L	04/26/11	10/09/11 02:42	\$10.00	0%	DOD
DOD Chromium Total 6010	ug/L	04/26/11	10/09/11 02:42	\$10.00	0%	DOD
DOD Lead Total 6010	ug/L	04/26/11	10/09/11 02:42	\$10.00	0%	DOD
DOD Mercury Total 7470	ug/L	04/26/11	05/10/11 02:42	\$30.00	0%	DOD
DOD Selenium Total 6010	ug/L	04/26/11	10/09/11 02:42	\$10.00	0%	DOD
DOD Silver Total 6010	ug/L	04/26/11	10/09/11 02:42	\$10.00	0%	DOD
Containers Supplied:						
250 mL Plastic HNO3						

Released By Date/Time

Received By

Date/Time

Cooler/7

Page 1 of 1

(C)



Login Sample Receipt Checklist

nt: (b) (4) (b) (4)

Job Number: 580-25598-1

List Source: (b) (4)

Login Number: 25598

tampered with.

Samples were received on ice.

List Number: 1 Creator: (b) (6) Answer Comment Question Radioactivity either was not measured or, if measured, is at or below True background True The cooler's custody seal, if present, is intact. The cooler or samples do not appear to have been compromised or True

Cooler Temperature is acceptable. Cooler Temperature is recorded. COC is present. COC is filled out in ink and legible.

Is the Field Sampler's name present on COC? There are no discrepancies between the sample IDs on the containers and the COC.

Samples are received within Holding Time. Sample containers have legible labels. Containers are not broken or leaking.

Sample collection date/times are provided. ropriate sample containers are used.

COC is filled out with all pertinent information.

Sample bottles are completely filled. Sample Preservation Verified. There is sufficient vol. for all requested analyses, incl. any requested

MS/MSDs VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.

Multiphasic samples are not present. Samples do not require splitting or compositing. Residual Chlorine Checked.

True Frozen packs, samples ok. True True True True True N/A True True True True True True True True True N/A True True N/A No analysis requiring residual chlorine check

assigned.

(b)	(4)
THE LEADER	IN ENVIRONMENTAL TESTING

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04/26/2011

(b) (4)	(b) (4)	

	ORATORY USE ONLY
LAB JOB NO	HU00051
LOCATION	
CONTAINERS	

Chain of Custody / Analysis Request Form

Report (b)) (6)							Pro	ojec	zt is		fication				Indi	cate		/	7		7	$\overline{}$			///
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(b) (6)	in shipment		er	Υ <u>ζ</u>) . (Metr		\ П	7			d a	4 5		Δ.	/ جر/			MAN SE		/			//	,
Item no	Client sample		COMP	GRAB	Water	Wastewater	Orinating water	Liquid	ð	Office	Preservation	of the Control of the	Time	No. of containers	1			#:			\angle	\angle		_	Labora	atory ID no.
1	RHPD-A		•	X	X	Ц		\perp	Ш		rce	4		7	<u></u>	1~	<u> ~</u>	1-	R	1					Husc	10-120
2	1 —		,	X	X	Ц			Ш		ce	4/141	2:42	7	~	1	1	1/	4		<u> </u>				<u> </u>	D
_3				r.	Ш	Ц	\perp			Ц					L											
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7																										
8						\prod	I																			
9																										
10)					Ш	\perp									-		1			<u> </u>	<u> </u>				
	Released by (print / sign)	Date / time released	D	ellve	ry me	thod		4			F	Received by				Com	pany / affiliati	Agenc ion	y		100	e / time celved			Conditio	n noted
(o) (6)	4/a/11 1515 1		HA	hC))	(6)			7	AH	سد			4/12	1	113	,15	X	سار	102
		1																				1				
Co	omments:										-												_	U	ise check Dispose by Return to co Archive	lab
co	C REV 09/2008 Dhs	tribution: Wh	ilte -	Tes	tAm	erica	ì		Y	eilo	W(b)	(4)		Pink	- Cli	ent							-	Pag	•°	·



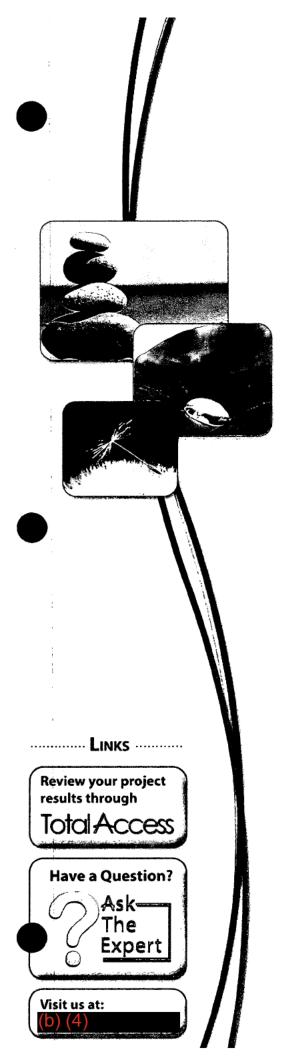
Rush TAT Confirmation (Initial/Date)

	Sample Receip	ot Checklis	t			
Client Name: Engherry Rune	Julia Date/ Ti	ime Received	: <u>41.4.</u>	1 1575		
		Received By	: V			
Matrices: Ave	Carrier: Cliut	·	Airbill#			
Shipping container/cooler in good condition? Chain of Custody present? Chain of Custody Signed when relinquished at Chain of Custody agrees with sample labels? Samples in proper container/bottle? Sample containers intact? Sample containers on ice? Sufficient sample volume for indicated test? All samples received within holding time? Water - VOA Vials have Zero Headspace?	nd received?	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	No N	Type:	wot	
Water - pH acceptable upon receipt?	pH Adjusted1	Yes P	No 🏳	Not Checked: Final pH:	-y	d/Nu
Encores / MI-VOC / 5035 Vials Present?		Yes T	No 7	Location:		
Sample Filtration Needed?		Yes 🗀	No 💆 '	Filtered in Field:		
Dry Weight Corrected Results?		Yes 5	No Z'	Take Action:	Fit.	
DODQSM / QAPP Project?		Yes F	No Take	Type:	-	
Temperat	?ure Blank Present	41.51	No 🏏	•		
• •	ainer Temperature:					
Comments/Sampling Handling No						
						

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Company: ERRG Due Date: 4/12/2011 8:00 Project: Red Hill Pipeline Demolition Kitpack Type: OTC lient Phone: 808-533-6000 Delivery Address:	Requestor:	(b) (6)		Request Date:	4/8/2011 14:44
	Company:	ERRG	1.	Due Date:	4/12/2011 8:00
lient Phone: 808-533-6000 Delivery Address:	Project:	Red Hill Pipeline D	emolition	Kitpack Type:	отс
	ient Phone:	808-533-6000	· · · · · · · · · · · · · · · · · · ·	Delivery Address:	
Author: MFP	Author:	MFP	-		

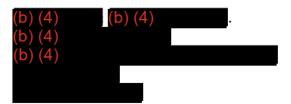
Analysis/ftem.	-qīy-	Matrix	Method	Container Type	Pres:	-Hold-Time	# Containers: per sidmple	LOA/QC or Addit Containers	Container Total	(Lab
DRO	2	WA	8015	1liter amber unpreserved	4 deg C	7d	2	Declaration of the second	4 /	TAH
BTEX	2	WA	8260	40ml VOA w/ HCl	HCI	14d	3		6 /	TAH
pН	2	WA	150.1	250ml plastic unpreserved	4 deg C	24hr	1		2	TAH
Metals, RCRA 8	2	WA	6010/7470	250ml plastic w/ HNO3	HNO3	28d	1		2 /	TAS
Temp blank										
Trip Blank				_						
							Total Con	tainers	14	





THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT



(b) (4) Job ID: HUG0010

Client Project/Site: Red Hill Pipe Fuel Analysis
Client Project Description: Red Hill Pipe Fuel Analysis

For: ERRG, Inc Honolulu 677 Ala Moana Blvd Honolulu, HI 96813



Authorized for release by: 07/08/2011 09:55:13 AM

<mark>(b) (6)</mark> Project Manager

(b) (6)

@(b)(4)

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Page 1 of 23 07/08/2011

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Subcontract Data	5
Level 2 Report, Seattle	5
Chain of Custody	19

Case I ative

Client: ERRG, Inc Honolulu

Project/Site: Red Hill Pipe Fuel Analysis

(b) (4) Job ID: HUG0010

b ID: HUG0010

Laboratory: (b) (4)

Narrative

Sample/cooler was received at 13 degrees C on ice and intact 7/5/2011 3:25:00 PM Samples were delivered to

(b) (4) to be run according to the Department of Defense Quality Service Manual version 4.2 (DODQSM4.2).

All analyses performed by (b) (4)

Sample Summary

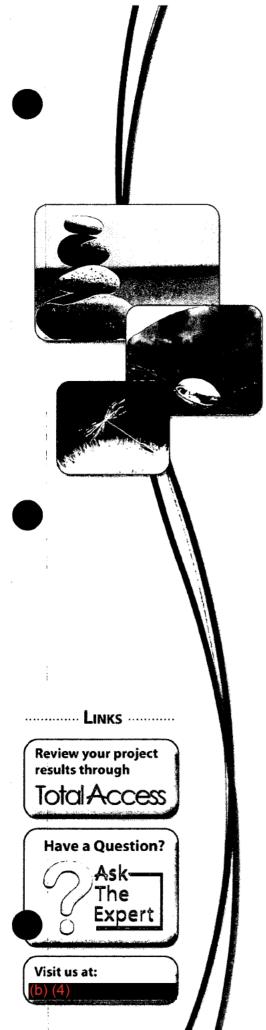
Client: ERRG, Inc Honolulu

Project/Site: Red Hill Pipe Fuel Analysis

(b) (4) Job ID: HUG0010

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
HUG0010-01	RH-8	Oil	06/22/11 06:00	06/22/11 08:40
HUG0010-02	RH-16	Oil	06/22/11 06:05	06/22/11 08:40







ANALYTICAL REPORT



(b) (4) Job ID: 580-27000-2 Client Project/Site: HUF0128

For: (b) (4)

(b) (6)

Authorized for release by: 07/08/2011 12:35:25 PM

(b) (6)

Project Manager I

(b) (6)

@(b)(4)

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

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07/08/2011 07/08/2011

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QC Sample Results	7
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Certification Summary	10
Sample Summary	11
Chain of Custody	12
Receipt Checklists	14

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Client: (b) (4)

Project/Site: HUF0128

(b) (4) Job ID: 580-27000-2

b ID: 580-27000-2

aboratory: (b) (4)

Narrative

CASE NARRATIVE

Client: (b) (4)

Project: HUF0128

Report Number: 580-27000-2

This case narrative is in the form of an exception report, where only the anomalies related to this report, method specific performance and/or QA/QC issues are discussed. If there are no issues to report, this narrative will include a statement that documents that there are no relevant data issues.

Following DoD QSM guidelines, manual integrations were performed only when necessary and are in compliance with the laboratory's standard operating procedure, Acceptable Manual Integration Practices, SOP No.: Q-S-002. The reason(s) for manual integration have been documented on the affected chromatogram(s), which is/are provided in the raw data package. The raw data also includes the original chromatogram(s) prior to any manual integration being performed. Manual integrations are detailed in the manual integration summary forms following this narrative.

It should be noted that samples with elevated Limits of Quantitation (LOQs) resulting from a dilution may not be able to satisfy customer reporting limits in some cases. Such increases in the LOQs are an unavoidable but acceptable consequence of sample dilution that enables quantification of target analytes within the calibration range of the instrument or that reduces the interferences thereby enabling the quantification of target analytes.

Calculations are performed before rounding to avoid round-off errors in calculated results.

holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the vidual sections below.

RECEIP1

The samples were received on 06/24/2011; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 3.5 C.

Note: All samples which require thermal preservation are considered acceptable if the arrival temperature is within 2C of the required temperature or method specified range. For samples with a specified temperature of 4C, samples with a temperature ranging from just above freezing temperature of water to 6C shall be acceptable. Samples that are hand delivered immediately following collection may not meet these criteria, however they will be deemed acceptable according to NELAC standards, if there is evidence that the chilling process has begun, such as arrival on ice, etc.

TCLP VOLATILE ORGANIC COMPOUNDS (GC-MS)

Samples HUF0128-01 (580-27000-1) and HUF0128-02 (580-27000-2) were analyzed for TCLP volatile organic compounds (GC-MS) in accordance with EPA SW-846 Methods 1311/8260C. The samples were leached on 07/06/2011 and analyzed on 07/07/2011.

The BFB tune report associated with analytical batch 89774 shows the 14.83% relative abundance for m/z = 50 failing the 15 to 40% method criteria. This value meets method criteria and is the result of a rounding/significant figure precision error. The data have been reported.

A deviation from the Standard Operating Procedure (SOP) occurred. Details are as follows: As the samples were oil products, the analyst prepared and analyzed an LCS/LCSD pair and accompanying sample duplicate in lieu of the usual LCS with MS/MSD pair.

The associated samples HUF0128-01 (580-27000-1) and HUF0128-02 (580-27000-2) were TCLP extracts and were analyzed at the 100 fold base TCLP dilution. The reporting limits have been adjusted accordingly.

No other difficulties were encountered during the TCLP volatiles analyses.

quality control parameters were within the acceptance limits.

(b) (4)

Definitions/Glossary

Client: (b) (4)

Project/Site: HUF0128

(b) (4)

Job ID: 580-27000-2

Qualifiers

GC/MS VOA

Qualifier Qualifier Description

U Undetected at the Limit of Detection.

4

Glossary

Abbreviation These commonly used abbreviations may or may not be present in this report.

Listed under the "D" column to designate that the result is reported on a dry weight basis.

EPA United States Environmental Protection Agency
ND Not Detected above the reporting level.

MDL Method Detection Limit

RL Reporting Limit

RE, RE1 (etc.) Indicates a Re-extraction or Reanalysis of the sample.

%R Percent Recovery

RPD Relative Percent Difference, a measure of the relative difference between two points.

Date Received: 06/24/11 09:00

Job ID: 580-27000-2

Lab Sample ID: 580-27000-1 Lient Sample ID: HUF0128-01

te Collected: 06/22/11 06:00

Matrix: Waste

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	260		100	15	ug/L			07/07/11 21:01	100
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Fluorobenzene (Surr)	101		80 - 120			-		07/07/11 21:01	100
Toluene-d8 (Surr)	100		85 _ 120					07/07/11 21:01	100
Ethylbenzene-d10	100		80 - 120					07/07/11 21:01	100
Trifluorotoluene (Surr)	90		80 - 120					07/07/11 21:01	100
4-Bromofluorobenzene (Surr)	89		75 ₋ 120					07/07/11 21:01	100

Client Sample Results

Client: (b) (4)

Project/Site: HUF0128

Client Sample ID: HUF0128-02

Date Collected: 06/22/11 06:05

Date Received: 06/24/11 09:00

(b) (4) Job ID: 580-27000-2

Matrix: Waste

Lab Sample ID: 580-27000-2

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	230		100	15	ug/L			07/07/11 21:52	100
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Fluorobenzene (Surr)	101		80 - 120			-		07/07/11 21:52	100
Toluene-d8 (Surr)	99		85 - 120					07/07/11 21:52	100
Ethylbenzene-d10	98		80 - 120					07/07/11 21:52	100
Trifluorotoluene (Surr)	83		80 _ 120					07/07/11 21:52	100
4-Bromofluorobenzene (Surr)	88		75 - 120					07/07/11 21:52	100

Job ID: 580-27000-2

lethod: 8260B/DoD - Volatile Organic Compounds (GC/MS)

Lab Sample ID: LCS 580-89774/8 ^P

Matrix: Waste

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analysis Batch: 89774

	эріке	LUS	LUS		% Rec.	
Analyte	Added	Result	Qualifier Unit	D % Rec	Limits	
Benzene	20.1	19.0	ug/L	95	80 - 120	

LCS LCS Surrogate % Recovery Qualifier Limits Fluorobenzene (Surr) 100 80 - 120 85 - 120 Toluene-d8 (Surr) 99 101 80 - 120 Ethylbenzene-d10 109 80 - 120 Trifluorotoluene (Surr) 75 - 120 4-Bromofluorobenzene (Surr) 87

Lab Sample ID: LCSD 580-89774/9 ^P Client Sample ID: Lab Control Sample Dup Prep Type: Total/NA Matrix: Waste

Analysis Batch: 89774

,	Spike	LCSD	LCSD				% Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	% Rec	Limits	RPD	Limit
Benzene	20.1	20.5		ug/L	_	102	80 _ 120	8	30

	LCSD	LCSD	
Surrogate	% Recovery	Qualifier	Limits
Fluorobenzene (Surr)	100		80 - 120
Toluene-d8 (Surr)	98		85 _ 120
Ethylbenzene-d10	100		80 - 120
ifluorotoluene (Surr)	99		80 - 120
4-Bromofluorobenzene (Surr)	87		75 - 120

Lab Sample ID: MB 580-89668/1-A Client Sample ID: Method Blank Prep Type: TCLP

Matrix: Waste Analysis Batch: 89774

	W.D	IVID							
Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.45	U	1.0	0.15	ug/L			07/07/11 15:31	1

	MB	MB				
Surrogate	% Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Fluorobenzene (Surr)	99		80 - 120		07/07/11 15:31	1
Toluene-d8 (Surr)	99		85 ₋ 120		07/07/11 15:31	1
Ethylbenzene-d10	101		80 _ 120		07/07/11 15:31	1
Trifluorotoluene (Surr)	99		80 - 120		07/07/11 15:31	1
4-Bromofluorobenzene (Surr)	86		75 - 120		07/07/11 15:31	1
_						

Method: 8260B/DoD - Volatile Organic Compounds (GC/MS) - DL

Lab Sample ID: 580-27000-1 DU Client Sample ID: HUF0128-01 Matrix: Waste Prep Type: TCLP

Analysis Batch: 89774

DU DU RPD Sample Sample Result Qualifier Analyte Result Qualifier Limit Unit

Benzene - DL 249 260 ug/L DU DU

Page

ırrogate Qualifier Limits % Recovery Fluorobenzene (Surr) - DL 101 80 - 120

14

QC Sample Results

Client: (b) (4)

Project/Site: HUF0128

(b) (4) Job ID: 580-27000-2

Method: 8260B/DoD - Volatile Organic Compounds (GC/MS) - DL (Continued)

Lab Sample ID: 580-27000-1 DU Client Sample ID: HUF0128-01

Matrix: Waste Prep Type: TCLP

Analysis Batch: 89774

	DU DU		
Surrogate	% Recovery	Qualifier	Limits
Toluene-d8 (Surr) - DL	99		85 _ 120
Ethylbenzene-d10 - DL	100		80 _ 120
Trifluorotoluene (Surr) - DL	87		80 - 120
4-Bromofluorobenzene (Surr) -	87		75 - 120
DI			



(b) (4) 07/08/2011

Lab Ch cle

Client: (b) (4)

Project/Site: HUF0128

(b) (4) Job ID: 580-27000-2

Lab Sample ID: 580-27000-1

Matrix: Waste

lient Sample ID: HUF0128-01 te Collected: 06/22/11 06:00 Date Received: 06/24/11 09:00

_	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	Or Analyzed	Analyst	Lab
TCLP	Leach	1311	DL		89668	07/06/11 12:50	RS	(b) (4)
TCLP	Analysis	8260B/DoD	DL	100	89774	07/07/11 21:01	SK	

Client Sample ID: HUF0128-02 Lab Sample ID: 580-27000-2

Date Collected: 06/22/11 06:05 Matrix: Waste

Date Received: 06/24/11 09:00

[Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	Or Analyzed	Analyst	Lab
TCLP	Leach	1311	DL		89668	07/06/11 12:50	RS	(b) (4)
TCLP	Analysis	8260B/DoD	DL	100	89774	07/07/11 21:52	SK	(12) (1)

Laboratory References:

b) (4)

Certification Jummary

Client: (b) (4) (b) (4)
Project/Site: HUF0128

(b) (4) Job ID: 580-27000-2

_aboratory	Authority	Program	EPA Region	Certification ID
b) (4)	Alaska	Alaska UST	10	(h) (1)
b) (4)	Alaska	TA-Port Heiden Mobile Lab	10	(D)(4)
b) (4)	California	NELAC	9	
b) (4)	Florida	NELAC	4	
b) (4)	L-A-B	DoD ELAP		
b) (4)	L-A-B	ISO/IEC 17025		
b) (4)	Louisiana	NELAC	6	
b) (4)	Montana	MT DEQ UST	8	
b) (4)	Oregon	NELAC	10	
b) (4)	USDA	USDA		
b) (4)	Washington	State Program	10	

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

Sample 5 mary

Client: (b) (4) (b) (4)
Project/Site: HUF0128

Job ID: 580-27000-2

	NAME OF THE OWNER OWNER OF THE OWNER OWNE	- CHALL - ILVINOR		
Sample ID	Client Sample ID	Matrix	Collected	Received
580-27000-1	HUF0128-01	Waste	06/22/11 06:00	06/24/11 09:00
580-27000-2	HUF0128-02	Waste	06/22/11 06:05	06/24/11 09:00

n

Subcontract Order - (b) (4

4 oz. Glass Jar (B)

4 oz. Glass Jar (A)

(HUG0010)

Please enter the following code into the Job PO Number field for automated UDZ transfer files: Sub HON HUG0010

SENDING LABORATORY: RECEIVING LABORATORY: b) (4) Project Location: Hawaii Client: ERRG, Inc Honolulu Receipt Temperature: °C Ice: Y / N Copy/Relog from HUF0128. Send Navy EDD and L2 report only. TA-Seattle to perform all analysis. Analysis Units Expires Interlab Price Surch Comments Sample ID: HUG0010-01 (RH-8 - Oil) relog of HUF0128 Sampled: 06/22/11 06:00 8260B TCLP Benzene mg/L 07/08/11 07/06/11 06:00 \$67.50 60% relog of HUF0128 TCLP Extraction - ZHE % 07/08/11 07/06/11 06:00 \$67.50 60% relog of HUF0128 Containers Supplied: 4 oz. Glass Jar (A) 4 oz. Glass Jar (B) 2 oz. Glass Jar (C) Sample ID: HUG0010-02 (RH-16 - Oil) relog of HUF0128 Sampled: 06/22/11 06:05 8260B TCLP Benzene mg/L 07/08/11 07/06/11 06:05 \$67.50 60% relog of HUF0128 TCLP Extraction - ZHE % 07/08/11 07/06/11 06:05 \$67.50 60% relog of HUF0128 Containers Supplied:

2 oz. Glass Jar (C)

Released By	Date/Time	Received By	Date/Time	
Released By	Date/Time	Received By	Date/Time	Page 1 of

(b) (4)	Work Sharing Agreen	nent		Exporting Lat	t TAL Honol						
	(Include with every sample st	ipment)		Project Name	Red Hill Pipe Fuel Ana						
Import Lab Information			Export Lab Information			· · · · · · · · · · · · · · · · · · ·					
Lab Name	(b) (4)			PM Contact Name							
PM Contact Name	(b) (6)		Ba	ckup Contact Name							
Backup Contact Name				Agreement Date							
Pricing Information			Project Information								
QA/QC (i.e. MS/MSD) Billable?				ent Company Name		u					
Raw Data Surcharge		%	Date Firs	t Samples to Arrive	06/24/11						
EDD Surcharge		%	Est. Duration	of Sampling Even	t 1 month						
TAT Surcharges	60	%									
Penalty Terms Other Charges Not in Unit Price? (i.e.											
canisters, Level IV/III , shipping, bottles)	None		1								
Project Details	None	l	Quote or Co	ntract Reference ID	HUG0010 (relog of HUF	0128)					
Non-Standard Work Product	No										
Quality Assurance Plan	No.										
List Certifications Required	NO										
Analyte/Cmpd. List with RLs Attached	No										
Results Dry-Weight Corrected	No	 									
Special Method Holding Times	None										
Internal Chain of Custody Required	Vac										
Known Hazards/High Analyte Level											
Saturday/Special Delivery Options	None										
Special Instructions	None		DeD42 medicat								
Reporting Limit Value Convention	Report to MDL with "J" Values up to		DoD4.2 project "Non-Detect" Presentation Conve	-ti							
	topertie mer e values up to	Transmittal	Non-Detect Presentation Conve		U						
Deliverable Requirements		medium	Format Column	Date Due to	Import and Export Lab Agreement						
Preliminary Report:	No	Email	Forniat Column	Export Lab							
Final Report:		Email	II	7/0/0044	Import lab must acknowledge 1 receipt of Agreement and samples						
EDD:		Email	SEDD, Excel	7/8/2011							
Total Access Reporting		NA	NA	7/8/2011	via E-Mail						
Custom Forms:		NA	Type Format Name								
Other Deliverable Definitions or Notes	·	1979 50100000000000000000000000000000000000	I type romat wame	atikazi tistig-diddalikenina ineasu etg							
	Samples are JP-5 fuel										
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Analysis	Method	Matrix	# of Samples	Unit Price		_					
TCLP Benzene		Other/Speci			Unit Price w/Surcharges	Extended Price					
TCLP Extraction - ZHE	1311	Other/Speci		\$ 67.50 \$ 67.50							
		Other/opec		\$ 67.50	100.00						
					\$	\$ -					
	-				5 -						
					-	\$ -					
					Approximate Total Project Value	\$ 432.00					

Work Instruction No. CA-WI-010/C-01/11



Login Sample Receipt Checklist

Client: (b) (4)

Job Number: 580-27000-2

Login Number: 27000 List Number: 1

Creator: Gamble, Cathy

List Source: (b) (4)

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	Received project as a subcontract.
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	,

REQUEST TO RELOG SAMPLES

(Please submit to sample control with a copy of the COC)

CLIENT:	ERRG Inc, H	Honolulu		MATRIX:	Oil	
PREVIO	USLY LOGGEI	D SAMPLES				
X TAT	Change state	us to:	Avaialable			
<u> </u>	-	us as of Day:		:: 3:3	4 PM	
CHANG	E ANALYSES					
Add Ana	lvses	7		Cancel Analyse	es 🗍	
	Vork Order #:	HUF0128	*****	,		
Sample I	Number	Analyses				Sample Number
-01		8260 TCLF	P Benzene, TCLP Ex	traction-ZHE	HWG	10010-01
-02		8260 TCLF	P Benzene, TCLP Ex	traction-ZHE		-02
NA		NA				
NA		NA				
<u>NA</u>		NA				
NA		NA				
NA		NA	AAA			
NA		NA			*******	
***********************	S ON HOLD Description	Analyses			New	Sample Number
NA		NA				
NA		NA				
NA	···	NA				
NA		NA				
NA		NA				
NA		NA				Mark Control
NA	and the second	NA				
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	zation (Person/I		ERRG Inc, Honolu	lu Megan Mead	chum 7/5	5/2011 9:43 AM

(b)	(4)
THE LEADE	R IN ENVIRONMENTAL TESTING

(b) (4)

LABORATORY USE ONLY
LAB JOB NOT LOCATION_______
CONTAINERS_____

Chain of Custod	y / Analysis	Request Form
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(b) (6)	Part Code				P	roje	ect	identi	fication				Indi	rata		7	7	7	$\overline{}$	\neg	$\overline{}$	77	77	1
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Phone	8. 533. 6000	10010	/ /	(6		255				Date results	needed		ł			/ /	حہ/		9	/	/	/	///	/	
(b)	(6) # samples in 2.	shipment	(P)			m			÷	1012	28/11					TC. TAB		₹	F			′ /	' / /		
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Rush TAT Confirmation (Initial/Date) (b) (6) 06 22 11

HMF0120

		Sampie	Keceibt Cueckii	IST	,
Client Name:	erry.		Date/ Time Receive	ed: De	22/11 0804
			Received E	3y:(t	o) (6)
Matrices:	र्जी	Camier:	Client	Airbiili	: :
Shipping contain	ner/cooler in good condition?	•	Yes	No 🦳	Not Present
Chain of Custod	y present?		Yes	No T	E. t
Chain of Custod	y Signed when relinquished	and receive	* . /	No I	
Chain of Custody	y agrees with sample labels?	?	Yes 🖊	No 🌅	
	er container/bottle?		Yes	No E	
Sample containe			Yes Z	No 🗔 '	ما
Sample containe			Yes 💆	No 🗔	Type: 44
•	volume for indicated test?		Yes Z	No 🎞 :	3
_	ived within holding time?		Yes	No [~
	s have Zero Headspace?		Yes 🗔	No 🗔	No VOA vials present
Water - pH accep	stable upon receipt?		Yes ☐	No 🗀	Not Checked:
		pΗA	djusted? Yes 🗔	No I	Final pH:
	C / 5035 Vials Present?		Yes C	No J	Location:
Sample Filtration			Yes 🗔	No.	Filtered in Field:
Dry Weight Corre			Yes 🗀	No 📈	Take Action:
DODQSM / QAPP	Project?		Yes /	No 🎞	Type: 4.2
	Tempera	ture Blank F	Present? Yes	No Ju	
	Sample Con	tainer Temp	erature: 👂 °C	2 .	
Comments/	Sampling Handling No	otes;			
					
	communication and the section of manages are obtained the contract constraints of contract and con-	and the state of t	n man en de de la companya del companya del companya de la company	der eine auch automaten der Abstan der albere in	and a property of the second second second is the second of the second second second second second second second

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(b) (6)

From:

b) (6)

Sent:

Tuesday, July 05, 2011 3:15 PM

To:

(b) (6)

Subject: RE: Invoice: HUF0128

Hi (b) (6),

We can have the data by July 8th. Will that be okay?

Thank you!

(b) (6)

From: (b) (6)

[mailto (b) (6)

@errg.com1

Sent: Tuesday, July 05, 2011 2:52 PM

To(b)(6)

Subject: RE: Invoice: HUF0128

(b) (6)

How fast can you get them done? Yes, we will need both samples analyzed.

Thanks!

(b) (6)

PE

ENGINEERING/REMEDIATION RESOURCES GROUP, INC.

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From:(b) (6)

. [mailto:<mark>(b) (6</mark>)

(b) (4)

Sent: Tuesday, July 05, 2011 1:06 PM

To: (b) (6)

Subject: RE: Invoice: HUF0128

Hi (b) (6)

How fast of a TAT do you need for this? Also, do you need both samples analyzed?

Thank you!

(b) (6)

From: (b) (6) [mailto:(b) (6) @errg.com]

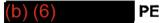
Sent: Tuesday, July 05, 2011 9:43 AM

To: (b) (6)

Subject: RE: Invoice: HUF0128

(b) (6)

We saw high concentrations of benzene and would like to run a TCLP benzene analysis. Do you have enough sample left to do the test? Also, do you have time to rush it? Please let me know and provide a quote. Thank you!



ENGINEERING/REMEDIATION RESOURCES GROUP, INC.

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From: (b) (6) [mailto:(b) (6) (b) (4)

Sent: Thursday, June 30, 2011 9:43 AM

To: (b) (6) (6)

Subject: Invoice: HUF0128

Aloha,

Attached, please find the invoice for HUF0128.

Mahalo!

(b) (6) Project Manager



Please let us know if we met your expectations by rating the service you received from (b) (4) on this project by visiting our website at: Project Feedback

INDEPENDENCE DAY HOLIDAY REMINDER-(b) (4) lab will be closed on Monday, July 4, 2011 to observe Independence Day. Please contact your Project Manager in advance if you will need sampling supplies or to make alternative arrangements for sample submission.

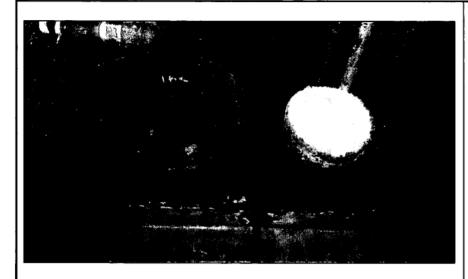
7/5/2011

Appendix B -As-Built Drawings

Appendix B. As-Built Drawings

FILE NAME: NYGraphica\2010\2010-136 NAVFAC Red Hill Pipe Demo\B-1.6*g LAYOUT NAME: B-1 PLOTTED: Monday, April 30, 2012 - 7:51am

Appendix C. Photographic Logs



Date:

15 March 2012

001

Description:

inch water pipeline on the right of the picture was supported on beams attached to the ceiling and secured to the beam with u-bolts. The pipeline ran alongside the 450-foot-long, inch pipeline. The beginning of the 140-foot-long, onch pipeline was closed with a concrete plug, while the 450-foot-long, inch pipeline was closed with a blind flange. (b) (3) (A)



Photograph: 002

Date:

15 March 2012

Description: NCH WATER PIPELINE. The 140-foot-long, inch pipeline ran overhead until it ended with an

elliptical head cap (b) (3) (A)

. The

450-foot-long, inch pipeline is also shown veering

and extending down(b) (3) (A)



Project Title:

Demolish Abandoned Tank Cleaning Water Piping and JP-5 Pipeline and Appurtenances

Contract/Task Order:

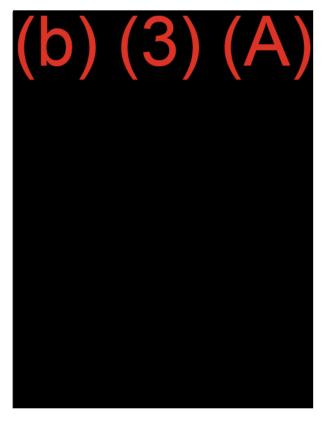
N62742-09-D-1959 / HC06

Date:

June 2012

Pages:

1 of 4

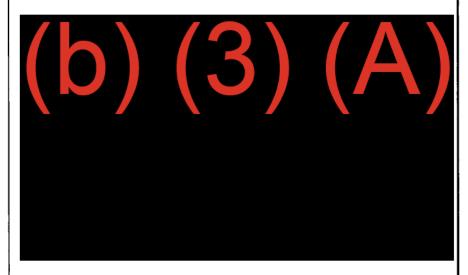


Date: 15 March 2012

■INCH WATER PIPELINE. The 140-foot-long, ■inch Description:

pipe was cut with a pneumatic hacksaw and supported during cutting with a contractor lift. The pipeline ran overhead alongside the 450-foot-long, onch pipeline.

(b) (3) (A)



Photograph:

004

Date:

26 March 2012

Description: INCH WATER PIPELINE. The 140-foot-long,

inch pipeline was removed from the support beams.

(b) (3) (A)



Project Title:

Demolish Abandoned Tank Cleaning Water Piping and JP-5 Pipeline and Appurtenances

Contract/Task Order:

N62742-09-D-1959 / HC06

Date:

June 2012

Pages:

2 of 4



16 March 2012 Date:

Finch water PIPELINE. The inch pipeline reduced down at a flange from the inch water pipeline and ran along the wall (b) (3) (A) Description:



Photograph: 006

Date: 16 March 2012

Description:

INCH WATER PIPELINE. The inch pipeline was supported by metal brackets, which were removed

along with the pipeline. (b) (3) (A)



Project Title:

Demolish Abandoned Tank Cleaning Water Piping and JP-5 Pipeline and Appurtenances

June 2012

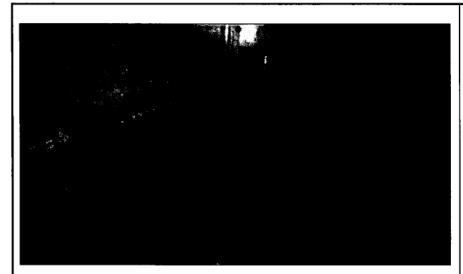
Date:

Contract/Task Order:

N62742-09-D-1959 / HC06

Pages:

3 of 4



Date: 16 March 2012

bent up toward an electrical panel (b) (3) (A) Description:

Photograph: 008

16 March 2012 Date:

INCH WATER PIPELINE. The inch pipeline terminates open-ended, above an electrical panel in the Pearl Harbor Tunnel. Description:



Project Title: Date: June 2012 Demolish Abandoned Tank Cleaning Water Piping and JP-5 Pipeline and Appurtenances Contract/Task Order: Pages: 4 of 4 N62742-09-D-1959 / HC06

Appendix D -Waste Disposal Documentation

Appendix D. Waste Disposal Documentation

Ple	asse print or type. (Form designed for use on elite (12-pitch) typewriter.)					For	n Approved.	OMB No. 2050-003
1	UNIFORM HAZARDOUS 1. Generator ID Number WASTE MANIFEST HIR 000 050 401		-800-645	-8265	4. Manifest	724		4 JJK
11	5. Generator's Name and Mailing Address COMNAVREG HAWAII, C/O NAVFAC ENGR COMMA	General AND, CODE I	tor's Site Address	(if different th	nan mailing addre	ss)		HIC7147-03
П	400 MARSHALL ROAD, ATTN: (b) (6)		RED	HILL	PIPELIN	Ξ		11107147-03
П	PEARL HARBOR, HI 96860-3139 Generator's Phone: 808-471-5094	1	AIEA	, HI	96701			
Ш	6. Transporter 1 Company Name				U.S. EPAID	Number		
Ш	PACIFIC COMMERCIAL SERVICES, LLC.	808-	545-4599)			0 0 0	97824
П	7. Transporter 2 Company Name				U.S. EPAID			
П	MATSON NAVIGATION COMPANY 8 Designated Facility Name and Site Address	800-	962-8766		U.S. EPAID	AD 0 Number	069	1 2 6 2 0
П	CLEAN HARBORS SAN JOSE, LLC							
Ш	1021 BERRYESSA ROAD SAN JOSE, CA 95133				. СА	D 0	5 9 4	9 4 3 1 0
П	Facility's Phone: 408-451-5000					т		
	ga. 9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))		10. Contain No.	Type	11. Total Quantity	12. Unit Wt./Vol.	13. V	Vaste Codes
ď,	X NA3077, HAZARDOUS WASTE SOLID, N.	o.s.,						181
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П								
П	14. Special Handling Instructions and Additional Information							
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Ш	9b3: •							5117
	964: *		00/J0 7147	E 963: 964:	· · · · · · · · · · · · · · · · · · ·	P.O. HONO	BOX 239	96823
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	964; • 15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this	ording to applicable inte d EPA Acknowledge	DO/JO 7147 and accurately des	E 9b3: 9b4: scribed above		P.O. HONO ipping name	BOX 235 LULU. HI	96823 sified, packaged,
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	24. Generator's Name COMNAVREG HAWAII, C/O NAVFAC ENGR COMMAND, CO	DE PRP 42			H	IC7147-03	
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WASTE MATERIAL PROFILE SHEET

Clean Harbors Profile No. CH520792

GENERAL INFORMATION GENERATOR NAME: COMNAVREG Hawaii c/o NAVFAC Engineer Command GENERATOR EPA ID #/REGISTRATION # HIR000050401 GENERATOR CODE (Assigned by Clean Harbors) CITY STATE/PROVINCE н ZIP/POSTAL CODE CO6485 Aiea 96701 ADDRESS Red Hill PHONE: (808) 471-0703 CUSTOMER CODE (Assigned by Clean Harbors) PARR91 CUSTOMER NAME Pacific Commercial Services-DRMO ADDRESS 5 Sand Island Access Road Building 931, Kapala CITY STATE/PROVINCE ZIP/POSTAL CODE Honolulu HI 96819 B. WASTE DESCRIPTION WASTE DESCRIPTION: Vacuum Bags of dust with lead PROCESS GENERATING WASTE: Pipeline repair IS THIS WASTE CONTAINED IN SMALL PACKAGING CONTAINED WITHIN A LARGER SHIPPING CONTAINER? No C. PHYSICAL PROPERTIES (at 25C or 77F) PHYSICAL STATE NUMBER OF PHASES/LAYERS VISCOSITY (If liquid present) COLOR SOLID WITHOUT FREE LIQUID 3 TOP 0.00 1 - 100 (e.g. Water) POWDER VARIOUS MIDDLE 101 - 500 (e.g. Motor Oil) 0.00 % BY VOLUME (Approx.) MONOLITHIC SOLID 501 - 10,000 (e.g. Molasses) LIQUID WITH NO SOLIDS воттом 0.00 LIQUID/SOLID MIXTURE > 10.000 % FREE LIQUID ODOR % SETTLED SOLID BOILING POINT °F (°C) MELTING POINT °F (°C) TOTAL ORGANIC CARBON NONE % TOTAL SUSPENDED SOLID <= 95 (<=35) ~ MILD SLUDGE < 140 (<60) ~ <= 1% 95 - 100 (35-38) STRONG GAS/AEROSOL 140-200 (60-93) 1-9% 101 - 129 (38-54) Describe: V > 200 (>93) >= 10% >= 130 (>54) FLASH POINT °F (°C) SPECIFIC GRAVITY BTU/LB (MJ/kg) рΗ ASH < 0.8 (e.g. Gasoline) < 73 (<23) <= 2 < 2.000 (<4.6) < 0.1 > 20 ✓ 0.8-1.0 (e.g. Ethanol) 73 - 100 (23-38) 2.1 - 6.92.000-5.000 (4.6-11.6) 0.1 - 1.0 Unknown 101 -140 (38-60) 1.0 (e.g. Water) 5,000-10,000 (11.6-23.2) 7 (Neutral) 1.1 - 5.0 141 -200 (60-93) 7.1 - 12.4 1.0-1.2 (e.g. Antifreeze) > 10,000 (>23.2) 5.1 - 20.0 > 200 (>93) >= 12.5 > 1.2 (e.g. Methylene Chloride) Actual D. COMPOSITION (List the complete composition of the waste, include any inert components and/or debris. Ranges for individual components are acceptable, If a trade name is used, please supply an MSDS. Please do not use abbreviations.) CHEMICAL UOM MIN MAX 60.0000000 85.0000000 DUST FABRIC DEBRIS 10.0000000 15.0000000 % 0.0000000 240000.0000 PPM LEAD 000 DOES THIS WASTE CONTAIN ANY HEAVY GAUGE METAL DEBRIS OR OTHER LARGE OBJECTS (EX., METAL PLATE OR PIPING >1/4" THICK OR >12" ₩ NO YES LONG, METAL REINFORCED HOSE >12" LONG, METAL WIRE >12" LONG, METAL VALVES, PIPE FITTINGS, CONCRETE REINFORCING BAR OR PIECES OF CONCRETE >3")? If yes, describe, including dimensions: DOES THIS WASTE CONTAIN ANY METALS IN POWDERED OR OTHER FINELY DIVIDED FORM? YES ✓ NO DOES THIS WASTE CONTAIN OR HAS IT CONTACTED ANY OF THE FOLLOWING; ANIMAL WASTES, HUMAN BLOOD, BLOOD PRODUCTS, BODY ₩ NO YES FLUIDS, MICROBIOLOGICAL WASTE, PATHOLOGICAL WASTE, HUMAN OR ANIMAL DERIVED SERUMS OR PROTEINS OR ANY OTHER POTENTIALLY INFECTIOUS MATERIAL? I acknowledge that this waste material is neither infectious nor does it contain any organism known to be a threat to human health. This certification is based on my knowledge of the material. Select the answer below that applies: The waste was never exposed to potentially infectious material YES NO NO Chemical disinfection or some other form of sterilization has been applied to the waste.

I ACKNOWLEDGE THAT THIS PROFILE MEETS THE CLEAN HARBORS BATTERY PACKAGING REQUIREMENTS.

I ACKNOWLEDGE THAT MY FRIABLE ASBESTOS WASTE IS DOUBLE BAGGED AND WETTED.

SPECIFY THE SOURCE CODE ASSOCIATED WITH THE WASTE.

YES

YES

SPECIFY THE FORM CODE ASSOCIATED WITH THE WASTE.

NO

NO

Clean Harbors Profile

CH520792

CO			

these values based on testing or knowledge?

Knowledge Y Testing

f constituent concentrations are based on analytical testing, analysis must be provided. Please attach document(s) using the link on the Submit tab.

Please indicate which constituents below apply. Concentrations must be entered when applicable to assist in accurate review and expedited approval of your waste profile. Please note that the total regulated metals and other constituents sections require answers.

RCRA	REGULATED METALS	REGULATORY LEVEL (mg/l)	TCLP mg/l	TOTAL	MOU	NOT APPLICABLE	
D004	ARSENIC	5.0	-	99.0000000	PPM		
D005	BARIUM	100.0		1999.0000000	PPM		
D006	CADMIUM	1.0		19.0000000	PPM		
D007	CHROMIUM	5.0		99.0000000	PPM		
D008	LEAD	5.0	12000.0000	240000.0000000	РРМ		
D009	MERCURY	0.2		3.9000000	PPM		
D010	SELENIUM	1.0		19.0000000	PPM		
D011	SILVER	5.0		99.0000000	PPM		
D040	VOLATILE COMPOUNDS	0.5		OTHER CONSTITUEN	ITS	MAX UOM	NOT APPLICABLE
D018	BENZENE	0.5		BROMINE			
D019	CARBON TETRACHLORIDE	0.5			• • • • • • • •	• • • • • • • • • • • • • • • • • • • •	····· 🗟 · · · · ·
D021	CHLOROBENZENE	100.0		CHLORINE			-
D022	CHLOROFORM	6.0		FLUORINE			·····
D028	1,2-DICHLOROETHANE	0.5		IODINE			
D029	1,1-DICHLOROETHYLENE	0.7		SULFUR			
D035	METHYL ETHYL KETONE	200.0		POTASSIUM			2
D039	TETRACHLOROETHYLENE	0.7		SODIUM			2
D040	TRICHLOROETHYLENE	0.5		AMMONIA			<u> </u>
D043	VINYL CHLORIDE	0.2		CYANIDE AMENABLE			⊌
	SEMI-VOLATILE COMPOUND			CYANIDE REACTIVE			y
D023	o-CRESOL	200.0		CYANIDE TOTAL			V
D024	m-CRESOL	200.0		SULFIDE REACTIVE		• • • • • • • • • • • • • • • • • • • •	V
D025	p-CRESOL	200.0					
		200.0		HOCs		PCBs	
D026	CRESOL (TOTAL)			NONE		NONE	
D027	1,4-DICHLOROBENZENE	7.5		< 1000 PPM		< 50 PPM	
D030	2,4-DINITROTOLUENE	0.13		>= 1000 PPM		>=50 PPM	
D032	HEXACHLOROBENZENE	0.13				IF PCBS ARE PRESENT	T. IS THE
D033	HEXACHLOROBUTADIENE	0.5		1		WASTE REGULATED B	
D034	HEXACHLOROETHANE	3.0		1		CFR 761?	
D036	NITROBENZENE	2.0		1		YES 🔽	NO
D037	PENTACHLOROPHENOL	100.0					
D038	PYRIDINE	5.0					
D041	2,4,5-TRICHLOROPHENOL	400.0					
D042	2,4,6-TRICHLOROPHENOL	2.0					
	PESTICIDES AND HERBICIDI	ES					
D012	ENDRIN	0.02					
D013	LINDANE	0,4					
D014	METHOXYCHLOR	10,0					
D015	TOXAPHENE	0.5					
D015							
	2,4-D	10,0	• • • • • • • • • • • • • • • • • • • •				
D017	2,4,5-TP (SILVEX)	1.0					
D020	CHLORDANE	0.03					
D031	HEPTACHLOR (AND ITS EPOXID	E) 0.008					
DDITIONA	L HAZARDS						

DOES THIS WASTE HAVE ANY UNDISCLOSED HAZARDS OR PRIOR INCIDENTS ASSOCIATED WITH IT, WHICH COULD AFFECT THE WAY IT SHOULD BE HANDLED?

NO (If yes, explain)

OOSE ALL THAT APPLY

DEA REGULATED SUBSTANCE POLYMERIZABLE

EXPLOSIVE RADIOACTIVE **FUMING**

OSHA REGULATED CARCINOGENS

NONE OF THE ABOVE REACTIVE MATERIAL



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F. REGULA	TORY S	TAT	IS .
✓ YES		NO	USEPA HAZARDOUS WASTE?
			D008
✓ YES		NO	DO ANY STATE WASTE CODES APPLY?
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			181
			Texas Waste Code
YES	~	NO	DO ANY CANADIAN PROVINCIAL WASTE CODES APPLY?
120	لنا	110	DO ANT GANADIANT ROVINGIAL WAGTE GODEGA I TETT
✓ YES		NO	IS THIS WASTE PROHIBITED FROM LAND DISPOSAL WITHOUT FURTHER TREATMENT PER 40 CFR PART 268?
			LDR CATEGORY: This is subject to LDR.
			VARIANCE INFO:
YES	~	NO	IS THIS A UNIVERSAL WASTE?
YES		NO	IS THE GENERATOR OF THE WASTE CLASSIFIED AS CONDITIONALLY EXEMPT SMALL QUANTITY GENERATOR (CESQG)?
YES		NO	IS THIS MATERIAL GOING TO BE MANAGED AS A RCRA EXEMPT COMMERCIAL PRODUCT, WHICH IS FUEL (40 CFR 261.2 (C)(2)(II))?
YES	~	NO	DOES TREATMENT OF THIS WASTE GENERATE A F006 OR F019 SLUDGE?
YES	E-27	NO	IS THIS WASTE STREAM SUBJECT TO THE INORGANIC METAL BEARING WASTE PROHIBITION FOUND AT 40 CFR 268.3(C)?
YES	V	NO	DOES THIS WASTE CONTAIN VOC'S IN CONCENTRATIONS >=500 PPM?
YES		NO	DOES THE WASTE CONTAIN GREATER THAN 20% OF ORGANIC CONSTITUENTS WITH A VAPOR PRESSURE >= .3KPA (.044 PSIA)?
YES		NO	DOES THIS WASTE CONTAIN AN ORGANIC CONSTITUENT WHICH IN ITS PURE FORM HAS A VAPOR PRESSURE > 77 KPA (11.2 PSIA)?
YES	******	NO	IS THIS CERCLA REGULATED (SUPERFUND) WASTE?
YES	~	NO	IS THE WASTE SUBJECT TO ONE OF THE FOLLOWING NESHAP RULES?
			Hazardous Organic NESHAP (HON) rule (subpart G) Pharmaceuticals production (subpart GGG)
YES	~	NO	IF THIS IS A US EPA HAZARDOUS WASTE, DOES THIS WASTE STREAM CONTAIN BENZENE?
	YES		NO Does the waste stream come from a facility with one of the SIC codes listed under benzene NESHAP or is this waste regulated under the benzene NESHAP rules because the original source of the waste is from a chemical manufacturing, coke by-product recovery, or petroleum refinery process?
	YES		NO Is the generating source of this waste stream a facility with Total Annual Benzene (TAB) >10 Mg/year?
	What	is the	TAB quantity for your facility? Megagram/year (1 Mg = 2,200 lbs)
	The b	asis f	or this determination is: Knowledge of the Waste Or Test Data Knowledge Testing
	Desci	ribe th	e knowledge :
G. DOT/TDG	INFOR	MATI	ON
DOT/TDG PI	ROPER	SHIP	PING NAME:
NA3	077, H	AZAI	RDOUS WASTE, SOLID, N.O.S., (PAINT CHIP DEBRIS WITH LEAD), 9, PG III
H. TRANSI	PORTAT	TION	REQUIREMENTS
			FREQUENCY ONE TIME WEEKLY MONTHLY 📝 QUARTERLY YEARLY OTHER <u>Other</u>
	V	СО	NTAINERIZED BULK LIQUID BULK SOLID
3-3			S/SHIPMENT GALLONS/SHIPMENT: 0 Min -0 Max GAL. SHIPMENT UOM: TON YARD
STORAGE			55
CONTAINE			TONS/YARDS/SHIPMENT: 0 Min - 0 Max OX PALLET
	JBIC YA		
	TE TAN	NF.	DRUM
			DRUM SIZE: 55
I. SPECIAL F	REQUES	ST	
COMMENT	S OR REG	QUES.	'S:
	I am auth	orized	to execute this document as an authorized agent. I hereby certify that all information submitted in this and attached documents is correct to the best of my knowledge. I also
certify that a	ny sampl	es sub	mitted are representative of the actual waste. If Clean Harbors discovers a discrepancy during the approval process, Generator grants Clean Harbors the authority to amend deems necessary, to reflect the discrepancy.
For Fo	Reference	ence	IGNATURE TITLE DATE ONLY Contact (D)(6) NAVFAC Environmental, for signed original. NAVFAC Environmental, for signed original.
This waste	profile h	as bee	n submitted using Clean Harbors' electronic signature system.

(b) (4) Asbestos Waste Shipment Record

HIC7147-04

Worksite & Mailing Address	Owner's Nam	ie	Owner's Phone No.
Red Hill Pipeline, Aiea, Hl 400 Marshall Road, Pearl Harbor, Hl96860	COMNAVREG	G, HAWAII C/O NAVFAC	808-471-5094
2. Operator's Name & Address			Operator's Phone No.
ERRG, 677 Ala Moana Blvd, Suite 308	B, HONOLUL	_U, HI 96813	808-833-5000
3. Waste Disposal Site (WDS) Name, Mailing Addres	ss & Location		WDS Phone No.
PVT Land Company, Inc.			
87-2020 Farrington Hwy. Nanakuli, HI 96792			(808) 668-4561
4. Name & Address of Responsible Agency			
Hawaii Department of Health - Clean Air Branch			
919 Ala Moana Blvd. Honolulu, HI 96814			(808) 543-8200
5. Description of Materials	Containers	\$	7. Total Quantity
RACM	No.	Туре	Cm (Cyd)
Cat I ACM ASBESTOS CONAINING GASKETS Cat II ACM	001	DM	0.25 CYD
Special Handling Instructions & Additional Information	tion		
or opening monaction at real and an income			
9. OPERATOR'S CERTIFICATION: I hereby declare		-	
described above by proper shipping name and are cla	assified, packed	d, marked and labeled	, and are in all respects in
proper condition for transport by highway according to	applicable inte	ernational and governr	ment regulations.
proper condition for transport by highway according to	o applicable inte	ernational and governr	ment regulations.
proper condition for transport by highway according to	applicable inte	ernational and governr	ment regulations.
proper condition for transport by highway according to Printed/Typed Name & Title	Signature	ernational and governr	ment regulations. Mo / Day / Yr
Printed/Typed Name & Title	Signature	ernational and governr	
	Signature	ernational and governr	
Printed/Typed Name & Title	Signature	ernational and governr	
Printed/Typed Name & Title 10. Transporter 1 (Acknowledgement of Receipt of March 1)	Signature flaterials)	ernational and governr	Mo / Day / Yr
Printed/Typed Name & Title 10. Transporter 1 (Acknowledgement of Receipt of Normal Printed/Typed Name & Title	Signature Materials) Signature		Mo / Day / Yr Mo / Day / Yr
Printed/Typed Name & Title 10. Transporter 1 (Acknowledgement of Receipt of Management of Recei	Signature Materials) Signature		Mo / Day / Yr Mo / Day / Yr 808-545-4599
Printed/Typed Name & Title 10. Transporter 1 (Acknowledgement of Receipt of Normal Printed/Typed Name & Title	Signature Materials) Signature		Mo / Day / Yr Mo / Day / Yr
Printed/Typed Name & Title 10. Transporter 1 (Acknowledgement of Receipt of Management of Recei	Signature Materials) Signature 235117, HONO		Mo / Day / Yr Mo / Day / Yr 808-545-4599
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Printed/Typed Name & Title 10. Transporter 1 (Acknowledgement of Receipt of Market Ma	Signature Materials) Signature 235117, HONO Materials)	DLULU, HI 96817	Mo / Day / Yr Mo / Day / Yr 808-545-4599 Phone Number Mo / Day / Yr Phone Number
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Printed/Typed Name & Title 10. Transporter 1 (Acknowledgement of Receipt of March 1997) Printed/Typed Name & Title Pacific Commercial Services LLC, P.O. BOX 2 Company Name & Address 11. Transporter 1 (Acknowledgement of Receipt of March 1997) Printed/Typed Name & Title Company Name & Address 12. Discrepancy Indication Space	Signature Signature Signature S15117, HONO Materials) Signature	Certification of receipt of this manifest except as	Mo / Day / Yr 808-545-4599 Phone Number Mo / Day / Yr Phone Number

HC 7147

PVT LAND COMPANY LTD. 87-2020 FARRINGTON HWY. WAIANAE, HI 96792

Ticket #: 615826

Bill To: PACIFIC COMMERCIAL SERVICES LLC Haul Acct/Veh #: PACICO /PACIC-V3

PO/Job #:

Date: 09/13/11 Time I/O:11:24 /11:31 Clr #: 74981 - Red Hill Pipe Line 400 Ma

Material: 2000 - Asbestos

Gross: 13960 Tare: 13480 Net: 480 lbs 0.24 Tons @ \$90.00/tn \$ Fees:HA-1 Tax

TOTAL

COD Customer: 1 - 1 Not Specified

STATE OF HAWAII CERTIFICATE OF MEASURES DIVISION OF MEASUREMENT STANDARDS

This certifies to the accuracy and identity of the quantity & commodity shown, is suitable for all deliveries when sealed by a measuremaster. STATE OF HAWAII MEASUREMASTER

NO.3348 Registered Intls MD

Pmnt Type: 1 - Charge (Invoice) Fee codes: HA-Handling Fee (ASB) <<< COYER YOUR LOAD >>>

Ple	ase print or type. (Form desig	gned for use on elite (12-pitch) typ	ewriter.)						Approved. OM	B No. 2	050-003
Î	UNIFORM HAZARDOUS WASTE MANIFEST	1. Generator ID Number HIR 000	050 401	2	Emergency Respor	35-5053	00		300 <u>6</u>	IJ	K
11	5. Generator's Name and Mailie COMNAVREG H.	AWAII. C/O NAVFAG	HAWAII, C	Ge ODE PRJ4:	nerator's Site Addre 2.1	ss (if different th	an mailing addres	(8)	H	C714	47-03
	JBPHH, HI 9	L ROAD, ATTN: (b) 6860-3139	(6)		RE!	D HILL EA, HI	TUNNEL, 96701	ADIT 3			
П	Generator's Phone: 6. Transporter 1 Company Nam	808-471-421	ь				U.S. EPA ID N	lumber			
П	1 1	MERCIAL SERVICES	LLC.	80	8-545-459	99	Н	I R O	0 0 0 9	7 1	8 2 4
$\ $	7. Transporter 2 Company Nam						U.S. EPAID N				
П		GATION COMPANY		80	0-962-87	66			069	2 (621
П	8. Designated Facility Name er CLEAN HARBO	nd Sike Address RS SAN JOSE, LLC					U.S. EPA ID N	lumber			
	1021 BERRYE						CA	D 0 5	9 4 9	4 3	1 0
П	Facility's Phone:	4.08-451-500 ion (including Proper Shipping Name, I	•		10. Com	toinore	4.50	40.41-7		,	
П	HM and Packing Group (if	any))			No.	Туре	11. Total Quantity	12. Unit Wt./Vol.	13. Was	e Codes	
٤	x ^{1.} NA307	7, HAZARDOUS WAST		.O.S.,			1//0				18
GENERATOR	9, PGIII	HIP DEBRIS WITH I	EAU)		00:	1 DM	00050	P			D008
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Ш	9b3: *					JOE: 963:	45.		BOX 2351		
Ш		OR'S CERTIFICATION: I hereby decla				described above		ipping name, s		d, packaç	ged,
II	Exporter, I certify that the	irded, and are in all respects in proper contents of this consignment conform nimization statement identified in 40 Cl	to the terms of the attach	ed EPA Acknowledg	ment of Consent.	_		If export ships	ment and I am t	he Primar	ry .
Ш				Pienet	7 3.1.3.				Month	Day	Year
Ľ	H(D)(6								104	11	12
E	Transporter signature (for expo	and armin			12000	aving U.S.:					
_		/ O)			920 0	aving O.O.		-			
TRANSPORTER		(6)							WYL.	Pay	1/2
		(\mathbf{O})							Month	Day	Year
	,	\ /								1	1
┟	18. Discrepancy					· ·	- US				
II	18a. Discrepancy Indication Sp	ace Quantity	Туре		Residue		Partial Rej	ection		ul Rejec	dion
$\ $,			Manifest Referer	oce Mumber				*	
lÈ	18b. Alternate Facility (or Gene	rakor)			Mulitor Holoro	ioc Mulliper.	U.S. EPA ID N	lumber			
5			4								
9	Facility's Phone: 18c. Signature of Alternate Fac	ility (or Generator)							Month	Day	Year
DESIGNATED FACILITY	- Ognatoro or appription (ap								1770/11]	
S	19. Hazardous Waste Report M	lanagement Method Codes (i.e., codes	for hazardous waste trea		d recycling systems	s)					
) =	1.	2.		3.			4.				
$\ $	20. Designated Facility Owner of	or Operator: Certification of receipt of in	azardous materials cover	red by the manifest	except as noted in it	tern 18a	1				
П	Printed/Typed Name			Signatu					Month	Day	Year
1 (1	ı	1

Material Control

lease	print or type. (Form designed for use on elite	12-pitch) typewriter.) 21. Generator ID Number	22. Page	1 00 10	<u> </u>	Form	Approved.	OMB No. 2	050-003
↑ UN	(IFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)	HIR 000 050 401	22. Page 2	23. Mani	lest Tracking Nur		014680	06JJK	
24	Generator's Name			_[IC7147		
-	COMNAVREG HAWAII, C/C	NAVFAC HAWAII, CODE PI	RJ421		•				
╟	<u> </u>			 :	U.S. EPA ID	Vumber	<u> </u>		
25.	Transporter 3 Company Name CLEAN	HARBORS ENVIRONMENTAL	SVC.				3 9 3 3)))	5 0
26.	Transporter 4 Company Name	•			U.S. EPA ID	Number			<u> </u>
ᄔ	SMITE	SYSTEMS TRANSPORTATION					638	2 1 3	3
27a		ping Name, Hazard Class, ID Number,	28. Contai No.	ners Type	29. Total Quantity	30. Unit Wt./Vol.	31. W	aste Codes	
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32.	Special Handling Instructions and Additional Informa	tion							
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33	TransporterAcknowledgment of Receipt of	- Waterials							
	nted/Typed Name		neture				Mont	h Day	Year
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34. Prin	Transporter 6 Acknowledgment of Receipt of ted/Typed Name		nature				Mont	h Day	Year
1	4F	. 1	-]		1
35.	Discrepancy								
3									
ž			•						
36.	Hazardous Waste Report Management Method Cod	es (i.e., codes for hazardous waste treatment, disposa	I, and recycling systems)			-			
36.			1			1			
A For	m 8700-22A (Rev. 3-05) Previous editions are	obsolete.	DESIG	GNATED F	ACILITY TO	DESTINA	TION STAT	E (IF REC	JUIRE



CleanHarbors WASTE MATERIA ROFILE SHEET

The same of the sa	C	lean Harbors F	Profile	No. CH5	20792				
A. GENERAL INFORMATIO CENERATOR EPA ID #/REG NERATOR CODE (Assign DRESS Red Hill	GISTRATION#	HIR000050401 CO6485	GENER CITY	ATOR NAME: <i>Aiea</i>	STATE/P	PROVINCE	nii c/o NAVFAC HI ZIP/POS	•	
CUSTOMER CODE (Assigne ADDRESS 5 Sand Island		PA8891 Iding 931, Kapala	CUSTO CITY	MER NAME: Honolulu	Pacific	PHONE: (80 Commercial PROVINCE	08) 471-0703 Services-DRM HI ZIP/POS		DDE 9681
B. WASTE DESCRIPTION WASTE DESCRIPTION:	Paint chip debris a	nd dust with lead							
PROCESS GENERATING V		ine repair							
IS THIS WASTE CONTAINE	D IN SMALL PACKAGI	NG CONTAINED WITHIN A L	ARGER S	HIPPING CONTAI	NER? No				
C. PHYSICAL PROPERTIES	S (at 25C or 77F)								
PHYSICAL STATE SOLID WITHOUT FREE POWDER	LIQUID	NUMBER OF PHASES/L	TOF	0.00		1 - 100 (e	If liquid present) e.g. Water)		COLOR VARIOUS
MONOLITHIC SOLID LIQUID WITH NO SOLII LIQUID/SOLID MIXTUR		% BY VOLUME (Approx.)	TOM 0.00		ı) (e,g. Motor Oil) 000 (e.g. Molasses	s)	
% FREE LIQUID % SETTLED SOLID		ODOR NONE		BOILING POIN	T °F (°C)	> 10,000 MELTING PC	OINT °F (°C)		AL ORGANIC
% TOTAL SUSPENDE SLUDGE	D SOLID	MILD		<= 95	(<=35)		0 (-00)	_	BON
GAS/AEROSOL		STRONG		l	00 (35-38)	ı	0 (<60) 200 (60-93)		
		Describe:		l .	129 (38-54) 0 (>54)	[mm]	0 (>93)		1-9% >= 10%
FLASH POINT °F (°C)	рН	SPECIFIC GRAVITY		ASH		•	BTU/LB (MJ/kg)	
< 73 (<23)	<= 2	< 0.8 (e.g. Gasoline)		< 0.1	:	> 20	< 2,000 (,	
73 - 100 (23-38) 101 -140 (38-60)	2.1 - 6.9	✓ 0.8-1.0 (e.g. Ethanol) 1.0 (e.g. Water)		0.1 - 1.0	1	Unknown	2,000-5,0	•	
141 -200 (60-93)	7 (Neutral)	1.0-1.2 (e.g. Antifreez	a)	1.1 - 5.0			5,000-10 > 10,000		•
> 200 (>93)	>= 12.5	> 1.2 (e.g. Methylene		5.1 - 20.0)		Actual:	(* 20.2)	
D. COMPOSITION (List t	the complete composition	n of the waste, include any in	ert compor	nents and/or debris	. Ranges for ir	ndividual comp	onents are accepta	ble. If a	trade name is
	please supply an MSD	S. Please do not use abbrevia	ations.)						
CHEMICAL							MIN		MAX 35.0000000
DUST LEAD							0.0000000 0.0000000	- - 3	10000.0000
PAINT CHIP DEBRIS							50.0000000		75.0000000
DOES THIS WASTE CONT				• • • • • • • • • • • • • • • • • • • •		• • • • • • • • •			YES 🗹

CHEMICAL	MIN		MAX	UOM
DUST	15.0000000	35.000	0000	%
LEAD	0.0000000	310000.	0000	PPM
PAINT CHIP DEBRIS	50.0000000	75.000	0000	%
DOES THIS WASTE CONTAIN ANY HEAVY GAUGE METAL DEBRIS OR OTHER LARGE OBJECTS (EX., METAL PLATE OR PIPING LONG, METAL REINFORCED HOSE >12" LONG, METAL WIRE >12" LONG, METAL VALVES, PIPE FITTINGS, CONCRETE REINFOR PIECES OF CONCRETE >3")?		?" YES	•	NO
If yes, describe, including dimensions:				
DOES THIS WASTE CONTAIN ANY METALS IN POWDERED OR OTHER FINELY DIVIDED FORM?		YES	~	NO
DOES THIS WASTE CONTAIN OR HAS IT CONTACTED ANY OF THE FOLLOWING; ANIMAL WASTES, HUMAN BLOOD, BLOOD PR FLUIDS, MICROBIOLOGICAL WASTE, PATHOLOGICAL WASTE, HUMAN OR ANIMAL DERIVED SERUMS OR PROTEINS OR ANY O POTENTIALLY INFECTIOUS MATERIAL?		YES	•	NO
I acknowledge that this waste material is neither infectious nor does it contain any organism known to be a threat to human health, based on my knowledge of the material. Select the answer below that applies:	This certification is			
The waste was never exposed to potentially infectious material.		YES		NO
Chemical disinfection or some other form of sterilization has been applied to the waste.		YES		NO
I ACKNOWLEDGE THAT THIS PROFILE MEETS THE CLEAN HARBORS BATTERY PACKAGING REQUIREMENTS.		YES		NO
I ACKNOWLEDGE THAT MY FRIABLE ASBESTOS WASTE IS DOUBLE BAGGED AND WETTED.		YES		NO
SPECIFY THE SOURCE CODE ASSOCIATED WITH THE WASTE. G09 SPECIFY THE FORM CODE ASSOCIA	TED WITH THE WAS	STE. W002		



Clean Harbors Profile No. CH520792

E. CONSTITUENTS

Are these values based on testing or knowledge?

Knowledge Testing

If constituent concentrations are based on analytical testing, analysis must be provided. Please attach document(s) using the link on the Submit tab,

Please indicate which constituents below apply. Concentrations must be entered when applicable to assist in accurate review and expedited approval of your waste profile. Please note that the total regulated metals and other constituents sections require answers.

RCRA	REGULATED METALS	REGULATORY LEVEL (mg/l)	TCLP mg/l	TOTAL	UOM	NOT APPLICABLE	
D004	ARSENIC	5.0				v	
D005	BARIUM	100.0				Y	
D006	CADMIUM	1.0				V	
D007	CHROMIUM	5.0				7	
D008	LEAD	5.0		310000.00000000	PPM		
D009	MERCURY	0.2				V	
D010	SELENIUM	1.0				7	
D011	SILVER	5.0				7	
	VOLATILE COMPOUNDS			OTHER CONSTITUE		MAY HOM	NOT
D018	BENZENE	0.5		OTHER CONSTITUE	IN IS	MAX UOM	NOT APPLICABLE
D019	CARBON TETRACHLORIDE	0.5		BROMINE			V
D021	CHLOROBENZENE	100.0		CHLORINE			<u>a</u>
D022	CHLOROFORM	6.0		FLUORINE			·····
D022	1,2-DICHLOROETHANE	0.5		IODINE		• • • • • • • • • • • • • • • • • • • •	·····
D029	1,1-DICHLOROETHANE	0.7		SULFUR		• • • • • • • • • • • • • • • • • • • •	······· 🗟 · · · · ·
D025	METHYL ETHYL KETONE	200.0		POTASSIUM			· · · · · · · · · · · · · · · · · · ·
. <i></i>	. 	0.7		SODIUM		• • • • • • • • • • • • • • • • • • • •	·····
D039	TETRACHLOROETHYLENE	0.5		AMMONIA			·····
D040	TRICHLOROETHYLENE			CYANIDE AMENABLE		· · · · · · · · · · · · · · · · · · ·	······
D043	VINYL CHLORIDE	0.2		CYANIDE REACTIVE		• • • • • • • • • • • • • • • • • • • •	···· 👸 · · · · ·
	SEMI-VOLATILE COMPOUNDS			CYANIDE TOTAL			····
D023	o-CRESOL	200.0		SULFIDE REACTIVE	• • • • • • • • • •		····
D024	m-CRESOL	200.0		SULFIDE REACTIVE			<u></u>
D025	p-CRESOL	200.0		HOCs		PCBs	
D026	CRESOL (TOTAL)	200.0		NONE		✓ NONE	
D027	1,4-DICHLOROBENZENE	7.5		< 1000 PPM		< 50 PPM	
D030	2,4-DINITROTOLUENE	0.13		>= 1000 PPM		>=50 PPM	
D032	HEXACHLOROBENZENE	0.13				IF PCBS ARE PRESE	NT. IS THE
D033	HEXACHLOROBUTADIENE	0.5				WASTE REGULATED	
D034	HEXACHLOROETHANE	3.0				CFR 761?	
D036	NITROBENZENE	2.0		ı		YES [NO
D037	PENTACHLOROPHENOL	100.0					
D038	PYRIDINE	5.0					
D041	2,4,5-TRICHLOROPHENOL	400.0					
D042	2,4,6-TRICHLOROPHENOL	2.0					
	PESTICIDES AND HERBICIDES	S					
D012	ENDRIN	0,02					
D013	LINDANE	0,4					
D014	METHOXYCHLOR	10.0					
D015	TOXAPHENE	0.5					
	2,4-D	10.0					
D016	2,4-0						
D016 D017	2,4,5-TP (SILVEX)	1.0					
D016 D017 D020		1.0 0.03					
D016 D017	2,4,5-TP (SILVEX)	0.03					

NO (If yes, explain)

CHOOSE ALL THAT APPLY

OSHA REGULATED CARCINOGENS DEA REGULATED SUBSTANCE EXPLOSIVE **FUMING** POLYMERIZABLE RADIOACTIVE REACTIVE MATERIAL NONE OF THE ABOVE

Clean Harbors Profile

CH520792

R	EGULA'	TORY	STATI	US.
	YES		NO	USEPA HAZARDOUS WASTE?
-				D008
V	YES		NO	DO ANY STATE WASTE CODES APPLY?
				181
				Texas Waste Code OUTS319H
	YES	~	NO	DO ANY CANADIAN PROVINCIAL WASTE CODES APPLY?
~	YES		NO	IS THIS WASTE PROHIBITED FROM LAND DISPOSAL WITHOUT FURTHER TREATMENT PER 40 CFR PART 268? LDR CATEGORY: This is subject to LDR
				VARIANCE INFO:
	YES	~	NO	IS THIS A UNIVERSAL WASTE?
	YES		NO	IS THE GENERATOR OF THE WASTE CLASSIFIED AS CONDITIONALLY EXEMPT SMALL QUANTITY GENERATOR (CESQG)?
	YES		NO	IS THIS MATERIAL GOING TO BE MANAGED AS A RCRA EXEMPT COMMERCIAL PRODUCT, WHICH IS FUEL (40 CFR 261.2 (C)(2)(II))?
	YES	~	NO	DOES TREATMENT OF THIS WASTE GENERATE A F006 OR F019 SLUDGE?
	YES	~	NO	IS THIS WASTE STREAM SUBJECT TO THE INORGANIC METAL BEARING WASTE PROHIBITION FOUND AT 40 CFR 268.3(C)?
	YES	~	NO	DOES THIS WASTE CONTAIN VOC'S IN CONCENTRATIONS >=500 PPM?
	YES		NO	DOES THE WASTE CONTAIN GREATER THAN 20% OF ORGANIC CONSTITUENTS WITH A VAPOR PRESSURE >= .3KPA (.044 PSIA)?
	YES	•	NO	DOES THIS WASTE CONTAIN AN ORGANIC CONSTITUENT WHICH IN ITS PURE FORM HAS A VAPOR PRESSURE > 77 KPA (11.2 PSIA)?
	YES	~	NO	IS THIS CERCLA REGULATED (SUPERFUND) WASTE?
	YES	¥	NO	IS THE WASTE SUBJECT TO ONE OF THE FOLLOWING NESHAP RULES?
				Hazardous Organic NESHAP (HON) rule (subpart G) Pharmaceuticals production (subpart GGG)
	YES	¥	NO	IF THIS IS A US EPA HAZARDOUS WASTE, DOES THIS WASTE STREAM CONTAIN BENZENE?
		YES		NO Does the waste stream come from a facility with one of the SIC codes listed under benzene NESHAP or is this waste regulated under the benzene
				NESHAP rules because the original source of the waste is from a chemical manufacturing, coke by-product recovery, or petroleum refinery process?
		YES		NO Is the generating source of this waste stream a facility with Total Annual Benzene (TAB) > 10 Mg/year? e TAB quantity for your facility? Megagram/year (1 Mg = 2,200 lbs)
				e TAB quantity for your facility?
				he knowledge :
G. DO	OT/TDG			
				PING NAME:
				RDOUS WASTE, SOLID, N.O.S., (PAINT CHIP DEBRIS WITH LEAD), 9, PG III
				REQUIREMENTS_
EST	IMATE	SHIP	MENT	FREQUENCY ONE TIME WEEKLY MONTHLY QUARTERLY YEARLY OTHER Other
		•		NTAINERIZED BULK LIQUID BULK SOLID
				RS/SHIPMENT GALLONS/SHIPMENT: 0 Min -0 Max GAL. SHIPMENT UOM: TON YARD
	RAGE I			TONS/YARDS/SHIPMENT: 0 Min - 0 Max
	CL	JBIC Y	ARD B	OX PALLET
		TE TA	NK	▼ DRUM
	01	HER:		DRUM SIZE: 55 gallon
I. SPE	CIAL R	EQUE	ST	
co	MMENTS	S OR RE	QUES	TS:
GENE	RATOR'S	CERT	FICAT	ION .
l ce	rtify that ify that a	l am aut	horized	to execute this document as an authorized agent. I hereby certify that all information submitted in this and attached documents is correct to the best of my knowledge. I also mitted are representative of the actual waste. If Clean Harbors discovers a discrepancy during the approval process, Generator grants Clean Harbors the authority to amend seems necessary, to reflect the discrepancy.
	ΑU	THOR	ZED S	SIGNATURE NAME (PRINT) TITLE DATE
_				e Only. Contact (b) (6) NAVFAC Environmental Division, for signed original. NAVFAC Environmental Division, for signed original.
Ţ	nis waste	profile	has be	en submitted using Clean Harbors' electronic signature system.

U.S. Postal Service™ CERTIFIED MAIL, RECEIPT 9297 (Domestic Mall Only; No Insurance Coverage Provided) For delivery information visit our website at www.usps.com SACRAMENTO CA 95812 Ŋ 7245 0007 \$0.45 Postage MINDA HOL \$2.95 Certified Fee 2000 Return Receipt Fee (Endorsement Required) \$0.00 Restricted Delivery Fee (Endorsement Required) 40.00 2000 \$3,40 0472072662 Total Postage & Fees \$ Generator Man 7077 Street, Apt. No.; or PO Box No. City, State, ZIP+4 9582-0900 Sacrumento

UNIFORM MAJARDOUS Conventor to Number MTR 000 050 401 2	e print or type. (Form designed for use on efite (12-pitch) typewriter.)				17.0-0		Approved	. OND ITO.	
ADD ARESHALL KOAD, ATTH: SSTRELITA HIGA RED HILL TUNNEL, ADIT 3	WASTE MANIFEST HIR 000 050 401	3 2	1-800-535					6 J	JK
ADD ADD ATTH: STREET ADD A	S. Generator's Name and Molling Address COMNAVREG HAWAII, C/O NAVFAC HAWAII, CODE	Gener E PRJ421	stor's Site Address (i dillerent th	en melling address	s)		HIC7	147-0
Canadard Foldown Name	400 MARSHALL ROAD, ATTN: ESTRELITA HIGA		RED			ADIT	3		
Comment Comment Name Name Comment Name Name Comment Name Name Name Name Comment		- 1	ALKA	А, НІ	96701				
Company Company Name Company Name Company					U.S. EPA ID N	umber			
MATISON NAVIGATION COMPANY Bonipator Facility in an of Statistics CLEAN HARBORS SAN JOSE, LLC 1021 BERRYRSSA ROAD SAN JOSE, CA 95133 CA D 0 5 9 4 9 4 3 1 C STORY Proces. AB AB AS 13-5-000 SAN JOSE, CA 95133 AB AB AS 13-5-000 SAN JOSE, CA 95133 AB AB AS 13-5-000 SAN JOSE, CA 95133 AB AB AS 13-5-000 NAS 2077, MAZARDOUS MASTE SOLID, N.O.S., (PAINT CHIP DEBRIS MITH LEAD) 9, PG111 2 MI NASOTO, MAZARDOUS MASTE SOLID, N.O.S., CRISCOTS CHECK TO CHIP COMPANY BOL:		808	-545-4599)			0 0	0 9 7	8 2
B. CARD AND AND CONTROL OF STATE AN		000	060 0766		1				
10.21 BERRYESSA ROAD SAN JOSE, CA 95133 AGB-451-5000 BOLLE OFO Descriptor (reducing Personal Prolapids Name, Natural Claim, D Nambur. Mel. of Prison Prison (Personal Prolapids Name, Natural Claim, D Nambur. Mel. of Prison Prison (Personal Prolapids Name, Natural Claim, D Nambur. Mel. of Prison Prison (Personal Prison Prolapids Name, Natural Claim, D Nambur. Mel. of Prison Prison (Personal Prison Pr		800	-302-0700	,			<u> </u>	7_1_4	0 2
SAN JOSE, CA 95133 AGENETIC Contents on the Contents of the C					C 3	D 0	50 1	0.4	
IS. US DOT Description Country No. Type No.	SAN JOSE, CA 95133					<i>D</i> 0	J J 4	7 4	3 1 (
NA OPERATOR CODE (18 M) NA 3077, HAZARDOUS WASTS SOLID, N.O.S., (PAINT CHIP DEBRIS WITH LEAD) 9, PGTII 1. SEMO COPY TO BG: PD DO 1. SEM CODE (17) SEMO COPY TO BG: PGC: PC SILC BG:	M. 110 0070		10 Control		4 2 2				
(PAINT CHIP DEBRIS WITH LEAD) 9	HM and Packing Group (f sny))						13.	Whate Cod	*
9, PGSLII 001 DN 000566 PD D01 14. Special Heading heart-clows and Additional Information 15. Special Heading heart-clows and Additional Information 16. Special Heading heart-clows and Additional Information 17. CRIS-COPP TO 1 18. Special Personal Special S		.s.,							18
16. Special Mentifies hereuctors and Additional Information 160 : 1993.01 D 161 CR15 20 79 2 160 CR15 20 79			001	DM	240	p			D01
14. Special Heading Interactions and Additional Information 1801: TYPESOLID 1902: PCS LLC 1903: PCS LLC 1904: PCS LLC 1905: PCS LLC 1906: PCS	2		1		OL				1
14. Special Hending Instructions and Additional Information 160 : 171 SEND COPY TO;								 	+
14. Special Hending Instructions and Additional Information 160 : 171 SEND COPY TO;	3.		+			-	 	-	├
14. Special Hardfire Instructions and Additional Information 1801: 1943-01.0 1952: 9 1952: 9 1953: 9 1	1								-
14. Special Handling Instructions and Additional Information 1801: PRESOLID 1002: PSD.1: 1003: PSD.1: 1004: P									<u> </u>
66): ** PCS LLC 66): ** PCS LL	 4.								
66): ** PCS LLC 66): ** PCS LL						l			
BB2: PCS. ILC 963: PCS. BDX 235117 BB4: DO JOS 963: P.O. BDX 235117 BB4: SCHALLILLI, BT 96823 15. GRBE/EATOR/BOTE/BOTE/BOTE/BOTE/BOTE/BOTE/BOTE/BOTE							ĺ		
Single Part Comment of the Comment of the Contract of the consignment are fully and eccurately and accusably and eccurately appropriate orders. If export altiparent and less the Privacy Exports, I only that the consistent of the entire of the established EPA Activosited privately and accusably accusably and accusably accusably and accusably accusabl			267 3000	ah1	121	C T W			<u> </u>
15. GENERATION OF SERVING ACTIONS. It hereby declare had the consequence of the consequence of control described decorated decorated shows by the proper ellipsing name, and are cleared and serving the interestical individuals interestical and serving the interestical properties of the consequence of the settlement of the consequence of the	Sb1: RWSOLID CR520792	-\$4	21		171			10,	<u> </u>
Exportur, Lostify that the weath rehiminization statement identified in 40 CFR 282.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true. Columbia Colum	9b1: RWSOLID CR520792 9b2: * 9b3: *	-50	ERG#	962: 08 963:	171	PCS P.O.	1.1.C BOX 2	35117	L
Morth Day Year Day Day Year Day Year Day Year Day Year Day Year Day Year Day Day Or Day Day Day Day Day Year Day Year Day Day Day Day Day Day Day Day Day Year Day Year Day Day Day Day Day Day Year Day Year Day Year Day Day Year Day Day Year Day Day Year Day Year Day Year Day Year Day Day Year Day Year Day	6b1: RWSOLI D CR520792 6b2: * 9b3: * 9b4: * SMERATOR MOFFEROR'S CERTIFICATION: I haraby declare that the contents of this con-	algoment are Ad-	DO/JO 73.47 y and accurately dec	9b2: 0E 9b3: Sh4:	by the proper sh	PCS P.O. FIONS pping name	BOX 2	35117 HT 9682	laged.
Month Day Year	9b1: RWSOLI D CR520792 9b3: * 9b3: * 9b4: * 15. GBIERATOR'S/OFFEROR'S CERTIFICATION: I haraby declars that the contents of this conmented and labeled/placerded, and are in all nespects in proper condition for transport according Exportar, I overly that the contents of this consignment conform to the terms of the attached EP	ng to applicable it 'A Actinowledgmi	ERG# DO/JO 7147 y and accurately dea ternetional and national and of Consent.	9b2: 9b3: 9b4- onel government	by the proper shi regulations.	PCS P.O. FIONS pping name	BOX 2	35117 HT 9682	laged.
Month Day Year	9b1: RWSOLI D CR520792 9b3: * 9b3: * 9b4: * 15. GBIERATOR'S/OFFEROR'S CERTIFICATION: I haraby declars that the contents of this conmented and labeled/placerded, and are in all nespects in proper condition for transport according Exportar, I overly that the contents of this consignment conform to the terms of the attached EP	ng to applicable it 'A Actinowledgmi	ERG# DO/JO 7147 y and accurately dea ternetional and national and of Consent.	9b2: 9b3: 9b4- onel government	by the proper shi regulations.	PCS P.O. FIONS pping name	BOX 2	35117 HT 9682	kaged, nary
Month Day Year	9b1: RWSOLI D CR520792 9b3: * 9b3: * 9b4: * 15. GBIERATOR'S/OFFEROR'S CERTIFICATION: I haraby declars that the contents of this conmented and labeled/placerded, and are in all nespects in proper condition for transport according Exportar, I overly that the contents of this consignment conform to the terms of the attached EP	ng to applicable it 'A Actinowledgmi	ERG# DO/JO 7147 y and accurately dea ternetional and national and of Consent.	9b2: 9b3: 9b4- onel government	by the proper shi regulations.	PCS P.O. FIONS pping num	BOX 2	35117 HT 9682	kaged, nary
Menth Day Yea Color Full Rejection	9b1: RWSOLI D CR520792 9b3: * 9b3: * 9b4: * 15. GBIERATOR'S/OFFEROR'S CERTIFICATION: I haraby declars that the contents of this conmented and labeled/placerded, and are in all nespects in proper condition for transport according Exportar, I overly that the contents of this consignment conform to the terms of the attached EP	ng to applicable it 'A Actinowledgmi	ERG# DO/JO 7147 y and accurately dea ternetional and national and of Consent.	9b2: 9b3: 9b4- onel government	by the proper shi regulations.	PCS P.O. FIONS pping num	BOX 2	35117 HT 9682	kaged, nary
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Califor Full Rejection Full Reject	9b1: RWSOLI D 9b2: * 9b3: * 9b4: * 15b4: *	ng to applicable it 'A Actinowledgmi	BRG# DO/JC 71.4.7 y and socurately design ternational and nest and of Corusert. or (b) (fil am a small	9b2: 9b3: 9b4- sorbed above onal government il quantity ge	by the proper shi regulations.	PCS P.O. FIONS pping num	BOX 2	35117 HT 968: seelled, pack on the Prix	
Algorithms Facility (or Generator) Facility's Phone: 10c. Signature of Alternate Facility (or Generator) Wantilest Replanation (or Generator)	9b1: RWSOLI D 9b2: * 9b3: * 9b4: * 15b4: *	ng to applicable it 'A Actinowledgmi	BRG# DO/JC 71.4.7 y and socurately design ternational and nest and of Corusert. or (b) (fil am a small	9b2: 9b3: 9b4- sorbed above onal government il quantity ge	by the proper shi regulations.	PCS P.O. FIONS pping num	LLC BOX 2 STILLI A and are classification and	35117 HT 968: senited, pace ion two Pet	
Alternate Facility (or Generator) Facility's Phone: 16c. Signature of Alternate Facility (or Generator) Month Day Yes 19. Hazardous Whate Raport Management Method Codes (Le., codes for hazardous weeks treatment, disposest, and recycling systems) 1. #### 2. 3. 4. 20. Destroated Earlity Center or Connector Certification of receipt of hazardous estateles covered by the manifest societ as called in them 18s. Matth. Day Yes Matth. Day Yes	9b1: RWSOLI D 9b2: * 9b3: * 9b4: * 15b4: *	ng to applicable it 'A Actinowledgmi	BRG# DO/JC 71.4.7 y and socurately design ternational and nest and of Corusert. or (b) (fil am a small	9b2: 9b3: 9b4- sorbed above onal government il quantity ge	by the proper shi regulations.	PCS P.O. FIONS pping num	LLC BOX 2 STILLI A and are classification and	35117 HI 968: Hellind, pad Hellind, pad Hell	Y I I
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ase print or type. (Form designed for use on elite (12-pitch) typewriter.)	27 Dans a 3 M M	rollest Tracking Nu	Form /	Approved, OMB No. 2050-00
UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet) 21. Generator ID Number HIR 000 050 401	22. Page 2/3 23. No.	ANDRE STREETING THE		1468006JJK
24. Generator's Name				C7117-03
COMNAVREG HAWAII, C/O NAVFAC HAWAII, CODE PR	J 42 1			
		U.S. EPA ID I	h mhar	
25. Transporter Company Name CLEAN HARBORS ENVIRONMENTAL .	SVC.		D 0 3	9 3 2 2 2 5 0
1 . Class Washing C	,	U.S. BAID		~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~
28 Transporter 4 Company Name C	service	THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TWO IS NAMED IN COLUMN TW	2000	1302133
27a. 27b. U.S. DOT Description (including Proper Shipping Name, Hezard Class, 5) Number, HM and Pacting Group (if any))	28. Containers	29. Total Quantity	30, Unit WA.Abi.	31. Waste Codes
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32. Special Handling Instructions and Additional Information				
33. Transporter Printed Typed Na 34. Transporter				Morgin , Day , Yje
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36. Hazerdous Wasse Report Management Method Codes (i.e., codes for hazerdous waste treatment, disposal	and recycling systems)			
				1011 BY 197 OF 550: 55
Form 8700-22A (Rev. 3-05). Previous editions are obsolete.	DESIGNATE	PEACELITY TO	DESTINAT	ION STATE (IF REQUER

	·			10.00			T =				
†	NON-HAZARDOUS WASTE MANIFEST		0 050 401	2. Page 1 of 1	3. Emergency Response 1-800-645-	8265	4. Waste Tra	•		0016	141
	5. Generator's Name and Mailin COMNAVREG HAWI 400 MARSHALL I PEARL HARBOR, Generator's Phone:	AII, C/O NAVEA	(6)	ND, CODI		ILL PI	PELINE	88)	ніс	7141	-01
1	6, Transporter 1 Company Name	е					U.S. EPA ID N	lumber			
١	PACIFIC COMME 7. Transporter 2 Company Name		S, LLC.	80	8-545-4599		U.S. EPA ID N		0 0 9	7 8	24
	8. Designated Facility Name and PVT LAND COMPJ 87~2020 FARRII WAYANAE, HI Facility's Phone:	ANY, LTD. NGTON HIGHWAY	61				U.S. EPA ID N	lumber	NOT APP	LICA	BLE
1			***************************************		10. Contai	ners	11. Total	12. Unit			
ı	9. Waste Shipping Name	and Description			No.	Туре	Quantity	Wt./Vol.			
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	3 Special Handling Instructions 9b1: COMB LTQ 9b2: * 9b3: * 9b4: *	s and Additional Information			2008 ERG# DO/JOE 7141	9b2;	128	PCS LI	COPY TO: .C. COX 235117 DLU, HI 96		
ı	14. GENERATOR'S/OFFEROR								, and are dessifie	ed, packag	ged,
ı	Generator's/Offeror's Printed/Ty	ed, and are in all respects in pr ned Name	oper condition for transport ac		able international and hatic	nat governm	iental regulations.		Month	Day	Year
¥	For Reference Onl		st can be provide							<u> </u>	
F.E	15. International Shipments	Import to U.S.	[Export from U		•					
	Transporter Signature (for export 16. Transporter Acknowledgment)				Date leavi	ig 0.5.					
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RAN	Transporter 2 Printed/Typed Nat	me		Sign I	nature				Month 	Day	Year
<u>-</u>	17. Discrepancy			L						L	
Î	17a, Discrepancy Indication Spa	ice Quantity	Туре		Residue		Partial Rey	ection		Full Rejec	tion
ı					Manifest Reference N	umber:		-			
DESIGNATED FACILITY	17b. Alternate Facility (or General	etor)					U.S. EPA ID N	lumber			
õ	Facility's Phone: 17c. Signature of Alternate Facility	ity for Generator					<u> </u>		Month	Day	Year
VATE	or endiamenta di Vatalilitta I, Stilli	-0 to solisions!		1					1	,	
- DESIG					e de la companya de La companya de la co						
	18. Designated Facility Owner of	r Operator: Certification of rece	ipt of materials covered by the	manifest except	as noted in Item 17a	-11.300 G*30e1* 100	1 marc 3 mars in 1895, W. W. Co.	2 15 16 16 W W. C.	word A and the HOLE A W. Well.	wash iso	1000000
¥	Printed/Typed Name		•		nature				Month	Day	Year

	ON-HAZARDOUS	1. Generator ID Number		2. Page 1	of 3. Emerger	ncy Respons	e Phone	4. Waste Tr	acking Nu	mber			
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40 PE	0 MARSHALL	AII, C/O NAV ROAD, ATTN: HI 96860-31	(b) (6) 139	OMMAND, CO		421 RED F		PELINE	55)		HIC,	7141	-02
	Insporter 1 Company Nam		3U\$4					U.S. EPA ID I	Number				
P.A. 7. Yr.	CIFIC COMME insporter 2 Company Nam	RCIAL SERVIC	ES, LLC.		808-545	-4599		U.S. EPA ID I	R O Number	0_0_0	9.	7_8_	2_4_
UN	ITEK SOLVEN	T_SERVICES, Id Site Address	INC.~OAHU		808-682	-8284-		U.S. EPA ID	98	2 4	4 3	7 1	-5
UN 91 KA	ITEK SOLVEN ~125 KAOMI POLEI, HI	T SERVICES,								824	4	3 7	1 5
Facili	ty's Phone:	808-682-6	8284			10, Cont	ainers	11 Talai	12. Unit	Т			
	9. Waste Shipping Name	e and Description			-	No.	Туре	11. Total Quantity	Wt./Vol.		4		
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enox Metals, **LLC**

91-185 KALAELOA BLVD. KAPOLEI, HAWAII 96707

No. 44094

PUBLIC WEIGHT CERTIFICATE

PHONE: (808) 682-5539

Seller EDBED

ERRG

Address Red Hill

I the undersigned, is the lawful owner or agent of the before mentioned commodity and have the lawful right to sell or dispose of said scrap.

11740

I

5082

Tare

Gross

6658

Net

TRUCK/CAR LICENSE NO.	CONTAINER #
	201

COMMODITY .	LBS.	PRICE/LB.]
Scrap Metal	4658	155/TN		
'	3.33/11	1		
		TOTAL	516.1	

STATE OF HAWAII CERTIFICATE OF WEIGHTS AND MEASURES-DEPARTMENT OF AGRICULTURE WEIGHTS & MEASURES DIVISION. THIS IS TO CERTIFY THAT THE FOLLOWING MERCHANDISE WAS WEIGHED, MEASURED, OR COUNTED BY A LICENSED WEIGHTMASTER AND HIS SIGNATURE AND SEAL IS A RECOGNIZED AUTHORITY OF ACCURACY AS PRESCRIBED BY CHAPTER 486, HAWAII REVISED STATUTES AS AMENDED AND RULE 27.000/486.71

STATE OF HAWAR

SCALE WEIGHTMASTER /

Customer Signature

Container about 14 Full

Lenox Metals. LLC but celled in

91-185 KALAELOA BLVD. KAPOLEI, HAWAII 96707

No. 44721

PUBLIC WEIGHT CERTIFICATE

PHONE: (808) 682-5539

Seller ERRG

Address Red Hill

I the undersigned, is the lawful owner or agent of the before mentioned commodity and have the lawful right to sell or dispose of said scrap.

Gross

10

Tare

5028

Net

COMMODITY	LBS.	PRICE/LB.	AMOUNT
Steel Elbars	4102		
Shout Para	2.06/TN	155/TN	
		TOTAL	319.31

STATE OF HAWAII CERTIFICATE OF WEIGHTS AND MEASURES-DEPARTMENT OF AGRICULTURE WEIGHTS & MEASURES DIVISION. THIS IS TO CERTIFY THAT THE FOLLOWING MERCHANDISE WAS WEIGHED, MEASURED, OR COUNTED BY A LICENSED WEIGHTMASTER AND HIS SIGNATURE AND SEAL IS A RECOGNIZED AUTHORITY OF ACCURACY AS PRESCRIBED BY CHAPTER 486, HAWAII REVISED STATUTES AS AMENDED AND RULE 27.000/486.71

STATE OF HAWAII SCALE

WEIGHTMASTER

Customer Signature



Lenox Metals, LLC 91-185 KALAELOA BLVD.

KAPOLEI, HAWAII 96707

No. 44924

PUBLIC WEIGHT CERTIFICATE

PHONE: (808) 682-5539

	State Commission for the Commission of the Commi	se of said s	
	15	Gross	
5226		Tare	
1832		Net	
RUCK/CAR LICENSE	NO.	CONTAINE	R.#
	SI	4n 33	
COMMODITY	LBS.	PRICE/LB.	AMOUNT
>CYALT ELEMAN	11774		
	<u> 1941 (1945) di Albanda (1960)</u> 1985 (1961) - Francisco (1961)	TOTAL	vener bir dir.



Lenox Metals, LLC 91-185 Kalaeloa Blvb. Kapolei, Hawaii 96707

No AATRA

Contract the second	140. 24 24 1 CV 24
PUBLIC WEIGHT	CERTIFICATE
PHONE: (808)	682-5539
Seller_ERRG.	
Address Red Dill	
I the undersigned, is the law before mentioned comm lawful right to sell or di	nodity and have the
eniss in	Gross
73.08	Tare
797	
14947	Net
TRUCK/CAR LICENSE NO.	CONTAINER #
	54
Bergerika dawar esta.	andra an The second and and and and andra
COMMODITY	420-01-7
JULY 1484	
743	TN 135/74
10일 : 10	1/0.1454 / C.E.A. 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1

4	COMMODITY	LBS.	PRICE/LB.	AMOUNT	
Z	DUCK KING	14847		V41 1. 7	
	Million Control	フリジナト	135/74	14 to 1	
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				24.5	
		100			•
Ś			TOTAL	1851.4	5

STATE OF HAWAII CERTIFICATE OF WEIGHTS AND MEASURES DEPARTMENT OF AGRICULTURE WEIGHTS & MEASURES DIVISION. THIS IS TO CERTIFY THAT. THE FOLLOWING MERCHANDISE WAS WEIGHED, MEASURED, OR COUNTED BY A LICENSED WEIGHTMASTER AND HIS SIGNATURE AND SEAL IS A RECOGNIZED AUTHORITY, OF ACCURACY AS PRESCRIBED BY CHAPTER 486, HAWAII REVISED STATUTES AS AMENDED AND RULE 27,000/486.71.

	STATE OF HAWAII	pe :
	SCALE DATE	/
	WEIGHTMASTER TIME	
· · · :		

Customer Signature

RON PEDERSEN & ASSOC: - (808) 845-9399

Customer Signature



Lenox Metals, LLC 91-185 KALABLOA BLVD. KAPOLEI, HAWAH 96707

Seller_ERRG

PUBLIC WEIGHT CERTIFICATE

PHONE: (808) 682-5539

	Address Marked c					Address L
	I the undersigned, is to before mentioned lawful right to se	d commodit	y and have	the !	And A company of the	befo lawfu
	3124 6106	Lin	iross are		error per l'Aggio e e un problème problème per grande problème per grande per per per per per per per per per pe	5
	TRUCK/CAR LICENSE	NO.	CONTAINE	R#		TRUCK/CA
			108.			
	COMMODITY	LBS.	PRICE/LB.	AMOUNT		COM
	Jack Mx	6106	est tet, tes			 SHOLL
	Page + Speeding	3.05 7N				
, .	sailes love on the		and the			107
		6. A. C.				
	Jahren de de					
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			TOTAL	L		
	STATE OF HAWAII CERTIFICATE OF AGRICULTURE WEIGHTS & THAT THE FOLLOWING MER COUNTED BY A LICENSED WEI IS A RECOGNIZED AUTHORITY 486, HAWAII REVISED STATUT NO. STATE OF HAWAII SCALE WEIGHTMASTER	MEASURES DIN CHANDISE WAS GHTMASTER AN OF ACCURACY	VISION. THIS IS WEIGHED, ME ID HIS SIGNATU AS PRESCRIBED	S TO CERTIFY ASURED, OR RE AND SEAL BY CHAPTER 000/486,71.		STATE OF HAW OF AGRICULTI THAT THE FO COUNTED BY IS A RECOGNIZ 486, HAWAII R



Lenox Metals, LLC 91-185 Kalaeloa Blvd. Kapolei, Hawaii 96707

PUBLIC WEIGHT CERTIFICATE

PHONE: (808) 682-5539

Seller KRG						
Address Red Hill						
I the undersigned, is the lawful owner or agent of the before mentioned commodity and have the lawful right to sell or dispose of said scrap.						
Gross Gross						
5294		Tare				
12,061	١	let				
TRUCK/CAR LICENSE	VO .	CONTAINE	R#			
	Bh	16 52				
		·				
COMMODITY	LBS.	PRICE/LB.	AMOUNT			
YEL Yege	12061					
- 127, Shal	6.03 Tal					
		TOTAL				
STATE OF HAWAII CERTIFICATE OF WEIGHTS AND MEASURES-DEPARTMENT OF AGRICULTURE WEIGHTS & MEASURES DIVISION. THIS IS TO CERTIFY THAT THE FOLLOWING MERCHANDISE WAS WEIGHED, MEASURED, OR COUNTED BY A LICENSED WEIGHTMASTER AND HIS SIGNATURE AND SEAL IS A RECOGNIZED AUTHORITY OF ACCURACY AS PRESCRIBED BY CHAPTER 486, HAWAII REVISED STATUTES AS AMENDED AND RULE 27.000/486.71.						

STATE OF HAWAR	I.D. Type
SCALE WEIGHTMASTER	DATE 7 13

Customer Signature

Customer Signature

Transaction # 142137 \ 101152 \ Acct: LENOX METALS, LLC
Truck # 396TSD Trailer#
Fleet# 396TSD Tag#

Transac: 1 Truck # Payment: 1 Change

Vehicle: 20 Not Specified

Origin: 7 Campbell Ind. Park Material:300WEIGH ONLY by FF Destin: 1 MHG - Leeward Date: 5/19/2011 5/19/2011
Time: 7:26:58 AM 7:47:43 AM OSM:21
ScaleOp: AO AO Site:LW
Pounds Tons
GrossWt 44,700 22.35 B Scale
Tare Wt 30.240 15.12 B Scale
Net Wt 14,460 7.23

Rate \$ 22.00 /FF QTY 0
Tip \$ 22.00
Spec \$ 0.00
Tax \$ 1.04
Total Fee \$ 23.04 ---Charge---

Tend \$ 0.00 Chge \$ 0.00

Remark: RED HTLL ERRG 51
Message:
Signature:

1120-65

Hawaiian Earth Products - Leeward

Dir: IN

Transaction # 143998 (101152)
Acct: LENOX METALS, LLC
Truck # 396TSD Trailer#
Fleet# 396TSD Tag#

Transac: 1 Truck # Payment: 1 Charge

Vehicle: 20 Not Specified

Origin: 7 Campbell Ind. Park Material:300WEIGH ONLY by FF Destin: 1 MHG - Leeward

---In-----Out----Date: 6/8/2011 6/8/2011 Time: 1:48:12 PM 2:17:14 PM . OSM:29 ScaleOp: SAS SAS Site: LW Pounds Tons GrossWt 45,060 22.53 B Scale Tare Wt 29.760 14.88 B Scale Net Wt 15,300 7.65

Rate \$ 22.00 /FF QTY 0
Tip \$ 22.00
Spec \$ 0.00
Tax \$ 1.04
Total Fee \$ 23.04 ---Charge

Tend \$ 0.00 Chge \$ 0.00

Remark: RED HILL ERRG 54 Message: HAVE A NICE DAY! Signature:

(b) (6)



No. 46266

PUBLIC WEIGHT CERTIFICATE

PHONE: (808) 682-5539

Seller EXR	<u> </u>					
Address ACALIUC	F4	let 17	VIIIT/			
I the undersigned, is to before mentioned lawful right to se	d commodi	ty and have	e the			
10515 1 4040 	TO T	Gross Fare Vet CONTAINE 203	R #			
COMMODITY	LBS.	PRICE/LB.	AMOUNT			
STATE OF HAWAII CERTIFICATE OF AGRICULTURE WEIGHTS &						
OF AGRICULTURE WEIGHTS & MEASURES DIVISION. THIS IS TO CERTIFY THAT THE FOLLOWING MERCHANDISE WAS WEIGHED MEASURED, OR COUNTED BY A LICENSED WEIGHT MASTER AND HIS SIGNATURE AND SEAL IS A RECOGNIZED AUTHORITY OF ACCURACY AS PRESCRIBED BY CHAPTER 486, HAWAII REVISED STATUTES AS AMENDED AND RULE 27.000/486.71. NO. STATE OF HAWAII. BOALE DATE						
SCALE WEIGHTMASTER	DATE TIME_	<u> </u>	/ <i>E</i> S			
Custo	omer Signat	ure.				
LENOX-PWC-3 (Rev 4/08)	RON	PEDERSEN & ASSO	oC (808) 845-9399			



Lenox Metals, LLC 91-185 Kalaeloa Blvd. Kapolei, Hawaii 96707

No ARPER

Address			1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
I the undersigned, is to before mentioned lawful right to se	d commodit	y and have	the
	- C	iross	
4942	Ň	arë let	
TRUCK/CAR LICENSE	Self-databatta-transference and a profession of the	CONTAINE	R#
		105	
COMMODITY SKELL PIDES	LBS: 10.9/3	PRICE/LB.	AMOUNT
		TOTAL	
STATE-OF HAWAII CERTIFICATE OF AGRICULTURE WEIGHTS & THAT THE FOLLOWING MER COUNTED BY A LICENSED WEI IS A RECOGNIZED AUTHORITY 486, HAWAII REVISED STATUT	MEASURES DIS CHANDISE WAS IGHTMASTER AN OF ACCURACY	VISION. THIS IS WEIGHED, ME ID HIS SIGNATU AS PRESCRIBED O AND RULE 27	S TO CERTIFY ASURED, OF RE AND SEAL BY CHAPTER
NO.	The state of the s		

LENOX-PWC-3 (Rev 4/08)

RON PEDERSEN & ASSOC + (808) 845-9399

Transaction # 141661 < 101152 > Acct: LENOX METALS, LLC
Truck # 396TSD Trailer#
Fleet# 396TSD Tag#

Transac: 1 Truck # Payment: 1 Charge

Vehicle: 20 Not Specified

Origin: 7 Campbell Ind. Park Material:300WEIGH ONLY by FF

Destin: 1 MHG - Leeward

----In----- ----Out----Date: 5/13/2011 5/13/2011 Time: 9:14:50 AM 9:45:09 AM OSM:30 ScaleOp: ΑÖ A O Site: LW Pounds Tons GrossWt 49,320 24.66 B Scale Tare Wt 29,480 14.74 B Scale Net Wt 19,840 9.92

Rate \$ 22.00 /FF QTY 0
Tip \$ 22.00
Spec \$ 0.00
Tax \$ 1.04
Total Fee \$ 23.04 ---Charge

Tend \$ 9.00 Chge \$ 9.00

Remark: FOPCO RED HILL 51
Message:
Signature:

Hawaiian Earth Products - Leeward

Dir: IN

Transaction # 143465 < 101152 > Acct: LENOX METALS, LLC Truck # 396TSD Trailer# Fleet# 396TSD Tag#

Transac: 1 Truck # Payment: 1 Charge

Vehicle: 20 Not Specified

Origin: 7 Campbell Ind. Park Material:300WEIGH ONLY by FF

Destin: 1 MHG - Leeward

Date: 6/2/2011 6/2/2011 Time: 11:00:53 AM 11:32:38 AM 0SM:32 SAS Site: LW ScaleOp: SAS Tons Pounds 24.77 B Scale 49,540 GrossWt 29,840 14.92 B Scale Tare Wt Net Wt 19,700 9.85 22.00 /FF QTY 0 Rate \$

Rate \$ 22.00 /FF QTY 0
Tip \$ 22.00
Spec \$ 0.00
Tax \$ 1.04
Total Fee \$ 23.04 --- Charge-

Tend \$ 0.00 Chge \$ 0.00

Remark: RED HTH EOPCO 203
Message:
Signature:

Transaction # 143744 < 101152 > Acct: LENOX METALS, LLC Truck # 396TSD Trailer# Fleet# 396TSD Tag#

Transac: 1. Truck # Payment: 1 Charge

Vehicle: 20 Not Specified

Origin: 7 Campbell Ind. Park Material:300WEIGH ONLY by FF Destin: 1 MHG - Leeward Date: 6/6/2011 6/6/2011
Time: 9:40:21 AM 10:11:15 AM 0SM:31
ScaleOp: SAS Site:LW
Pounds Tons
GrossWt 49,680 24.84 B Scale
Tare Wt 29,960 14.98 B Scale

9.86

Rate \$ 22.00 /FF
Tip \$ 22.00
Spec \$ 0.00
Tax \$ 1.04
Total Fee \$ 23.04

19.720

Net Wt

---Charge---Tend \$ 0.00 Chge \$ 0.00

OTY Ø

Remark: FOPCO 51 RED HILL

Message: Signature: **(b)** (6)

Hawaiian Earth Products - Leeward

Dir: IN

Transaction # 145609 < 101152 > Acct: LENOX METALS, LLC Truck # 396TSD Trailer# Fleet# 396TSD Tag#

Transac: 1 Truck # Payment: 1 Charge

Vehicle: 20 Not Specified

Origin: 7 Campbell Ind. Park Material:300WEIGH ONLY by FF Destin: 1 MHG - Leeward

Date: 6/24/2011 6/24/2011 Time: 7:20:40 AM 7:50:58 AM 05M:30 ScaleOp: SAS SAS Site:LW Pounds Tons GrossWt 49,780 24.89 B Scale Tare Wt 29,480 14-74 B Scale Net Wt 20,300 10.15

Rate \$ 22.00 /FF QTY 0
Tip \$ 22.00
Spec \$ 0.00
Tax \$ 1.04
Total Fee \$ 23.04 --- Charge

Remark: RED HILL SORTO 202 Message: Signature: Transaction # 146194 (101152)
Acct: LENOX METALS, LLC
Truck # 396TSD Trailer#
Fleet# 396TSD Tag#

Transac: 1 Truck # Payment: 1 Charge

Vehicle: 20 Not Specified

Origin: 7 Campbell Ind. Park Material:300WEIGH ONLY by FF Destin: 1 MHG - Leeward

----In----- ----Out----Date: 6/29/2011 6/29/2011 Time: 10:17:54 AM 10:42:08 AM OSM:24 AO -ScaleOp: A O Site:LW Pounds Tons GrossWt 42.240 21.12 B Scale Tare Wt 29,280 14.64 B Scale 12,960 6.48 Net Wt Rate \$ 22.00 /FF OTY Ø

Rate \$ 22.00 /FF QTY 0
Tip \$ 22.00
Spec \$ 0.00
Tax \$ 1.04
Total Fee \$ 23.04 --- Charge

Tend \$ 0.00 Chge \$ 0.00

Remark: REO HILL FOPCO 203 ATTICE

Message: Eff (b) (6) 11 Price Increase on outgoing product.

Signature:__

Hawaiian Earth Products - Leeward

Dir: IN

Transaction # 147052 < 101152 > Acct: LENOX METALS, LLC Truck # 162TRT Trailer# Fleet# 162TRT Tag#

Transac: 1 Truck # Payment: 1 Charge

Vehicle: 20 Not Specified

Origin: 18 Hawaiian Earth Prod.

Material:300WEIGH ONLY by FF Destin: 1 MHG - Leeward

Date: 7/7/2011 7/7/2011 Time: 10:27:14 AM 10:40:09 AM OSM:13 SAS ScaleOp: SAS Site: LW Pounds Tons GrossWt 51,240 25.62 B Scale Tare Wt 29,340 14.67 B Scale 21,900 10.95 Net Wt 22.00 /FF QTY Ø Rate \$ 22.00 Tip \$ Spec \$ 0.00 1.04 Tax \$ ---Charge---Total Fee \$ 23.04 Tend \$ 0.00 Chge \$ 0.00

----In----- ----Out----

Remark: FOPCO RED HILL

Message: Effective y 1st- Price Increase on outgoing product.

Signature: (b) (6)

```
Fransaction # 136903 ( 101152 )
Acct: LENOX METALS, LLC
Truck # 396TSD Trailer#
Fleet# 396TSD Tag#
```

Transac: 1 Truck # Payment: 1 Charge

Vehicle: 20 Not Specified

Origin: 7 Campbell Ind. Park Material:300WEIGH ONLY by FF

Destin: 1 MHG - Leeward

```
Date: 3/24/2011 3/24/2011
Time: 12:06:37 PM 1:10:23 PM
                         0SM:64
              AO
ScaleOp:
        A O
                         Site:LW
        Pounds
               Tons
GrossWt 43,920
               21.96 B Scale
Tare Wt 29,360 14.68 8 Scale
Net Wt
       14,560
               7.28
Rate $
           22.00 /FF
                    QTY Ø
Tip $
           22.00
Spec $
           0.00
Tax $
           1.04
Total Fee $
           23.04
```

---Charge---Tend \$ 0,00 Chge \$ 0.00

206 ERRS FOPCO (REP HILL)

Message:

Signature:

Hawaiian Earth Products - Leeward

Dir: IN

Transaction # 136949 (101152) Acct: LENOX METALS, LLC Truck # 396TSD Trailer# Fleet# 396TSD Tag#

Transac: 1 Truck # Payment: 1 Charge

Vehicle: 20 Not Specified

Origin: 7 Campbell Ind. Park Material:300WEIGH ONLY by FF Destin: 1 MHG - Leeward

THE STATE STATE STATE	In	Out	NAME AND
Date: 3/25	/2011	3/25/2011	
Time: 7:30	:49 AM	7:58:36 AM	OSM:28'
ScaleOp:	A O	AO	Site:LW
	Pounds	Tons	
GrossWt .	47,640	23.82 B S	cale
Tare Wt	29,560	14.78 B S	cale
Net Wt	18,080	9.04	
Rate \$	22.0	00 /FF Q	TY 0
Tip \$	22.0	00	Part of the second

0.00 Spec \$ 1.04 Tax \$ Total Fee \$ 23.04 .---Charge---

Tend \$ 0.00 Chge \$ 0.00

FOFCO

Remark: ERRG RED

Message:

Signature:

Transaction # 138537 (101152)
Acct: LENOX METALS, LLC
Truck # 396TSD Trailer#
Fleet# 396TSD Tag#

Transac: 1 Truck # Payment: 1 Charge

Vehicle: 20 Not Specified

Origin: 7 Campbell Ind. Park Material:300WEIGH ONLY by FF Destin: 1 MHG - Leeward Date: 4/7/2011 4/7/2011 Time: 12:53:59 PM 2:00:11 PM OSM:66 ES ES Site: LW ScaleOp: Tons Pounds GrossWt 52,000 26.00 8 Scale Tare Wt 29,880 14.94 B Scale Net Wt 11.06 22,120 22.00 /FF OTY Rate \$

----Out----

Rate \$ 22.00 /FF QTY 0
Tip \$ 22.00
Spec \$ 0.00
Tax \$ 1.04
Total Fee \$ 23.04 ---Charge-

Tend \$ 0.00 Chge \$ 0.00

Remark: REMARKS FOR A SOME STATE OF A SOME STA

Hawaiian Earth Products - Leeward

Dir: IN

Transaction # 138924 < 101152 >
Acct: LENOX METALS, LLC
Truck # 396TSD Trailer#
Fleet# 396TSD Tag#

Transac: 1 Truck # Payment: 1 Charge

Vehicle: 20 Not Specified

Origin: 7 Campbell Ind. Park Material:300WEIGH ONLY by FF

Destin: 1 MHG - Leeward

----In----- ----Out----Date: 4/12/2011 4/12/2011 05M:36 ' Time: 9:14:28 AM 9:50:11 AM SAS Site: LW ScaleOp: SAS Pounds Tons GrossWt 46.540 23.27 B Scale 14.42 B Scale Tare Wt 28,840 Net Wt 17,700 8,85

Rate \$ 22.00 /FF QTY 0
Tip \$ 22.00
Spec \$ 0.00
Tax \$ 1.04
Total Fee \$ 23.04 ---Charge

Tend \$ 0.00 Chge \$ 0.00

RED HILL

Remark: FOPCO 206
Message:
Signature:

Transaction # 139578 < 101152 > Acct: LENOX METALS, LLC Truck # 396TSD Trailer# Fleet# 396TSD Tag#

Transac: 1 Truck # Payment: 1 Charge

Vehicle: 20 Not Specified

Origin: 7 Campbell Ind. Park Material: 300WEIGH ONLY by FF

Destin: 1 MMG - Leeward

_____n___ Date: 4/19/2011 4/19/2011 Time: 7:43:40 AM 8:06:34 AM ScaleOp: SAS SAS Site:LW Pounds Tons 25.44 B Scale. GrossWt 50,880 Tare Wt 29,720 14.86 B Scale 21,160 10.58 Net Wt

22.00 /FF Rate \$ 22,00 Tip \$ 0.00 Spec \$ 1.04 Tax \$ ---Charge---Total Fee \$ 23.04

> Tend \$ 0.00 Chae \$ 0.00

Remark: FOP<u>ro</u> Message: Signature:

Hawaiian Earth Products - Leeward

Dir: IN

Transaction # 140390 (101152) Acct: LENOX METALS, LLC Truck # 396TSD Trailer# Fleet# 396TSD Tag#

Transac: 1 Truck # Payment: 1 Charge

Vehicle: 20 Not Specified Origin: 7 Campbell Ind. Park

Material:300WEIGH ONLY by FF

Destin: 1 MHG - Leeward

____out---Date: 4/27/2011 4/27/2011 Time: 11:48:13 AM 12:54:28 PM / OSM:66 ScaleOp: SAS SAS Site: LW Tons Pounds GrossWt 49,120 24.56 B Scale <u>Tare Wt 29,620 14.81</u> B Scale 9.75 Net Wt 19,500

Rate \$ 22.00 /FF OTY Ø 22.00 Tip \$ 0.00 Spec \$ Tax \$ 1.04 Total Fee \$ 23.04

---Change---Tend \$ 0.00 Chge \$! 0.00

REDHILL FOPCO 203 Remark: Message: Signature:

Transaction # 141216 (101152)
Acct: LENOX METALS, LLC
Truck # 396TSO Trailer#
Fleet# 396TSO Tag#

Transac: 1 Truck # Payment: 1 Charge

Vehicle: 20 Not Specified

Origin: 7 Campbell Ind. Park

Material:300WEIGH ONLY by FF

Destin: 1 MHG - Leeward

and the state of t	1. 1 +		
Date: 5/	5/2011	5/6/2011	
Time: 3:	12:35 PM	3:29:50 PM	OSM:17
ScaleOp:	AO	AO	Site: LW
	Pounds	Tons	
GrossWt	48,180	24.09 B Sca	1 e
Tare Wt	29,380	14.69 8 Sca	le .
Net Wt	18,800	9.40	

Rate \$	22.00	155	QTY	Ø
Tip \$	22.00			
Spec \$	0.00			
Tax \$	1.04			
Total Fee	4 23 04		Char	A 174 .

Tend \$ 0.00 Chge \$ 0.00

Remark: FOPCO RED HILL 203

Message:

Signature:_

(9)(q)



Lenox 91-185 Kal Kapolei, Ha	aeloa wah 9	BLVD. 6707	No. 4	4002				
	PUBLIC WEIGHT CERTIFICATE PHONE: (808) 682-5539							
seller <u>FOPCO</u>								
Address Rid Hill	Address Red Hill							
before mentioned	I the undersigned, is the lawful owner or agent of the before mentioned commodity and have the lawful right to sell or dispose of said scrap.							
16300 1	LE	G	iross					
5028		T	are					
11,272		N	let					
TRUCK/CAR LICENSE	NO.		CONTAINE	R#				
	,	2	06					
COMMODITY	LI	BS.	PRICE/LB.	AMOUNT				
Mital Pipe	11,2	72	155/TN					
			TOTAL	873.58				
			10 1151511055	DEDI DELLE				
STATE OF HAWAII CERTIFICATE OF AGRICULTURE WEIGHTS THAT THE FOLLOWING MERC COUNTED BY A LICENSED WEIG IS A RECOGNIZED AUTHORITY 486, HAWAII REVISED STATUTE	MEASI HAND SHTMA OF AC	JRES DIV ISE WAS STER AN CURACY	/ISION. THIS IS WEIGHED, ME ID HIS SIGNATU AS PRESCRIBED AND RULE 27	S TO CERTIFY EASURED, OR RE AND SEAL BY CHAPTER .000/486.71.				
NO. STATE OF HAWAII SCALE WEIGHTMASTER		DATE TIME	3 / 25 4) <u>+</u>				
Cust	omer	Signati	ure					
	Customer Signature							

LENOX-PWC-3 (Rev 4/08)

RON PEDERSEN & ASSOC - (808) 846-9399

Hawaiian Earth Products - Leeward

Dir: IN

Transaction # 153038 (101152) manual Manager - Outran ACCT: LENOX METALS, LLC Date: 9/2/2011 9/2/2011 Truck # 396TSD Trailer# Time: 3:04:01 PM 3:21:55 PM OSM:18 Fleet# 396TSD Tag# ScaleOp: AO AΘ Site: LW Pounds Tons Transac: 1 Truck # GrossWt 47,340 23.67 B Scale Payment: 1 Charge Tare Wt 29,340 14.67 B Scale Vehicle: 20 Not Specified Net Wt 18,000 9.00 Origin: 7 Campbell Ind. Park Material: 300WEIGH ONLY by FF Rate \$ 22.00 /FF QTY . Ø Destin: 1 MHG - Leeward Tip \$ -22.00 Spec \$ 0.00 Tax \$ 1.04 Total Fee \$ 23.04 ---Charge---Tend \$ 0.00

Remark: FOPCO pen util 303
Message:
Signature:

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0.00

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