Wind erosion on Lanai is significant, exhibited by slightly consolidated to completely unconsolidated dune ridges formed by wind blown sand along the southeast portion of the island and deposition of soil from weathered basaltic rocks that form yellowish to reddish brown unconsolidated dunes on the north and northeast portion of the island (Macdonald, et al., 1983).

The soil at the site is classified as Lahaina silty clay, 3 to 7 percent slopes (LaB). The Lahaina series consists of well-drained soils developed in material weathered from basic igneous rock. In a representative profile, the surface layer consists of a reddish brown silty clay, the subsoil consists of a dusky red and dark reddish brown subangular blocky silty clay and silty clay loam. The substratum is soft, weathered basic igneous rock. Permeability is moderate, runoff is slow, and the erosion hazard is slight (USDA, 1972). The soil in the excavation consisted of a reddish brown silty clay and light brown weathered basalt.

1.4.2 Regional and Site Hydrogeology

The primary drinking water in the Hawaiian Islands is drawn from basal groundwater. Basal groundwater is formed by rainwater percolating down through soil and permeable volcanic rock. All of the island situated below sea level, except within rift zones of the volcanoes, is saturated with ocean salt water and thus forms a basal lens called the "Ghyben-Herzberg" lens. A zone of transition between the fresh groundwater and the ocean salt water occurs due to the constant movement of the interface as a result of tidal fluctuations, aquifer development and seasonal fluctuations in recharge and discharge (Macdonald, et al., 1983).

Downward percolation of rainwater may be stopped by impermeable layers such as dense lava flows, alluvial clay layers and volcanic ash. The groundwater then forms a perched or high level aquifer, which is not in contact with salt water. Recharge of the aquifer occurs in areas of high rainfall, which are the interior mountainous areas. The groundwater flows from the recharge areas to the areas of discharge along the shoreline. Frictional resistance to groundwater flow causes it to pile up within the island until it attains sufficient hydraulic head to overcome friction. Thus, basal groundwater tends to slope toward the shoreline.

The site is underlain by the Leeward Aquifer System, which is part of the Central Aquifer Sector on the island of Lanai. The aquifer is classified by Mink and Lau, 1993, with the system identification number 50102212 (11111). This system includes an unconfined high level aquifer in dike compartments. The groundwater in this aquifer is described as being currently in use and containing groundwater with a fresh salinity (<250 mg/l Cl^-). The groundwater is an irreplaceable drinking water source with a high level of vulnerability to contamination (Mink and Lau, 1993).

1.5 Site Background

Originally, the Power Plant facility reportedly had two USTs, a 12,000-gallon diesel UST and a 25,000-gallon diesel UST. In October 1989, Unitek Environmental Consultants (UEC) removed the 25,000-gallon UST. One of the soil samples collected beneath the UST had a TPH-D concentration that exceeded the DOH recommended cleanup goal in effect at that time. Therefore, soil borings were advanced in 1991 (UEC) and 1992 (UEC and Brewer Environmental Services) to determine the extent of petroleum-impacted soil.

Findings of the 1991 and 1992 subsurface investigations prompted Brewer Environmental Services (BES) to excavate an estimated 90 cubic yards of soil from the southeastern portion of the former UST excavation in 1993. Confirmation samples collected after removal of suspect petroleum-impacted soil indicated that a sufficient quantity of soil was removed. Subsequent stockpile sampling activities indicated that the excavated soil was suitable for use as fill material.

In a letter dated November 15, 2000, the DOH SHWB concurred with BES' conclusion that excavated soil could be used as fill material. However, the DOH expressed its concern with a reported 12,000-gallon diesel UST still existing at the facility.

On January 13, 2003, ETC mobilized to the project site with its subcontractors, M. Nakai Repair Service, Ltd. (M. Nakai) and Unitek Solvent Services, Inc. (USSI). A 5,500-gallon capacity diesel fuel UST was excavated and removed from the ground by M. Nakai. ETC believes that the 5,500-gallon diesel fuel UST is the 12,000-gallon UST referred to by UEC, BES, and the DOH SHWB in previous investigations and correspondence. USSI personnel then decommissioned the UST, removing approximately 70 gallons of residual product and sludge, which were placed into 55-gallon drums. USSI shipped the drums of residual product and sludge to their Resource Recovery facility in Campbell Industrial Park on Oahu. The empty tank shell was left on-site pending future scrap metal disposal activities. Associated UST piping did not appear to contain any residual product and was therefore cut at the limits of the excavation and left in-place.

During UST closure activities, petroleum-impacted soil was encountered in the excavation. Therefore, M. Nakai proceeded to remove stained soil to the extent feasible. All visually-stained soil was removed with the exception of stained soil within the west excavation wall, which could not be removed due to the proximity of the Power Plant structure. Stained soil in the west excavation wall was observed at a depth of approximately 4 feet below ground surface (bgs) to 15 feet bgs. An estimated 170 cubic yards of petroleum-impacted soil was removed and placed on and covered with polyethylene sheeting.

Two soil samples were collected from the bottom of the UST excavation at a depth of approximately 13 feet bgs. One soil sample was collected from the bottom of the overexcavation (approximately 22 feet bgs at that location) near the west wall to confirm that the vertical extent of contamination had been delineated. One soil sample was collected along the west portion of the north wall at the bottom of the excavation (approximately 23 feet bgs) to confirm that the lateral extent of contamination had been delineated to the north. One soil sample was collected from the west excavation wall (approximately 8 feet bgs) from the area that appeared to have the heaviest petroleum staining to determine the mass concentrations that would be left in the subsurface.

Analytical results indicated that, with the exception of the sample collected from the west sidewall of the overexcavation with the heaviest visual staining, all samples had constituent concentrations below applicable Hawaii Department of Health (DOH) Tier 1 Action Levels for soil in area where a drinking water source is threatened and where rainfall amounts to less than 200 centimeters per year (Tier 1 Action Levels). The sample collected from the west sidewall of the overexcavation had total petroleum hydrocarbons as diesel (TPH-D) concentrations of 7,800 milligrams per kilogram (mg/kg), exceeding its respective DOH Tier 1 Action Level of 5,000 mg/kg. All other constituents in the sample were below DOH Tier 1 Action Levels. No groundwater was encountered within the excavation at any time.

Based on physical observations and analytical data, ETC recommended that an additional subsurface investigation be performed to delineate the extent of petroleum-impacted soil. Furthermore, ETC recommended that the petroleum contaminated soil stockpile be tilled twice a month and sampled after six months to one year to determine whether the soil could be reused on-site as fill material.

Castle & Cooke Resorts, LLC (CCR) received a letter from the DOH Solid and Hazardous Waste Branch (SHWB) dated May 10, 2004. The DOH requested that CCR 1) sample the approximate 170 cubic yard stockpile of petroleum contaminated soil at a rate of one sample per 20 cubic meters for the first 100 cubic meters of contaminated soil and at a rate of one sample per additional 100 cubic meters of contaminated soil; 2) prepare a work plan describing additional delineation and sampling activities; and 3) complete work plan activities. This work plan and the activities described herein will be performed to satisfy the DOH SHWB's request.

2.0 PURPOSE AND SCOPE OF PROPOSED WORK

2.1 Purpose and Scope

This work plan has been prepared to describe activities that will be performed at the facility to: 1) delineate subsurface diesel contamination identified during closure of the 5,500-gallon UST; and 2) determine diesel and related constituent concentrations existing in the contaminated soil stockpile. The activities will be performed in general accordance with the Technical Guidance Manual for UST Closure and Release Response, 2nd Edition, DOH, March 2000.

2.2 Modification

This Plan may be modified at anytime to accommodate newly discovered information or to address safety and health concerns.

3.0 SCHEDULE OF PROPOSED ACTIVITIES

The following conceptual schedule is based on DOH approval of this work plan. Note that this schedule is contingent upon the scope of work described herein and is an estimate only.

Activity	Week 1	Week 2	Week 3	Week 4	Week 5
Utilities Toning					
Sampling					
Sample Analysis					
Prepare Report					

DOH acceptance of the Work Plan is Day 0 of this schedule.

The schedule shown above is only a conceptual model. Actual time frames to perform various activities may or may not require the time periods described. Efforts will be made to expedite the process to the extent feasible.

4.0 STATEMENT OF INTENDED DATA USAGE

The objective of site activities is to delineate the extent of petroleum hydrocarbon contamination stemming from the UST system that previously existed at the subject property and to determine diesel and related constituent concentrations in the contaminated soil stockpile. Soil sample data shall be compared to DOH Tier 1 Action Levels for sites located over drinking water aquifers and where rainfall amounts to less than or equal to 200 centimeters per year.

5.0 DESCRIPTION OF PROPOSED ACTIVITIES

Based on previous work at the facility, ETC is proposing the following scope of work:

1. Prepare this work plan to describe activities proposed at the facility.
2. Obtain the services of a subcontractor to conduct underground utilities toning.
3. Obtain the services of a subcontractor to utilize a direct-push technology rig to collect subsurface soil samples.
4. Advance three soil borings (approximate locations shown in Figure 2) adjacent to the Power Plant structure to determine the extent of diesel fuel contamination in subsurface soil.
5. Field screen subsurface soil using visual/olfactory observations and by analyzing volatile organic compound concentrations in soil headspace using a photoionization detector (PID).
6. Collect up to two soil samples from each boring where visual/olfactory observations indicate the potential presence of petroleum contamination stemming from the UST or at approximate depths of 10 feet bgs and 20 feet bgs.
7. Manually probe the contaminated soil stockpile and collect up to five soil grab samples from areas where PID readings are the highest and/or soil appears stained. Samples shall be collected at depths of at least 18 inches below the stockpile surface.
8. Submit the soil samples to a local laboratory for analysis of TPH-D via EPA Method 8015 Modified, benzene/toluene/ethylbenzene/xylenes (BTEX) via EPA Method 8021b, and polynuclear aromatic hydrocarbons (PAHs) via EPA Method 8100.
9. Prepare a report documenting field activities, sampling procedures, analytical results, and associated figures and photographs.

6.0 DOCUMENTATION AND REPORTING

6.1 Field Documentation

Complete and accurate documentation of field activities is critical to the technical defensibility of work. Such documentation includes logbooks, field data sheets, requests for analyses, chain of custody records, and photographs.

When more than one person is present for field activities, one member of the sampling team will be designated to take all field notes and records. All pertinent information will be recorded in these logbooks from the time each individual arrives at the jobsite to the time each individual departs from the jobsite. Logbook entries must be dated, legible, and contain accurate and inclusive documentation of investigation activities. Logbook entries will be made in indelible ink.

6.2 Written Report

A report describing the above mentioned subsurface investigation activities, including data and findings, written and photographic documentation, and conclusions will be submitted to CCR for subsequent submittal to the DOH.

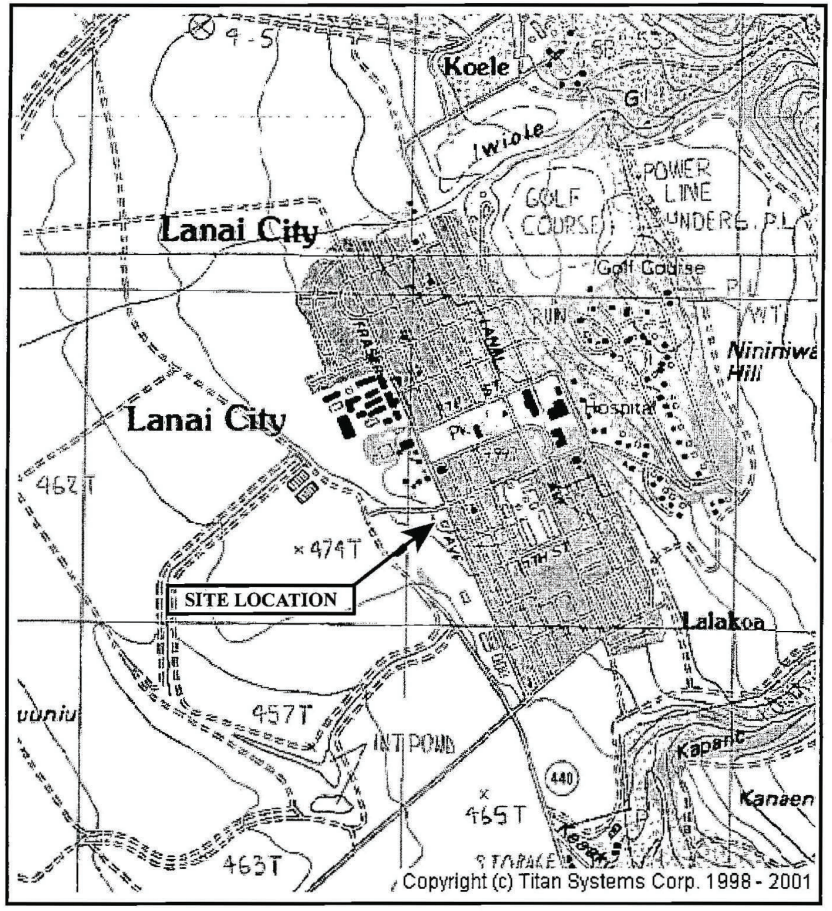
7.0 QUALIFICATIONS OF ENVIRONMENTAL PERSONNEL

Mr. Damon Hamura (ETC, 839-7222) will be the Project Manager and responsible for carrying out and modifying this Plan. ETC will be responsible for providing overall site operations including coordination with subcontractors, collecting soil samples, documenting site activities, and preparing the written report.

ETC anticipates subcontracting Hawaii Geophysical Services to perform underground utilities toning and Environmental Services Network – Pacific (ESN-Pacific) to perform boring advancement and laboratory analysis of soil samples.

8.0 REFERENCES

- Brewer Environmental Services, "Letter Report, Excavation Activities and Soil Management Unit Sampling and Analysis," January 18, 1994.
- EnviroServices & Training Center, LLC, "Underground Storage Tank Closure and Release Response Report, Lanai Power Plant, 750 Fraser Avenue," April 2003.
- Macdonald, G.A., A.T. Abbot, and F.L. Peterson, "Volcanoes and the Sea," University of Hawaii Press, 1983.
- Mink, John F. and Stephen L. Lau, "Aquifer Identification and Classification for Lanai: Groundwater Protection Strategy for Hawaii," April 1993.
- State of Hawaii Department of Health. Technical Guidance Manual for Underground Storage Tank Closure and Release Response, 2nd Edition. March 2000.
- US Department of Agriculture Soil Conservation Service, "Soil Survey of the Islands of Kauai, Oahu, Maui, Molokai, and Lanai, State of Hawaii," 1972.
- US Department of Interior Geological Survey. 1983. Lanai South Quadrangle, Island of Lanai, 7.5 Minute Series (Topographic Map).



U.S. Department of Geological Services
Lanai South Quadrangle
Island of Lanai, 7.5 Minute Series

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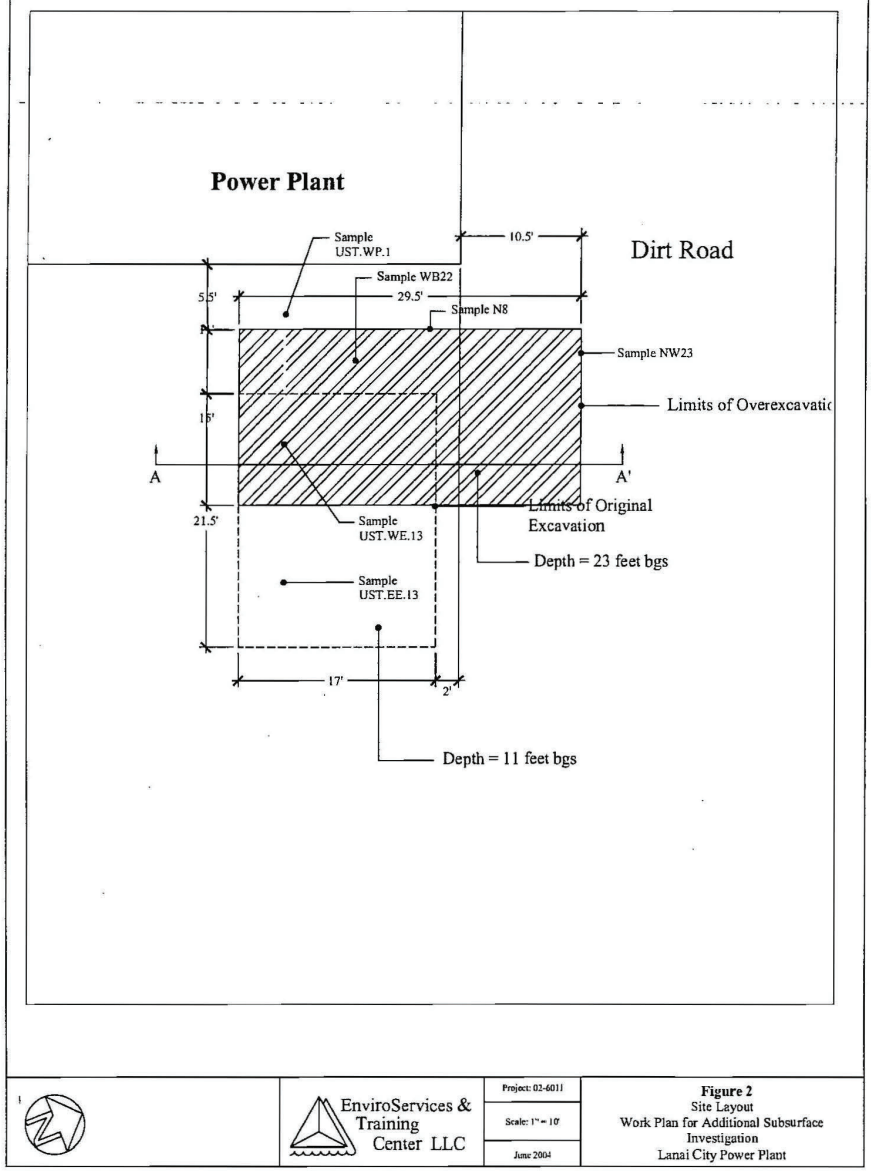
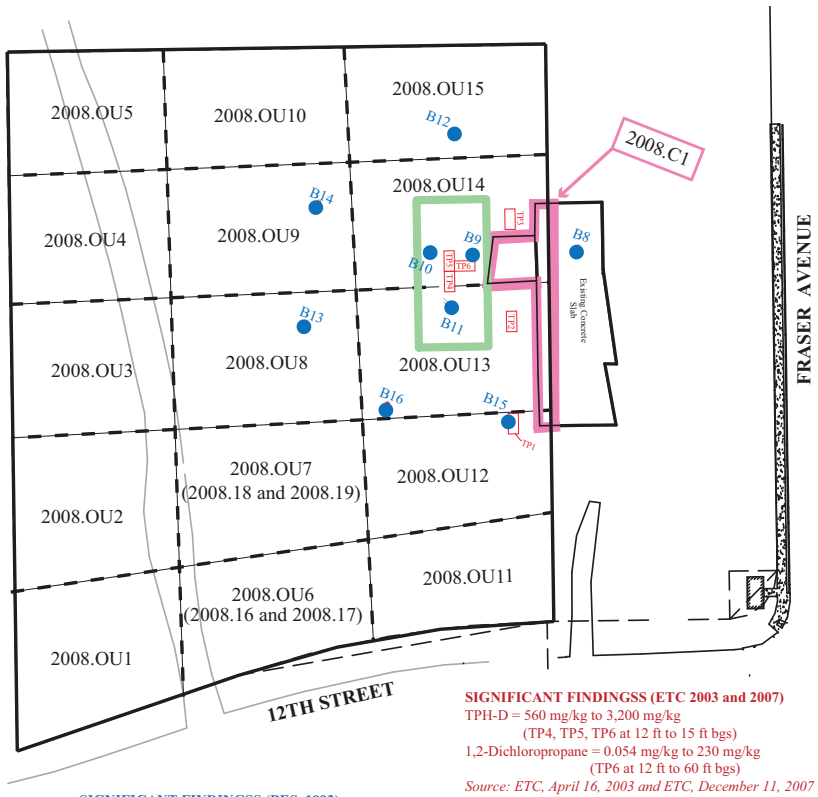
EnviroServices & Training Center, LLC	Site Location Map	
	Work Plan for Additional Subsurface Investigation	
	Client: Castle & Cooke Resorts, LLC	
ETC Project No. 02-6011	Figure 1	



	EnviroServices & Training Center LLC	Project: 02-6011 Scale: 1" = 10' June 2004	**Figure 2** Site Layout Work Plan for Additional Subsurface Investigation Lanai City Power Plant



SIGNIFICANT FINDINGSS (BES, 1993)
TPH-D = 110 mg/kg to 5,100 mg/kg
(B9, B10, B11 at 26.5 ft to 103 ft bgs)
1,2-Dichloropropane = 0.058 mg/kg to 0.18 mg/kg
(B9, B10, B11 at 31.5 ft to 66.5 ft bgs)
1,1,2,2-Tetrachloroethane = 0.006 mg/kg to 0.02 mg/kg
(B9, B10 at 11.5 ft to 56.5 ft bgs)
Lindane = 0.09 mg/kg to 0.7 mg/kg
(B9 at 26.5 ft to 61.5 ft bgs)
DDT = 6.1 mg/kg (B9 at 56.5 ft bgs)
Source: Brewer Environmental Services, July 13, 1993

SIGNIFICANT FINDINGSS (ETC 2003 and 2007)
TPH-D = 560 mg/kg to 3,200 mg/kg
(TP4, TP5, TP6 at 12 ft to 15 ft bgs)
1,2-Dichloropropane = 0.054 mg/kg to 230 mg/kg
(TP6 at 12 ft to 60 ft bgs)
Source: ETC, April 16, 2003 and ETC, December 11, 2007

SIGNIFICANT FINDINGSS (ETC 2008)
Multi-Increment Surface Soil Samples
DDD = 1.39 mg/kg to 2.88 mg/kg (OU13, OU14)
DDE = 0.812 mg/kg to 1.72 mg/kg
(OU7, OU8, OU10, OU13, OU14, OU15)
DDT = 0.895 mg/kg to 8.25 mg/kg
(OU7, OU8, OU10, OU13, OU14)
Chlordane = 5.17 mg/kg to 5.84 mg/kg (OU14, OU15)
Heptachor = 0.0899 mg/kg (C1)
Heptachlor Epoxide = 0.0389 mg/kg to 0.411 mg/kg
(OU1, OU3, OU4, OU6 to OU10, OU14, OU15)
Pentachlorophenol = 4.7 mg/kg (C1)
Dioxins/Furans (TEQ) = 316.94 ng/kg to 2097.20 ng/kg
(OU1, OU4 to OU15, C1)
Source: ETC, July 2008

0 20 40 60 feet
Approximate Scale

enviro SERVICES & TRAINING CENTER, LLC

ETC Project No. 13-6014

January 2014

Summary Data Figure
Former Emulsion Plant Area
Lanai City, Lanai, Oahu, Hawaii

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Table 1 - Analytical Results July 1993
All results in milligrams per kilogram (mg/kg)

Sample ID	TPH-D	Benzene	Toluene	Ethylbenzene	Xylenes	1,2-Dichloro propane	Chloro benzene	1,1,2,2-Tetrachloro ethane	1,2-Dichloro benzene	Lindane	DDE	DDT	DDD
B9-11.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.014	ND	ND
B9-21.5	ND	ND	ND	ND	ND	0.01	ND	ND	ND	ND	ND	ND	ND
B9-26.5	**330**	ND	0.006	ND	ND	0.02	ND	**0.01**	0.007	**0.3**	0.1	0.9	0.7
B9-31.5	**250**	ND	0.016	ND	ND	0.02	0.006	**0.008**	0.044	**0.2**	0.4	1.2	1.6
B9-41.5	**5100**	ND	0.034	0.025	0.26	0.016	0.042	**0.013**	0.22	**0.7**	0.3	1.1	0.9
B9-56.5	ND	0.005	0.07	0.022	0.096	**0.11**	0.06	**0.02**	0.15	ND	0.3	**6.1**	0.8
B9-56.5-57.5	25	ND	0.006	ND	0.008	ND	ND	ND	ND	ND	ND	ND	ND
B9-60.5-61.5	65	ND	0.003	ND	0.004	ND	ND	ND	ND	**0.09**	0.004	0.2	0.02
B9-64.0-65.0	90	ND	ND	ND	ND	ND	ND	ND	ND	0.005	0.015	0.1	0.022
B9-80.9-82	**2000**	ND	0.008	0.007	0.041	ND	ND	ND	ND	ND	ND	0.015	0.021
B9-102.5-103	**150**	ND	0.003	ND	0.008	ND	ND	ND	0.0077	ND	ND	ND	ND
B9-112.5-113	16	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
B10-11.5	ND	ND	ND	ND	ND	ND	ND	**0.013**	ND	ND	ND	ND	ND
B10-16.5	ND	ND	ND	ND	ND	ND	ND	**0.019**	ND	ND	ND	ND	ND
B10-21.5	ND	ND	ND	ND	ND	ND	ND	**0.008**	ND	ND	ND	ND	ND
B10-26.5	ND	ND	ND	ND	ND	ND	ND	**0.011**	ND	ND	ND	ND	ND
B10-31.5	ND	ND	ND	ND	ND	0.005	ND	**0.008**	ND	ND	ND	ND	ND
B10-36.5	ND	ND	ND	ND	ND	0.015	ND	**0.006**	ND	ND	ND	ND	ND
B10-41.5	ND	ND	ND	ND	ND	0.017	ND	ND	ND	ND	ND	ND	ND
B10-46.5	ND	ND	ND	ND	ND	0.013	ND	ND	ND	ND	ND	ND	ND
B10-51.5	ND	ND	ND	ND	ND	0.033	ND	ND	ND	ND	ND	ND	ND
B10-56.5	ND	ND	ND	ND	ND	0.027	ND	ND	ND	ND	ND	ND	ND
B10-61.5	ND	ND	ND	ND	ND	0.017	ND	ND	ND	ND	ND	ND	ND
B10-64.3-65.1	20	0.006	0.006	0.003	0.015	ND	ND	ND	ND	ND	ND	ND	ND
B10-66.5	**4200**	ND	0.023	ND	0.016	0.006	0.028	ND	0.007	ND	ND	ND	ND
B10-81.6-82.8	30	ND	ND	ND	0.003	ND	ND	ND	ND	ND	ND	0.009	ND
B10-82.8-83.25	20	0.015	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
B11-16.5	ND	ND	ND	ND	ND	0.01	ND	ND	ND	ND	ND	ND	ND
B11-21.5	ND	ND	ND	ND	ND	0.01	ND	ND	ND	ND	ND	ND	ND
B11-26.5	ND	ND	ND	ND	ND	0.02	ND	ND	ND	ND	ND	ND	ND
B11-31.5	ND	ND	ND	ND	ND	**0.059**	ND	ND	ND	ND	ND	ND	ND
B11-36.5	ND	ND	ND	ND	ND	**0.065**	ND	ND	ND	ND	ND	ND	ND
B11-41.5	ND	ND	ND	ND	ND	**0.058**	ND	ND	ND	ND	ND	ND	ND
B11-46.5	ND	ND	ND	ND	ND	0.13	ND	ND	ND	ND	ND	ND	ND
B11-51.5	ND	ND	ND	ND	ND	0.2	ND	ND	ND	ND	ND	ND	ND
B11-56.5	ND	ND	ND	ND	ND	**0.088**	ND	ND	ND	ND	ND	ND	ND
B11-61.5	ND	ND	ND	ND	ND	**0.075**	ND	ND	ND	ND	ND	ND	ND
B11-65.5	18	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B11-66.5	ND	ND	ND	ND	ND	**0.18**	ND	ND	ND	ND	ND	ND	ND
B11-81.5	**110**	ND	0.013	ND	0.005	ND	ND	ND	ND	ND	ND	ND	ND
B11-110	ND	ND	0.013	ND	0.005	ND	ND	ND	ND	ND	ND	ND	ND
B12-31.5	ND	ND	0.004	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
B12-51.5	ND	ND	0.003	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
B12-56.5	ND	ND	0.003	ND	ND	0.013	ND	ND	ND	ND	ND	ND	ND
B12-56-57	22	0.004	ND	0.004	0.012	ND	ND	ND	ND	ND	ND	ND	ND
B12-82-83.5	ND	ND	ND	ND	0.006	ND	ND	ND	ND	ND	ND	ND	ND
DOH EAL	**100**	**0.30**	**3.2**	**3.7**	**2.1**	**0.052**	**2.2**	**0.0012**	**0.75**	**0.075**	**1.4**	**1.7**	**2.0**

DOH EAL = Current Default (Lowest) EAL for unrestricted land use (i.e. residential) in areas where potential drinking water is threatened, nearest surface water is greater than 150m
ND = Not Detected above practical quantitation limits
NA = Not Analyzed
Boldfaced, shaded values = value exceeds EAL

Table 2: Analytical Results - ETC 2003 and 2007
All results in milligrams per kilogram (mg/kg)

Sample ID	TPH-D	Benzene	Toluene	Ethylbenzene	Xylenes	Acenaphthene	Benzo(a)pyrene	Fluoranthene	Naphthalene	1,2-dichloropropane	cis-1,3-dichloropropene	trans-1,3-dichloropropene
TP1.15	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TP4.12	**820**	ND	ND	ND	ND	ND	ND	0.62	ND	ND	ND	ND
TP4.15	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TP5.15	**600**	ND	ND	ND	ND	0.42	ND	ND	0.3	0.007	ND	ND
TP6.12	**560**	ND	ND	0.08	0.22	0.33	ND	ND	ND	**0.054**	ND	ND
TP6.15	**3200**	ND	ND	0.25	0.36	3.05	ND	ND	ND	**230**	ND	ND
TP6.1.30	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA
TP6.1.40	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA
TP6.1.50	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0446	NA	NA
TP6.1.60	NA	NA	NA	NA	NA	NA	NA	NA	NA	**0.26**	NA	NA
TP6.2.30	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA
TP6.2.40	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA
TP6.2.50	NA	NA	NA	NA	NA	NA	NA	NA	NA	**0.108**	NA	NA
TP6.2.59	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0499	NA	NA
DOH EAL	**100**	**0.30**	**3.2**	**3.7**	**2.1**	**120**	**0.15**	**460**	**4.4**	**0.052**	**0.015**	**0.015**

DOH EAL = Current Default (Lowest) EAL for unrestricted land use (i.e. residential) in areas where potential drinking water is threatened, nearest surface water is greater than 150m
ND = Not Detected above practical quantitation limit
Boldfaced, shaded values = value exceeds EAL
NA = No Applicable / Not Analyzed

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Table 3: Analytical Resutls - ETC 2008 - Metals (As/Pb/Hg)
EPA Method 6000s/7000s
All results in milligrams per kilogram (mg/kg)

Sample ID	Arsenic	Lead	Mercury	Notes
Average RSD	**1.44%**	**31.27%**	**13.09%**	
2008.OU1	*9.43*	31.1	0.284	
2008.OU2	*9.52*	21	0.1870	
2008.OU3	*9.71*	22.5	0.205	
2008.OU4	*9.35*	29.7	0.227	
2008.OU5	*9.62*	28.2	0.235	
2008.OU6	*9.71*	33.5	0.28	
2008.OU16	*10*	*20*	0.248	Field Replicate of 2008.OU6
2008.OU17	*9.71*	*19.4*	0.228	Field Replicate of 2008.OU6
2008.OU7	*9.8*	32.1	0.213	
2008.OU18	*10*	*20*	0.256	Field Replicate of 2008.OU7
2008.OU19	*9.8*	*19.6*	0.293	Field Replicate of 2008.OU7
2008.OU8	*9.52*	44.8	0.323	
2008.OU9	*9.62*	45.4	0.416	
2008.OU10	*9.62*	55.2	0.335	
2008.OU11	*9.3*	43.3	0.102	
2008.OU12	*9.71*	48.3	0.151	
2008.OU13	*9.9*	126	0.251	
2008.OU14	*10*	32.8	0.252	
2008.OU15	*10*	57.5	0.437	
2008.C1	*10*	*20*	0.145	
DOH EAL	**24**	**200**	**4.7**	

DOH EAL = Current Default (Lowest) EAL for unrestricted land use (i.e. residential) in areas where potential drinking water is threatened, nearest surface water is greater than 150m
Italicized values = not detected at the MDL, MDL value listed
Average RSD = average RSDs from the two sets of triplicate samples.
Adjusted concentrations = reported concentration plus the appropriate RSD value.
For triplicate samples, the appropriate RSD was added to the mean of the three reported values.
Adjusted concentrations were used to assess the site for environmental hazards.

Table 4: Analytical Results - ETC 2008 - Organochlorine Pesticides
EPA Method 8081
All results in milligrams per kilogram (mg/kg)

Sample ID	DDD	DDE	DDT	Chlordane	Dieldrin	Gamma BHC (Lindane)	Heptachlor	Heptachlor Epoxide	Alpha-Chlordane	Gamma-Chlordane	Bromacil	PCP	Notes
Average RSD	**64.98%**	**67.76%**	**67.96%**	**3.58%**	**3.62%**	**3.62%**	**27.15%**	**54.69%**	**69.84%**	**85.00%**	**20.30%**	**20.57%**	
2008.OU1	0.136	0.483	0.514	*0.0309*	*0.00375*	0.00428	0.00656	**0.182**	0.0761	0.144	*0.01*	0.021	
2008.OU2	0.135	0.257	0.353	*0.0292*	*0.00354*	0.00354	0.00475	0.0224	0.0225	0.056	*0.05*	0.012	
2008.OU3	*0.0187*	0.23	0.467	0.0308	*0.00374*	*0.00374*	*0.00374*	**0.0389**	0.0302	*0.00374*	0.045	0.013	
2008.OU4	*0.0185*	0.293	0.603	*0.0305*	*0.00369*	*0.00369*	0.0228	**0.0957**	*0.00369*	*0.00369*	0.107	0.03	
2008.OU5	*0.02*	0.292	0.545	*0.033*	*0.004*	*0.004*	0.0047	*0.004*	0.0618	*0.004*	0.398	0.021	
2008.OU6	0.43	0.669	0.901	*0.0298*	*0.00361*	*0.00361*	0.00575	**0.0449**	0.0718	*0.00361*	0.156	0.061	
2008.OU16	0.45	0.386	0.335	*0.0288*	*0.00349*	*0.00349*	0.0036	**0.0674**	0.0488	0.211	0.196	0.039	Field Replicate of 2008.OU6
2008.OU17	*0.00367*	*0.00367*	*0.00367*	*0.0303*	*0.00367*	*0.00367*	0.00391	***0.00367***	0.556	0.187	0.134	0.052	Field Replicate of 2008.OU6
2008.OU7	0.525	**1.57**	**1.52**	*0.0317*	*0.00385*	*0.00385*	0.00804	**0.0936**	0.122	*0.00385*	0.0913	0.059	
2008.OU18	0.962	**0.812**	**0.895**	*0.0293*	*0.00355*	*0.00355*	0.00462	**0.0787**	0.107	0.323	0.107	0.054	Field Replicate of 2008.OU7
2008.OU19	1.37	**0.817**	**1.18**	*0.0318*	*0.00386*	*0.00386*	0.00781	**0.0549**	0.138	0.295	0.138	0.04	Field Replicate of 2008.OU7
2008.OU8	0.617	**1.55**	**1.53**	*0.0307*	*0.00373*	*0.00373*	0.00978	**0.0902**	0.164	*0.00373*	0.016	0.054	
2008.OU9	0.271	0.573	0.754	*0.0302*	*0.00366*	*0.00366*	0.00902	**0.095**	*0.00366*	*0.00366*	*0.01*	0.043	
2008.OU10	0.614	**1.07**	**1.51**	*0.0299*	0.0869	*0.00363*	0.0799	**0.399**	0.89	*0.00363*	0.431	0.094	
2008.OU11	*0.0181*	0.195	0.747	*0.0299*	0.00677	*0.00363*	0.00483	*0.00363*	0.1	*0.00363*	2.68	0.03	
2008.OU12	*0.0183*	0.371	0.605	*0.0303*	*0.00367*	*0.00367*	0.00997	*0.00367*	*0.0183*	*0.0183*	1.39	0.033	
2008.OU13	**2.88**	**1.72**	**8.25**	*0.0285*	*0.00346*	*0.00346*	0.0124	*0.0692*	0.599	1.79	0.444	0.059	
2008.OU14	*0.0343*	**1.71**	**6.82**	**5.84**	*0.00343*	*0.00343*	0.0217	**0.411**	1.37	1.11	0.405	0.068	
2008.OU15	**1.39**	**1.4**	0.984	**5.17**	*0.00351*	*0.00351*	0.0567	**0.282**	1.01	1.03	0.242	0.061	
2008.C1	0.546	*0.00386*	0.316	*0.318*	*0.00386*	*0.00386*	**0.0899**	*0.00386*	0.157	0.454	0.319	**4.7**	
DOH EAL	**2.0**	**1.4**	**1.7**	**16**	**1.5**	**0.075**	**0.110**	**0.053**	**NS**	**NS**	**NS**	**0.82**	

DOH EAL = Current Default (Lowest) EAL for unrestricted land use (i.e. residential) in areas where potential drinking water is threatened, nearest surface water is greater than 150m
All other analytes were not detected above method detection limits.
Italicized values = not detected at the MDL, MDL value listed
Boldfaced, shaded values = value exceeds EAL
Average RSD = average RSDs from the two sets of triplicate samples.
Adjusted concentrations = reported concentration plus the appropriate RSD value.
For triplicate samples, the appropriate RSD was added to the mean of the three reported values.
Adjusted concentrations were used to assess the site for environmental hazards.
NS = No applicable standard

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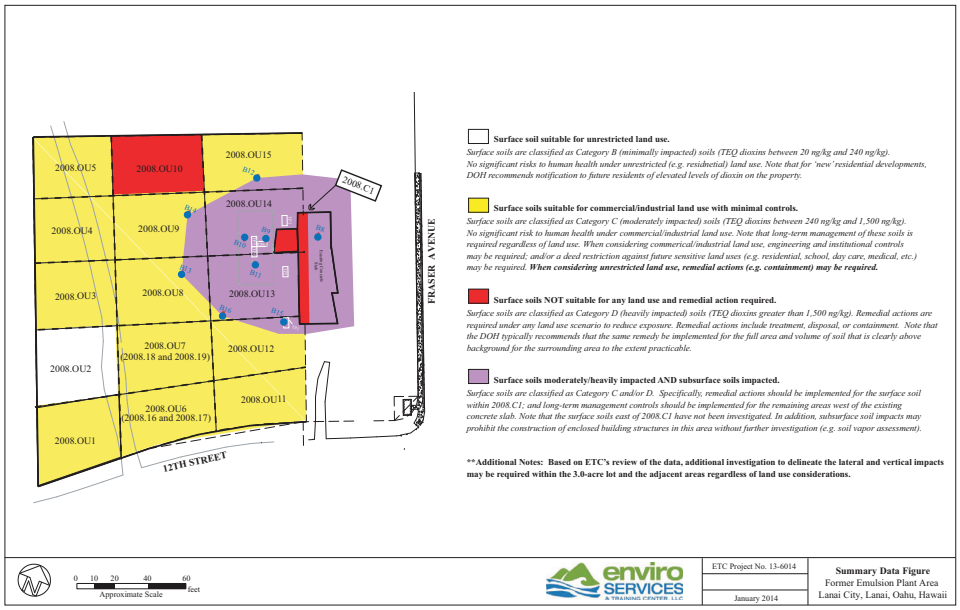
Table 5: Analytical Results - ETC 2008 - Dioxin/Furan TEQs
EPA Method 8290 Modified
All results in picograms per gram (pg/g) = nanograms per kilogram (ng/kg) = parts per trillion (ppt)

Sample ID	Total TEQ	Notes
Average RSD	**26.85%**	
2008.OU1	**505.77**	
2008.OU2	133.69	
2008.OU3	161.06	
2008.OU4	**425.52**	
2008.OU5	**322.36**	
2008.OU6	**579.41**	
2008.OU16	**252.04**	Field Replicate of 2008.OU6
2008.OU17	**293.42**	Field Replicate of 2008.OU6
2008.OU7	**464.69**	
2008.OU18	**411.84**	Field Replicate of 2008.OU7
2008.OU19	**449.30**	Field Replicate of 2008.OU7
2008.OU8	**945.38**	
2008.OU9	**657.15**	
2008.OU10	**1470.70**	
2008.OU11	**305.93**	
2008.OU12	**316.94**	
2008.OU13	**897.49**	
2008.OU14	**1173.13**	
2008.OU15	**799.86**	
2008.C1	**2097.20**	
DOH EAL	**240**	

DOH EAL = Current Default (Lowest) EAL for unrestricted land use (i.e. residential) in areas where potential drinking water is threatened, nearest surface water is greater than 150m
The World Health Organizations' 2005 Toxic Equivalency Factor (TEF) scheme was used to weight each compound according to its relative toxicity for cancer risk evaluations. Toxic Equivalencies (TEQs) were calculated using the TEFs.
When a specific compound was not detected, the Reportable Detection Limit (RDL) was used to calculate the TEQ.
Boldfaced, shaded values = value exceeds EAL
Average RSDs = average RSDs from the two sets of triplicate samples.
Adjusted concentrations = reported concentration plus the appropriate RSD value.
For triplicate samples, the appropriate RSD was added to the mean of the three reported values.



Facility
MAY 30 2008

LINDA LINGLE
GOVERNOR OF HAWAII

CHIYOME L. FUKINO, M.D.
DIRECTOR OF HEALTH

STATE OF HAWAII
DEPARTMENT OF HEALTH
ENVIRONMENTAL MANAGEMENT DIVISION
SOLID AND HAZARDOUS WASTE BRANCH
919 ALA MOANA BLVD., #212
HONOLULU, HAWAII 96814

In reply, please refer to:
EMD/SHWB

May 30, 2008 U0560DP

CERTIFIED MAIL NO.: 7006 0100 0001 4788 8044
RETURN RECEIPT REQUESTED

Mr. Richard K. Mirikitani
Vice President & Corporate Counsel
Castle & Cooke Resorts, LLC
100 Kahelu Avenue
Mililani, Hawaii 96879

Dear Mr. Mirikitani:

SUBJECT: Dole Lanai Plantation, Former Emulsion Plant
Facility ID No. 9-402424 / Release ID No. 900128

This is a follow-up to the report dated December 11, 2007 and prepared by Enviroservices & Training Center, LLC regarding a release from two 10,000-gallon underground storage tanks (USTs) at the subject location.

Please note the December 11, 2007 report and the facility file document the release of hazardous wastes from the USTs to the subsurface. The documents for this release have been transferred to the Hazardous Waste Section for further action.

Should you have any questions, you can contact the Hazardous Waste Section or Dr. Darren Park of our Underground Storage Tank Section at 586-4226.

Sincerely,

STEVEN Y.K. CHANG, P.E., CHIEF
Solid and Hazardous Waste Branch

c: Hazardous Waste Section