PORT OF OAKLAND

August 2, 2002

AUG 07 2002

Ms Loretta Barsamian
San Francisco Regional Water Quality Control Board
1515 Clay Street, Suite 1400
Oakland, CA 94612

Subject: Notification of Contamination and Request for Oversight
Airweld Site, North Field, Oakland International Airport

Dear Ms. Barsamian:

The Port of Oakland's Environmental Health & Safety Compliance (EH&SC) Department recently concluded a Phase II investigation at the Airweld site at the North Field, Oakland International Airport. This investigation was performed by ARCADIS Geraghty & Miller, which detected petroleum hydrocarbons and chlorinated solvents in soil and groundwater samples collected at the site.

Once the contamination was documented, The Port of Oakland's EH&SC Department retained Weiss Associates, one of the EH&SC Department's "as-needed" consultants to prepare a remedial action work plan for cleanup of the site.

Enclosed you will find a copy of ARCADIS's report entitled "Soil and Groundwater Investigation, Airweld, Inc. Facility, 8300/8302 Earhart Road, Oakland Airport", dated .June 20, 2001.

In addition, enclosed is a copy of the Weiss Associates work plan entitled "Soil Excavation and Sampling and Analysis Workplan" for Airweld Inc. Facility, North Field, Metropolitan Oakland International Airport, dated July 3, 2002.

Cost Recovery

The Port is willing and agrees to pay Regional Water Quality Control Board (RWQCB) oversight cost recovery billings up to a maximum amount of $15,000 to the extent authorized by California Water Code Section 13304. I am not authorized to agree to pay an amount exceeding the $15,000.00 limit, unless such payment is approved by the Board of Port Commissioners, as evidenced by resolution. I also understand that signing this letter does not constitute any admission of liability on the part of the Port, its Commissioners, officers, agents, or employees, but rather only an intent to pay for costs associated with oversight. Billings for payment of oversight costs should be mailed to Dale Klettke at the 530 Water Street address.

530 Water Street ■ Jack London Square ■ P.O. Box 2064 ■ Oakland, California 94604-2064
Telephone (510) 272-1100 ■ Fax (510) 272-1172 ■ TDD (510) 763-5703 ■ Cable address, PORTOFOAK, Oakland

AUG 07 2002

Please feel free to contact Dale Klettke directly at (510)627-1118 with any questions or comments pertaining to the enclosed reports.

Sincerely,

Roberta Schoenholz
Manager, EH&SC Department

c: w/encls: Donna Drogos, Alameda County Department of Environmental Health

c: w/out encls: Leroy Griffin, City of Oakland, CUPA
Michele Heffes, Deputy Port Attorney

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SOIL AND GROUNDWATER INVESTIGATION

Airweld, Inc. Facility
8300/8302 Earhart Road
Oakland, California

20 June 2001

Prepared for

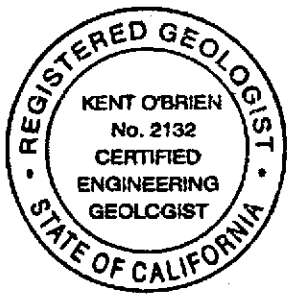
Port of Oakland
530 Water Street
Oakland, California 94607

Prepared by

ARCADIS G&M, Inc.
1050 Marina Way South
Richmond, California 94804
510 233 3200

Nader Sherif
Staff Engineer

Kent O'Brien, RG, CEG
Principal Scientist



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1.0 Introduction

This report presents the results of ARCADIS G&M's Soil and Groundwater Investigation at the Airweld, Inc. facility, located at 8300/8302 Earhart Road in Oakland, California (Figure 1). Airweld currently leases the two buildings and associated surrounding parking and storage areas from the Port of Oakland.

The scope of work described herein was conducted in accordance with ARCADIS Geraghty & Miller's, February 2001 work plan written on behalf of the Port of Oakland. The objectives of the subsurface investigation described in the work plan were to:

- Further assess soil and groundwater conditions in areas where previous subsurface investigations have been performed; and
- Assess whether there is evidence that Airweld's operations have adversely impacted the soil and/or groundwater of the site.

2.0 Background

This summary of background information is based on discussions with the Port of Oakland staff, a site visit and interview with Mr. Steve Petty of Airweld on February 8, 2001, and a review of reports documenting previously completed investigations at and in the vicinity of the site. According to an August 28, 1996 *Phase I Environmental Site Assessment (ESA)* report by Innovative Technical Solutions, Inc. (ITSI), which was completed for a nearby site (Building L-551), the Airweld site formerly contained two buildings that were identified on a 1957 Sanborn map as "aircraft parts disassembly." Based on historical aerial photographs reviewed by ITSI, the existing Airweld buildings, 8300 and 8302 Earhart Road (also known as Buildings L-617 and L-618, respectively), were constructed between 1968 and 1973, and 1977 and 1983, respectively. Based on discussions with the Port of Oakland and Airweld personnel, Airweld has used the facility primarily for aircraft and vehicle parts repair and maintenance. The buildings present in the 1957 Sanborn map were apparently removed prior to the construction of the Airweld buildings L-617 and L-618.

The August 1996 ITSI report identified that a building and associated storage yard were located on the parcel north of the current Airweld site between 1950 and the mid 1980s. According to the ITSI report, the storage yard northwest of the building (former Building L-615) was used for "vehicle storage, volatile storage, and storage for solvents in drums" and was the location of a former gasoline underground storage tank (UST). The 3000-gallon gasoline UST was excavated and removed in 1989. Three monitoring wells were installed in the area of the excavation. This investigation detected gasoline in soil and groundwater at concentrations of 210

mg/kg and 35 µg/L, respectively. During the last quarterly sampling in February 1995, gasoline was detected at 310 µg/L in the downgradient well. The site has been reportedly closed. The former Building L-615 and its associated drum storage yard are considered either upgradient or cross-gradient from the subject property since groundwater flow direction generally varies from the northwest to southwest. ITSI concluded that there is no evidence to suggest that the Airweld site has been impacted by releases on the former Building L-615.

Uribe & Associates (U&A) conducted a subsurface investigation at the Airweld site in July 1992 and documented the results of that investigation in a report dated December 2, 1992. A copy of U&A's soil and groundwater sample results is included in Appendix A. U&A advanced six borings at the site and collected 18 soil and five groundwater samples for laboratory analysis. The samples also included one sediment and one water sample from a storm drain on the site immediately southeast of the 8302 Earhart Road building (L-618). U&A boring locations along with ARCADIS G&M's soil boring/grab groundwater locations are shown on Figure 2.

Laboratory analytical results for the soil samples collected by U&A showed concentrations of oil and grease ranging from 50 milligrams per kilogram (mg/kg) to 3,500 mg/kg. 1,1,1-trichloroethane (1,1,1-TCA) and 1,1-dichloroethene (1,1-DCE) were detected in soil samples collected from borings WP-1 and B-1. The sediment sample from the storm drain contained both 1,1,1-TCA and 1,1-DCE in addition to containing 1,4-dichlorobenzene. Soil sample results from U&A's July 1992 investigation are shown in Figure 3.

The groundwater sample from boring WP-1 contained Bis-(2-ethylhexyl) phthalate (BP), 1,1,1-TCA and 1,1-DCE. The water sample from the storm drain contained 1,1,1-TCA and trichloroethene (TCE). Elevated levels of metals were not found in the soil and groundwater samples. U&A's groundwater sampling results from July 1992 are presented in Figure 4. ARCADIS G&M's review of U&A's December 1992 report found that several chemicals of concern (COCs) were detected, such as volatile organic compounds (VOCs), but not reported.

ITSI installed boring SB-1 on the parcel north of the Airweld site, between former Building L-615 and the Airweld site, as part of a 1996 Phase II ESA. Halogenated VOCs, petroleum hydrocarbons, and elevated metals concentrations were not found in the groundwater sample from that boring.

3.0 Pre-field Activities

ARCADIS G&M obtained the necessary permits to perform a subsurface investigation from the Alameda

County Public Works Agency (ACPWA).

ARCADIS G&M contacted Underground Service Alert (USA) on February 26, 2001 to inform them of the upcoming drilling activities. In addition, a subsurface utility locator was contracted to clear the soil boring locations of utilities and other obstructions.

A site-specific Health and Safety Plan (HASP) was prepared and reviewed with the site investigation personnel prior to field activities.

4.0 Field Activities

4.1 Site Observations

According to information provided by Airweld during ARCADIS G&M's site visit, the Steam Room was the only area where appreciable quantities of chemicals (primarily lubricants, detergents, and solvents) were used or stored within the site buildings. A concrete lined sump is present in the Steam Room and fluids that accumulate in the sump reportedly are conveyed periodically to an evaporator, also located in the Steam Room. The concrete floor within the Steam Room was moderately to severely etched. Steel beams and portions of the metal siding in the Steam Room were moderately to severely corroded.

According to information in the previously completed investigation reports, the site is underlain by 3 to 5 feet of fill material composed of sands, silts, and gravels, below which is bay mud. The first groundwater zone was expected to occur between 3 and 6 feet below ground surface (bgs). Groundwater flow direction is reported to range from northwest to southwest.

4.2 Boring Installation

Between March 1 and 2, 2001, eight soil borings (GP-1 through GP-8) were advanced by Precision Sampling, Inc. using the EnviroCore™ sampling system, under the direction of an ARCADIS G&M representative. Boring logs for GP-1 through GP-8 are included in Appendix B.

Three soil borings (GP-1 through GP-3) were advanced in the vicinity of the sump in the Steam Room, which served as Airweld's primary interior chemical use and storage area.

Boring GP-4 was advanced outside the southwest wall of the 8300 Earhart Road building to assess the southwest extent of impacts, if any, associated with the Steam Room.

Boring GP-5 was advanced adjacent to the storm drain located between the two site buildings to assess soil and groundwater conditions there.

Boring GP-6 was advanced in the unpaved area between the locations of the former Airweld drum storage area and the storm drain that was sampled by U&A in 1992.

Boring GP-7 was advanced in the vicinity of U&A boring B-1, where 1,1,1-TCA and 1,1-DCE were detected in soil samples. Water samples were not previously collected.

Boring GP-8 was advanced in the unpaved area northeast of U&A boring WP-1 where 1,1,1-TCA was previously detected in soil, and 1,1,1-TCA and 1,1-DCE were previously detected in groundwater (Figure 2).

4.3 Soil and Groundwater Sampling

Soil samples were collected at 2 feet bgs from borings GP-1, GP-2, and GP-8; at 2.5 feet bgs from borings GP-3, GP-6, and GP-7; and at 3.0 feet bgs from boring GP-5. Groundwater samples were collected from each boring.

The drilling rig utilized the cylindrical EnviroCore™ inner and outer sampling rods while collecting continuous soil cores. The drilling rig advanced the rods with vibrators, a hydraulic hammer, or by pushing them into the ground. As the EnviroCore™ rods were advanced, soil was collected into $1^3/_4$-inch diameter, 3-foot long sample barrels attached to the end of the inner rods. Soil samples were collected into 3-foot clear butyrate sleeves inside the sample barrel as both rods were advanced. After being advanced 4 feet, the inner rods were removed from the borehole with a hydraulic winch.

The butyrate sleeves containing the soil samples were removed from the drive sampler and logged by the ARCADIS G&M representative according to the Unified Soil Classification System.

Soil samples for laboratory analysis were retained in the butyrate sleeves, sealed with Teflon™ tape, capped with plastic end caps, and placed on ice.

After the borings were advanced, a temporary 1-inch diameter perforated PVC casing was installed in all borings to allow for the collection of groundwater samples. Samples were collected with a disposable bailer and decanted into United States Environmental Protection Agency (USEPA)-approved containers. The containers were labeled and placed on ice.

Soil and groundwater samples were submitted to McCAMPBELL ANALYTICAL (McCAMPBELL), a California-certified analytical laboratory, for analysis. Each soil and groundwater sample was analyzed for total petroleum hydrocarbons (TPH) scan (USEPA Method 8015, modified, with a silica gel cleanup) for differentiation as gasoline, diesel, motor oil, and hydraulic oil; and VOCs (USEPA Method 8260). All groundwater and soil samples were additionally analyzed for volatile petroleum hydrocarbons (USEPA Method 8020). Each soil and groundwater sample from borings GP-1, GP-2, and GP-3 were also analyzed for California Assessment Man-

ual (CAM) 17 metals (USEPA Method-6010). The groundwater samples for metals analyses were filtered at the laboratory to provide dissolved, rather than total, concentrations. ARCADIS G&M requested that the laboratory analyze the three soil and water samples with the highest concentrations of heavier range (e.g., diesel and motor oil) petroleum hydrocarbons for polynuclear aromatic hydrocarbons (PAHs; USEPA Method 8270). One trip blank accompanied each shipment of groundwater samples and was analyzed for VOCs (USEPA Method 8260).

5.0 Results and Discussion

Results of the chemical analyses performed on soil samples are summarized in Tables 1 and 2, and groundwater results are summarized in Tables 3 and 4.

Table 1 also provides comparative benchmarks for COCs detected in soil samples. These include USEPA Region IX Preliminary Remediation Goals (PRGs) for industrial soils and risk-based screening levels (RBSLs) for the "industrial/comercial land use only" exposure scenario (shallow soil less than 3 meters deep, groundwater is not a current or potential source of drinking water) established by the California Regional Water Quality Control Board (RWQCB; August 2000).

It should be noted that RBSLs for surface soil in the residential exposure scenario are more stringent for most of the chemicals listed than correlative screening levels for the "industrial/commercial land use only" exposure scenario. The "industrial/commercial land use only" RBSLs for surface soil used in this report would require a deed restriction mandating no future residential use of the property.

Table 3 also compares COCs detected in groundwater samples with tap water PRGs, California primary drinking water standard maximum contaminant levels (MCLs), and RBSLs for sites where groundwater is not a current or potential source of drinking water.

Analytical reports and chain-of-custody documentation are included in Appendix C. A summary of the results for the soil and groundwater investigation activities is provided below.

5.1 Soil Results

5.1.1 Petroleum Hydrocarbons

Soil sample analyses quantified TPH as diesel (TPH-D) in three of the eight soil samples ranging from 1.6 mg/kg to 360 mg/kg (Figure 5). TPH as motor oil was also quantified in three of the eight soil samples at concentrations ranging from 6.9 mg/kg to 2,100 mg/kg. The concentration of TPH as motor oil (TPH-MO) in sample GP-7 exceeds the shallow soil RBSLs of

1,000 mg/kg. No PRGs have been established for TPH.

Volatile petroleum hydrocarbons were detected in one of the soil samples. GP-7 analysis detected toluene at 0.009 mg/kg and xylene at 0.015 mg/kg, both of which are below their respective PRGs and RBSLs.

5.1.2 PAHs

Three of the eight soil samples were analyzed for PAHs, based on the detection of heavier-range TPH. PAHs were not detected in the soil samples.

5.1.3 VOCs

Each of the eight soil samples was analyzed for VOCs. The following samples reported one VOC detection: GP-1 at 2 feet, GP-2 at 2 feet, and GP-7 at 2.5 feet, as shown in Figure 6. Detected VOCs include carbon disulfide, 1,1,1-TCA, and 1,2,4-trimethylbenzene. No VOCs were detected above their respective PRGs or RBSLs.

5.1.4 CAM 17 Metals

Soil samples from borings GP-1 through GP-3 were analyzed for CAM 17 metals (Table 2). None of the soil samples detected metal concentrations above PRG or RBSL levels. Soil samples from all the borings tested; GP-1, GP-2, and GP-3; detected chromium at 48 mg/kg, 42 mg/kg, and 39 mg/kg, respectively. These levels are higher than the shallow soil RBSL for chromium of 12 mg/kg, however all three detections are very similar and, therefore, may indicate background levels. Antimony, arsenic, beryllium, cadmium, mercury, molybdenum, selenium, silver, and thallium were not detected in any of the soil samples.

5.2 Groundwater

5.2.1 Petroleum Hydrocarbons

Groundwater sample analyses quantified TPH as gasoline (TPH-G) in GP-2 and GP-3 at concentrations of 150 micrograms per liter (µg/L) and 110 µg/L, respectively (Figure 7). TPH-D was quantified above the detection limit in six of the eight water samples ranging from 55 µg/L (GP-8) to 1,300 µg/L (GP-6). TPH-MO was detected in four of the eight water samples at concentrations ranging from 330 µg/L (GP-8) to 4,400 µg/L (GP-6).

Concentrations of TPH-D detected in four of the groundwater samples exceed the non-drinking water RBSL of 640 µg/L. Concentrations of TPH-MO exceeded the non-drinking water RBSLs in three of the samples analyzed. Remaining TPH-D and TPH-MO concentrations detected were below respective RBSLs. PRGs and MCLs have not been established for TPH.

Groundwater samples also detected toluene and xylene in concentrations less than 1µg/L in four of the eight samples analyzed. Toluene was de-

tected in samples GP-2, GP-7 and GP-8. Xylenes were detected in samples GP-2, GP-4 and GP-8. All detections of volatile petroleum hydrocarbons were below their respective PRGs, MCLs, and RBSLs.

5.2.2 PAHs

PAHs were not detected in the three groundwater samples analyzed (GP-1, GP-2, and GP-6).

5.2.3 VOCs

VOCs were detected in six of the eight groundwater samples collected. The VOCs detected were methyl ethyl ketone (MEK), 1,1-dichloroethane (1,1-DCA), and 1,1,1-TCA.

VOCs were detected in GP-2 and GP-3 at concentrations of 21 µg/L and 11 µg/L, respectively (Figure 8), and both exceeded MCLs and PRGs for 1,1-DCA at 5 µg/L and 2.0 µg/L, respectively.

MEK was found in GP-1 and GP-6 through GP-8, in concentrations ranging from 2.3 µg/l to 4.3 µg/l. No MEK was detected in the "steam room". The locations of MEK detections occurred along the property boundary and no on-site source in soil was identified. The origin of the MEK could not be determined from the results of this investigation.

5.2.4 CAM 17 Metals

Groundwater samples GP-1 through GP-3 were analyzed for dissolved CAM 17 metals (Table 4). Analyses detected the following metals in the samples:

- GP-1: barium (0.28 milligrams per liter [mg/L]);
- GP-2: arsenic (0.0057 mg/L), barium (0.27 mg/L), cadmium (0.019 mg/L), chromium (0.41 mg/L), cobalt (0.056 mg/L), copper (0.056 mg/L), nickel (1.7 mg/L), and zinc (0.083 mg/L); and
- GP-3: barium (1.7 mg/L), cadmium (0.0095 mg/L), chromium (0.062 mg/L), cobalt (0.25 mg/L), lead (0.0055 mg/L), nickel (0.24 mg/L), vanadium (0.10 mg/L), and zinc (0.083 mg/L).

Metal concentrations detected did not exceed the non-drinking water RBSLs, or the respective tap water PRGs and MCLs.

5.3 Trip Blank Samples

Trip blank samples (TB-LB), consisting of three 40-ml vials filled with laboratory grade deionized water, were supplied, labeled, and sealed by the laboratory prior to delivery of sample containers. The TB-LB was transported in the same cooler as the groundwater sample bottles and analyzed for VOCs (USEPA Method

8260) at the laboratory. No VOCs were detected in the TB-LB. Analytical results for the TB-LB are summarized in Table 3.

6.0 Conclusions

Field sampling of soil and groundwater at the Airweld, Inc. facility at 8300/8302 Earhart Road was conducted by ARCADIS G&M personnel on March 1 and 2, 2001.

Soil and groundwater samples were analyzed for TPH-G, TPH-D, TPH-MO, PAHs, VOCs, and total metals. TPH, VOC, and metals concentrations were detected in the soil and/or groundwater samples tested. However, no PAHs were detected at the site. Low levels of VOCs were detected in both soil and groundwater. The highest levels of solvent detection were concentrated around the "steam room" suggesting a surface release at the site.

MEK was detected at low concentrations in groundwater at four locations along the property boundary. No MEK was detected in the soil. The source of the MEK could not be determined from the results of this investigation.

TPH-D and TPH-MO were detected in both the soil and groundwater at concentrations exceeding RBSLs in some areas. It appears that there is a direct correlation between hydrocarbons found in the soil and groundwater suggestive of on-site releases.

6.1 Comparison of Detected COCs with Regulatory Screening Levels

The analytical results of this soil and groundwater investigation have been compared to pertinent regulatory thresholds and goals. Based upon these comparisons, soil samples GP-2 and GP-7, and water samples GP1, GP-2, GP-3, GP-5, and GP-6 contained COC concentrations exceeding these thresholds. The following paragraphs summarize threshold value exceedances:

- Soil sample GP-7 at 2.5 feet exceeded the RBSL for motor oil using the industrial/commercial land use exposure scenario.

- Water sample GP-1 exceeded the non-drinking water RBSLs for TPH-D and TPH-MO for residential exposure scenario. GP-2 exceeded the non-drinking water RBSL for TPH-D and exceeded the PRG and MCL for 1,1-DCA. GP-3 exceeded the PRG and MCL for 1,1-DCA, as well as exceeding the non-drinking water RBSL for 1,1,1-TCA. Both GP-5 and GP-6 exceeded the non-drinking water RBSLs for both TPH-D and TPH-MO.

6.2 Potential Health Risks to Workers from Exposure to Soil and Groundwater

Detections of hydrocarbons and VOCs exceeding respective shallow soil RBSL in soil; and PRGs, MCLs, and RBSLs for non-drinking water are not likely to pose a health risk to residential workers. Screening levels are based

on direct contact for soil and on ingestion of water from groundwater. This is normally an unlikely occurrence for on site workers.

7.0 References

Uribe & Associates' (U&A) *Subsurface Investigation* dated December 2, 1992

Innovative Technical Solutions, Inc.'s (ITSI) *Phase I Environmental Site Assessment* dated August 28, 1996

ARCADIS Geraghty & Miller's *Work Plan* to the Port of Oakland, dated February 28, 2001

Table 1: Soil Sample Analytical Results For Petroleum Hydrocarbons, Volatile Organic Compounds, and Polynuclear Aromatic Hydrocarbons

Port of Oakland
Airweld
8300/8302 Earhart Road
Oakland, California

			Volatile Petroleum Hydrocarbons by USEPA Method 8020					TPHs by USEPA Method 8015, Modified			VOCs by USEPA Method 8260			PAHs by USEPA Method 8270
Soil Sample ID	Date	Depth (feet)	MTBE (mg/kg) (a)	Benzene (mg/kg) (a)	Toluene (mg/kg) (a)	Ethylbenzene (mg/kg) (a)	Xylenes (mg/kg) (a)	TPH-G (mg/kg) (b)	TPH-D (mg/kg) (b)	Motor Oil (mg/kg) (b)	Carbon Disulfide (µg/kg) (c)	1,1,1-TCA (µg/kg) (c)	1,2,4-Tri methylbenzene (µg/kg) (c)	(mg/kg) (d)
GP-1	1-Mar-01	2.0	ND(<0.05)	ND(<0.005)	ND(<0.005)	ND(<0.005)	ND(<0.005)	ND(<1.0)	2.4 (e,f)	7.0	12	ND(<5.0)	ND(<5.0)	NA
GP-2	2-Mar-01	2.0	ND(<0.05)	ND(<0.005)	ND(<0.005)	ND(<0.005)	ND(<0.005)	ND(<1.0)	ND(<1.0)	ND(<5.0)	ND(<5.0)	36	ND(<5.0)	NA
GP-3	2-Mar-01	2.5	ND(<0.05)	ND(<0.005)	ND(<0.005)	ND(<0.005)	ND(<0.005)	ND(<1.0)	ND(<1.0) (f)	6.9	ND(<5.0)	ND(<5.0)	ND(<5.0)	ND(<0.33)
GP-4	1-Mar-01	2.0	ND(<0.05)	ND(<0.005)	ND(<0.005)	ND(<0.005)	ND(<0.005)	ND(<1.0)	ND(<1.0)	ND(<5.0)	ND(<5.0)	ND(<5.0)	ND(<5.0)	NA
GP-5	2-Mar-01	3.0	ND(<0.05)	ND(<0.005)	ND(<0.005)	ND(<0.005)	ND(<0.005)	ND(<1.0)	1.6 (e)	ND(<5.0)	ND(<5.0)	ND(<5.0)	ND(<5.0)	ND(<0.33)
GP-6	1-Mar-01	2.5	ND(<0.05)	ND(<0.005)	ND(<0.005)	ND(<0.005)	ND(<0.005)	ND(<1.0)	ND(<1.0)	ND(<5.0)	ND(<5.0)	ND(<5.0)	ND(<5.0)	NA
GP-7	1-Mar-01	2.5	ND(<0.05)	ND(<0.005)	0.009	ND(<0.005)	0.015	ND(<1.0)	360 (f)	2,100	ND(<5.0)	ND(<5.0)	12	ND(<0.33)
GP-8	1-Mar-01	2.0	ND(<0.05)	ND(<0.005)	ND(<0.005)	ND(<0.005)	ND(<0.005)	ND(<1.0)	ND(<1.0)	ND(<5.0)	ND(<5.0)	ND(<5.0)	ND(<5.0)	NA
PRG			37	1.5	520	230	210	---	---	---	720,000	1,400,000	170,000	---
RBSL			1.0	0.39	8.4	24.0	1.0	400	500	1,000	---	8,000	---	---

(a) Analyzed by USEPA Method 8020.
(b) Analyzed by USEPA Method 8015, modified with a silica gel cleanup.
(c) Analyzed by USEPA Method 8260.
(d) Analyzed by USEPA Method 8270.
(e) Laboratory reports diesel range compounds are significant; no recognizable pattern.
(f) Laboratory reports oil range compounds are significant.

(mg/kg) milligrams per kilogram
(µg/kg) micrograms per kilogram

ND() Not detected (laboratory method detection limit in parentheses)
NA Not analyzed
— Not established

TPH-G Total petroleum hydrocarbons as gasoline
TPH-D Total petroleum hydrocarbons as diesel
TPH Total petroleum hydrocarbons
VOC Volatile organic compounds
PAH Polynuclear aromatic hydrocarbons
1,1,1-TCA 1,1,1-Trichloroethane

PRG Preliminary Remediation Goal
RBSL Risk-Based Screening Level

Laboratory analysis performed by McCAMPBELL ANALYTICAL INC., Pacheco, California.

Table 3: Groundwater Analytical Results For Petroleum Hydrocarbons, Volatile Organic Compounds, and Polynuclear Aromatic Hydrocarbons

Port of Oakland
Airweld
8300/8302 Earhart Road
Oakland, California

		Volatile Petroleum Hydrocarbons by USEPA Method 8020					TPHs by USEPA Method 8015, Modified			VOCs by USEPA Method 8260			PAHs by USEPA Method 8270
Groundwater Sample ID	Date	MTBE (µg/L) (a)	Benzene (µg/L) (a)	Toluene (µg/L) (a)	Ethylbenzene (µg/L) (a)	Xylenes (µg/L) (a)	TPH-G (µg/L) (b)	TPH-D (µg/L) (b)	Motor Oil (µg/L) (b)	Methyl ethyl ketone (µg/L) (c)	1,1-DCA (µg/L) (c)	1,1,1-TCA (µg/L) (c)	(mg/L) (d)
GP-1	2-Mar-01	ND(<5.0)	ND(<0.5)	ND(<0.5)	ND(<0.5)	ND(<0.5)	ND(<50)	780 (f,g,h)	3,500	3.7	ND(<1.0)	ND(<1.0)	ND(<10)
GP-2	5-Mar-01	ND(<5.0)	ND(<0.5)	0.75	ND(<0.5)	0.84	150 (e,g)	830	ND(<250)	ND(<5.0)	21	200	ND(<10)
GP-3	2-Mar-01	ND(<5.0)	ND(<0.5)	ND(<0.5)	ND(<0.5)	ND(<0.5)	110 (e,f)	ND(<50)	ND(<250)	ND(<5.0)	11	110	NA
GP-4	2-Mar-01	ND(<5.0)	ND(<0.5)	ND(<0.5)	ND(<0.5)	0.87	ND(<50)	ND(<50)	ND(<250)	ND(<2.0)	ND(<1.0)	ND(<1.0)	NA
GP-5	2-Mar-01	ND(<5.0)	ND(<0.5)	ND(<0.5)	ND(<0.5)	ND(<0.5)	ND(<50)	990 (h)	3,600	ND(<2.0)	ND(<1.0)	ND(<1.0)	NA
GP-6	2-Mar-01	ND(<5.0)	ND(<0.5)	ND(<0.5)	ND(<0.5)	ND(<0.5)	ND(<50)	1,300 (f,g,h)	4,400	3.6	ND(<1.0)	ND(<1.0)	ND(<10)
GP-7	2-Mar-01	ND(<5.0)	ND(<0.5)	0.61	ND(<0.5)	ND(<0.5)	ND(<50)	70 (g)	ND(<250)	4.3	1.3	ND(<1.0)	NA
GP-8	2-Mar-01	ND(<5.0)	ND(<0.5)	0.59	ND(<0.5)	0.67	ND(<50)	55 (h)	330	2.3	ND(<1.0)	ND(<1.0)	NA
TB-LB	2-Mar-01	ND(<5.0)	ND(<0.5)	ND(<0.5)	ND(<0.5)	ND(<0.5)	NA	NA	NA	NA	NA	NA	NA
PRG		6.2	0.35	720	1,300	1,400	---	---	---	1,900	2.0	540	---
MCL		---	1	150	700	1,750	—	---	---	---	5	200	---
RBSL		1,800	46	130	290	13	500	640	640	14,000	47	62	—

Notes appear on the following page.

Table 3: Groundwater Analytical Results For Petroleum Hydrocarbons, Volatile Organic Compounds, and Polynuclear Aromatic Hydrocarbons

Port of Oakland
Airweld
8300/8302 Earhart Road
Oakland, California

(a)	Analyzed by USEPA Method 8020.
(b)	Analyzed by USEPA Method 8015, modified, with a silica gel cleanup.
(c)	Analyzed by USEPA Method 8260.
(d)	Analyzed by USEPA Method 8270.
(e)	Laboratory reports one to a few isolated peaks present.
(f)	Laboratory reports liquid sample that contains greater than 5 vol. % sediment.
(g)	Laboratory reports diesel range compounds are significant; no recognizable pattern.
(h)	Laboratory reports oil range compounds are significant.
(mg/L)	milligrams per liter
(µg/L)	micrograms per liter
ND()	Not detected (laboratory method detection limit in parentheses)
NA	Not analyzed
--	Not established
TPH-G	Total petroleum hydrocarbons as gasoline
TPH-D	Total petroleum hydrocarbons as diesel
TPH	Total petroleum hydrocarbons
VOC	Volatile organic compounds
PAH	Polynuclear aromatic hydrocarbons
1,1-DCA	1,1,-Dichloroethane
1,1,1-TCA	1,1,1-Trichloroethane
PRG	Preliminary Remediation Goal
MCL	Maximum Contaminant Level
RBSL	Risk-Based Screening Level

Laboratory analysis performed by McCAMPBELL ANALYTICAL LTD., Pacheco, California.

Table 2: Soil Sample Analytical Results For Metals

Port of Oakland
Airweld
8300/8302 Earhart Road
Oakland, California

Soil Sample ID	Date	Depth (feet)	Antimony (mg/kg) (a)	Arsenic (mg/kg) (a)	Barium (mg/kg) (a)	Beryllium (mg/kg) (a)	Cadmium (mg/kg) (a)	Chromium (mg/kg) (a)	Cobalt (mg/kg) (a)	Copper (mg/kg) (a)	Lead (mg/kg) (a)	Mercury (mg/kg) (a)	Molybdenum (mg/kg) (a)	Nickel (mg/kg) (a)	Selenium (mg/kg) (a)	Silver (mg/kg) (a)	Thallium (mg/kg) (a)	Vanadium (mg/kg) (a)	Zinc (mg/kg) (a)
GP-1	1-Mar-01	2.0	ND(<2.5)	ND(<2.5)	20	ND(<0.5)	ND(<0.5)	48	8.1	18	4.6	ND(<0.06)	ND(<2.0)	48	ND(<2.5)	ND(<1.0)	ND(<2.5)	26	50
GP-2	2-Mar-01	2.0	ND(<2.5)	ND(<2.5)	94	ND(<0.5)	ND(<0.5)	42	14	17	8.4	ND(<0.06)	ND(<2.0)	56	ND(<2.5)	ND(<1.0)	ND(<2.5)	24	40
GP-3	2-Mar-01	2.5	ND(<2.5)	ND(<2.5)	88	ND(<0.5)	ND(<0.5)	39	8.0	14	7.0	ND(<0.06)	ND(<2.0)	43	ND(<2.5)	ND(<1.0)	ND(<2.5)	25	37
PRG			820	2.7	100,000	2,200	810	100,000	100,000	76,000	750	610	10,000	41,000	10,000	10,000	130	14,000	100,000
RBSL			40	2.7	1,500	8	12	12	80	225	1,000	10	40	150	10	40	29	200	600

(a) Analyzed by USEPA Method 6010.
mg/kg Milligrams per kilogram
ND( ) Not detected (laboratory method detection limit in parentheses)
--- Not established
PRG Preliminary Remediation Goal
RBSL Risk-Based Screening Level

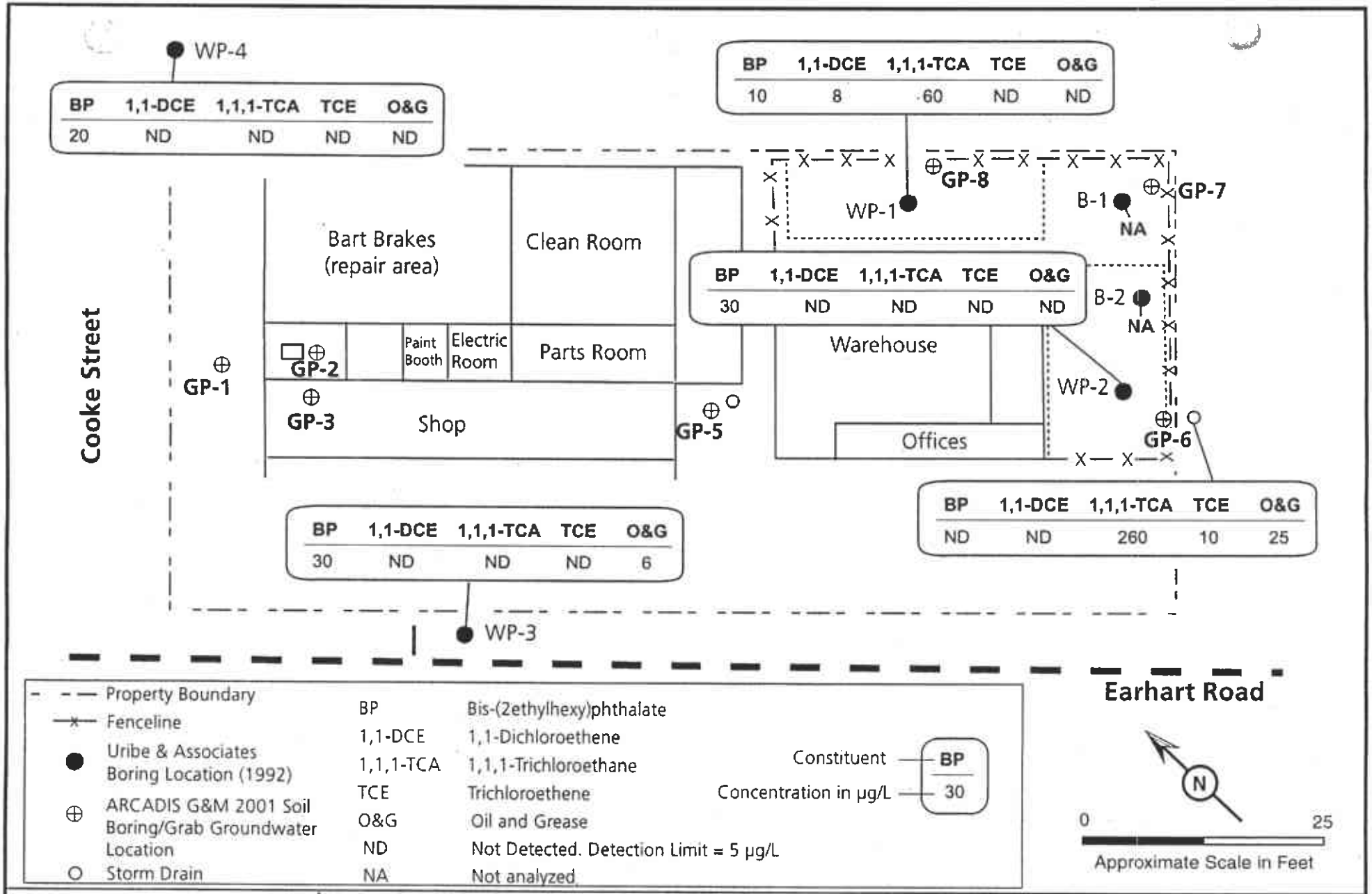
Laboratory analysis performed by McCAMPBELL ANALYTICAL INC., Pacheco, California.

Table 4: Groundwater Analytical Results For Metals
Port of Oakland
Airweld
8300/8302 Earhart Road
Oakland, California

Groundwater Sample ID	Date	Antimony (mg/L) (a)	Arsenic (mg/L) (a)	Barium (mg/L) (a)	Beryllium (mg/L) (a)	Cadmium (mg/L) (a)	Chromium (mg/L) (a)	Cobalt (mg/L) (a)	Copper (mg/L) (a)	Lead (mg/L) (a)	Mercury (mg/L) (a)	Molybdenum (mg/L) (a)	Nickel (mg/L) (a)	Selenium (mg/L) (a)	Silver (mg/L) (a)	Thallium (mg/L) (a)	Vanadium (mg/L) (a)	Zinc (mg/L) (a)
GP-1	2-Mar-01	ND(<0.006)	ND(<0.05) (b)	0.28	ND(<0.004)	ND(<0.005)	ND(<0.02)	ND(<0.05)	ND(<0.05)	ND(<0.005)	ND(<0.0008)	ND(<0.05)	ND(<0.05)	ND(<0.005)	ND(<0.01)	ND(<0.005)	ND(<0.05)	ND(<0.05)
GP-2	2-Mar-01	ND(<0.006)	0.0057	0.27	ND(<0.004)	0.019	0.41	0.056	0.056	ND(<0.005)	ND(<0.0008)	ND(<0.05)	1.7	ND(<0.005)	ND(<0.01)	ND(<0.005)	ND(<0.05)	0.083
GP-3	2-Mar-01	ND(<0.006)	ND(<0.05) (b)	1.7	ND(<0.004)	0.0095	0.062	0.25	ND(<0.05)	0.0055	ND(<0.0008)	ND(<0.05)	0.24	ND(<0.005)	ND(<0.01)	ND(<0.005)	0.10	0.083
PRG		15	0.045	2,600	73	18	110	2,200	1,400	---	11	180	730	180	180	2.4	260	11,000
MCL		6	50	1,000	4	5	50	---	1,300	15	2	---	100	50	---	2	---	---
RBSL		30	36	3.9	5.1	1.1	180	3	2.4	3.2	0.012	240	8.2	5	0.120	40	19	23

(a) Analyzed by USEPA Method 6010.
(b) Laboratory reports reporting limit raised due to matrix interference.
mg/L Milligrams per liter
ND( ) Not detected (laboratory method detection limit in parentheses)
--- Not established
PRG Preliminary Remediation Goal
MCL Maximum Contaminant Level
RBSL Risk-Based Screening Level

Laboratory analysis performed by McCAMPBELL ANALYTICAL INC., Pacheco, California.



ARCADIS G&M

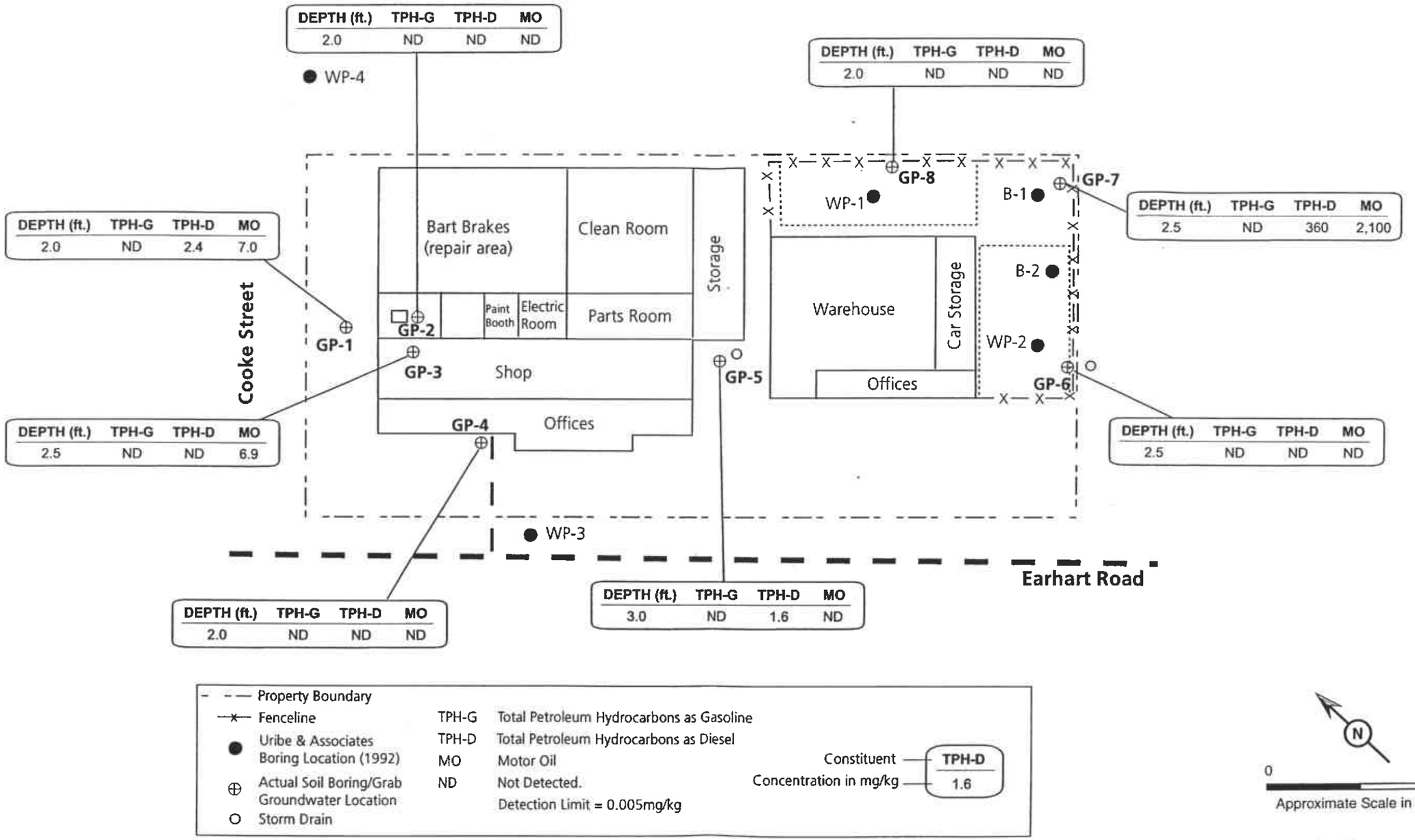
URIBE & ASSOCIATES GROUNDWATER SAMPLE RESULTS - JULY

Airweld
8300/8302 Earhart Road
Oakland, California

RC000548.0001

FIGURE

4



ARCADIS G&M

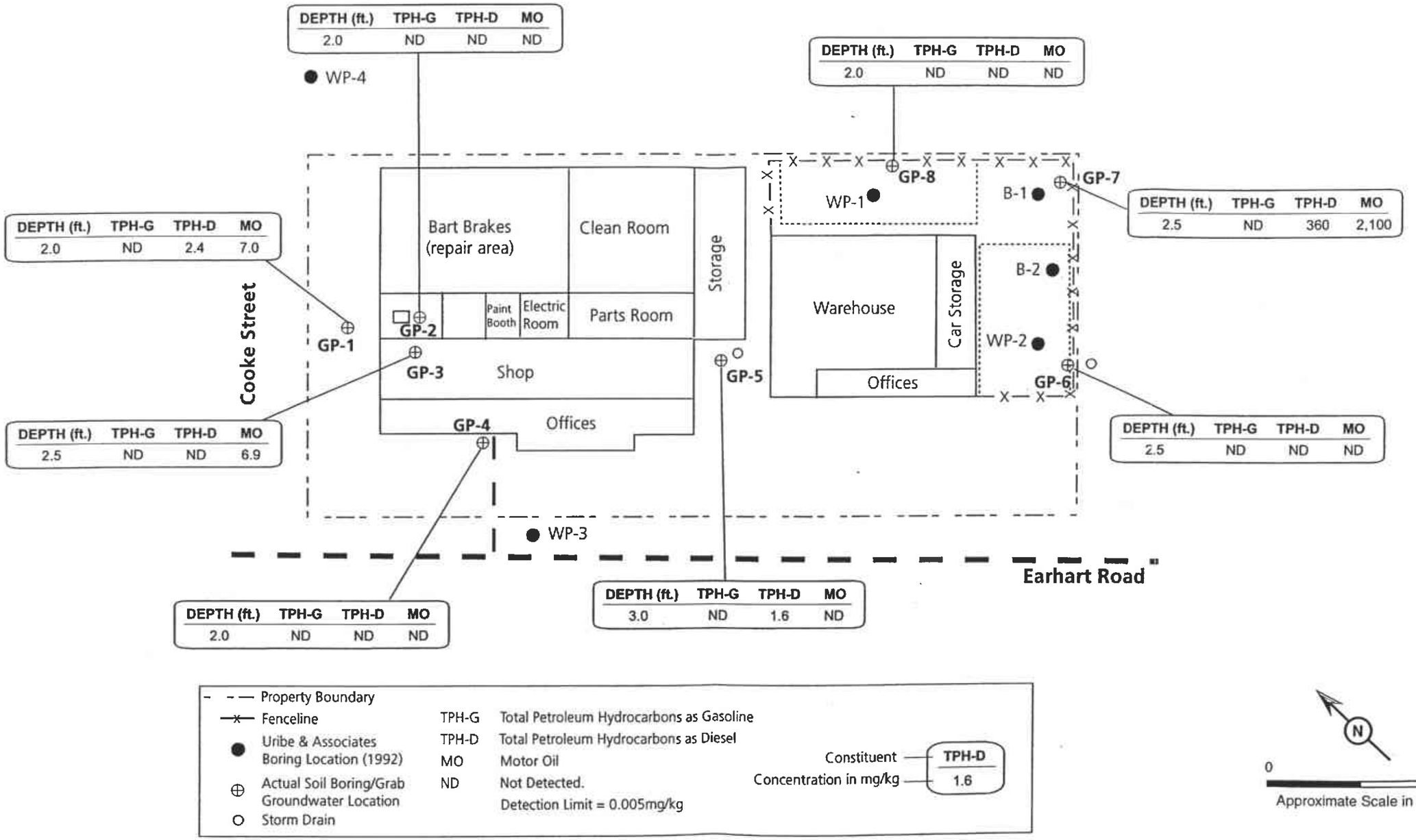
SOIL SAMPLE RESULTS FOR TOTAL PETROLEUM HYDROCARBONS - MARCH 2001

Airweld
8300/8302 Earhart Road
Oakland, California

RC000548.0001

FIGURE

5



ARCADIS G&M

SOIL SAMPLE RESULTS FOR TOTAL PETROLEUM HYDROCARBONS - MARCH 2001

Airweld

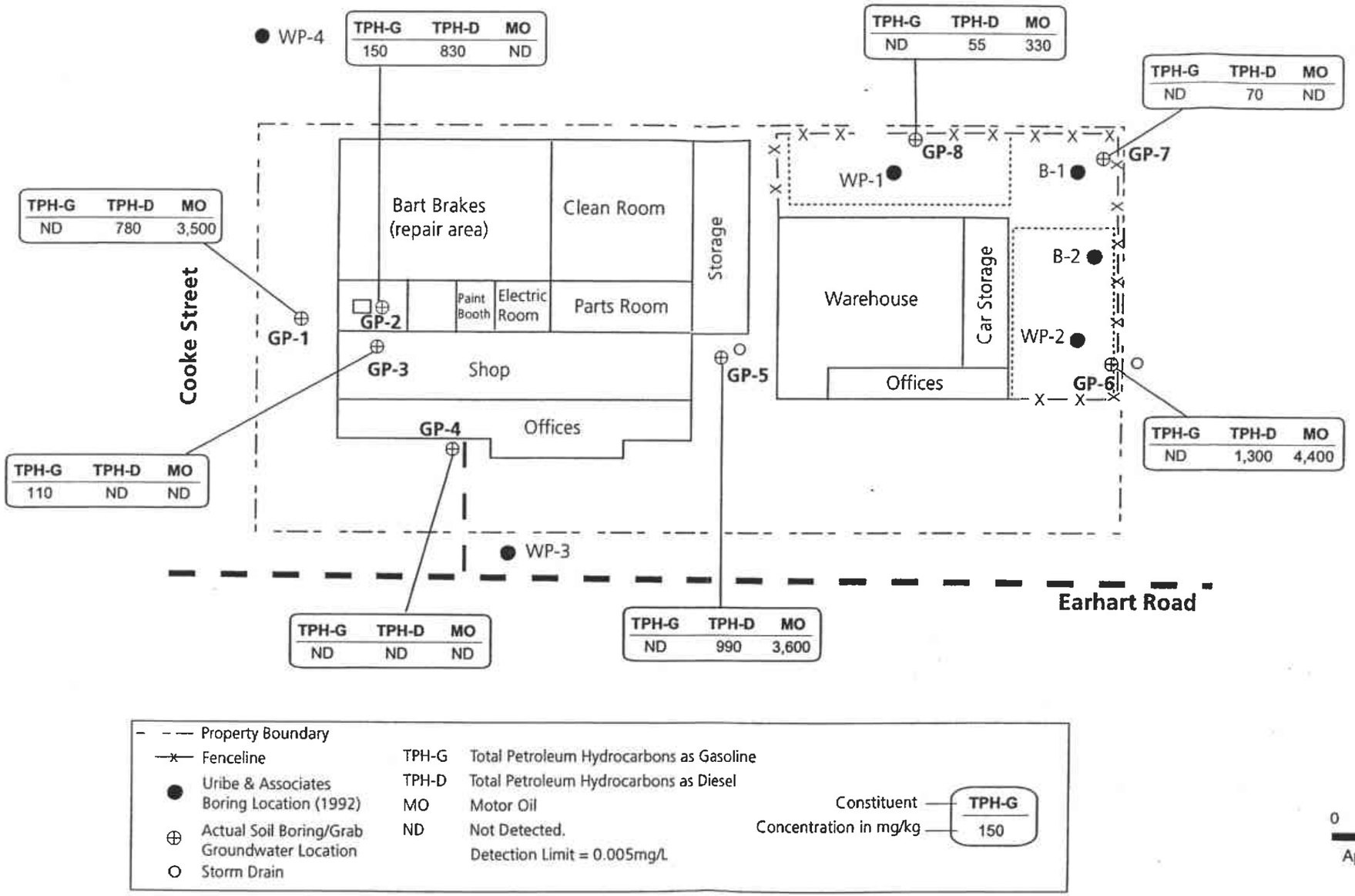
8300/8302 Earhart Road

Oakland, California

RC000548.0001

FIGURE

6



ARCADIS G&M

GROUNDWATER RESULTS FOR TOTAL PETROLEUM HYDROCARBONS - MARCH 2001

Airweld

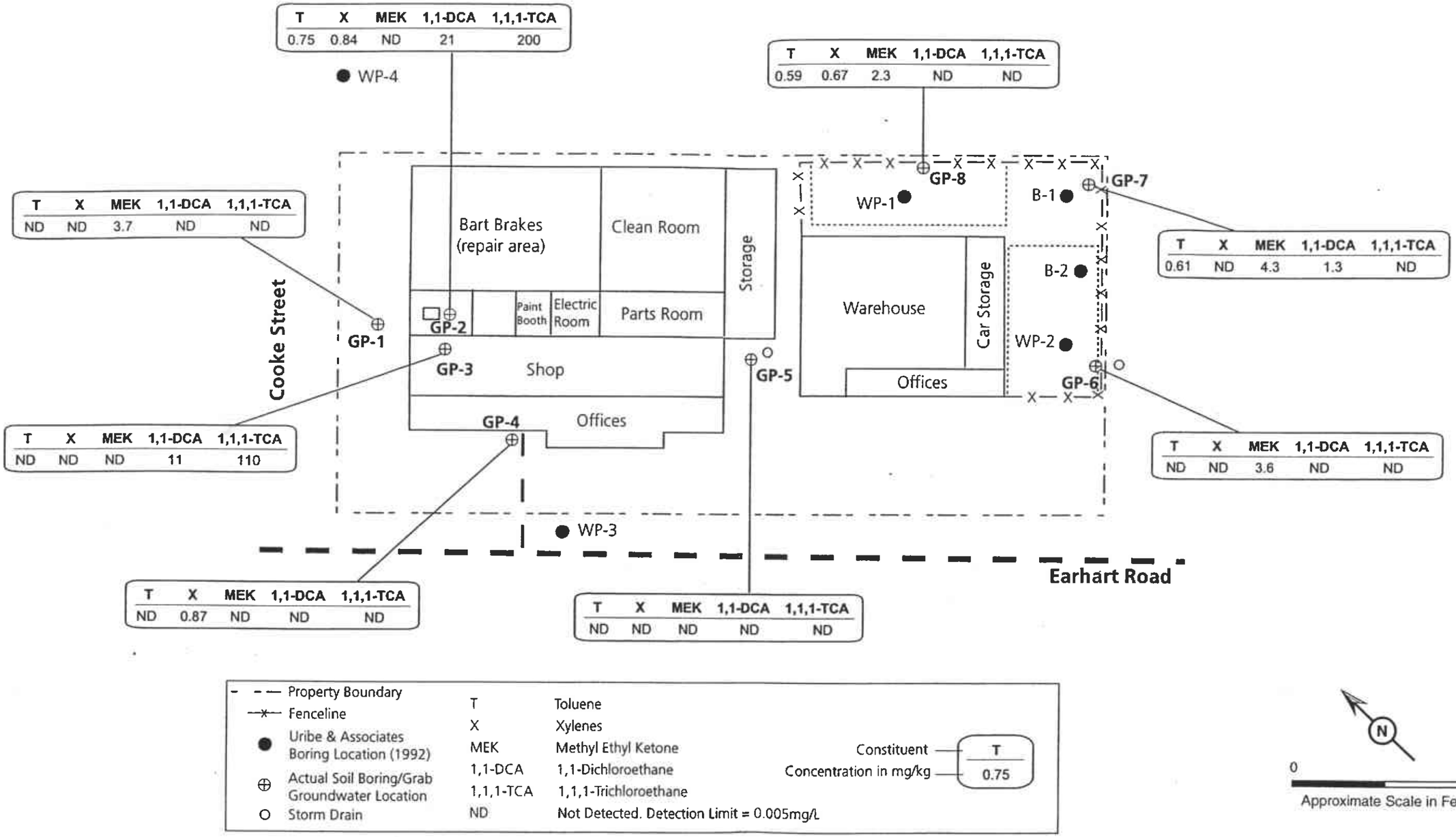
8300/8302 Earhart Road

Oakland, California

RC000548.0001

FIGURE

7



ARCADIS G&M

GROUNDWATER SAMPLE RESULTS FOR VOLATILE ORGANIC COMPOUNDS - MARCH 2001

Airweld
8300/8302 Earhart Road
Oakland, California

RC000548.0001

FIGURE

8

APPENDIX A

URIBE & ASSOCIATES JULY 1992
SUBSURFACE INVESTIGATION RESULTS

Table 4: Summary of Soil Sample Results for VOCs

Concentrations in mg/kg

	WP1-3.0	B1-1.5	B1-2.0	B1-4.0	SD-S1
1,4-Dichlorobenzene	ND	ND	ND	ND	0.006
1,1-Dichloroethene	ND	ND	ND	0.015	0.007
1,1,1-Trichloroethane	0.026	0.17	0.14	0.058	0.029

All other constituents and samples had no detects.

Sample designation: The first number designates the location or boring, and the second number indicates the depth. Sample SD-S1 is the sediment sample from the off-site storm drain.
ND = Not Detected. Detection Limit = 0.005 mg/kg

Table 6: Summary of Water Sample Results

Concentrations in ug/L

	WP-1-1W	WP-2-1W	WP-3-1W	WP-4-1W	SD-W1[1]
Bis-(2-ethylhexyl)phthalate	10	30	30	20	ND
1,1-Dichloroethene	8	ND	ND	ND	ND
1,1,1-Trichloroethane	60	ND	ND	ND	260
Trichloroethene	ND	ND	ND	ND	10
Oil and Grease	ND	ND	6	ND	25

No other VOCs were detected.

1 Sampled from off-site storm drain.
ND = Not Detected. Detection Limit = 5 ug/L

Table 5: Summary of Soil Sample Analyses for the CAM 17 Metals and Total Oil and Grease

Concentrations in mg/kg

	WP1-1.5	WP1-3.0	WP2-0.5	WP2-1.5	WP2-3.0	WP3-1.0	WP3-4.0	WP4-1.0	WP4-2.5	WP4-4.0
Antimony	5	2	2	1	1	3	2	12	2	2
Arsenic	10	2	4	3	2	13	2	9	4	<1
Barium	110	22	300	160	170	30	42	140	440	84
Beryllium	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.2	0.2	<0.1
Cadmium	0.4	<0.1	0.1	<0.1	<0.1	<0.1	<0.1	2	<0.1	<0.1
Chromium	160	21	2	8	10	20	22	150	40	70
Cobalt	8	3	12	9	7	8	8	20	15	11
Copper	450	21	51	41	39	24	16	180	48	29
Lead	10	3	13	9	7	8	5	370	10	14
Mercury	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	<0.1	<0.1
Molybdenum	17	<1	<1	<1	<1	<1	<1	6	<1	<1
Nickel	34	20	16	20	20	23	31	320	57	70
Selenium	2	<1	<1	<1	<1	<1	<1	<1	<1	<1
Silver	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Thallium	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Vanadium	40	11	33	32	22	28	25	44	40	25
Zinc	280	32	79	69	51	52	36	370	74	45
Total Oil and Grease	270	70	990	380	370	210	880	660	50	130

	B1-1.5	B1-2.0	B1-4.0	B2-1.5	B2-2.5	B2-3.5	B2-0.5	SD-S1	TTLC	PEAR
Antimony	2	2	2	2	1	<1	2	1	500	500
Arsenic	2	11	<1	3	3	2	4	2	500	1,000
Barium	95	60	28	95	83	57	120	77	10,000	70,000
Beryllium	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	75	7,000
Cadmium	1.4	0.6	<0.1	0.1	<0.1	<0.1	<0.1	3.5	100	1,000
Chromium	26	30	33	20	16	20	14	16	2,500	7,000
Cobalt	10	9	9	8	6	5	9	6	800	--
Copper	40	36	42	28	32	51	34	29	2,500	--
Lead	110	46	8	8	7	5	11	150	1,000	2,000
Mercury	0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.3	20	400
Molybdenum	<1	2	1	<1	<1	<1	<1	<1	3,500	--
Nickel	36	38	44	25	26	24	25	26	2,000	20,000
Selenium	<1	<1	<1	<1	<1	<1	<1	<1	100	4,000
Silver	<0.5	<0.5	<0.5	<0.5	<0.1	<0.5	<0.5	<0.5	100	4,000
Thallium	<1	<1	<1	<1	<1	<1	<1	<1	700	100
Vanadium	37	31	30	31	23	17	39	21	2,400	9,000
Zinc	120	77	61	53	47	43	61	240	5,000	200,000
Total Oil and Grease	1,600	1,100	780	520	350	3,500	280	3,400		

TTLC = Total Threshold Limit Concentrations from CCR Title 22

PEAR = Preliminary Endangerment Assessment Report screening values

KEY TO BORING LOG SYMBOLS

UNIFIED SOIL CLASSIFICATION SYSTEM - ASTM D2488

MAJOR DIVISIONS			SYMBOL/ GRAPHIC	DESCRIPTIONS
COARSE GRAINED SOILS (>50% larger than #200 sieve)	GRAVELS (More than 50% of coarse fraction is larger than the #4 sieve size.)	Clean gravels with little or no fines	GW	Well graded gravels, gravel-sand mixtures
			GP	Poorly graded gravels, gravel-sand mixtures
		Gravels with over 12% fines	GM	Silty gravels, poorly graded gravel-sand-silt mixtures
			GC	Clayey gravels, poorly graded gravel-sand-clay mixtures
	SANDS (More than 50% of coarse fraction is smaller than the #4 sieve size.)	Clean sands with little or no fines	SW	Well graded sands, gravelly sands
			SP	Poorly graded sands, gravelly sands
		Sands with over 12% fines	SM	Silty sands, poorly graded, sand-silt mixtures
			SC	Clayey sands, poorly graded, sand-clay mixtures
FINE GRAINED SOILS (>50% smaller than #200 sieve)	SILTS AND CLAYS (liquid limit < 50)		ML	Inorganic silts and very fine sands, silty or clayey fine sands
			CL	Inorganic clays of low to medium plasticity; gravelly, sandy or silty clays, lean clays
			OL	Organic clays and organic silty clays of low plasticity
	SILTS AND CLAYS (liquid limit > 50)		MH	Inorganic silts, micaceous or diatomaceous fine sandy or silty soils; elastic silts
			CH	Inorganic clays of high plasticity, fat clays
			OH	Organic clays of medium to high plasticity, organic silts
HIGHLY ORGANIC SOILS			Pt	Peat and other highly organic soils
				Asphaltic Concrete
				Portland Cement Concrete
				Cement Grout

Stabilized water level

Water level encountered during drilling

Shaded interval represents soil sample
Blackened interval indicates portion of sample prepared for laboratory analysis

Indicates no recovery of sample

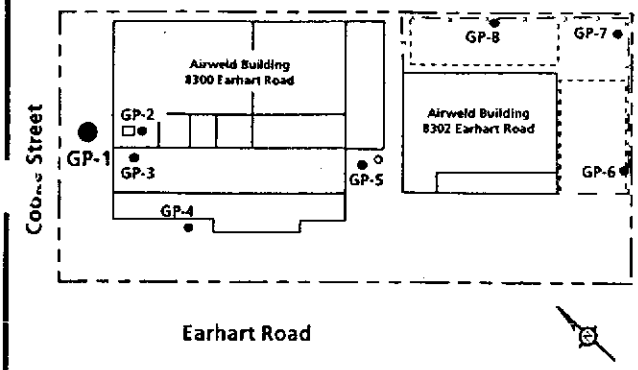
Monitoring well

Soil boring

PID Photoionization detector readings (ppmv)

FID Flame ionization detector readings (ppmv)

EXP Gastech explosimeter readings (ppmv)



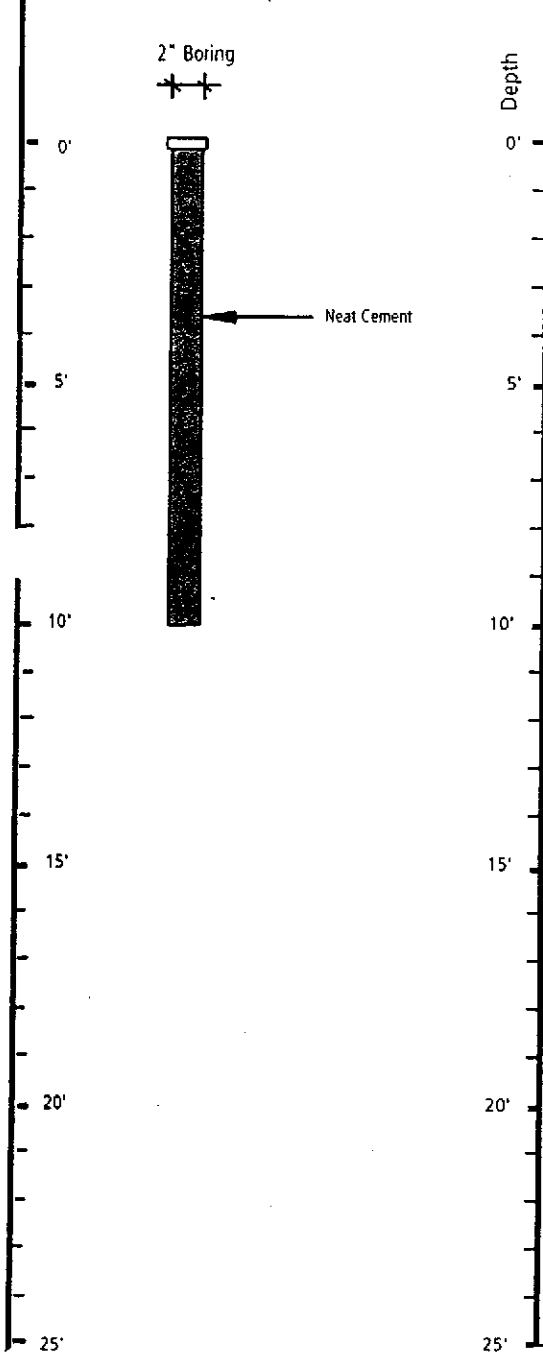
LOG OF BORING GP-1

Airweld
8300/8302 Earhart Road
Oakland, California

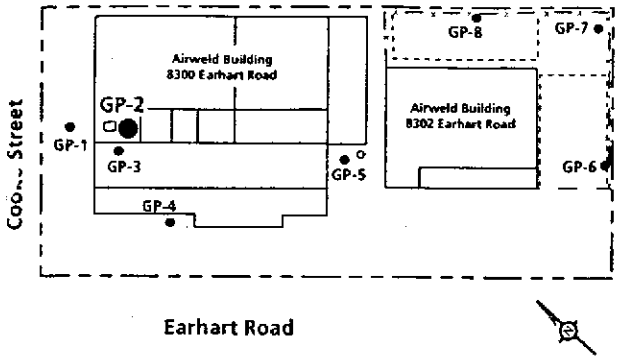
Project No.: RC000548.0001.00001	Date drilled: 1 March 2001
Logged by: Nader Sherif	Drilling method: Envirocore/Direct Push
Drilling Co.: Precision Sampling	Sampling method: Continuous Core
Driller: Jose Ambriz	Driller's license: C57-636387

WELL CONSTRUCTION

DESCRIPTION



Depth	Blows/ft.	Headspace (ppm)	Sample	Key	
0'					CONCRETE AND RUBBLE.
					GRAVELLY SAND (SW); brown (7.5YR 4/2); well graded; dense; wet.
5'					CLAY (CL); greenish gray (10GY 2.5/1); soft; moist.
10'					Total depth explored: 10 feet Date completed: 3/2/01
15'					
20'					
25'					



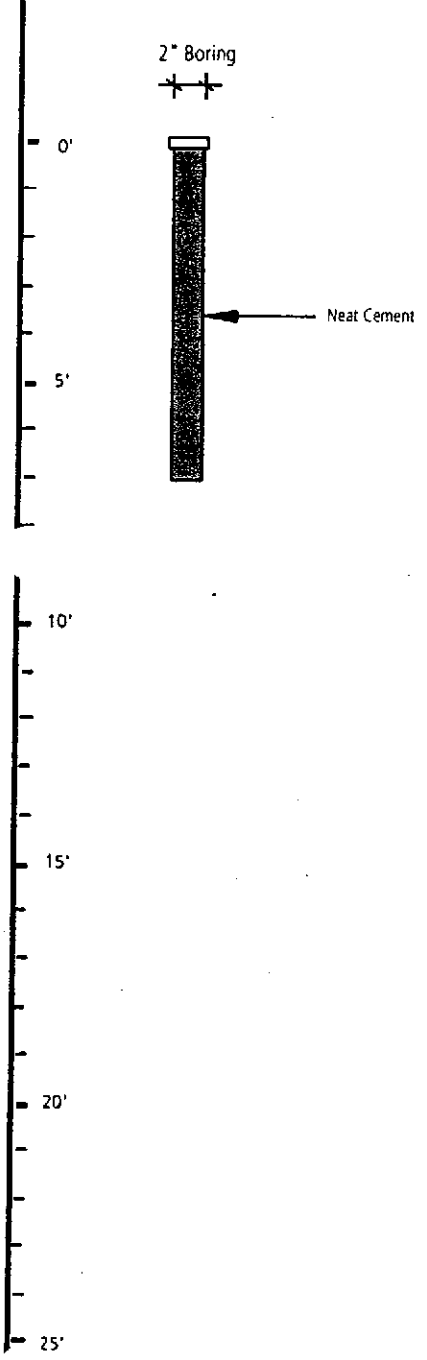
LOG OF BORING GP-2

Airweld
8300/8302 Earhart Road
Oakland, California

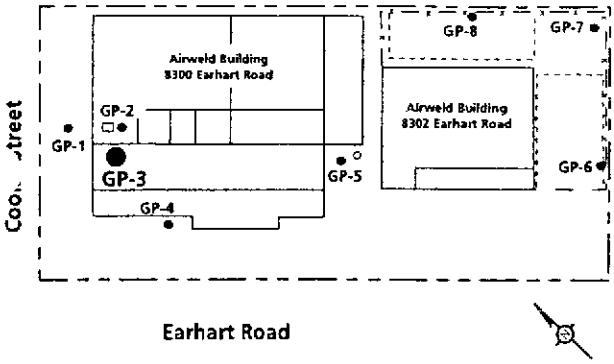
Project No.: RC000548.0001.00001	Date drilled: 2 March 2001
Logged by: Nader Sherif	Drilling method: Envirocore/Direct Push
Drilling Co.: Precision Sampling	Sampling method: Continuous Core
Driller: Jose Ambriz	Driller's license: C57-636387

WELL CONSTRUCTION

DESCRIPTION



Depth	Blows/ft.	Headspace (ppm)	Sample	Key	
0'					CONCRETE AND RUBBLE.
					SILTY SAND (SM); brown (7.5YR 4/2); 75% sand; 20% silt; 5% gravel; poorly graded, loose; moist.
5'					CLAY (CL); greenish gray (10GY 2.5/1); soft; moist.
					Total depth explored: 7 feet Date completed: 3/2/01
10'					
15'					
20'					
25'					

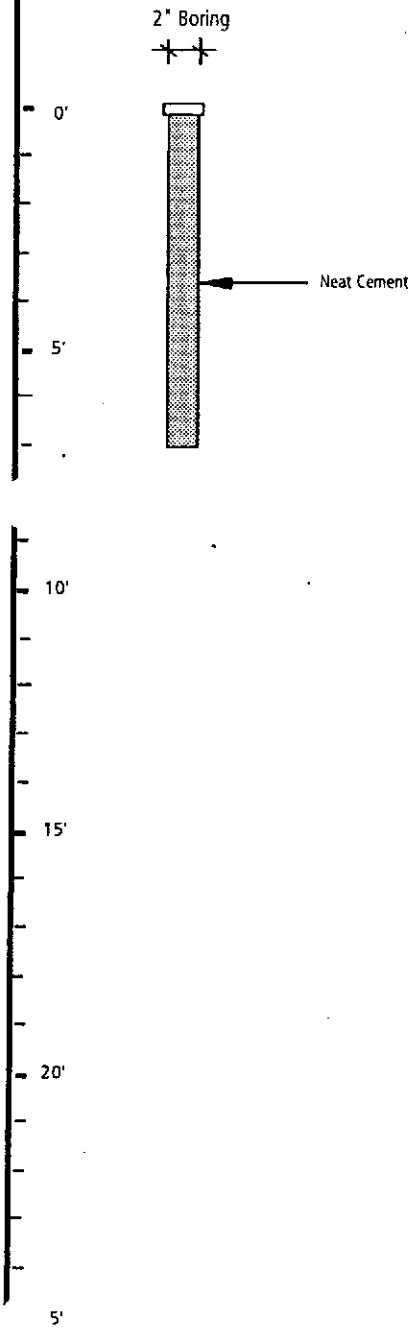


LOG OF BORING GP-3

Airweld
8300/8302 Earhart Road
Oakland, California

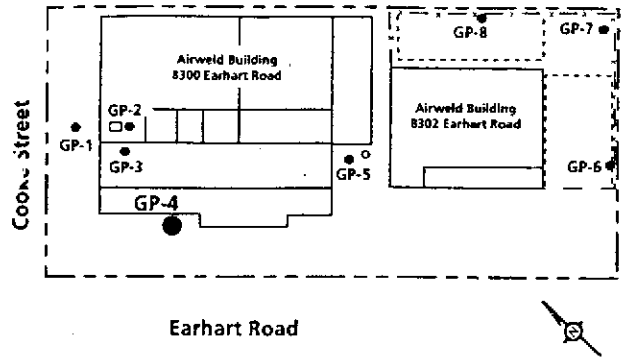
Project No.: RC000548.0001.00001	Date drilled: 2 March 2001
Logged by: Nader Sherif	Drilling method: Envirocore/Direct Push
Drilling Co.: Precision Sampling	Sampling method: Continuous Core
Driller: Jose Ambriz	Driller's license: C57-636387

WELL CONSTRUCTION



DESCRIPTION

Depth	Blows/ft.	Headspace (ppm)	Sample	Key	
0'					CONCRETE AND RUBBLE.
					GRAVELLY SAND (SW); brown (7.5YR 4/2); 30% gravel; well graded; fine sand; wet.
5'					CLAY (CL); greenish gray (10GY 2.5/1); soft; moist.
					Total depth explored: 7 feet Date completed: 3/2/01
10'					
15'					
20'					
25'					

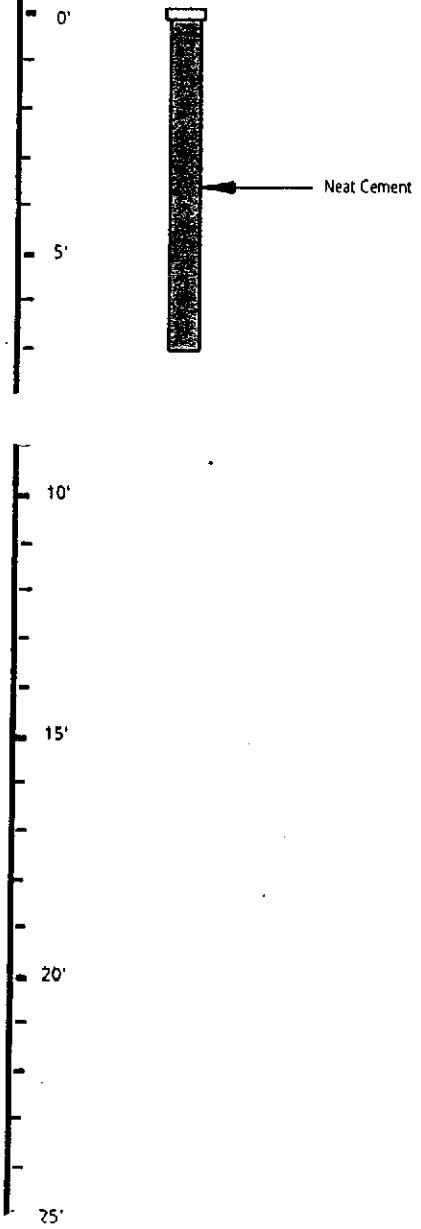


LOG OF BORING GP-4

Airweld
8300/8302 Earhart Road
Oakland, California

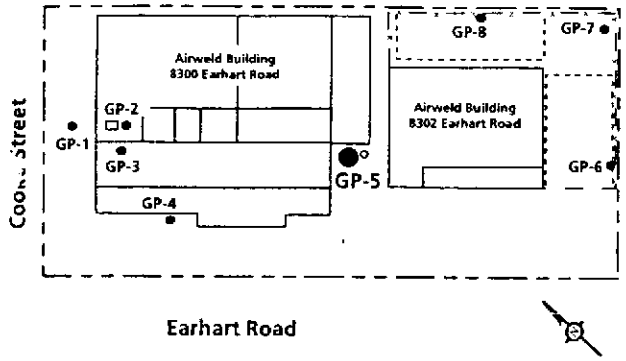
Project No.: RC000548.0001.00001	Date drilled: 2 March 2001
Logged by: Nader Sherif	Drilling method: Envirocore/Direct Push
Drilling Co.: Precision Sampling	Sampling method: Continuous Core
Driller: Jose Ambriz	Driller's license: C57-636387

WELL CONSTRUCTION



DESCRIPTION

Depth	Blows/ft.	Headspace (ppm)	Sample	Key	
0'					GRAVEL,CONCRETE, RUBBLE, ROCK AND SAND.
					GRAVELLY SAND (SW); brown (7.5YR 4/2); well graded; dense; wet.
5'					CLAY (CL); greenish gray (10GY 2.5/1); soft; moist.
					Total depth explored: 7 feet Date completed: 3/2/01
10'					
15'					
20'					
25'					

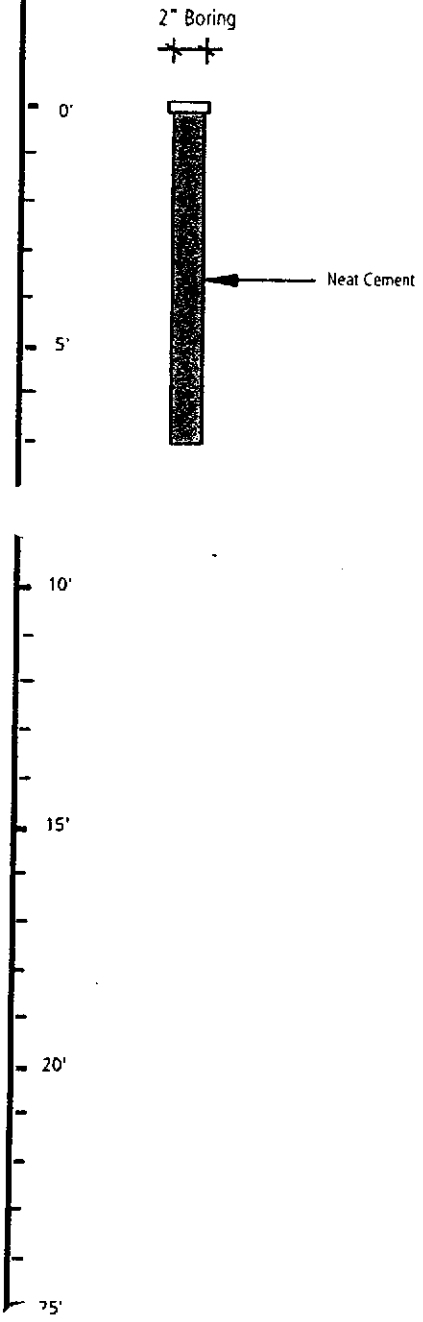


LOG OF BORING GP-5

Airweld
8300/8302 Earhart Road
Oakland, California

Project No.: RC000548.0001.00001	Date drilled: 2 March 2001
Logged by: Nader Sherif	Drilling method: Envirocore/Direct Push
Drilling Co.: Precision Sampling	Sampling method: Continuous Core
Driller: Jose Ambriz	Driller's license: C57-636387

WELL CONSTRUCTION



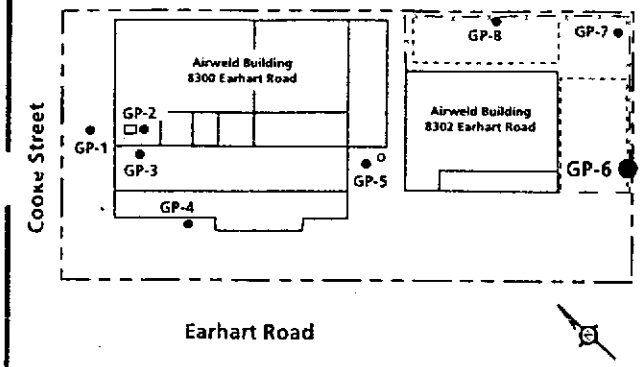
DESCRIPTION

Depth	Blows/ft.	Headspace (ppm)	Sample	Key	
0'					GRAVELLY SAND (SW); brown (7.5YR 4/2); well graded; 30% gravel; dense; wet.
5'					CLAY (CL); greenish gray (10GY 2.5/1); soft; moist.
					Total depth explored: 7 feet Date completed: 3/2/01
10'					
15'					
20'					
25'					

GP-6

LOG OF BORING GP-6

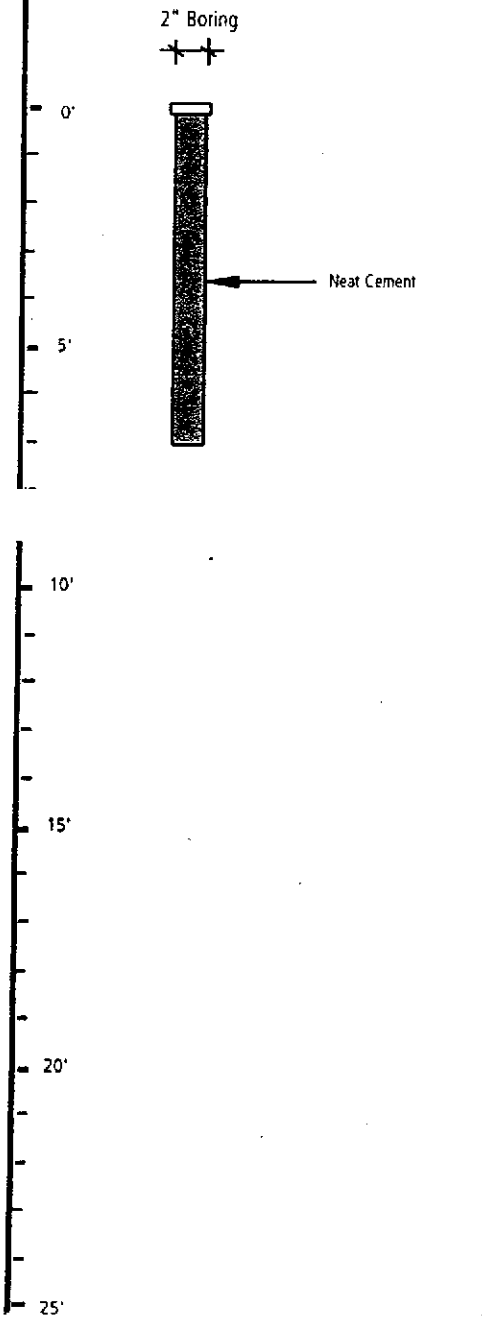
Airweld
8300/8302 Earhart Road
Oakland, California



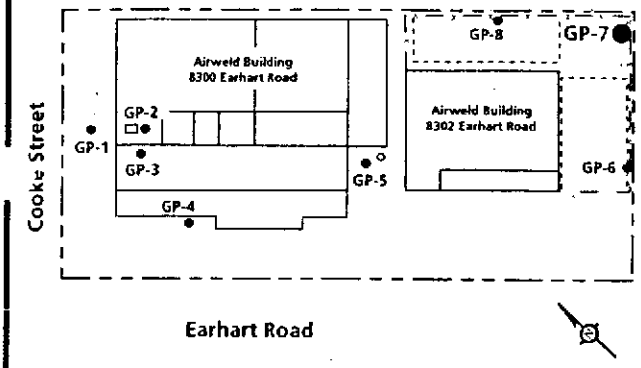
Project No.: RC000548.0001.00001	Date drilled: 2 March 2001
Logged by: Nader Sherif	Drilling method: Envirocore/Direct Push
Drilling Co.: Precision Sampling	Sampling method: Continuous Core
Driller: Jose Ambriz	Driller's license: C57-636387

WELL CONSTRUCTION

DESCRIPTION



Depth	Blows/ft.	Headspace (ppm)	Sample	Key	
0'					CONCRETE AND RUBBLE.
					GRAVELLY SAND (SW); brown (7.5YR 4/2); well graded; 30% gravel; dense; wet.
5'					CLAY (CL); greenish gray (10GY 2.5/1); soft; moist.
					Total depth explored: 7 feet Date completed: 3/1/01
10'					
15'					
20'					
25'					



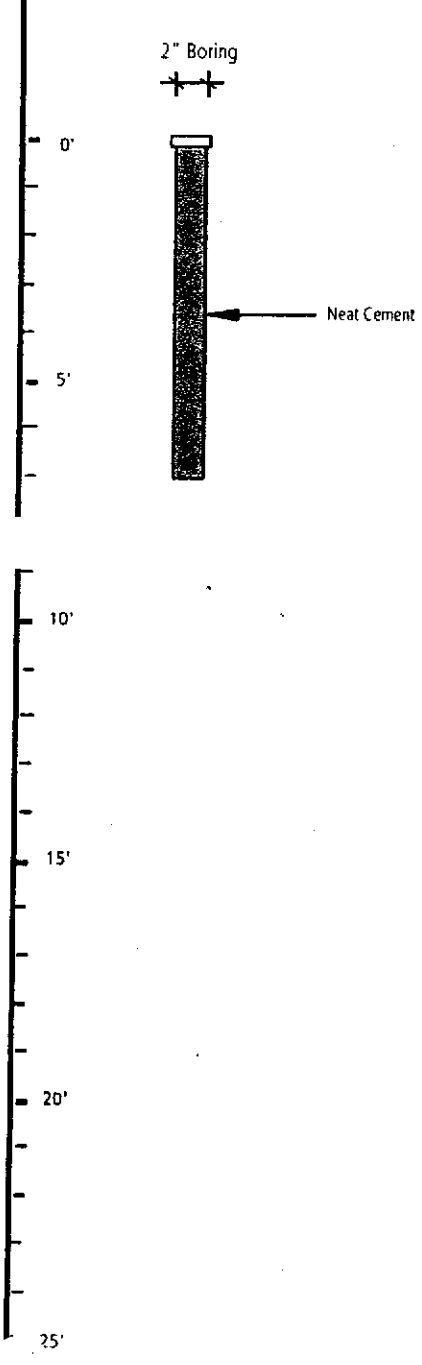
LOG OF BORING GP-7

Airweld
8300/8302 Earhart Road
Oakland, California

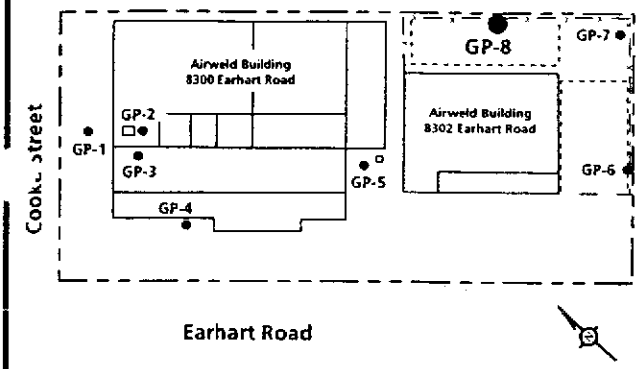
Project No.: RC000548.0001.00001	Date drilled: 1 March 2001
Logged by: Nader Sherif	Drilling method: Envirocore/Direct Push
Drilling Co.: Precision Sampling	Sampling method: Continuous Core
Driller: Jose Ambriz	Driller's license: C57-636387

WELL CONSTRUCTION

DESCRIPTION



Depth	Blows/ft.	Headspace (ppm)	Sample	Key	
0'					CONCRETE AND RUBBLE.
					GRAVELLY SAND (SW); brown (7.5YR 4/2); well graded; 30% gravel; dense; wet.
5'					CLAY (CL); greenish gray (10GY 2.5/1); soft; moist.
					Total depth explored: 7 feet Date completed: 3/1/01
10'					
15'					
20'					
25'					



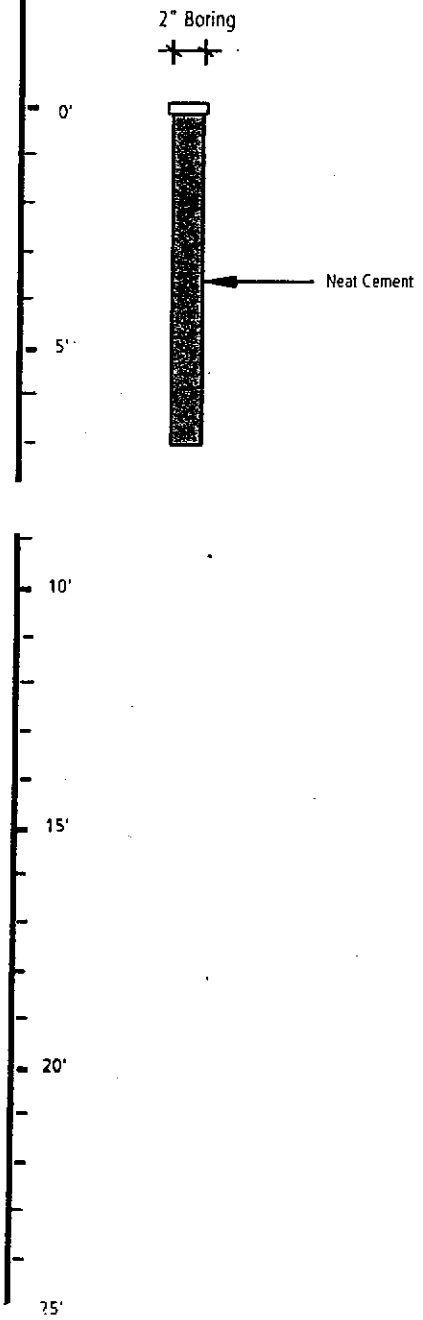
LOG OF BORING GP-8

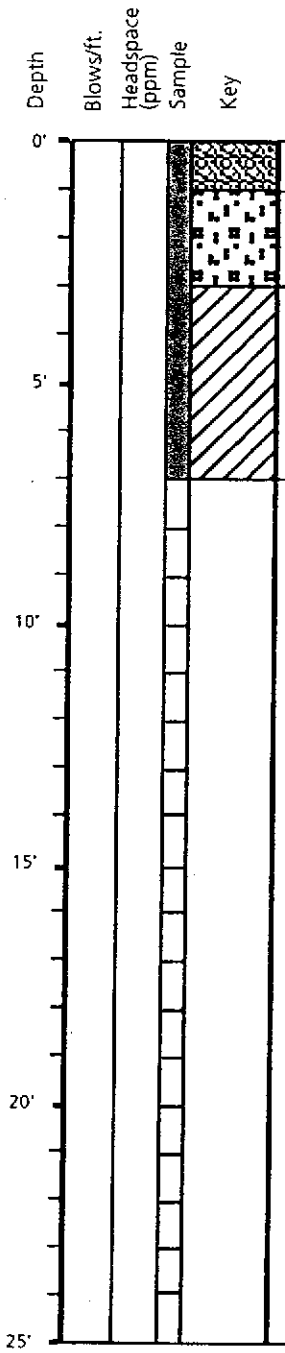
Airweld
8300/8302 Earhart Road
Oakland, California

Project No.: RC000548.0001.00001	Date drilled: 1 March 2001
Logged by: Nader Sherif	Drilling method: Envirocore/Direct Push
Drilling Co.: Precision Sampling	Sampling method: Continuous Core
Driller: Jose Ambriz	Driller's license: C57-636387

WELL CONSTRUCTION

DESCRIPTION





CONCRETE AND RUBBLE.

GRAVEL (GW); dark brown (3/2); well graded; dense; traces of red dirt; moist.

CLAY (CL); greenish gray (10GY 2.5/1); soft; moist.

Total depth explored: 7 feet
Date completed: 3/1/01

APPENDIX C

LABORATORY ANALYTICAL RESULTS AND
CHAIN-OF-CUSTODY DOCUMENTATION

McCAMPBELL ANALYTICAL INC.
110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
Telephone : 925-798-1620 Fax : 925-798-1622
http://www.mccampbell.com E-mail: main@mccampbell.com

Arcadis Geraghty & Miller	Client Project ID: #RC000548.001.00001; Airweld	Date Sampled: 03/01-03/02/01
1050 Marina Way South		Date Received: 03/05/01
Richmond, Ca 94804	Client Contact: Kent O'Brien	Date Extracted: 03/05/01
	Client P.O:	Date Analyzed: 03/05/01

03/15/2001

Dear Kent:

Enclosed are:

1). the results of **8** samples from your **#RC000548.001.00001; Airweld** project,

2). a QC report for the above samples

3). a copy of the chain of custody, and

4). a bill for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits. If you have any questions please contact me. McCampbell Analytical Laboratories strives for excellence in quality, service and cost. Thank you for your business and I look forward to working with you again.

Yours truly,

Edward Hamilton, Lab Director

ARC .S GERAGHTY & MILLER

24 120 Z Rgms

Laboratory Task Order No./P.O. No. _____

CHAIN-OF-CUSTODY RECORD

Page ___ of ___

Project Number/Name RC000545.0001.00001 / Maxwell

Project Location Oakland

Laboratory McCampbell

Project Manager Kent Dibble

Sampler(s)/Affiliation M. Short

Sample ID/Location	Matrix	Date/Time Sampled	Lab ID	TPH-Gas w/ Silica Gel Cleanup	VOC's 8260	CAM 17 Metals (6010	PAH's	3/12b1	Remarks	Total
CP-1 2'	S	3/1/01	61622	X	X	X	X		* differentiate	1
CP-2 2'		3/1/01	61623	X	X	X	X		of gasoline, diesel,	1
CP-3 2.5'		3/1/01	61624	X	X	X	X		motor oil, and	1
CP-4 2'		3/1/01	61625	X	X				hydraulic oil	1
CP-5 3'		3/1/01	61626	X	X		X			1
CP-6 2.5'		3/1/01	61627	X	X					1
CP-7 2.5'		3/1/01	61628	X	X		X		* Analyze the 3	1
CP-8 2'		3/1/01	61629	X	X				Samples with the	1
									highest TPH for	
									PAH's	
									#ND times	
									were recorded	
										11
										8

Sample Matrix: L = Liquid; S = Solid; A = Air

Total No. of Bottles/ Containers

					Seal Intact?
Relinquished by:		Organization:	Date 03/01/01	Time 1115	Yes No N/A
Received by:		Organization:	Date 3/1/01	Time 1115	
Relinquished by:		Organization:	Date / /	Time	Seal Intact?
Received by:		Organization:	Date / /	Time	Yes No N/A

Special Instructions/Remarks: _____

Delivery Method: ☐ In Person ☐ Common Carrier _____ ☐ Lab Courier ☐ Other _____

SPECIFY

SPECIFY

AG 05-0557

McCAMPBELL ANALYTICAL INC.

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Telephone : 925-798-1620 Fax : 925-798-1622
http://www.mccampbell.com E-mail: main@mccampbell.com

Arcadis Geraghty & Miller	Client Project ID: #RC000548.001.00001; Airweld	Date Sampled: 03/01-03/02/01
1050 Marina Way South		Date Received: 03/05/01
Richmond, Ca 94804	Client Contact: Kent O'Brien	Date Extracted: 03/06/01
	Client P.O:	Date Analyzed: 03/08/01

Volatile Organics By GC/MS

EPA method 8260

Lab ID	61622
Client ID	GP-1 2'
Matrix	S

Compound	Concentration*	Reporting Limit W	Reporting Limit S	Compound	Concentration*	Reporting Limit W	Reporting Limit S
Acetone [b]	ND	5.0	25	trans-1,3-Dichloropropene	ND	1.0	5.0
Benzene	ND	1.0	5.0	Ethylene dibromide	ND	1.0	5.0
Bromobenzene	ND	1.0	5.0	Ethylbenzene	ND	1.0	5.0
Bromochloromethane	ND	1.0	5.0	Hexachlorobutadiene	ND	5.0	25
Bromodichloromethane	ND	1.0	5.0	Iodomethane	ND	1.0	5.0
Bromoform	ND	1.0	5.0	Isopropylbenzene	ND	1.0	5.0
Bromomethane	ND	1.0	5.0	p-Isopropyl toluene	ND	1.0	5.0
n-Butyl benzene	ND	1.0	5.0	Methyl butyl ketone [d]	ND	1.0	5.0
sec-Butyl benzene	ND	1.0	5.0	Methylene Chloride [e]	ND<10	1.0	5.0
tert-Butyl benzene	ND	1.0	5.0	Methyl ethyl ketone [f]	ND	2.0	10
Carbon Disulfide	12	1.0	5.0	Methyl isobutyl ketone [g]	ND	1.0	5.0
Carbon Tetrachloride	ND	1.0	5.0	Methyl tert-Butyl Ether (MTBE)	---	1.0	5.0
Chlorobenzene	ND	1.0	5.0	Naphthalene	ND	5.0	5.0
Chloroethane	ND	1.0	5.0	n-Propyl benzene	ND	1.0	5.0
2-Chloroethyl Vinyl Ether [c]	ND	1.0	5.0	Styrene [k]	ND	1.0	5.0
Chloroform	ND	1.0	5.0	1,1,1,2-Tetrachloroethane	ND	1.0	5.0
Chloromethane	ND	1.0	5.0	1,1,2,2-Tetrachloroethane	ND	1.0	5.0
2-Chlorotoluene	ND	1.0	5.0	Tetrachloroethene	ND	1.0	5.0
4-Chlorotoluene	ND	1.0	5.0	Toluene [l]	ND	1.0	5.0
Dibromochloromethane	ND	1.0	5.0	1,2,3-Trichlorobenzene	ND	5.0	25
1,2-Dibromo-3-chloropropane	ND	2.0	10	1,2,4-Trichlorobenzene	ND	5.0	25
Dibromomethane	ND	1.0	5.0	1,1,1-Trichloroethane	ND	1.0	5.0
1,2-Dichlorobenzene	ND	1.0	5.0	1,1,2-Trichloroethane	ND	1.0	5.0
1,3-Dichlorobenzene	ND	1.0	5.0	Trichloroethene	ND	1.0	5.0
1,4-Dichlorobenzene	ND	1.0	5.0	Trichlorofluoromethane	ND	1.0	5.0
Dichlorodifluoromethane	ND	1.0	5.0	1,2,3-Trichloropropane	ND	1.0	5.0
1,1-Dichloroethane	ND	1.0	5.0	1,2,4-Trimethylbenzene	ND	1.0	5.0
1,2-Dichloroethane	ND	1.0	5.0	1,3,5-Trimethylbenzene	ND	1.0	5.0
1,1-Dichloroethene	ND	1.0	5.0	Vinyl Acetate [m]	ND	5.0	25
cis-1,2-Dichloroethene	ND	1.0	5.0	Vinyl Chloride [n]	ND	1.0	5.0
trans-1,2-Dichloroethene	ND	1.0	5.0	Xylenes, total [o]	ND	1.0	5.0
1,2-Dichloropropane	ND	1.0	5.0	**Comments:**			
1,3-Dichloropropane	ND	1.0	5.0	**Surrogate Recoveries (%)**			
2,2-Dichloropropane	ND	1.0	5.0	Dibromofluoromethane	98		
1,1-Dichloropropene	ND	1.0	5.0	Toluene-d8	99		
cis-1,3-Dichloropropene	ND	1.0	5.0	4-Bromofluorobenzene	100		

*water and vapor samples are reported in ug/L, soil and sludge samples in ug/kg, wipes in ug/wipe and all TCLP / SPLP extracts in ug/L

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis

(b) 2-propanone or dimethyl ketone; (c) (2-chloroethoxy) ethene; (d) 2-hexanone; (e) dichloromethane; (f) 2-butanone; (g) 4-methyl-2-pentanone or isopropylacetone; (h) lighter than water immiscible sheen is present; (i) liquid sample that contains greater than ~5 vol. % sediment; (j) sample diluted due to high organic content; (k) ethenylbenzene; (l) methylbenzene; (m) acetic acid ethenyl ester; (n) chloroethene; (o) dimethylbenzenes.

DHS Certification No. 1644

Edward Hamilton, Lab Director

McCAMPBELL ANALYTICAL INC.

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Arcadis Geraghty & Miller	Client Project ID: #RC000548.001.00001; Airweld	Date Sampled: 03/01-03/02/01
1050 Marina Way South		Date Received: 03/05/01
Richmond, Ca 94804	Client Contact: Kent O'Brien	Date Extracted: 03/06/01
	Client P.O:	Date Analyzed: 03/08/01

Volatile Organics By GC/MS

EPA method 8260

Lab ID	61623
Client ID	GP-2 2'
Matrix	S

Compound	Concentration*	Reporting Limit W	Reporting Limit S	Compound	Concentration*	Reporting Limit W	Reporting Limit S
Acetone [b]	ND	5.0	25	trans-1,3-Dichloropropene	ND	1.0	5.0
Benzene	ND	1.0	5.0	Ethylene dibromide	ND	1.0	5.0
Bromobenzene	ND	1.0	5.0	Ethylbenzene	ND	1.0	5.0
Bromochloromethane	ND	1.0	5.0	Hexachlorobutadiene	ND	5.0	25
Bromodichloromethane	ND	1.0	5.0	Iodomethane	ND	1.0	5.0
Bromoform	ND	1.0	5.0	Isopropylbenzene	ND	1.0	5.0
Bromomethane	ND	1.0	5.0	p-Isopropyl toluene	ND	1.0	5.0
n-Butyl benzene	ND	1.0	5.0	Methyl butyl ketone [d]	ND	1.0	5.0
sec-Butyl benzene	ND	1.0	5.0	Methylene Chloride [e]	ND<10	1.0	5.0
tert-Butyl benzene	ND	1.0	5.0	Methyl ethyl ketone [f]	ND	2.0	10
Carbon Disulfide	ND	1.0	5.0	Methyl isobutyl ketone [g]	ND	1.0	5.0
Carbon Tetrachloride	ND	1.0	5.0	Methyl tert-Butyl Ether (MTBE)	---	1.0	5.0
Chlorobenzene	ND	1.0	5.0	Naphthalene	ND	5.0	5.0
Chloroethane	ND	1.0	5.0	n-Propyl benzene	ND	1.0	5.0
2-Chloroethyl Vinyl Ether [c]	ND	1.0	5.0	Styrene [k]	ND	1.0	5.0
Chloroform	ND	1.0	5.0	1,1,1,2-Tetrachloroethane	ND	1.0	5.0
Chloromethane	ND	1.0	5.0	1,1,2,2-Tetrachloroethane	ND	1.0	5.0
2-Chlorotoluene	ND	1.0	5.0	Tetrachloroethene	ND	1.0	5.0
4-Chlorotoluene	ND	1.0	5.0	Toluene [l]	ND	1.0	5.0
Dibromochloromethane	ND	1.0	5.0	1,2,3-Trichlorobenzene	ND	5.0	25
1,2-Dibromo-3-chloropropane	ND	2.0	10	1,2,4-Trichlorobenzene	ND	5.0	25
Dibromomethane	ND	1.0	5.0	1,1,1-Trichloroethane	36	1.0	5.0
1,2-Dichlorobenzene	ND	1.0	5.0	1,1,2-Trichloroethane	ND	1.0	5.0
1,3-Dichlorobenzene	ND	1.0	5.0	Trichloroethene	ND	1.0	5.0
1,4-Dichlorobenzene	ND	1.0	5.0	Trichlorofluoromethane	ND	1.0	5.0
Dichlorodifluoromethane	ND	1.0	5.0	1,2,3-Trichloropropane	ND	1.0	5.0
1,1-Dichloroethane	ND	1.0	5.0	1,2,4-Trimethylbenzene	ND	1.0	5.0
1,2-Dichloroethane	ND	1.0	5.0	1,3,5-Trimethylbenzene	ND	1.0	5.0
1,1-Dichloroethene	ND	1.0	5.0	Vinyl Acetate [m]	ND	5.0	25
cis-1,2-Dichloroethene	ND	1.0	5.0	Vinyl Chloride [o]	ND	1.0	5.0
trans-1,2-Dichloroethene	ND	1.0	5.0	Xylenes, total [o]	ND	1.0	5.0
1,2-Dichloropropane	ND	1.0	5.0	**Comments:**			
1,3-Dichloropropane	ND	1.0	5.0	**Surrogate Recoveries (%)**			
2,2-Dichloropropane	ND	1.0	5.0	Dibromofluoromethane	95		
1,1-Dichloropropene	ND	1.0	5.0	Toluene-d8	100		
cis-1,3-Dichloropropene	ND	1.0	5.0	4-Bromofluorobenzene	104		

*water and vapor samples are reported in ug/L, soil and sludge samples in ug/kg, wipes in ug/wipe and all TCLP / SPLP extracts in ug/L

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis

(b) 2-propanone or dimethyl ketone; (c) (2-chloroethoxy) ethene; (d) 2-hexanone; (e) dichloromethane; (f) 2-butanone; (g) 4-methyl-2-pentanone or isopropylacetone; (h) lighter than water immiscible sheen is present; (i) liquid sample that contains greater than ~5 vol. % sediment; (j) sample diluted due to high organic content; (k) ethenylbenzene; (l) methylbenzene; (m) acetic acid ethenyl ester; (n) chloroethene; (o) dimethylbenzenes.

DHS Certification No. 1644

Edward Hamilton, Lab Director

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Arcadis Geraghty & Miller	Client Project ID: #RC000548.001.00001; Airweld	Date Sampled: 03/01-03/02/01
1050 Marina Way South		Date Received: 03/05/01
Richmond, Ca 94804	Client Contact: Kent O'Brien	Date Extracted: 03/06/01
	Client P.O:	Date Analyzed: 03/08/01

Volatile Organics By GC/MS

EPA method 8260

Lab ID	61624
Client ID	GP-3 2.5'
Matrix	S

Compound	Concentration*	Reporting Limit W	Reporting Limit S	Compound	Concentration*	Reporting Limit W	Reporting Limit S
Acetone [b]	ND	5.0	25	trans-1,3-Dichloropropene	ND	1.0	5.0
Benzene	ND	1.0	5.0	Ethylene dibromide	ND	1.0	5.0
Bromobenzene	ND	1.0	5.0	Ethylbenzene	ND	1.0	5.0
Bromochloromethane	ND	1.0	5.0	Hexachlorobutadiene	ND	5.0	25
Bromodichloromethane	ND	1.0	5.0	Iodomethane	ND	1.0	5.0
Bromoform	ND	1.0	5.0	Isopropylbenzene	ND	1.0	5.0
Bromomethane	ND	1.0	5.0	p-Isopropyl toluene	ND	1.0	5.0
n-Butyl benzene	ND	1.0	5.0	Methyl butyl ketone [d]	ND	1.0	5.0
sec-Butyl benzene	ND	1.0	5.0	Methylene Chloride [e]	ND<10	1.0	5.0
tert-Butyl benzene	ND	1.0	5.0	Methyl ethyl ketone [f]	ND	2.0	10
Carbon Disulfide	ND	1.0	5.0	Methyl isobutyl ketone [g]	ND	1.0	5.0
Carbon Tetrachloride	ND	1.0	5.0	Methyl tert-Butyl Ether (MTBE)	---	1.0	5.0
Chlorobenzene	ND	1.0	5.0	Naphthalene	ND	5.0	5.0
Chloroethane	ND	1.0	5.0	n-Propyl benzene	ND	1.0	5.0
2-Chloroethyl Vinyl Ether [c]	ND	1.0	5.0	Styrene [k]	ND	1.0	5.0
Chloroform	ND	1.0	5.0	1,1,1,2-Tetrachloroethane	ND	1.0	5.0
Chloromethane	ND	1.0	5.0	1,1,2,2-Tetrachloroethane	ND	1.0	5.0
2-Chlorotoluene	ND	1.0	5.0	Tetrachloroethene	ND	1.0	5.0
4-Chlorotoluene	ND	1.0	5.0	Toluene [l]	ND	1.0	5.0
Dibromochloromethane	ND	1.0	5.0	1,2,3-Trichlorobenzene	ND	5.0	25
1,2-Dibromo-3-chloropropane	ND	2.0	10	1,2,4-Trichlorobenzene	ND	5.0	25
Dibromomethane	ND	1.0	5.0	1,1,1-Trichloroethane	ND	1.0	5.0
1,2-Dichlorobenzene	ND	1.0	5.0	1,1,2-Trichloroethane	ND	1.0	5.0
1,3-Dichlorobenzene	ND	1.0	5.0	Trichloroethene	ND	1.0	5.0
1,4-Dichlorobenzene	ND	1.0	5.0	Trichlorofluoromethane	ND	1.0	5.0
Dichlorodifluoromethane	ND	1.0	5.0	1,2,3-Trichloropropane	ND	1.0	5.0
1,1-Dichloroethane	ND	1.0	5.0	1,2,4-Trimethylbenzene	ND	1.0	5.0
1,2-Dichloroethane	ND	1.0	5.0	1,3,5-Trimethylbenzene	ND	1.0	5.0
1,1-Dichloroethene	ND	1.0	5.0	Vinyl Acetate [m]	ND	5.0	25
cis-1,2-Dichloroethene	ND	1.0	5.0	Vinyl Chloride [a]	ND	1.0	5.0
trans-1,2-Dichloroethene	ND	1.0	5.0	Xylenes, total [o]	ND	1.0	5.0
1,2-Dichloropropane	ND	1.0	5.0	**Comments:**			
1,3-Dichloropropane	ND	1.0	5.0	**Surrogate Recoveries (%)**			
2,2-Dichloropropane	ND	1.0	5.0	Dibromofluoromethane	94		
1,1-Dichloropropene	ND	1.0	5.0	Toluene-d8	101		
cis-1,3-Dichloropropene	ND	1.0	5.0	4-Bromofluorobenzene	104		

*water and vapor samples are reported in ug/L, soil and sludge samples in ug/kg, wipes in ug/wipe and all TCLP / SPLP extracts in ug/L

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis

(b) 2-propanone or dimethyl ketone; (c) (2-chloroethoxy) ethene; (d) 2-hexanone; (e) dichloromethane; (f) 2-butanone; (g) 4-methyl-2-pentanone or isopropylacetone; (h) lighter than water immiscible sheen is present; (i) liquid sample that contains greater than ~5 vol. % sediment; (j) sample diluted due to high organic content; (k) ethenylbenzene; (l) methylbenzene; (m) acetic acid ethenyl ester; (n) chloroethene; (o) dimethylbenzenes.

DHS Certification No. 1644

Edward Hamilton, Lab Director

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110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
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http://www.mccampbell.com E-mail: main@mccampbell.com

Arcadis Geraghty & Miller	Client Project ID: #RC000548.001.00001; Airweld	Date Sampled: 03/01-03/02/01
1050 Marina Way South		Date Received: 03/05/01
Richmond, Ca 94804	Client Contact: Kent O'Brien	Date Extracted: 03/06/01
	Client P.O:	Date Analyzed: 03/08/01

Volatile Organics By GC/MS

EPA method 8260

Lab ID	61625
Client ID	GP-4 2'
Matrix	S

Compound	Concentration*	Reporting Limit W	Reporting Limit S	Compound	Concentration*	Reporting Limit W	Reporting Limit S
Acetone [b]	ND	5.0	25	trans-1,3-Dichloropropene	ND	1.0	5.0
Benzene	ND	1.0	5.0	Ethylene dibromide	ND	1.0	5.0
Bromobenzene	ND	1.0	5.0	Ethylbenzene	ND	1.0	5.0
Bromochloromethane	ND	1.0	5.0	Hexachlorobutadiene	ND	5.0	25
Bromodichloromethane	ND	1.0	5.0	Iodomethane	ND	1.0	5.0
Bromoform	ND	1.0	5.0	Isopropylbenzene	ND	1.0	5.0
Bromomethane	ND	1.0	5.0	p-Isopropyl toluene	ND	1.0	5.0
n-Butyl benzene	ND	1.0	5.0	Methyl butyl ketone [d]	ND	1.0	5.0
sec-Butyl benzene	ND	1.0	5.0	Methylene Chloride [e]	ND<10	1.0	5.0
tert-Butyl benzene	ND	1.0	5.0	Methyl ethyl ketone [f]	ND	2.0	10
Carbon Disulfide	ND	1.0	5.0	Methyl isobutyl ketone [g]	ND	1.0	5.0
Carbon Tetrachloride	ND	1.0	5.0	Methyl tert-Butyl Ether (MTBE)	---	1.0	5.0
Chlorobenzene	ND	1.0	5.0	Naphthalene	ND	5.0	5.0
Chloroethane	ND	1.0	5.0	n-Propyl benzene	ND	1.0	5.0
2-Chloroethyl Vinyl Ether [c]	ND	1.0	5.0	Styrene [k]	ND	1.0	5.0
Chloroform	ND	1.0	5.0	1,1,1,2-Tetrachloroethane	ND	1.0	5.0
Chloromethane	ND	1.0	5.0	1,1,2,2-Tetrachloroethane	ND	1.0	5.0
2-Chlorotoluene	ND	1.0	5.0	Tetrachloroethene	ND	1.0	5.0
4-Chlorotoluene	ND	1.0	5.0	Toluene [l]	ND	1.0	5.0
Dibromochloromethane	ND	1.0	5.0	1,2,3-Trichlorobenzene	ND	5.0	25
1,2-Dibromo-3-chloropropane	ND	2.0	10	1,2,4-Trichlorobenzene	ND	5.0	25
Dibromomethane	ND	1.0	5.0	1,1,1-Trichloroethane	ND	1.0	5.0
1,2-Dichlorobenzene	ND	1.0	5.0	1,1,2-Trichloroethane	ND	1.0	5.0
1,3-Dichlorobenzene	ND	1.0	5.0	Trichloroethene	ND	1.0	5.0
1,4-Dichlorobenzene	ND	1.0	5.0	Trichlorofluoromethane	ND	1.0	5.0
Dichlorodifluoromethane	ND	1.0	5.0	1,2,3-Trichloropropane	ND	1.0	5.0
1,1-Dichloroethane	ND	1.0	5.0	1,2,4-Trimethylbenzene	ND	1.0	5.0
1,2-Dichloroethane	ND	1.0	5.0	1,3,5-Trimethylbenzene	ND	1.0	5.0
1,1-Dichloroethene	ND	1.0	5.0	Vinyl Acetate [m]	ND	5.0	25
cis-1,2-Dichloroethene	ND	1.0	5.0	Vinyl Chloride [n]	ND	1.0	5.0
trans-1,2-Dichloroethene	ND	1.0	5.0	Xylenes, total [o]	ND	1.0	5.0
1,2-Dichloropropane	ND	1.0	5.0	**Comments:**			
1,3-Dichloropropane	ND	1.0	5.0	**Surrogate Recoveries (%)**			
2,2-Dichloropropane	ND	1.0	5.0	Dibromofluoromethane	93		
1,1-Dichloropropene	ND	1.0	5.0	Toluene-d8	101		
cis-1,3-Dichloropropene	ND	1.0	5.0	4-Bromofluorobenzene	105		

*water and vapor samples are reported in ug/L, soil and sludge samples in ug/kg, wipes in ug/wipe and all TCLP / SPLP extracts in ug/L

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis

(b) 2-propanone or dimethyl ketone; (c) (2-chloroethoxy) ethene; (d) 2-hexanone; (e) dichloromethane; (f) 2-butanone; (g) 4-methyl-2-pentanone or isopropylacetone; (h) lighter than water immiscible sheen is present; (i) liquid sample that contains greater than ~5 vol. % sediment; (j) sample diluted due to high organic content; (k) ethenylbenzene; (l) methylbenzene; (m) acetic acid ethenyl ester; (n) chloroethene; (o) dimethylbenzenes.

DHS Certification No. 1644

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Richmond, Ca 94804	Client Contact: Kent O'Brien	Date Extracted: 03/06/01
	Client P.O:	Date Analyzed: 03/08/01

Volatile Organics By GC/MS

EPA method 8260

Lab ID	61626
Client ID	GP-5 3'
Matrix	S

Compound	Concentration*	Reporting Limit W	Reporting Limit S	Compound	Concentration*	Reporting Limit W	Reporting Limit S
Acetone [b]	ND	5.0	25	trans-1,3-Dichloropropene	ND	1.0	5.0
Benzene	ND	1.0	5.0	Ethylene dibromide	ND	1.0	5.0
Bromobenzene	ND	1.0	5.0	Ethylbenzene	ND	1.0	5.0
Bromochloromethane	ND	1.0	5.0	Hexachlorobutadiene	ND	5.0	25
Bromodichloromethane	ND	1.0	5.0	Iodomethane	ND	1.0	5.0
Bromoform	ND	1.0	5.0	Isopropylbenzene	ND	1.0	5.0
Bromomethane	ND	1.0	5.0	p-Isopropyl toluene	ND	1.0	5.0
n-Butyl benzene	ND	1.0	5.0	Methyl butyl ketone [d]	ND	1.0	5.0
sec-Butyl benzene	ND	1.0	5.0	Methylene Chloride [e]	ND<10	1.0	5.0
tert-Butyl benzene	ND	1.0	5.0	Methyl ethyl ketone [f]	ND	2.0	10
Carbon Disulfide	ND	1.0	5.0	Methyl isobutyl ketone [g]	ND	1.0	5.0
Carbon Tetrachloride	ND	1.0	5.0	Methyl tert-Butyl Ether (MTBE)	---	1.0	5.0
Chlorobenzene	ND	1.0	5.0	Naphthalene	ND	5.0	5.0
Chloroethane	ND	1.0	5.0	n-Propyl benzene	ND	1.0	5.0
2-Chloroethyl Vinyl Ether [c]	ND	1.0	5.0	Styrene [k]	ND	1.0	5.0
Chloroform	ND	1.0	5.0	1,1,1,2-Tetrachloroethane	ND	1.0	5.0
Chloromethane	ND	1.0	5.0	1,1,2,2-Tetrachloroethane	ND	1.0	5.0
2-Chlorotoluene	ND	1.0	5.0	Tetrachloroethene	ND	1.0	5.0
4-Chlorotoluene	ND	1.0	5.0	Toluene [l]	ND	1.0	5.0
Dibromochloromethane	ND	1.0	5.0	1,2,3-Trichlorobenzene	ND	5.0	25
1,2-Dibromo-3-chloropropane	ND	2.0	10	1,2,4-Trichlorobenzene	ND	5.0	25
Dibromomethane	ND	1.0	5.0	1,1,1-Trichloroethane	ND	1.0	5.0
1,2-Dichlorobenzene	ND	1.0	5.0	1,1,2-Trichloroethane	ND	1.0	5.0
1,3-Dichlorobenzene	ND	1.0	5.0	Trichloroethene	ND	1.0	5.0
1,4-Dichlorobenzene	ND	1.0	5.0	Trichlorofluoromethane	ND	1.0	5.0
Dichlorodifluoromethane	ND	1.0	5.0	1,2,3-Trichloropropane	ND	1.0	5.0
1,1-Dichloroethane	ND	1.0	5.0	1,2,4-Trimethylbenzene	ND	1.0	5.0
1,2-Dichloroethane	ND	1.0	5.0	1,3,5-Trimethylbenzene	ND	1.0	5.0
1,1-Dichloroethene	ND	1.0	5.0	Vinyl Acetate [m]	ND	5.0	25
cis-1,2-Dichloroethene	ND	1.0	5.0	Vinyl Chloride [n]	ND	1.0	5.0
trans-1,2-Dichloroethene	ND	1.0	5.0	Xylenes, total [o]	ND	1.0	5.0
1,2-Dichloropropane	ND	1.0	5.0	**Comments:**			
1,3-Dichloropropane	ND	1.0	5.0	**Surrogate Recoveries (%)**			
2,2-Dichloropropane	ND	1.0	5.0	Dibromofluoromethane	93		
1,1-Dichloropropene	ND	1.0	5.0	Toluene-d8	101		
cis-1,3-Dichloropropene	ND	1.0	5.0	4-Bromofluorobenzene	104		

*water and vapor samples are reported in ug/L, soil and sludge samples in ug/kg, wipes in ug/wipe and all TCLP / SPLP extracts in ug/L

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis

(b) 2-propanone or dimethyl ketone; (c) (2-chloroethoxy) ethene; (d) 2-hexanone; (e) dichloromethane; (f) 2-butanone; (g) 4-methyl-2-pentanone or isopropylacetone; (h) lighter than water immiscible sheen is present; (i) liquid sample that contains greater than ~5 vol. % sediment; (j) sample diluted due to high organic content; (k) ethenylbenzene; (l) methylbenzene; (m) acetic acid ethenyl ester; (n) chloroethene; (o) dimethylbenzenes.

DHS Certification No. 1644

Edward Hamilton, Lab Director

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Arcadis Geraghty & Miller	Client Project ID: #RC000548.001.00001; Airweld	Date Sampled: 03/01-03/02/01
1050 Marina Way South		Date Received: 03/05/01
Richmond, Ca 94804	Client Contact: Kent O'Brien	Date Extracted: 03/06/01
	Client P.O:	Date Analyzed: 03/08/01

Volatile Organics By GC/MS

EPA method 8260

Lab ID	61627
Client ID	GP-6 2.5'
Matrix	S

Compound	Concentration*	Reporting Limit W	Reporting Limit S	Compound	Concentration*	Reporting Limit W	Reporting Limit S
Acetone [b]	ND	5.0	25	trans-1,3-Dichloropropene	ND	1.0	5.0
Benzene	ND	1.0	5.0	Ethylene dibromide	ND	1.0	5.0
Bromobenzene	ND	1.0	5.0	Ethylbenzene	ND	1.0	5.0
Bromochloromethane	ND	1.0	5.0	Hexachlorobutadiene	ND	5.0	25
Bromodichloromethane	ND	1.0	5.0	Iodomethane	ND	1.0	5.0
Bromoform	ND	1.0	5.0	Isopropylbenzene	ND	1.0	5.0
Bromomethane	ND	1.0	5.0	p-Isopropyl toluene	ND	1.0	5.0
n-Butyl benzene	ND	1.0	5.0	Methyl butyl ketone [d]	ND	1.0	5.0
sec-Butyl benzene	ND	1.0	5.0	Methylene Chloride[e]	ND<10	1.0	5.0
tert-Butyl benzene	ND	1.0	5.0	Methyl ethyl ketone [f]	ND	2.0	10
Carbon Disulfide	ND	1.0	5.0	Methyl isobutyl ketone [g]	ND	1.0	5.0
Carbon Tetrachloride	ND	1.0	5.0	Methyl tert-Butyl Ether (MTBE)	---	1.0	5.0
Chlorobenzene	ND	1.0	5.0	Naphthalene	ND	5.0	5.0
Chloroethane	ND	1.0	5.0	n-Propyl benzene	ND	1.0	5.0
2-Chloroethyl Vinyl Ether[c]	ND	1.0	5.0	Styrene [k]	ND	1.0	5.0
Chloroform	ND	1.0	5.0	1,1,1,2-Tetrachloroethane	ND	1.0	5.0
Chloromethane	ND	1.0	5.0	1,1,2,2-Tetrachloroethane	ND	1.0	5.0
2-Chlorotoluene	ND	1.0	5.0	Tetrachloroethene	ND	1.0	5.0
4-Chlorotoluene	ND	1.0	5.0	Toluene [l]	ND	1.0	5.0
Dibromochloromethane	ND	1.0	5.0	1,2,3-Trichlorobenzene	ND	5.0	25
1,2-Dibromo-3-chloropropane	ND	2.0	10	1,2,4-Trichlorobenzene	ND	5.0	25
Dibromomethane	ND	1.0	5.0	1,1,1-Trichloroethane	ND	1.0	5.0
1,2-Dichlorobenzene	ND	1.0	5.0	1,1,2-Trichloroethane	ND	1.0	5.0
1,3-Dichlorobenzene	ND	1.0	5.0	Trichloroethene	ND	1.0	5.0
1,4-Dichlorobenzene	ND	1.0	5.0	Trichlorofluoromethane	ND	1.0	5.0
Dichlorodifluoromethane	ND	1.0	5.0	1,2,3-Trichloropropane	ND	1.0	5.0
1,1-Dichloroethane	ND	1.0	5.0	1,2,4-Trimethylbenzene	ND	1.0	5.0
1,2-Dichloroethane	ND	1.0	5.0	1,3,5-Trimethylbenzene	ND	1.0	5.0
1,1-Dichloroethene	ND	1.0	5.0	Vinyl Acetate [m]	ND	5.0	25
cis-1,2-Dichloroethene	ND	1.0	5.0	Vinyl Chloride [a]	ND	1.0	5.0
trans-1,2-Dichloroethene	ND	1.0	5.0	Xylenes, total [o]	ND	1.0	5.0
1,2-Dichloropropane	ND	1.0	5.0	**Comments:**			
1,3-Dichloropropane	ND	1.0	5.0	**Surrogate Recoveries (%)**			
2,2-Dichloropropane	ND	1.0	5.0	Dibromofluoromethane	92		
1,1-Dichloropropene	ND	1.0	5.0	Toluene-d8	101		
cis-1,3-Dichloropropene	ND	1.0	5.0	4-Bromofluorobenzene	106		

*water and vapor samples are reported in ug/L, soil and sludge samples in ug/kg, wipes in ug/wipe and all TCLP / SPLP extracts in ug/L

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis

(b) 2-propanone or dimethyl ketone; (c) (2-chloroethoxy) ethene; (d) 2-hexanone; (e) dichloromethane; (f) 2-butanone; (g) 4-methyl-2-pentanone or isopropylacetone; (h) lighter than water immiscible sheen is present; (i) liquid sample that contains greater than ~5 vol. % sediment; (j) sample diluted due to high organic content; (k) ethenylbenzene; (l) methylbenzene; (m) acetic acid ethenyl ester; (n) chloroethene; (o) dimethylbenzenes.

DHS Certification No. 1644

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1050 Marina Way South		Date Received: 03/05/01
Richmond, Ca 94804	Client Contact: Kent O'Brien	Date Extracted: 03/06/01
	Client P.O:	Date Analyzed: 03/08/01

Volatile Organics By GC/MS

EPA method 8260

Lab ID	61628
Client ID	GP-7 2.5'
Matrix	S

Compound	Concentration*	Reporting Limit W	Reporting Limit S	Compound	Concentration*	Reporting Limit W	Reporting Limit S
Acetone [b]	ND	5.0	25	trans-1,3-Dichloropropene	ND	1.0	5.0
Benzene	ND	1.0	5.0	Ethylene dibromide	ND	1.0	5.0
Bromobenzene	ND	1.0	5.0	Ethylbenzene	ND	1.0	5.0
Bromochloromethane	ND	1.0	5.0	Hexachlorobutadiene	ND	5.0	25
Bromodichloromethane	ND	1.0	5.0	Iodomethane	ND	1.0	5.0
Bromoform	ND	1.0	5.0	Isopropylbenzene	ND	1.0	5.0
Bromomethane	ND	1.0	5.0	p-Isopropyl toluene	ND	1.0	5.0
n-Butyl benzene	ND	1.0	5.0	Methyl butyl ketone [d]	ND	1.0	5.0
sec-Butyl benzene	ND	1.0	5.0	Methylene Chloride [e]	ND<10	1.0	5.0
tert-Butyl benzene	ND	1.0	5.0	Methyl ethyl ketone [f]	ND	2.0	10
Carbon Disulfide	ND	1.0	5.0	Methyl isobutyl ketone [g]	ND	1.0	5.0
Carbon Tetrachloride	ND	1.0	5.0	Methyl tert-Butyl Ether (MTBE)	---	1.0	5.0
Chlorobenzene	ND	1.0	5.0	Naphthalene	ND	5.0	5.0
Chloroethane	ND	1.0	5.0	n-Propyl benzene	ND	1.0	5.0
2-Chloroethyl Vinyl Ether [c]	ND	1.0	5.0	Styrene [k]	ND	1.0	5.0
Chloroform	ND	1.0	5.0	1,1,1,2-Tetrachloroethane	ND	1.0	5.0
Chloromethane	ND	1.0	5.0	1,1,2,2-Tetrachloroethane	ND	1.0	5.0
2-Chlorotoluene	ND	1.0	5.0	Tetrachloroethene	ND	1.0	5.0
4-Chlorotoluene	ND	1.0	5.0	Toluene [l]	ND	1.0	5.0
Dibromochloromethane	ND	1.0	5.0	1,2,3-Trichlorobenzene	ND	5.0	25
1,2-Dibromo-3-chloropropane	ND	2.0	10	1,2,4-Trichlorobenzene	ND	5.0	25
Dibromomethane	ND	1.0	5.0	1,1,1-Trichloroethane	ND	1.0	5.0
1,2-Dichlorobenzene	ND	1.0	5.0	1,1,2-Trichloroethane	ND	1.0	5.0
1,3-Dichlorobenzene	ND	1.0	5.0	Trichloroethene	ND	1.0	5.0
1,4-Dichlorobenzene	ND	1.0	5.0	Trichlorofluoromethane	ND	1.0	5.0
Dichlorodifluoromethane	ND	1.0	5.0	1,2,3-Trichloropropane	ND	1.0	5.0
1,1-Dichloroethane	ND	1.0	5.0	1,2,4-Trimethylbenzene	12	1.0	5.0
1,2-Dichloroethane	ND	1.0	5.0	1,3,5-Trimethylbenzene	ND	1.0	5.0
1,1-Dichloroethene	ND	1.0	5.0	Vinyl Acetate [m]	ND	5.0	25
cis-1,2-Dichloroethene	ND	1.0	5.0	Vinyl Chloride [n]	ND	1.0	5.0
trans-1,2-Dichloroethene	ND	1.0	5.0	Xylenes, total [o]	ND	1.0	5.0
1,2-Dichloropropane	ND	1.0	5.0	**Comments:**			
1,3-Dichloropropane	ND	1.0	5.0	**Surrogate Recoveries (%)**			
2,2-Dichloropropane	ND	1.0	5.0	Dibromofluoromethane	93		
1,1-Dichloropropene	ND	1.0	5.0	Toluene-d8	101		
cis-1,3-Dichloropropene	ND	1.0	5.0	4-Bromofluorobenzene	108		

*water and vapor samples are reported in ug/L, soil and sludge samples in ug/kg, wipes in ug/wipe and all TCLP / SPLP extracts in ug/L

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis

(b) 2-propanone or dimethyl ketone; (c) (2-chloroethoxy) ethene; (d) 2-hexanone; (e) dichloromethane; (f) 2-butanone; (g) 4-methyl-2-pentanone or isopropylacetone; (h) lighter than water immiscible sheen is present; (i) liquid sample that contains greater than ~5 vol. % sediment; (j) sample diluted due to high organic content; (k) ethenylbenzene; (l) methylbenzene; (m) acetic acid ethenyl ester; (n) chloroethene; (o) dimethylbenzenes.

DHS Certification No. 1644

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1050 Marina Way South		Date Received: 03/05/01
Richmond, Ca 94804	Client Contact: Kent O'Brien	Date Extracted: 03/06/01
	Client P.O:	Date Analyzed: 03/08/01

Volatile Organics By GC/MS

EPA method 8260

Lab ID	61629
Client ID	GP-8 2'
Matrix	S

Compound	Concentration*	Reporting Limit W	Reporting Limit S	Compound	Concentration*	Reporting Limit W	Reporting Limit S
Acetone [b]	ND	5.0	25	trans-1,3-Dichloropropene	ND	1.0	5.0
Benzene	ND	1.0	5.0	Ethylene dibromide	ND	1.0	5.0
Bromobenzene	ND	1.0	5.0	Ethylbenzene	ND	1.0	5.0
Bromochloromethane	ND	1.0	5.0	Hexachlorobutadiene	ND	5.0	25
Bromodichloromethane	ND	1.0	5.0	Iodomethane	ND	1.0	5.0
Bromoform	ND	1.0	5.0	Isopropylbenzene	ND	1.0	5.0
Bromomethane	ND	1.0	5.0	p-Isopropyl toluene	ND	1.0	5.0
n-Butyl benzene	ND	1.0	5.0	Methyl butyl ketone [d]	ND	1.0	5.0
sec-Butyl benzene	ND	1.0	5.0	Methylene Chloride [e]	ND<10	1.0	5.0
tert-Butyl benzene	ND	1.0	5.0	Methyl ethyl ketone [f]	ND	2.0	10
Carbon Disulfide	ND	1.0	5.0	Methyl isobutyl ketone [g]	ND	1.0	5.0
Carbon Tetrachloride	ND	1.0	5.0	Methyl tert-Butyl Ether (MTBE)	---	1.0	5.0
Chlorobenzene	ND	1.0	5.0	Naphthalene	ND	5.0	5.0
Chloroethane	ND	1.0	5.0	n-Propyl benzene	ND	1.0	5.0
2-Chloroethyl Vinyl Ether [c]	ND	1.0	5.0	Styrene [g]	ND	1.0	5.0
Chloroform	ND	1.0	5.0	1,1,1,2-Tetrachloroethane	ND	1.0	5.0
Chloromethane	ND	1.0	5.0	1,1,2,2-Tetrachloroethane	ND	1.0	5.0
2-Chlorotoluene	ND	1.0	5.0	Tetrachloroethene	ND	1.0	5.0
4-Chlorotoluene	ND	1.0	5.0	Toluene [j]	ND	1.0	5.0
Dibromochloromethane	ND	1.0	5.0	1,2,3-Trichlorobenzene	ND	5.0	25
1,2-Dibromo-3-chloropropane	ND	2.0	10	1,2,4-Trichlorobenzene	ND	5.0	25
Dibromomethane	ND	1.0	5.0	1,1,1-Trichloroethane	ND	1.0	5.0
1,2-Dichlorobenzene	ND	1.0	5.0	1,1,2-Trichloroethane	ND	1.0	5.0
1,3-Dichlorobenzene	ND	1.0	5.0	Trichloroethene	ND	1.0	5.0
1,4-Dichlorobenzene	ND	1.0	5.0	Trichlorofluoromethane	ND	1.0	5.0
Dichlorodifluoromethane	ND	1.0	5.0	1,2,3-Trichloropropane	ND	1.0	5.0
1,1-Dichloroethane	ND	1.0	5.0	1,2,4-Trimethylbenzene	ND	1.0	5.0
1,2-Dichloroethane	ND	1.0	5.0	1,3,5-Trimethylbenzene	ND	1.0	5.0
1,1-Dichloroethene	ND	1.0	5.0	Vinyl Acetate [m]	ND	5.0	25
cis-1,2-Dichloroethene	ND	1.0	5.0	Vinyl Chloride [n]	ND	1.0	5.0
trans-1,2-Dichloroethene	ND	1.0	5.0	Xylenes, total [k]	ND	1.0	5.0
1,2-Dichloropropane	ND	1.0	5.0	**Comments:**			
1,3-Dichloropropane	ND	1.0	5.0	**Surrogate Recoveries (%)**			
2,2-Dichloropropane	ND	1.0	5.0	Dibromofluoromethane	94		
1,1-Dichloropropene	ND	1.0	5.0	Toluene-d8	103		
cis-1,3-Dichloropropene	ND	1.0	5.0	4-Bromofluorobenzene	115		

*water and vapor samples are reported in ug/L, soil and sludge samples in ug/kg, wipes in ug/wipe and all TCLP / SPLP extracts in ug/L

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis

(b) 2-propanone or dimethyl ketone; (c) (2-chloroethoxy) ethene; (d) 2-hexanone; (e) dichloromethane; (f) 2-butanone; (g) 4-methyl-2-pentanone or isopropylacetone; (h) lighter than water immiscible sheen is present; (i) liquid sample that contains greater than ~5 vol. % sediment; (j) sample diluted due to high organic content; (k) ethenylbenzene; (l) methylbenzene; (m) acetic acid ethenyl ester; (n) chloroethene; (o) dimethylbenzenes.

DHS Certification No. 1644

Edward Hamilton, Lab Director

McCAMPBELL ANALYTICAL INC.
110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
Telephone : 925-798-1620 Fax : 925-798-1622
http://www.mccampbell.com E-mail: main@mccampbell.com

Arcadis Geraghty & Miller	Client Project ID: #RC000548.001.00001; Airweld	Date Sampled: 03/01-03/02/01
1050 Marina Way South		Date Received: 03/05/01
Richmond, Ca 94804	Client Contact: Kent O'Brien	Date Extracted: 03/05-03/08/01
	Client P.O:	Date Analyzed: 03/05-03/08/01

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline*, with Methyl tert-Butyl Ether* & BTEX*

EPA methods 5030, modified 8015, and 8020 or 602; California RWQCB (SF Bay Region) method GCFID(5030)

Lab ID	Client ID	Matrix	TPH(g)+	MTBE	Benzene	Toluene	Ethyl-benzene	Xylenes	% Recovery Surrogate
61622	GP-1 2'	S	ND	ND	ND	ND	ND	ND	110
61623	GP-2 2'	S	ND	ND	ND	ND	ND	ND	100
61624	GP-3 2.5'	S	ND	ND	ND	ND	ND	ND	97
61625	GP-4 2'	S	ND	ND	ND	ND	ND	ND	100
61626	GP-5 3'	S	ND	ND	ND	ND	ND	ND	101
61627	GP-6 2.5'	S	ND	ND	ND	ND	ND	ND	113
61628	GP-7 2.5'	S	ND	ND	ND	0.009	ND	0.015	116
61629	GP-8 2'	S	ND	ND	ND	ND	ND	ND	98
Reporting Limit unless otherwise stated; ND means not detected above the reporting limit		W	50 ug/L	5.0	0.5	0.5	0.5	0.5	
		S	1.0 mg/kg	0.05	0.005	0.005	0.005	0.005	

* water and vapor samples are reported in ug/L, wipe samples in ug/wipe, soil and sludge samples in mg/kg, and all TCLP and SPLP extracts in ug/L

cluttered chromatogram; sample peak coelutes with surrogate peak

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (?); f) one to a few isolated peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen is present; i) liquid sample that contains greater than ~5 vol. % sediment; j) no recognizable pattern.

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Arcadis Geraghty & Miller 1050 Marina Way South Richmond, Ca 94804	Client Project ID: #RC000548.001.00001; Airweld	Date Sampled: 03/01-03/02/01
		Date Received: 03/05/01
	Client Contact: Kent O'Brien	Date Extracted: 03/05-03/12/01
	Client P.O:	Date Analyzed: 03/05-03/12/01

Multi-Range (Gasoline,Diesel,Motor Oil) TPH as Diesel with Silica Gel Clean-up*

EPA methods modified 8015, and 3550 or 3510; California RWQCB (SF Bay Region) method GCFID(3550) or GCFID(3510)

Lab ID	Client ID	Matrix	TPH(Gas)+ (C6-C12)	TPH(Diesel)+ (C10-C23)	TPH(MotorOil)° (>C18)	% Recovery Surrogate
61622	GP-1 2'	S	ND	2.4,g,b	7.0	116
61623	GP-2 2'	S	ND	ND	ND	98
61624	GP-3 2.5'	S	ND	ND,g	6.9	100
61625	GP-4 2'	S	ND	ND	ND	106
61626	GP-5 3'	S	ND	1.6,b	ND	112
61627	GP-6 2.5'	S	ND	ND	ND	111
61628	GP-7 2.5'	S	ND	360,g	2100	92
61629	GP-8 2'	S	ND	ND	ND	104
Reporting Limit unless otherwise stated; ND means not detected above the reporting limit		W	50 ug/L	50 ug/L	250 ug/L	
		S	1.0 mg/kg	1.0 mg/kg	5.0 mg/kg	

* water samples are reported in ug/L, soil and sludge samples in mg/kg, wipes in ug/wipe and all TCLP / SPLP extracts in mg/L

cluttered chromatogram resulting in surrogate and sample peak coelution, or; surrogate peak is on elevated baseline, or; surrogate has been diminished by dilution of original extract.

° oil-range compounds are not fully recovered by this GC methodology

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified diesel is significant; b) diesel range compounds are significant; no recognizable pattern; c) aged diesel? is significant); d) gasoline range compounds are significant; e) medium boiling point pattern that does not match diesel(?); f) one to a few isolated peaks present; g) oil range compounds are significant; h) lighter than water immiscible sheen is present; i) liquid sample that contains greater than ~5 vol. % sediment.

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110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
Telephone : 925-798-1620 Fax : 925-798-1622
http://www.mccampbell.com E-mail: main@mccampbell.com

Arcadis Geraghty & Miller	Client Project ID: #RC000548.001.00001; Airweld	Date Sampled: 03/01-03/02/01
1050 Marina Way South		Date Received: 03/05/01
Richmond, Ca 94804	Client Contact: Kent O'Brien	Date Extracted: 03/09-03/13/01
	Client P.O:	Date Analyzed: 03/09-03/13/01

Polynuclear Aromatic Hydrocarbons (PAH / PNA) by GC-MS

EPA methods 625 (modified 610) and 3510 or 8270 (modified 8100) and 3550

Lab ID	61622	61626	61628			Reporting Limit	
Client ID	GP-3 2.5'	GP-5 3'	GP-7 2.5			S	W, STLC TCLP
Matrix	S	S	S				
Compound	Concentration*					mg/kg	ug/L
Acenaphthene	ND	ND	ND			0.33	10
Acenaphthylne	ND	ND	ND			0.33	10
Anthracene	ND	ND	ND			0.33	10
Benzo(a)anthracene	ND	ND	ND			0.33	10
Benzo(b)fluoranthene	ND	ND	ND			0.33	10
Benzo(k)fluoranthene	ND	ND	ND			0.33	10
Benzo(g,h,i)perylene	ND	ND	ND			0.33	10
Benzo(a)pyrene	ND	ND	ND			0.33	10
Chrysene	ND	ND	ND			0.33	10
Dibenzo(a,h)anthracene	ND	ND	ND			0.33	10
Fluoranthene	ND	ND	ND			0.33	10
Fluorene	ND	ND	ND			0.33	10
Indeno(1,2,3-cd)pyrene	ND	ND	ND			0.33	10
Naphthalene	ND	ND	ND			0.33	10
Phenanthrene	ND	ND	ND			0.33	10
Pyrene	ND	ND	ND			0.33	10
% Recovery Surrogate 1	118	103	98				
% Recovery Surrogate 2	116	100	99				
Comments							

* water and vapor samples are reported in ug/L, soil and sludge samples in mg/kg, wipes in ug/wipe and all TCLP / STLC / SPLP extracts in ug/L.

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis

surrogate diluted out of range or surrogate coelutes with another peak

(h) a lighter than water immiscible sheen is present; (i) liquid sample that contains >~5 vol. % sediment; (j) sample diluted due to high organic content.

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1050 Marina Way South		Date Received: 03/05/01
Richmond, Ca 94804	Client Contact: Kent O'Brien	Date Extracted: 03/05/01
	Client P.O:	Date Analyzed: 03/05-03/08/01

CAM / CCR 17 Metals*

EPA methods 6010/200.7; 7470/7471/245.1/245.5 (Hg); 7060/206.2 (As); 7740/270.2 (Se); 7841/279.2 (Tl); 239.2 (Pb, water matrix)

Lab ID	61622	61623	61624		Reporting Limit		
Client ID	GP-1 2'	GP-2 2'	GP-3 2.5'				
Matrix	S	S	S		S	W	STLC, TCLP
Extraction°	TTLC	TTLC	TTLC		TTLC	TTLC	
Compound	Concentration*				mg/kg	mg/L	mg/L
Antimony (Sb)	ND	ND	ND		2.5	0.006	0.05
Arsenic (As)	ND	ND	ND		2.5	0.005	0.25
Barium (Ba)	20	94	88		2.5	0.05	0.05
Beryllium (Be)	ND	ND	ND		0.5	0.004	0.01
Cadmium (Cd)	ND	ND	ND		0.5	0.005	0.01
Chromium (Cr)	48	42	39		0.5	0.02	0.05
Cobalt (Co)	8.1	14	8.0		2.0	0.05	0.05
Copper (Cu)	18	17	14		2.0	0.05	0.05
Lead (Pb)	4.6	8.4	7.0		3.0	0.005	0.2
Mercury (Hg)	ND	ND	ND		0.06	0.0008	0.005
Molybdenum (Mo)	ND	ND	ND		2.0	0.05	0.05
Nickel (Ni)	48	56	43		2.0	0.05	0.05
Selenium (Se)	ND	ND	ND		2.5	0.005	0.25
Silver (Ag)	ND	ND	ND		1.0	0.01	0.05
Thallium (Tl)	ND	ND	ND		2.5	0.005	0.5
Vanadium (V)	26	24	25		2.0	0.05	0.05
Zinc (Zn)	50	40	37		1.0	0.05	0.05
% Recovery Surrogate	108	113	117				
Comments							

* water samples are reported in mg/L, soil and sludge samples in mg/kg, wipes in ug/wipe and all TCLP / STLC / SPLP extracts in mg/L

ND means not detected above the reporting limit; N/A means surrogate not applicable to this analysis

° EPA extraction methods 1311(TCLP), 3010/3020(water,TTLC), 3040(organic matrices,TTLC), 3050(solids,TTLC); STLC - CA Title 22

@ DISTLC extractions are performed using STLC methodology except that deionized water is substituted for citric acid buffer as the extraction fluid. DISTLC results are not applicable to STLC regulatory limits.

surrogate diluted out of range

& reporting limit raised due to matrix interference

i) liquid sample that contains greater than ~2 vol. % sediment; this sediment is extracted with the liquid, in accordance with EPA methodologies and can significantly effect reported metal concentrations.

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McCAMPBELL ANALYTICAL INC.
110 2nd Ave. South, #D7, Pacheco, CA 94553-5560
Telephone : 925-798-1620 Fax : 925-798-1622
http://www.mccampbell.com E-mail: main@mccampbell.com

QC REPORT

Date: 03/04/01-03/05/01 Matrix: Soil

Extraction: TTLC

Compound	Concentration: mg/kg				%Recovery		RPD
	Sample	MS	MSD	Amount Spiked	MS	MSD	
SampleID: 22601				Instrument: GC-7			
Surrogate1	0.000	113.000	93.000	100.00	113	93	19.4
Xylenes	0.000	0.314	0.279	0.30	105	93	11.8
Ethyl Benzene	0.000	0.104	0.089	0.10	104	89	15.5
Toluene	0.000	0.108	0.088	0.10	108	88	20.4
Benzene	0.000	0.105	0.085	0.10	105	85	21.1
MTBE	0.000	0.111	0.089	0.10	111	89	22.0
GAS	0.000	0.957	0.975	1.00	96	98	1.9
SampleID: 22601				Instrument: GC-2 A			
Surrogate1	0.000	101.000	101.000	100.00	101	101	0.0
TPH (diesel)	0.000	304.000	309.000	300.00	101	103	1.6

$$\%\ \text{Recovery} = \frac{(MS - Sample)}{AmountSpiked} \cdot 100$$

$$\text{RPD} = \frac{(MS - MSD)}{(MS + MSD)} \cdot 2 \cdot 100$$

RPD means Relative Percent Deviation

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110 2nd Ave. South, #D7, Pacheco, CA 94553-5560
Telephone : 925-798-1620 Fax : 925-798-1622
http://www.mccampbell.com E-mail: main@mccampbell.com

QC REPORT

VOCs (EPA 8240/8260)

Date: 03/08/01-03/09/01 Matrix: Soil

Extraction: N/A

SampleID: 30701 Instrument: GC-10

Compound	Concentration: ug/kg				%Recovery		RPD
	Sample	MS	MSD	Amount Spiked	MS	MSD	
Surrogate	0.000	109.0	95.0	100.00	109	95	13.7
tert-Amyl Methyl Ether	0.000	109.0	108.0	100.00	109	108	0.9
Methyl tert-Butyl Ether	0.000	103.0	103.0	100.00	103	103	0.0
Ethyl tert-Butyl Ether	0.000	104.0	105.0	100.00	104	105	1.0
Di-isopropyl Ether	0.000	98.0	98.0	100.00	98	98	0.0
Toluene	0.000	105.0	113.0	100.00	105	113	7.3
Benzene	0.000	90.0	107.0	100.00	90	107	17.3
Chlorobenzene	0.000	96.0	111.0	100.00	96	111	14.5
Trichloroethane	0.000	78.0	95.0	100.00	78	95	19.7
1,1-Dichloroethene	0.000	86.0	88.0	100.00	86	88	2.3

$$\%\ \text{Recovery} = \frac{(MS - Sample)}{AmountSpiked} \cdot 100$$

$$\text{RPD} = \frac{(MS - MSD)}{(MS + MSD)} \cdot 2 \cdot 100$$

RPD means Relative Percent Deviation

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110 2nd Ave. South, #D7, Pacheco, CA 94553-5560
Telephone : 925-798-1620 Fax : 925-798-1622
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QC REPORT

CAM 17

Date: 03/07/01-03/08/01 Matrix: Soil/Sludge/Wipe/Wood

Extraction: TTLC

Compound	Concentration: mg/kg				%Recovery		RPD
	Sample	MS	MSD	Amount Spiked	MS	MSD	
SampleID: 30101					Instrument: ICP-1		
Beryllium	0.000	5.9	6.2	5.00	118	124	4.8
Selenium	0.000	11.0	11.0	10.00	110	110	0.0
Molybdenum	0.000	5.6	5.8	5.00	112	115	2.7
Silver	0.000	0.5	0.5	0.50	96	100	4.1
Thallium	0.000	10.0	9.6	10.00	100	96	4.1
Barium	0.000	5.9	6.2	5.00	117	124	5.8
Nickel	0.000	5.5	6.0	5.00	109	120	9.7
Arsenic	0.000	11.0	9.6	10.00	110	96	13.6
Vanadium	0.000	4.8	4.9	5.00	96	98	2.2
Surrogate1	0.000	112.0	111.1	100.00	112	111	0.8
Zinc	0.000	5.5	5.4	5.00	110	109	0.8
Copper	0.000	5.4	5.5	5.00	108	110	1.9
Antimony	0.000	10.0	11.0	10.00	100	110	9.5
Lead	0.000	12.0	10.0	10.00	120	100	18.2
Cadmium	0.000	6.2	6.2	5.00	125	124	0.2
Cobalt	0.000	5.4	5.7	5.00	107	114	6.1
Mercury	0.000	1.1	1.0	1.00	106	98	8.1
Chromium	0.000	5.7	5.9	5.00	114	118	3.7

$$\%\,\text{Recovery} = \frac{(MS - Sample)}{AmountSpiked} \cdot 100$$

$$RPD = \frac{(MS - MSD)}{(MS + MSD)} \cdot 2 \cdot 100$$

RPD means Relative Percent Deviation

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110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
Telephone : 925-798-1620 Fax : 925-798-1622
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Arcadis Geraghty & Miller 1050 Marina Way South Richmond, Ca 94804	Client Project ID: #RC000548.001.00001; Airweld	Date Sampled: 03/02 & 03/05/01
		Date Received: 03/05/01
	Client Contact: Kent O'Brien	Date Extracted: 03/05/01
	Client P.O:	Date Analyzed: 03/05/01

03/14/2001

Dear Kent:

Enclosed are:

1). the results of **9** samples from your **#RC000548.001.00001; Airweld** project,

2). a QC report for the above samples

3). a copy of the chain of custody, and

4). a bill for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits. If you have any questions please contact me. McCampbell Analytical Laboratories strives for excellence in quality, service and cost. Thank you for your business and I look forward to working with you again.

Yours truly,

Edward Hamilton, Lab Director

ARCADIS TRAGHTY & MILLER Laboratory Task Order No./P.O. No. _____ **CHAIN-OF-CUSTODY RECORD** Page ___ of ___

Project Number/Name R0000548.0001.00001 / Rivadel

Project Location Oakland

Laboratory McCampbell

Project Manager Kent O'brien

Sampler(s)/Affiliation N. Sherif

510-233-3200

Sample ID/Location	Matrix	Date/Time Sampled	Lab ID	TPH-Gem w/ Si Gel cleanup 8015	VOCs 8260	CAM 17 metals 6010	PAHs 8310			Remarks	
+5 GP-1	L	3/2/01 *		X	X	X	X			* differentiation	5
+5 GP-3		3/2/01		X	X	X				of gasoline, diesel,	5
+2 GP-4		3/2/01		X	X					motor oil, and	4
+2 GP-5		3/2/01		X	X					hydraulic oil	4
+5 GP-6		3/2/01		X	X		X				4
+ GP-7		3/2/01		X	X						4
+ GP-8		3/2/01		X	X						4
✓ Trip Blank		3/5/01 745		X	X	X				* Analyze the	4
+ GP-2				X	X	X	X			3 samples with	#1
										highest TPH for	5
										PAH's	
										* No times	
										were recorded	

61547 61548 61549 61550 61551 61552 61553 61554 61555 61556

ICE/+ ✓ GOOD CONDITION ✓ HEAD SPACE ABSENT ___

PRESERVATION APPROPRIATE ✓ CONTAINERS ✓

VOAs ✓ | O&G | METALS | OTHER

Sample Matrix: L = Liquid; S = Solid; A = Air

Total No. of Bottles/Containers 36

					Seal Intact?
Relinquished by: [signature]	Organization: ACE	Date 3/6/01	Time 1110		Yes No N/A
Received by: Dave Weldon	Organization: URS	Date 03/6/01	Time 1115		
Relinquished by: [signature] ATRAX 280	Organization: ATRAX 280	Date 3/5/01	Time 16:40		Seal Intact?
Received by: [signature]	Organization: MAI	Date 3/5/01	Time 1640		Yes No N/A

Special Instructions/Remarks: _____

Delivery Method: ☐ In Person ☐ Common Carrier _____ SPECIFY ☐ Lab Courier ☐ Other _____ SPECIFY

AG 05-0597

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110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
Telephone : 925-798-1620 Fax : 925-798-1622
http://www.mccampbell.com E-mail: main@mccampbell.com

Arcadis Geraghty & Miller	Client Project ID: #RC000548.001.00001; Airweld	Date Sampled: 03/02 & 03/05/01
1050 Marina Way South		Date Received: 03/05/01
Richmond, Ca 94804	Client Contact: Kent O'Brien	Date Extracted: 03/07-03/08/01
	Client P.O:	Date Analyzed: 03/07-03/08/01

Volatile Organics By GC/MS

EPA method 8260

Lab ID	61547
Client ID	GP-1
Matrix	W

Compound	Concentration*	Reporting Limit W	Reporting Limit S	Compound	Concentration*	Reporting Limit W	Reporting Limit S
Acetone [b]	ND<10	5.0	25	trans-1,3-Dichloropropene	ND	1.0	5.0
Benzene	ND	1.0	5.0	Ethylene dibromide	ND	1.0	5.0
Bromobenzene	ND	1.0	5.0	Ethylbenzene	ND	1.0	5.0
Bromochloromethane	ND	1.0	5.0	Hexachlorobutadiene	ND	5.0	25
Bromodichloromethane	ND	1.0	5.0	Iodomethane	ND	1.0	5.0
Bromoform	ND	1.0	5.0	Isopropylbenzene	ND	1.0	5.0
Bromomethane	ND	1.0	5.0	p-Isopropyl toluene	ND	1.0	5.0
n-Butyl benzene	ND	1.0	5.0	Methyl butyl ketone [d]	ND	1.0	5.0
sec-Butyl benzene	ND	1.0	5.0	Methylene Chloride [e]	ND	1.0	5.0
tert-Butyl benzene	ND	1.0	5.0	Methyl ethyl ketone [f]	3.7	2.0	10
Carbon Disulfide	ND	1.0	5.0	Methyl isobutyl ketone [g]	ND	1.0	5.0
Carbon Tetrachloride	ND	1.0	5.0	Methyl tert-Butyl Ether (MTBE)	---	1.0	5.0
Chlorobenzene	ND	1.0	5.0	Naphthalene	ND	5.0	5.0
Chloroethane	ND	1.0	5.0	n-Propyl benzene	ND	1.0	5.0
2-Chloroethyl Vinyl Ether [c]	ND	1.0	5.0	Styrene [k]	ND	1.0	5.0
Chloroform	ND	1.0	5.0	1,1,1,2-Tetrachloroethane	ND	1.0	5.0
Chloromethane	ND	1.0	5.0	1,1,2,2-Tetrachloroethane	ND	1.0	5.0
2-Chlorotoluene	ND	1.0	5.0	Tetrachloroethene	ND	1.0	5.0
4-Chlorotoluene	ND	1.0	5.0	Toluene [l]	ND	1.0	5.0
Dibromochloromethane	ND	1.0	5.0	1,2,3-Trichlorobenzene	ND	5.0	25
1,2-Dibromo-3-chloropropane	ND	2.0	10	1,2,4-Trichlorobenzene	ND	5.0	25
Dibromomethane	ND	1.0	5.0	1,1,1-Trichloroethane	ND	1.0	5.0
1,2-Dichlorobenzene	ND	1.0	5.0	1,1,2-Trichloroethane	ND	1.0	5.0
1,3-Dichlorobenzene	ND	1.0	5.0	Trichloroethene	ND	1.0	5.0
1,4-Dichlorobenzene	ND	1.0	5.0	Trichlorofluoromethane	ND	1.0	5.0
Dichlorodifluoromethane	ND	1.0	5.0	1,2,3-Trichloropropane	ND	1.0	5.0
1,1-Dichloroethane	ND	1.0	5.0	1,2,4-Trimethylbenzene	ND	1.0	5.0
1,2-Dichloroethane	ND	1.0	5.0	1,3,5-Trimethylbenzene	ND	1.0	5.0
1,1-Dichloroethene	ND	1.0	5.0	Vinyl Acetate [m]	ND	5.0	25
cis-1,2-Dichloroethene	ND	1.0	5.0	Vinyl Chloride [n]	ND	1.0	5.0
trans-1,2-Dichloroethene	ND	1.0	5.0	Xylenes, total [o]	ND	1.0	5.0
1,2-Dichloropropane	ND	1.0	5.0	**Comments:** i			
1,3-Dichloropropane	ND	1.0	5.0	**Surrogate Recoveries (%)**			
2,2-Dichloropropane	ND	1.0	5.0	Dibromofluoromethane	105		
1,1-Dichloropropene	ND	1.0	5.0	Toluene-d8	96		
cis-1,3-Dichloropropene	ND	1.0	5.0	4-Bromofluorobenzene	100		

*water and vapor samples are reported in ug/L, soil and sludge samples in ug/kg, wipes in ug/wipe and all TCLP / SPLP extracts in ug/L

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis

(b) 2-propanone or dimethyl ketone; (c) (2-chloroethoxy) ethene; (d) 2-hexanone; (e) dichloromethane; (f) 2-butanone; (g) 4-methyl-2-pentanone or isopropylacetone; (h) lighter than water immiscible sheen is present; (i) liquid sample that contains greater than ~5 vol. % sediment; (j) sample diluted due to high organic content; (k) ethenylbenzene; (l) methylbenzene; (m) acetic acid ethenyl ester; (n) chloroethene; (o) dimethylbenzenes.

DHS Certification No. 1644

Edward Hamilton, Lab Director

McCAMPBELL ANALYTICAL INC.
110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
Telephone : 925-798-1620 Fax : 925-798-1622
http://www.mccampbell.com E-mail: main@mccampbell.com

Arcadis Geraghty & Miller	Client Project ID: #RC000548.001.00001; Airweld	Date Sampled: 03/02 & 03/05/01
1050 Marina Way South		Date Received: 03/05/01
Richmond, Ca 94804	Client Contact: Kent O'Brien	Date Extracted: 03/07-03/08/01
	Client P.O:	Date Analyzed: 03/07-03/08/01

Volatile Organics By GC/MS

EPA method 8260

Lab ID	61555
Client ID	GP-2
Matrix	W

Compound	Concentration*	Reporting Limit W	Reporting Limit S	Compound	Concentration*	Reporting Limit W	Reporting Limit S
Acetone [b]	ND<20	5.0	25	trans-1,3-Dichloropropene	ND<5.0	1.0	5.0
Benzene	ND<5.0	1.0	5.0	Ethylene dibromide	ND<5.0	1.0	5.0
Bromobenzene	ND<5.0	1.0	5.0	Ethylbenzene	ND<5.0	1.0	5.0
Bromochloromethane	ND<5.0	1.0	5.0	Hexachlorobutadiene	ND<5.0	5.0	25
Bromodichloromethane	ND<5.0	1.0	5.0	Iodomethane	ND<5.0	1.0	5.0
Bromoform	ND<5.0	1.0	5.0	Isopropylbenzene	ND<5.0	1.0	5.0
Bromomethane	ND<5.0	1.0	5.0	p-Isopropyl toluene	ND<5.0	1.0	5.0
n-Butyl benzene	ND<5.0	1.0	5.0	Methyl butyl ketone [d]	ND<5.0	1.0	5.0
sec-Butyl benzene	ND<5.0	1.0	5.0	Methylene Chloride [e]	ND<10	1.0	5.0
tert-Butyl benzene	ND<5.0	1.0	5.0	Methyl ethyl ketone [f]	ND<5.0	2.0	10
Carbon Disulfide	ND<5.0	1.0	5.0	Methyl isobutyl ketone [g]	ND<5.0	1.0	5.0
Carbon Tetrachloride	ND<5.0	1.0	5.0	Methyl tert-Butyl Ether (MTBE)	---	1.0	5.0
Chlorobenzene	ND<5.0	1.0	5.0	Naphthalene	ND<5.0	5.0	5.0
Chloroethane	ND<5.0	1.0	5.0	n-Propyl benzene	ND<5.0	1.0	5.0
2-Chloroethyl Vinyl Ether [c]	ND<5.0	1.0	5.0	Styrene [k]	ND<5.0	1.0	5.0
Chloroform	ND<5.0	1.0	5.0	1,1,1,2-Tetrachloroethane	ND<5.0	1.0	5.0
Chloromethane	ND<5.0	1.0	5.0	1,1,2,2-Tetrachloroethane	ND<5.0	1.0	5.0
2-Chlorotoluene	ND<5.0	1.0	5.0	Tetrachloroethene	ND<20	1.0	5.0
4-Chlorotoluene	ND<5.0	1.0	5.0	Toluene [l]	ND<5.0	1.0	5.0
Dibromochloromethane	ND<5.0	1.0	5.0	1,2,3-Trichlorobenzene	ND<5.0	5.0	25
1,2-Dibromo-3-chloropropane	ND<5.0	2.0	10	1,2,4-Trichlorobenzene	ND<5.0	5.0	25
Dibromomethane	ND<5.0	1.0	5.0	1,1,1-Trichloroethane	200	1.0	5.0
1,2-Dichlorobenzene	ND<5.0	1.0	5.0	1,1,2-Trichloroethane	ND<5.0	1.0	5.0
1,3-Dichlorobenzene	ND<5.0	1.0	5.0	Trichloroethene	ND<5.0	1.0	5.0
1,4-Dichlorobenzene	ND<5.0	1.0	5.0	Trichlorofluoromethane	ND<5.0	1.0	5.0
Dichlorodifluoromethane	ND<5.0	1.0	5.0	1,2,3-Trichloropropane	ND<5.0	1.0	5.0
1,1-Dichloroethane	21	1.0	5.0	1,2,4-Trimethylbenzene	ND<5.0	1.0	5.0
1,2-Dichloroethane	ND<5.0	1.0	5.0	1,3,5-Trimethylbenzene	ND<5.0	1.0	5.0
1,1-Dichloroethene	ND<5.0	1.0	5.0	Vinyl Acetate [m]	ND<5.0	5.0	25
cis-1,2-Dichloroethene	ND<5.0	1.0	5.0	Vinyl Chloride [n]	ND<5.0	1.0	5.0
trans-1,2-Dichloroethene	ND<5.0	1.0	5.0	Xylenes, total [o]	ND<5.0	1.0	5.0
1,2-Dichloropropane	ND<5.0	1.0	5.0	**Comments:**			
1,3-Dichloropropane	ND<5.0	1.0	5.0				
2,2-Dichloropropane	ND<5.0	1.0	5.0				
1,1-Dichloropropene	ND<5.0	1.0	5.0				
cis-1,3-Dichloropropene	ND<5.0	1.0	5.0				

Surrogate Recoveries (%)	
Dibromofluoromethane	106
Toluene-d8	95
4-Bromofluorobenzene	100

*water and vapor samples are reported in ug/L, soil and sludge samples in ug/kg, wipes in ug/wipe and all TCLP / SPLP extracts in ug/L

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis

(b) 2-propanone or dimethyl ketone; (c) (2-chloroethoxy) ethene; (d) 2-hexanone; (e) dichloromethane; (f) 2-butanone; (g) 4-methyl-2-pentanone or isopropylacetone; (h) lighter than water immiscible sheen is present; (i) liquid sample that contains greater than ~5 vol. % sediment; (j) sample diluted due to high organic content; (k) ethenylbenzene; (l) methylbenzene; (m) acetic acid ethenyl ester; (n) chloroethene; (o) dimethylbenzenes.

DHS Certification No. 1644

Edward Hamilton, Lab Director

McCAMPBELL ANALYTICAL INC.

110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
Telephone : 925-798-1620 Fax : 925-798-1622
http://www.mccampbell.com E-mail: main@mccampbell.com

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1050 Marina Way South		Date Received: 03/05/01
Richmond, Ca 94804	Client Contact: Kent O'Brien	Date Extracted: 03/07-03/08/01
	Client P.O:	Date Analyzed: 03/07-03/08/01

Volatile Organics By GC/MS

EPA method 8260

Lab ID	61548
Client ID	GP-3
Matrix	W

Compound	Concentration*	Reporting Limit W	Reporting Limit S	Compound	Concentration*	Reporting Limit W	Reporting Limit S
Acetone [b]	ND<20	5.0	25	trans-1,3-Dichloropropene	ND<5.0	1.0	5.0
Benzene	ND<5.0	1.0	5.0	Ethylene dibromide	ND<5.0	1.0	5.0
Bromobenzene	ND<5.0	1.0	5.0	Ethylbenzene	ND<5.0	1.0	5.0
Bromochloromethane	ND<5.0	1.0	5.0	Hexachlorobutadiene	ND<5.0	5.0	25
Bromodichloromethane	ND<5.0	1.0	5.0	Iodomethane	ND<5.0	1.0	5.0
Bromoform	ND<5.0	1.0	5.0	Isopropylbenzene	ND<5.0	1.0	5.0
Bromomethane	ND<5.0	1.0	5.0	p-Isopropyl toluene	ND<5.0	1.0	5.0
n-Butyl benzene	ND<5.0	1.0	5.0	Methyl butyl ketone [d]	ND<5.0	1.0	5.0
sec-Butyl benzene	ND<5.0	1.0	5.0	Methylene Chloride [e]	ND<10	1.0	5.0
tert-Butyl benzene	ND<5.0	1.0	5.0	Methyl ethyl ketone [f]	ND<5.0	2.0	10
Carbon Disulfide	ND<5.0	1.0	5.0	Methyl isobutyl ketone [g]	ND<5.0	1.0	5.0
Carbon Tetrachloride	ND<5.0	1.0	5.0	Methyl tert-Butyl Ether (MTBE)	---	1.0	5.0
Chlorobenzene	ND<5.0	1.0	5.0	Naphthalene	ND<5.0	5.0	5.0
Chloroethane	ND<5.0	1.0	5.0	n-Propyl benzene	ND<5.0	1.0	5.0
2-Chloroethyl Vinyl Ether [c]	ND<5.0	1.0	5.0	Styrene [k]	ND<5.0	1.0	5.0
Chloroform	ND<5.0	1.0	5.0	1,1,1,2-Tetrachloroethane	ND<5.0	1.0	5.0
Chloromethane	ND<5.0	1.0	5.0	1,1,2,2-Tetrachloroethane	ND<5.0	1.0	5.0
2-Chlorotoluene	ND<5.0	1.0	5.0	Tetrachloroethene	ND<20	1.0	5.0
4-Chlorotoluene	ND<5.0	1.0	5.0	Toluene [l]	ND<5.0	1.0	5.0
Dibromochloromethane	ND<5.0	1.0	5.0	1,2,3-Trichlorobenzene	ND<5.0	5.0	25
1,2-Dibromo-3-chloropropane	ND<5.0	2.0	10	1,2,4-Trichlorobenzene	ND<5.0	5.0	25
Dibromomethane	ND<5.0	1.0	5.0	1,1,1-Trichloroethane	110	1.0	5.0
1,2-Dichlorobenzene	ND<5.0	1.0	5.0	1,1,2-Trichloroethane	ND<5.0	1.0	5.0
1,3-Dichlorobenzene	ND<5.0	1.0	5.0	Trichloroethene	ND<5.0	1.0	5.0
1,4-Dichlorobenzene	ND<5.0	1.0	5.0	Trichlorofluoromethane	ND<5.0	1.0	5.0
Dichlorodifluoromethane	ND<5.0	1.0	5.0	1,2,3-Trichloropropane	ND<5.0	1.0	5.0
1,1-Dichloroethane	11	1.0	5.0	1,2,4-Trimethylbenzene	ND<5.0	1.0	5.0
1,2-Dichloroethane	ND<5.0	1.0	5.0	1,3,5-Trimethylbenzene	ND<5.0	1.0	5.0
1,1-Dichloroethene	ND<5.0	1.0	5.0	Vinyl Acetate [m]	ND<5.0	5.0	25
cis-1,2-Dichloroethene	ND<5.0	1.0	5.0	Vinyl Chloride [n]	ND<5.0	1.0	5.0
trans-1,2-Dichloroethene	ND<5.0	1.0	5.0	Xylenes, total [o]	ND<5.0	1.0	5.0
1,2-Dichloropropane	ND<5.0	1.0	5.0	**Comments:** i			
1,3-Dichloropropane	ND<5.0	1.0	5.0	**Surrogate Recoveries (%)**			
2,2-Dichloropropane	ND<5.0	1.0	5.0	Dibromofluoromethane	106		
1,1-Dichloropropene	ND<5.0	1.0	5.0	Toluene-d8	95		
cis-1,3-Dichloropropene	ND<5.0	1.0	5.0	4-Bromofluorobenzene	100		

*water and vapor samples are reported in ug/L, soil and sludge samples in ug/kg, wipes in ug/wipe and all TCLP / SPLP extracts in ug/L

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis

(b) 2-propanone or dimethyl ketone; (c) (2-chloroethoxy) ethene; (d) 2-hexanone; (e) dichloromethane; (f) 2-butanone; (g) 4-methyl-2-pentanone or isopropylacetone; (h) lighter than water immiscible sheen is present; (i) liquid sample that contains greater than ~5 vol. % sediment; (j) sample diluted due to high organic content; (k) ethenylbenzene; (l) methylbenzene; (m) acetic acid ethenyl ester; (n) chloroethene; (o) dimethylbenzenes.

DHS Certification No. 1644

Edward Hamilton, Lab Director

McCAMPBELL ANALYTICAL INC.
110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
Telephone : 925-798-1620 Fax : 925-798-1622
http://www.mccampbell.com E-mail: main@mccampbell.com

Arcadis Geraghty & Miller	Client Project ID: #RC000548.001.00001; Airweld	Date Sampled: 03/02 & 03/05/01
1050 Marina Way South		Date Received: 03/05/01
Richmond, Ca 94804	Client Contact: Kent O'Brien	Date Extracted: 03/07-03/08/01
	Client P.O:	Date Analyzed: 03/07-03/08/01

Volatile Organics By GC/MS

EPA method 8260

Lab ID	61549
Client ID	GP-4
Matrix	W

Compound	Concentration*	Reporting Limit W	Reporting Limit S	Compound	Concentration*	Reporting Limit W	Reporting Limit S
Acetone [b]	ND<10	5.0	25	trans-1,3-Dichloropropene	ND	1.0	5.0
Benzene	ND	1.0	5.0	Ethylene dibromide	ND	1.0	5.0
Bromobenzene	ND	1.0	5.0	Ethylbenzene	ND	1.0	5.0
Bromochloromethane	ND	1.0	5.0	Hexachlorobutadiene	ND	5.0	25
Bromodichloromethane	ND	1.0	5.0	Iodomethane	ND	1.0	5.0
Bromoform	ND	1.0	5.0	Isopropylbenzene	ND	1.0	5.0
Bromomethane	ND	1.0	5.0	p-Isopropyl toluene	ND	1.0	5.0
n-Butyl benzene	ND	1.0	5.0	Methyl butyl ketone [d]	ND	1.0	5.0
sec-Butyl benzene	ND	1.0	5.0	Methylene Chloride [e]	ND	1.0	5.0
tert-Butyl benzene	ND	1.0	5.0	Methyl ethyl ketone [f]	ND	2.0	10
Carbon Disulfide	ND	1.0	5.0	Methyl isobutyl ketone [g]	ND	1.0	5.0
Carbon Tetrachloride	ND	1.0	5.0	Methyl tert-Butyl Ether (MTBE)	---	1.0	5.0
Chlorobenzene	ND	1.0	5.0	Naphthalene	ND	5.0	5.0
Chloroethane	ND	1.0	5.0	n-Propyl benzene	ND	1.0	5.0
2-Chlorbethyl Vinyl Ether [c]	ND	1.0	5.0	Styrene [k]	ND	1.0	5.0
Chloroform	ND	1.0	5.0	1,1,1,2-Tetrachloroethane	ND	1.0	5.0
Chloromethane	ND	1.0	5.0	1,1,2,2-Tetrachloroethane	ND	1.0	5.0
2-Chlorotoluene	ND	1.0	5.0	Tetrachloroethene	ND	1.0	5.0
4-Chlorotoluene	ND	1.0	5.0	Toluene [j]	ND	1.0	5.0
Dibromochloromethane	ND	1.0	5.0	1,2,3-Trichlorobenzene	ND	5.0	25
1,2-Dibromo-3-chloropropane	ND	2.0	10	1,2,4-Trichlorobenzene	ND	5.0	25
Dibromomethane	ND	1.0	5.0	1,1,1-Trichloroethane	ND	1.0	5.0
1,2-Dichlorobenzene	ND	1.0	5.0	1,1,2-Trichloroethane	ND	1.0	5.0
1,3-Dichlorobenzene	ND	1.0	5.0	Trichloroethene	ND	1.0	5.0
1,4-Dichlorobenzene	ND	1.0	5.0	Trichlorofluoromethane	ND	1.0	5.0
Dichlorodifluoromethane	ND	1.0	5.0	1,2,3-Trichloropropane	ND	1.0	5.0
1,1-Dichloroethane	ND	1.0	5.0	1,2,4-Trimethylbenzene	ND	1.0	5.0
1,2-Dichloroethane	ND	1.0	5.0	1,3,5-Trimethylbenzene	ND	1.0	5.0
1,1-Dichloroethene	ND	1.0	5.0	Vinyl Acetate [m]	ND	5.0	25
cis-1,2-Dichloroethene	ND	1.0	5.0	Vinyl Chloride [n]	ND	1.0	5.0
trans-1,2-Dichloroethene	ND	1.0	5.0	Xylenes, total [o]	ND	1.0	5.0
1,2-Dichloropropane	ND	1.0	5.0	**Comments:**			
1,3-Dichloropropane	ND	1.0	5.0				
2,2-Dichloropropane	ND	1.0	5.0				
1,1-Dichloropropene	ND	1.0	5.0				
cis-1,3-Dichloropropene	ND	1.0	5.0				

Surrogate Recoveries (%)	
Dibromofluoromethane	104
Toluene-d8	96
4-Bromofluorobenzene	98

*water and vapor samples are reported in ug/L, soil and sludge samples in ug/kg, wipes in ug/wipe and all TCLP / SPLP extracts in ug/L

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis

(b) 2-propanone or dimethyl ketone; (c) (2-chloroethoxy) ethene; (d) 2-hexanone; (e) dichloromethane; (f) 2-butanone; (g) 4-methyl-2-pentanone or isopropylacetone; (h) lighter than water immiscible sheen is present; (i) liquid sample that contains greater than ~5 vol. % sediment; (j) sample diluted due to high organic content; (k) ethenylbenzene; (l) methylbenzene; (m) acetic acid ethenyl ester; (n) chloroethene; (o) dimethylbenzenes.

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Arcadis Geraghty & Miller	Client Project ID: #RC000548.001.00001; Airweld	Date Sampled: 03/02 & 03/05/01
1050 Marina Way South		Date Received: 03/05/01
Richmond, Ca 94804	Client Contact: Kent O'Brien	Date Extracted: 03/07-03/08/01
	Client P.O:	Date Analyzed: 03/07-03/08/01

Volatile Organics By GC/MS

EPA method 8260

Lab ID	61550
Client ID	GP-5
Matrix	W

Compound	Concentration*	Reporting Limit W	Reporting Limit S	Compound	Concentration*	Reporting Limit W	Reporting Limit S
Acetone [b]	ND<10	5.0	25	trans-1,3-Dichloropropene	ND	1.0	5.0
Benzene	ND	1.0	5.0	Ethylene dibromide	ND	1.0	5.0
Bromobenzene	ND	1.0	5.0	Ethylbenzene	ND	1.0	5.0
Bromochloromethane	ND	1.0	5.0	Hexachlorobutadiene	ND	5.0	25
Bromodichloromethane	ND	1.0	5.0	Iodomethane	ND	1.0	5.0
Bromoform	ND	1.0	5.0	Isopropylbenzene	ND	1.0	5.0
Bromomethane	ND	1.0	5.0	p-Isopropyl toluene	ND	1.0	5.0
n-Butyl benzene	ND	1.0	5.0	Methyl butyl ketone [d]	ND	1.0	5.0
sec-Butyl benzene	ND	1.0	5.0	Methylene Chloride [e]	ND	1.0	5.0
tert-Butyl benzene	ND	1.0	5.0	Methyl ethyl ketone [f]	ND	2.0	10
Carbon Disulfide	ND	1.0	5.0	Methyl isobutyl ketone [g]	ND	1.0	5.0
Carbon Tetrachloride	ND	1.0	5.0	Methyl tert-Butyl Ether (MTBE)	---	1.0	5.0
Chlorobenzene	ND	1.0	5.0	Naphthalene	ND	5.0	5.0
Chloroethane	ND	1.0	5.0	n-Propyl benzene	ND	1.0	5.0
2-Chloroethyl Vinyl Ether [c]	ND	1.0	5.0	Styrene [k]	ND	1.0	5.0
Chloroform	ND	1.0	5.0	1,1,1,2-Tetrachloroethane	ND	1.0	5.0
Chloromethane	ND	1.0	5.0	1,1,2,2-Tetrachloroethane	ND	1.0	5.0
2-Chlorotoluene	ND	1.0	5.0	Tetrachloroethene	ND	1.0	5.0
4-Chlorotoluene	ND	1.0	5.0	Toluene [l]	ND	1.0	5.0
Dibromochloromethane	ND	1.0	5.0	1,2,3-Trichlorobenzene	ND	5.0	25
1,2-Dibromo-3-chloropropane	ND	2.0	10	1,2,4-Trichlorobenzene	ND	5.0	25
Dibromomethane	ND	1.0	5.0	1,1,1-Trichloroethane	ND	1.0	5.0
1,2-Dichlorobenzene	ND	1.0	5.0	1,1,2-Trichloroethane	ND	1.0	5.0
1,3-Dichlorobenzene	ND	1.0	5.0	Trichloroethene	ND	1.0	5.0
1,4-Dichlorobenzene	ND	1.0	5.0	Trichlorofluoromethane	ND	1.0	5.0
Dichlorodifluoromethane	ND	1.0	5.0	1,2,3-Trichloropropane	ND	1.0	5.0
1,1-Dichloroethane	ND	1.0	5.0	1,2,4-Trimethylbenzene	ND	1.0	5.0
1,2-Dichloroethane	ND	1.0	5.0	1,3,5-Trimethylbenzene	ND	1.0	5.0
1,1-Dichloroethene	ND	1.0	5.0	Vinyl Acetate [m]	ND	5.0	25
cis-1,2-Dichloroethene	ND	1.0	5.0	Vinyl Chloride [n]	ND	1.0	5.0
trans-1,2-Dichloroethene	ND	1.0	5.0	Xylenes, total [o]	ND	1.0	5.0
1,2-Dichloropropane	ND	1.0	5.0	**Comments:**			
1,3-Dichloropropane	ND	1.0	5.0	**Surrogate Recoveries (%)**			
2,2-Dichloropropane	ND	1.0	5.0	Dibromofluoromethane	105		
1,1-Dichloropropene	ND	1.0	5.0	Toluene-d8	97		
cis-1,3-Dichloropropene	ND	1.0	5.0	4-Bromofluorobenzene	99		

*water and vapor samples are reported in ug/L, soil and sludge samples in ug/kg, wipes in ug/wipe and all TCLP / SPLP extracts in ug/L

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis

(b) 2-propanone or dimethyl ketone; (c) (2-chloroethoxy) ethene; (d) 2-hexanone; (e) dichloromethane; (f) 2-butanone; (g) 4-methyl-2-pentanone or isopropylacetone; (h) lighter than water immiscible sheen is present; (i) liquid sample that contains greater than ~5 vol. % sediment; (j) sample diluted due to high organic content; (k) ethenylbenzene; (l) methylbenzene; (m) acetic acid ethenyl ester; (n) chloroethene; (o) dimethylbenzenes.

DHS Certification No. 1644

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110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
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http://www.mccampbell.com E-mail: main@mccampbell.com

Arcadis Geraghty & Miller	Client Project ID: #RC000548.001.00001; Airweld	Date Sampled: 03/02 & 03/05/01
1050 Marina Way South		Date Received: 03/05/01
Richmond, Ca 94804	Client Contact: Kent O'Brien	Date Extracted: 03/07-03/08/01
	Client P.O:	Date Analyzed: 03/07-03/08/01

Volatile Organics By GC/MS

EPA method 8260

Lab ID	61551
Client ID	GP-6
Matrix	W

Compound	Concentration*	Reporting Limit W	Reporting Limit S	Compound	Concentration*	Reporting Limit W	Reporting Limit S
Acetone (b)	ND<10	5.0	25	trans-1,3-Dichloropropene	ND	1.0	5.0
Benzene	ND	1.0	5.0	Ethylene dibromide	ND	1.0	5.0
Bromobenzene	ND	1.0	5.0	Ethylbenzene	ND	1.0	5.0
Bromochloromethane	ND	1.0	5.0	Hexachlorobutadiene	ND	5.0	25
Bromodichloromethane	ND	1.0	5.0	Iodomethane	ND	1.0	5.0
Bromoform	ND	1.0	5.0	Isopropylbenzene	ND	1.0	5.0
Bromomethane	ND	1.0	5.0	p-Isopropyl toluene	ND	1.0	5.0
n-Butyl benzene	ND	1.0	5.0	Methyl butyl ketone (d)	ND	1.0	5.0
sec-Butyl benzene	ND	1.0	5.0	Methylene Chloride(e)	ND	1.0	5.0
tert-Butyl benzene	ND	1.0	5.0	Methyl ethyl ketone (f)	3.6	2.0	10
Carbon Disulfide	ND	1.0	5.0	Methyl isobutyl ketone (g)	ND	1.0	5.0
Carbon Tetrachloride	ND	1.0	5.0	Methyl tert-Butyl Ether (MTBE)	---	1.0	5.0
Chlorobenzene	ND	1.0	5.0	Naphthalene	ND	5.0	5.0
Chloroethane	ND	1.0	5.0	n-Propyl benzene	ND	1.0	5.0
2-Chloroethyl Vinyl Ether(c)	ND	1.0	5.0	Styrene (k)	ND	1.0	5.0
Chloroform	ND	1.0	5.0	1,1,1,2-Tetrachloroethane	ND	1.0	5.0
Chloromethane	ND	1.0	5.0	1,1,2,2-Tetrachloroethane	ND	1.0	5.0
2-Chlorotoluene	ND	1.0	5.0	Tetrachloroethene	ND	1.0	5.0
4-Chlorotoluene	ND	1.0	5.0	Toluene (l)	ND	1.0	5.0
Dibromochloromethane	ND	1.0	5.0	1,2,3-Trichlorobenzene	ND	5.0	25
1,2-Dibromo-3-chloropropane	ND	2.0	10	1,2,4-Trichlorobenzene	ND	5.0	25
Dibromomethane	ND	1.0	5.0	1,1,1-Trichloroethane	ND	1.0	5.0
1,2-Dichlorobenzene	ND	1.0	5.0	1,1,2-Trichloroethane	ND	1.0	5.0
1,3-Dichlorobenzene	ND	1.0	5.0	Trichloroethene	ND	1.0	5.0
1,4-Dichlorobenzene	ND	1.0	5.0	Trichlorofluoromethane	ND	1.0	5.0
Dichlorodifluoromethane	ND	1.0	5.0	1,2,3-Trichloropropane	ND	1.0	5.0
1,1-Dichloroethane	ND	1.0	5.0	1,2,4-Trimethylbenzene	ND	1.0	5.0
1,2-Dichloroethane	ND	1.0	5.0	1,3,5-Trimethylbenzene	ND	1.0	5.0
1,1-Dichloroethene	ND	1.0	5.0	Vinyl Acetate (m)	ND	5.0	25
cis-1,2-Dichloroethene	ND	1.0	5.0	Vinyl Chloride (a)	ND	1.0	5.0
trans-1,2-Dichloroethene	ND	1.0	5.0	Xylenes, total (o)	ND	1.0	5.0
1,2-Dichloropropane	ND	1.0	5.0	**Comments:** i			
1,3-Dichloropropane	ND	1.0	5.0	**Surrogate Recoveries (%)**			
2,2-Dichloropropane	ND	1.0	5.0	Dibromofluoromethane	105		
1,1-Dichloropropene	ND	1.0	5.0	Toluene-d8	96		
cis-1,3-Dichloropropene	ND	1.0	5.0	4-Bromofluorobenzene	99		

*water and vapor samples are reported in ug/L, soil and sludge samples in ug/kg, wipes in ug/wipe and all TCLP / SPLP extracts in ug/L

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis

(b) 2-propanone or dimethyl ketone; (c) (2-chloroethoxy) ethene; (d) 2-hexanone; (e) dichloromethane; (f) 2-butanone; (g) 4-methyl-2-pentanone or isopropylacetone; (h) lighter than water immiscible sheen is present; (i) liquid sample that contains greater than ~5 vol. % sediment; (j) sample diluted due to high organic content; (k) ethenylbenzene; (l) methylbenzene; (m) acetic acid ethenyl ester; (n) chloroethene; (o) dimethylbenzenes.

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Richmond, Ca 94804	Client Contact: Kent O'Brien	Date Extracted: 03/07-03/08/01
	Client P.O:	Date Analyzed: 03/07-03/08/01

Volatile Organics By GC/MS

EPA method 8260

Lab ID	61552
Client ID	GP-7
Matrix	W

Compound	Concentration*	Reporting Limit W	Reporting Limit S	Compound	Concentration*	Reporting Limit W	Reporting Limit S
Acetone [b]	ND<10	5.0	25	trans-1,3-Dichloropropene	ND	1.0	5.0
Benzene	ND	1.0	5.0	Ethylene dibromide	ND	1.0	5.0
Bromobenzene	ND	1.0	5.0	Ethylbenzene	ND	1.0	5.0
Bromochloromethane	ND	1.0	5.0	Hexachlorobutadiene	ND	5.0	25
Bromodichloromethane	ND	1.0	5.0	Iodomethane	ND	1.0	5.0
Bromoform	ND	1.0	5.0	Isopropylbenzene	ND	1.0	5.0
Bromomethane	ND	1.0	5.0	p-Isopropyl toluene	ND	1.0	5.0
n-Butyl benzene	ND	1.0	5.0	Methyl butyl ketone [d]	ND	1.0	5.0
sec-Butyl benzene	ND	1.0	5.0	Methylene Chloride [e]	ND	1.0	5.0
tert-Butyl benzene	ND	1.0	5.0	Methyl ethyl ketone [f]	4.3	2.0	10
Carbon Disulfide	ND	1.0	5.0	Methyl isobutyl ketone [g]	ND	1.0	5.0
Carbon Tetrachloride	ND	1.0	5.0	Methyl tert-Butyl Ether (MTBE)	---	1.0	5.0
Chlorobenzene	ND	1.0	5.0	Naphthalene	ND	5.0	5.0
Chloroethane	ND	1.0	5.0	n-Propyl benzene	ND	1.0	5.0
2-Chloroethyl Vinyl Ether [c]	ND	1.0	5.0	Styrene [k]	ND	1.0	5.0
Chloroform	ND	1.0	5.0	1,1,1,2-Tetrachloroethane	ND	1.0	5.0
Chloromethane	ND	1.0	5.0	1,1,2,2-Tetrachloroethane	ND	1.0	5.0
2-Chlorotoluene	ND	1.0	5.0	Tetrachloroethene	ND	1.0	5.0
4-Chlorotoluene	ND	1.0	5.0	Toluene [l]	ND	1.0	5.0
Dibromochloromethane	ND	1.0	5.0	1,2,3-Trichlorobenzene	ND	5.0	25
1,2-Dibromo-3-chloropropane	ND	2.0	10	1,2,4-Trichlorobenzene	ND	5.0	25
Dibromomethane	ND	1.0	5.0	1,1,1-Trichloroethane	ND	1.0	5.0
1,2-Dichlorobenzene	ND	1.0	5.0	1,1,2-Trichloroethane	ND	1.0	5.0
1,3-Dichlorobenzene	ND	1.0	5.0	Trichloroethene	ND	1.0	5.0
1,4-Dichlorobenzene	ND	1.0	5.0	Trichlorofluoromethane	ND	1.0	5.0
Dichlorodifluoromethane	ND	1.0	5.0	1,2,3-Trichloropropane	ND	1.0	5.0
1,1-Dichloroethane	1.3	1.0	5.0	1,2,4-Trimethylbenzene	ND	1.0	5.0
1,2-Dichloroethane	ND	1.0	5.0	1,3,5-Trimethylbenzene	ND	1.0	5.0
1,1-Dichloroethene	ND	1.0	5.0	Vinyl Acetate [m]	ND	5.0	25
cis-1,2-Dichloroethene	ND	1.0	5.0	Vinyl Chloride [n]	ND	1.0	5.0
trans-1,2-Dichloroethene	ND	1.0	5.0	Xylenes, total [o]	ND	1.0	5.0
1,2-Dichloropropane	ND	1.0	5.0	**Comments:**			
1,3-Dichloropropane	ND	1.0	5.0	**Surrogate Recoveries (%)**			
2,2-Dichloropropane	ND	1.0	5.0	Dibromofluoromethane	105		
1,1-Dichloropropene	ND	1.0	5.0	Toluene-d8	97		
cis-1,3-Dichloropropene	ND	1.0	5.0	4-Bromofluorobenzene	99		

*water and vapor samples are reported in ug/L, soil and sludge samples in ug/kg, wipes in ug/wipe and all TCLP / SPLP extracts in ug/L

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis

(b) 2-propanone or dimethyl ketone; (c) (2-chloroethoxy) ethene; (d) 2-hexanone; (e) dichloromethane; (f) 2-butanone; (g) 4-methyl-2-pentanone or isopropylacetone; (h) lighter than water immiscible sheen is present; (i) liquid sample that contains greater than ~5 vol. % sediment; (j) sample diluted due to high organic content; (k) ethenylbenzene; (l) methylbenzene; (m) acetic acid ethenyl ester; (n) chloroethene; (o) dimethylbenzenes.

DHS Certification No. 1644

Edward Hamilton, Lab Director

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http://www.mccampbell.com E-mail: main@mccampbell.com

Arcadis Geraghty & Miller	Client Project ID: #RC000548.001.00001; Airweld	Date Sampled: 03/02 & 03/05/01
1050 Marina Way South		Date Received: 03/05/01
Richmond, Ca 94804	Client Contact: Kent O'Brien	Date Extracted: 03/07-03/08/01
	Client P.O:	Date Analyzed: 03/07-03/08/01

Volatile Organics By GC/MS

EPA method 8260

Lab ID	61553
Client ID	GP-8
Matrix	W

Compound	Concentration*	Reporting Limit W	Reporting Limit S	Compound	Concentration*	Reporting Limit W	Reporting Limit S
Acetone [b]	ND<10	5.0	25	trans-1,3-Dichloropropene	ND	1.0	5.0
Benzene	ND	1.0	5.0	Ethylene dibromide	ND	1.0	5.0
Bromobenzene	ND	1.0	5.0	Ethylbenzene	ND	1.0	5.0
Bromochloromethane	ND	1.0	5.0	Hexachlorobutadiene	ND	5.0	25
Bromodichloromethane	ND	1.0	5.0	Iodomethane	ND	1.0	5.0
Bromoform	ND	1.0	5.0	Isopropylbenzene	ND	1.0	5.0
Bromomethane	ND	1.0	5.0	p-Isopropyl toluene	ND	1.0	5.0
n-Butyl benzene	ND	1.0	5.0	Methyl butyl ketone [d]	ND	1.0	5.0
sec-Butyl benzene	ND	1.0	5.0	Methylene Chloride [e]	ND	1.0	5.0
tert-Butyl benzene	ND	1.0	5.0	Methyl ethyl ketone [f]	2.3	2.0	10
Carbon Disulfide	ND	1.0	5.0	Methyl isobutyl ketone [g]	ND	1.0	5.0
Carbon Tetrachloride	ND	1.0	5.0	Methyl tert-Butyl Ether (MTBE)	---	1.0	5.0
Chlorobenzene	ND	1.0	5.0	Naphthalene	ND	5.0	5.0
Chloroethane	ND	1.0	5.0	n-Propyl benzene	ND	1.0	5.0
2-Chloroethyl Vinyl Ether [c]	ND	1.0	5.0	Styrene [k]	ND	1.0	5.0
Chloroform	ND	1.0	5.0	1,1,1,2-Tetrachloroethane	ND	1.0	5.0
Chloromethane	ND	1.0	5.0	1,1,2,2-Tetrachloroethane	ND	1.0	5.0
2-Chlorotoluene	ND	1.0	5.0	Tetrachloroethene	ND	1.0	5.0
4-Chlorotoluene	ND	1.0	5.0	Toluene [l]	ND	1.0	5.0
Dibromochloromethane	ND	1.0	5.0	1,2,3-Trichlorobenzene	ND	5.0	25
1,2-Dibromo-3-chloropropane	ND	2.0	10	1,2,4-Trichlorobenzene	ND	5.0	25
Dibromomethane	ND	1.0	5.0	1,1,1-Trichloroethane	ND	1.0	5.0
1,2-Dichlorobenzene	ND	1.0	5.0	1,1,2-Trichloroethane	ND	1.0	5.0
1,3-Dichlorobenzene	ND	1.0	5.0	Trichloroethene	ND	1.0	5.0
1,4-Dichlorobenzene	ND	1.0	5.0	Trichlorofluoromethane	ND	1.0	5.0
Dichlorodifluoromethane	ND	1.0	5.0	1,2,3-Trichloropropane	ND	1.0	5.0
1,1-Dichloroethane	ND	1.0	5.0	1,2,4-Trimethylbenzene	ND	1.0	5.0
1,2-Dichloroethane	ND	1.0	5.0	1,3,5-Trimethylbenzene	ND	1.0	5.0
1,1-Dichloroethene	ND	1.0	5.0	Vinyl Acetate [m]	ND	5.0	25
cis-1,2-Dichloroethene	ND	1.0	5.0	Vinyl Chloride [n]	ND	1.0	5.0
trans-1,2-Dichloroethene	ND	1.0	5.0	Xylenes, total [o]	ND	1.0	5.0
1,2-Dichloropropane	ND	1.0	5.0	**Comments:**			
1,3-Dichloropropane	ND	1.0	5.0	**Surrogate Recoveries (%)**			
2,2-Dichloropropane	ND	1.0	5.0	Dibromofluoromethane	103		
1,1-Dichloropropene	ND	1.0	5.0	Toluene-d8	96		
cis-1,3-Dichloropropene	ND	1.0	5.0	4-Bromofluorobenzene	97		

*water and vapor samples are reported in ug/L, soil and sludge samples in ug/kg, wipes in ug/wipe and all TCLP / SPLP extracts in ug/L

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis

(b) 2-propanone or dimethyl ketone; (c) (2-chloroethoxy) ethene; (d) 2-hexanone; (e) dichloromethane; (f) 2-butanone; (g) 4-methyl-2-pentanone or isopropylacetone; (h) lighter than water immiscible sheen is present; (i) liquid sample that contains greater than ~5 vol. % sediment; (j) sample diluted due to high organic content; (k) ethenylbenzene; (l) methylbenzene; (m) acetic acid ethenyl ester; (n) chloroethene; (o) dimethylbenzenes.

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1050 Marina Way South		Date Received: 03/05/01
Richmond, Ca 94804	Client Contact: Kent O'Brien	Date Extracted: 03/09/01
	Client P.O:	Date Analyzed: 03/09-03/12/01

Polynuclear Aromatic Hydrocarbons (PAH / PNA) by GC-MS

EPA methods 625 (modified 610) and 3510 or 8270 (modified 8100) and 3550

Lab ID	61547	61551	61555			Reporting Limit	
Client ID	GP-1	GP-6	GP-2			S	W, STLC TCLP
Matrix	W	W	W				
Compound	Concentration*					mg/kg	ug/L
Acenaphthene	ND	ND	ND			0.33	10
Acenaphthylne	ND	ND	ND			0.33	10
Anthracene	ND	ND	ND			0.33	10
Benzo(a)anthracene	ND	ND	ND			0.33	10
Benzo(b)fluoranthene	ND	ND	ND			0.33	10
Benzo(k)fluoranthene	ND	ND	ND			0.33	10
Benzo(g,h,i)perylene	ND	ND	ND			0.33	10
Benzo(a)pyrene	ND	ND	ND			0.33	10
Chrysene	ND	ND	ND			0.33	10
Dibenzo(a,h)anthracene	ND	ND	ND			0.33	10
Fluoranthene	ND	ND	ND			0.33	10
Fluorene	ND	ND	ND			0.33	10
Indeno(1,2,3-cd)pyrene	ND	ND	ND			0.33	10
Naphthalene	ND	ND	ND			0.33	10
Phenanthrene	ND	ND	ND			0.33	10
Pyrene	ND	ND	ND			0.33	10
% Recovery Surrogate 1	101	70	101				
% Recovery Surrogate 2	96	88	95				
Comments							

* water and vapor samples are reported in ug/L, soil and sludge samples in mg/kg, wipes in ug/wipe and all TCLP / STLC / SPLP extracts in ug/L.

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis

surrogate diluted out of range or surrogate coelutes with another peak

(h) a lighter than water immiscible sheen is present; (i) liquid sample that contains >~5 vol. % sediment; (j) sample diluted due to high organic content.

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Arcadis Geraghty & Miller	Client Project ID: #RC000548.001.00001; Airweld	Date Sampled: 03/02 & 03/05/01
1050 Marina Way South		Date Received: 03/05/01
Richmond, Ca 94804	Client Contact: Kent O'Brien	Date Extracted: 03/06-03/07/01
	Client P.O:	Date Analyzed: 03/06-03/07/01

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline*, with Methyl tert-Butyl Ether* & BTEX*

EPA methods 5030, modified 8015, and 8020 or 602; California RWQCB (SF Bay Region) method GCFID(5030)

Lab ID	Client ID	Matrix	TPH(g)+	MTBE	Benzene	Toluene	Ethyl-benzene	Xylenes	% Recovery Surrogate
61547	GP-1	W	ND,i	ND	ND	ND	ND	ND	97
61548	GP-3	W	110,f,i	ND	ND	ND	ND	ND	100
61549	GP-4	W	ND	ND	ND	ND	ND	0.87	98
61550	GP-5	W	ND	ND	ND	ND	ND	ND	99
61551	GP-6	W	ND,i	ND	ND	ND	ND	ND	98
61552	GP-7	W	ND	ND	ND	0.61	ND	ND	99
61553	GP-8	W	ND	ND	ND	0.59	ND	0.67	96
61555	GP-2	W	150,f	ND	ND	0.75	ND	0.84	99
Reporting Limit unless otherwise stated; ND means not detected above the reporting limit		W	50 ug/L	5.0	0.5	0.5	0.5	0.5	
		S	1.0 mg/kg	0.05	0.005	0.005	0.005	0.005	

* water and vapor samples are reported in ug/L, wipe samples in ug/wipe, soil and sludge samples in mg/kg, and all TCLP and SPLP extracts in ug/L

cluttered chromatogram; sample peak coelutes with surrogate peak

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (?); f) one to a few isolated peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen is present; i) liquid sample that contains greater than ~5 vol. % sediment; j) no recognizable pattern.

DHS Certification No. 1644

Edward Hamilton, Lab Director

McCAMPBELL ANALYTICAL INC.

110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
Telephone : 925-798-1620 Fax : 925-798-1622
http://www.mccampbell.com E-mail: main@mccampbell.com

Arcadis Geraghty & Miller	Client Project ID: #RC000548.001.00001; Airweld	Date Sampled: 03/02 & 03/05/01
1050 Marina Way South		Date Received: 03/05/01
Richmond, Ca 94804	Client Contact: Kent O'Brien	Date Extracted: 03/06-03/07/01
	Client P.O:	Date Analyzed: 03/06-03/07/01

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline*, with Methyl tert-Butyl Ether* & BTEX*

EPA methods 5030, modified 8015, and 8020 or 602; California RWQCB (SF Bay Region) method GCFID(5030)

Lab ID	Client ID	Matrix	TPH(g)+	MTBE	Benzene	Toluene	Ethyl-benzene	Xylenes	% Recovery Surrogate
61554	Trip Blank	W	ND	ND	ND	ND	ND	ND	99
Reporting Limit unless otherwise stated; ND means not detected above the reporting limit		W	50 ug/L	5.0	0.5	0.5	0.5	0.5	
		S	1.0 mg/kg	0.05	0.005	0.005	0.005	0.005	

* water and vapor samples are reported in ug/L, wipe samples in ug/wipe, soil and sludge samples in mg/kg, and all TCLP and SPLP extracts in ug/L

cluttered chromatogram; sample peak coelutes with surrogate peak

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (?); f) one to a few isolated peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen is present; i) liquid sample that contains greater than ~5 vol. % sediment; j) no recognizable pattern.

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Arcadis Geraghty & Miller 1050 Marina Way South Richmond, Ca 94804	Client Project ID: #RC000548.001.00001; Airweld	Date Sampled: 03/02 & 03/05/01
		Date Received: 03/05/01
	Client Contact: Kent O'Brien	Date Extracted: 03/05-03/08/01
	Client P.O:	Date Analyzed: 03/05-03/08/01

Multi-Range (Gasoline,Diesel,Motor Oil) TPH as Diesel *

EPA methods modified 8015, and 3550 or 3510; California RWQCB (SF Bay Region) method GCFID(3550) or GCFID(3510)

Lab ID	Client ID	Matrix	TPH(Gas)+ (C6-C12)	TPH(Diesel)+ (C10-C23)	TPH(MotorOil)° (>C18)	% Recovery Surrogate
61547	GP-1	W	ND	780,g,b,i	3500	96
61548	GP-3	W	110,f,i	ND	ND	100
61549	GP-4	W	ND	ND	ND	100
61550	GP-5	W	ND	990,g	3600	115
61551	GP-6	W	ND	1300,g,b,i	4400	118
61552	GP-7	W	ND	70,b	ND	100
61553	GP-8	W	ND	55,g	330	105
61555	GP-2	W	150,f,b	830	ND	105
Reporting Limit unless otherwise stated; ND means not detected above the reporting limit		W	50 ug/L	50 ug/L	250 ug/L	
		S	1.0 mg/kg	1.0 mg/kg	5.0 mg/kg	

* water samples are reported in ug/L, soil and sludge samples in mg/kg, wipes in ug/wipe and all TCLP / SPLP extracts in mg/L

f cluttered chromatogram resulting in surrogate and sample peak coelution, or; surrogate peak is on elevated baseline, or; surrogate has been diminished by dilution of original extract.

° oil-range compounds are not fully recovered by this GC methodology

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified diesel is significant; b) diesel range compounds are significant; no recognizable pattern; c) aged diesel? is significant); d) gasoline range compounds are significant; e) medium boiling point pattern that does not match diesel(?); f) one to a few isolated peaks present; g) oil range compounds are significant; h) lighter than water immiscible sheen is present; i) liquid sample that contains greater than ~5 vol. % sediment.

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CAM / CCR 17 Metals*

EPA methods 6010/200.7; 7470/7471/245.1/245.5 (Hg); 7060/206.2 (As); 7740/270.2 (Se); 7841/279.2 (Tl); 239.2 (Pb, water matrix)

Lab ID	61547	61548	61555		Reporting Limit		
Client ID	GP-1	GP-3	GP-2				
Matrix	W	W	W		S	W	STLC, TCLP
Extraction°	Dissolved	Dissolved	Dissolved		TTLC	Dissolved	
Compound	Concentration*				mg/kg	mg/L	mg/L
Antimony (Sb)	ND	ND	ND		2.5	0.006	0.05
Arsenic (As)	ND<0.05&	ND<0.05&	0.0057		2.5	0.005	0.25
Barium (Ba)	0.28	1.7	0.27		2.5	0.05	0.05
Beryllium (Be)	ND	ND	ND		0.5	0.004	0.01
Cadmium (Cd)	ND	0.0095	0.019		0.5	0.005	0.01
Chromium (Cr)	ND	0.062	0.41		0.5	0.02	0.05
Cobalt (Co)	ND	0.25	0.056		2.0	0.05	0.05
Copper (Cu)	ND	ND	0.056		2.0	0.05	0.05
Lead (Pb)	ND	0.0055	ND		3.0	0.005	0.2
Mercury (Hg)	ND	ND	ND		0.06	0.0008	0.005
Molybdenum (Mo)	ND	ND	ND		2.0	0.05	0.05
Nickel (Ni)	ND	0.24	1.7		2.0	0.05	0.05
Selenium (Se)	ND	ND	ND		2.5	0.005	0.25
Silver (Ag)	ND	ND	ND		1.0	0.01	0.05
Thallium (Tl)	ND	ND	ND		2.5	0.005	0.5
Vanadium (V)	ND	0.10	ND		2.0	0.05	0.05
Zinc (Zn)	ND	0.083	0.083		1.0	0.05	0.05
% Recovery Surrogate	N/A	N/A	N/A				
Comments							

* water samples are reported in mg/L, soil and sludge samples in mg/kg, wipes in ug/wipe and all TCLP / STLC / SPLP extracts in mg/L

ND means not detected above the reporting limit; N/A means surrogate not applicable to this analysis

° EPA extraction methods 1311(TCLP), 3010/3020(water,TTLC), 3040(organic matrices,TTLC), 3050(solids,TTLC); STLC - CA Title 22

@ DISTLC extractions are performed using STLC methodology except that deionized water is substituted for citric acid buffer as the extraction fluid. DISTLC results are not applicable to STLC regulatory limits.

' surrogate diluted out of range

& reporting limit raised due to matrix interference

i) liquid sample that contains greater than ~2 vol. % sediment; this sediment is extracted with the liquid, in accordance with EPA methodologies and can significantly effect reported metal concentrations.

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Edward Hamilton, Lab Director

Weiss Associates
Environmental Science, Engineering and Management
5801 Christie Avenue, Suite 600, Emeryville, CA 94608-1827 Fax: 510-547-5043 Phone: 510-450-6000

SOIL EXCAVATION AND SAMPLING AND ANALYSIS WORKPLAN

for

Airweld, Inc. Facility, North Field, Metropolitan Oakland International Airport

prepared for

Port of Oakland
530 Water Street
Jack London Square
Oakland, CA, 94604

Weiss Associates *Environmental Science, Engineering and Management*

5801 Christie Avenue, Suite 600, Emeryville, CA 94608-1827 Fax: 510-547-5043 Phone: 510-450-6000

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5801 Christie Avenue, Suite 600
Emeryville, CA 94608

Weiss Job # 259-1541

Joyce Adams
Project Geologist

Weiss Associates work for the Port of Oakland was conducted under my supervision. To the best of my knowledge, the data contained herein are true and accurate and satisfy the scope of work prescribed by the client for this project. The data, findings, recommendations, specifications or professional opinions were prepared solely for the use of the Port of Oakland in accordance with generally accepted professional engineering and geologic practice. The Executive Summary contained in this report serves as a complement to the entire report and should not be treated as a stand-alone document. The reader is referred to the detailed information provided within this report for additional data not contained in the Executive Summary. We make no other warranty, either expressed or implied, and are not responsible for the interpretation by others of the contents herein.

Mary Stallard 7-8-02

Mary Stallard Date
Certified Engineering Geologist
No. EG1704

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FIGURES

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APPENDIX

1. INTRODUCTION

The Port of Oakland (the Port) is renovating Building L-617 at the Airweld, Inc. Facility locate at the North Field, Metropolitan Oakland International Airport, Oakland, California (Figure 1). This workplan outlines the objectives and procedures for conducting soil excavation and confirmation sampling in the former chemical storage room/steam room in Building L-617 and in the former outdoor drum storage area east of Building L-618 (Figure 2, and Appendix A).

1.1 Project Background

As summarized in the Soil and Ground Water Investigation Report prepared by Arcadis in June 2001, the Airweld, Inc. Facility was used primarily for aircraft and vehicle parts repair and maintenance. Previous investigations by Uribe & Associates (1992) and Arcadis (2001) indicated that the soil and ground water at the Site have been impacted by petroleum hydrocarbons (TPH) and volatile organic compounds (VOCs). Appendix A contains the figures from the Arcadis investigation.

In 2001, ground water was estimated to be encountered between 3 ft and 6 ft below ground surface (bgs) and grab water samples were collected from 8 locations at the Site (Appendix A, Figure 2). During the Arcadis investigation in 2001, grab water from boring (GP-2) next to the sump within the former chemical storage room contained 1,1-dichloroethane (1,1-DCA) at 21 micrograms per Liter (ug/L), 1,1,1-trichloroethane (1,1,1-TCA) at 200 ug/L, TPH-gasoline (TPH-G) at 150 ug/L and TPH-diesel (TPH-D) at 830 ug/L (Appendix A, Figures 7 and 8). Grab water samples collected from boring GP-3 south of the former chemical storage room contained 1,1-DCA at 11 ug/L and 1,1,1-TCA at 110 ug/L and TPH-G at 110 ug/L (Appendix A, Figures 7 and 8). A boring northwest of the former chemical storage room contained TPH-D at 780 mg/L and TPH-motor oil (TPH-MO) at 3,500 mg/L (Appendix A, Figures 7 and 8).

In 1992, soil samples from two borings in the former drum storage area contained oil and grease (O&G). The highest O&G concentration (3,500 mg/kg) was detected in boring B-2 at a depth of 3.5 ft on the east side of Building L-618 in the former drum storage area. In 2001, a soil sample form boring GP-7 contained TPH-MO at 2,100 mg/kg from a depth of 2.5 ft (Arcadis, 2001).

1.2 Project Objectives

The Port's objective for this project is to remediate the previous chemical storage room and the former drum storage area.

The tasks proposed to meet this objective include removing the concrete slab within the previous chemical storage room and removing the 2 ft x2 ft x2 ft sump; removing a concrete pad and

soil beneath it in the former drum storage area; and collecting confirmation soil samples in each area. Section 2 outlines the scope of work and field procedures for these tasks, and Section 3 describes the proposed sampling locations and the sampling and analysis plan. Section 4 presents the Health and Safety Plan and Section 5 lists the References.

Upon completion of the field activities, a letter report discussing the results of the soil excavation and confirmation sampling will be prepared. The report will present the field data, analytic results, and justification for site closure.

1.3 Cleanup Criteria

To determine successful attainment of the Project Objectives, confirmation samples will be collected from the sidewalls and bottom of the excavation for total petroleum hydrocarbons as gasoline (TPH-G), diesel (TPH-D), and motor oil (TPH-MO), volatile organic compounds (VOCs) and CAM 17 metals. Results of the analyses will be compared to risk based screening levels (RBSLs) for "industrial/commercial land use only" exposure scenario (Shallow soil less than 3 meters deep, ground water is not a current or potential source of drinking water.

1.4 Project Schedule

Due to the Port of Oakland schedule, the field work described in this document shall conclude no later than September, 2002. The report summarizing the results of these field activities will be completed and finalized no more than four weeks following the receipt of analytic results.

2. FIELD PROCEDURES

Prior to conducting any intrusive field activities, a geophysical survey will be conducted by NorCal Geophysical, Inc. to identify any underground utilities. Excavation permits, if needed, will be obtained from the Alameda County Public Works Agency (ACPWA). A photo-ionization detector (PID) will be used for air monitoring during fieldwork. All concrete, excavation spoils and ground water will be placed in appropriate labeled containers and stored on-site in a convenient location specified by the Port.

Bluewater Services, Inc (Bluewater) will conduct the floor and pad demolition and soil excavation, Weiss Associates (Weiss) will oversee the project and collect confirmation soil samples from each excavation and Foss Environmental will be supplying roll-off bins and will properly profile and dispose of all material in accordance to all federal, state, and local regulations.

2.1.1 Floor and Pad Demolition and Soil Excavation Procedures

Under Weiss oversight, Bluewater will conduct all the fieldwork in accordance to federal, state, and local regulations. Bluewater will use the appropriate equipment necessary to complete the tasks below in a safe manner. The following are the activities to be conducted in the former chemical storage room and at the former drum storage area:

Former Chemical Storage Area

- Remove the existing concrete floor, which is estimated to be about 30 ft by 30 ft and 3 in to 4 in thick;
- Remove the 2 ft by 2 ft by 2ft concrete lined sump;
- Over excavate the sump area to remove impacted soil;
- Monitor the soil with a photoionization detector (PID) to help determine the extent of contamination, along with using visual observations;
- Prior to backfilling, hydrogen release compound (HRC™) will be either placed at the bottom of the excavation or mixed with the backfill material (HRC will enhance anaerobic degradation of any lingering source material);
- Backfill the excavation with clean fill and compact to the appropriate compaction standards; and,
- Install a new concrete floor to the same standards as the original concrete floor.

Former Drum Storage Area

- Remove the northern portion of the concrete pad on the east side of Building L-618;
- Excavate soil from underneath the concrete pad to about 5 ft below grade;
- Excavate soil north of the pad area to the northern fence line to about 5 ft below grade;
- Monitor the soil with a PID to help determine the extent of contamination, along with using visual observations;
- Prior to backfilling, HRC™ will be either placed at the bottom of the excavation or mixed with the backfill material (HRC will enhance anaerobic degradation of any lingering source material);
- Backfill the excavation with clean fill and compact to the appropriate compaction standards; and,
- Install a new concrete pad to the same standards as the previous concrete pad.

The initial depth of the excavation is not anticipated to be deeper than 4 ft. If during the excavation activities, it appears the contamination extends further vertically and/or laterally than expected, excavation activities will stop and the Port's environmental health and safety and compliance staff will be notified. Any additional excavation activities will proceed, after written approval from the Port has been received.

During excavation activities, ground water may seep into the excavation, if this occurs ground water will be removed from the excavation using the appropriate methods based on the amount of water and contained in appropriate containers supplied by Foss Environmental.

2.1.2 Soil Confirmation Sampling Procedures

Confirmation samples will be collected from each sidewall and the bottom of the excavations using a hand held slide hammer with a split-spoon sampler attached. The split spoon sampler will be lined with 6-in. brass tubes with a diameter of 2-in. and driven into the sidewall or bottom of the excavations. After the split spoon sampler is withdrawn from the sidewall or bottom of the excavation, the brass tubes will be removed and sealed with teflon tape and plastic end caps. The tubes will then be labeled with the project number, date collected, sample number, collection depth, sampler's initials and analysis requested. The tubes will then be placed into a plastic bag, put into a cooler with blue ice, and shipped to the laboratory the same day.

Confirmation sidewall soil samples will be collected from approximately 3-4 ft below ground surface (bgs) to verify that the impacted soil has been removed laterally. Confirmation excavation bottom soil samples will be collected at 1 ft below the excavation, to verify that the impacted soil has been removed vertically. If the excavations are longer than 20 ft, confirmation samples will be collected on 10 ft centers. In addition, if evidence of contamination is noted (i.e., discoloration, odor, or PID readings above 10 parts per million by volume) further excavation will be conducted prior to

- the location of the excavation;
- activities completed;
- volume of soil removed;
- extent of the excavation laterally and vertically;
- description of soil type removed;
- any evidence of contamination; and,
- number and location of confirmation samples collected.

3. SAMPLING AND ANALYSIS PLAN

The confirmation sample locations will be chosen once the excavation has been completed.

3.1 Confirmation Soil Sampling

Confirmation soil samples will be collected using a split spoon sampler driven with a hand held slide hammer as discussed in Section 2.1.2. The sidewall samples will be collected at a depth of 3-4 ft bgs and the bottom samples will be collected at one ft below the excavation depth. The samples will be labeled, stored at 4°C, and transported under chain-of-custody to the Port's contracted analytical laboratory for analysis. The samples will be analyzed for the list of analytes presented below.

3.2 Chemical Analyses

Based on previous investigations at the Airweld, Inc. Facility and within the vicinity of the facility, confirmation samples will be analyzed for:

- Total petroleum hydrocarbons as gasoline (TPH-G), diesel (TPH-D) and motor oil (TPH-MO) by EPA Method 8015 modified;
- Volatile organic compounds (VOCs) by EPA Method 8260; and,
- CAM 17 metals by EPA Methods 6010B, 7470/7471 and 200.7.

Analytic methods, laboratory detection limits, holding times, preservatives, and sampling containers are presented in Table 1. All material contained in bins will be sampled and profiled by Foss Environmental.

4. HEALTH AND SAFETY PLAN

H&S considerations for the activities at the Site are addressed by the following documents: Weiss Associate Corporate Health and Safety Plan (HSP) and Bluewater's Corporate HSP. The H&S considerations presented in this section coupled with the foregoing documents represent the H&S program required by 29 CFR 1910.120, HAZWOPER.

4.1 Hazard Analysis

Hazards associated with field activities are identified and evaluated using the AHA process. The project manager will identify potential safety and health hazards, and define controls necessary for the protection of personnel. This hazard identification and evaluation is documented for each task. The activities specific to this project are discussed in this Work Plan, and the associated AHAs are included in Appendix B.

During the site activities, the Weiss field team leader will monitor the Site for any changes in conditions that would require modification of hazard controls (i.e., PPE). In the event that changes arise in industrial H&S conditions that are not addressed by this Work Plan or referenced documents or any new hazards are identified, they will be evaluated in an AHA.

4.1.1 Underground Utilities

All available drawings, plans and diagrams will be reviewed for the existence and locations of underground utilities. Port personnel will be interviewed to determine additional potential utility locations that may not be on existing maps. A qualified person will identify and mark the location of all underground utilities prior to commencement of any subsurface or intrusive activity described in Section 2. However, this may not completely eliminate the potential for encountering unmarked or mislocated underground utilities during the proposed activities. To minimize the dangers associated with such accidental encounters, the following precautions will be followed during removal activities:

- The main shutoff valve(s) or switch(es) for gas lines, water lines, and electric lines at each excavation and sampling location will be located prior to the start of work; and,
- Areas of potential concern will be identified prior to the start of work.

4.1.2 Heavy Equipment Operation

A large part of the site work includes removal of material using heavy machinery, such as excavators, loaders, and backhoes. Various hazards associated with the operation of such construction equipment include:

- Collisions with buildings, other vehicles or pedestrians;
- Spotters or pedestrians caught in the pinch points of the bucket arms or the pivot areas of articulated machines;
- Load drops and spills on workers;
- Machine malfunction;
- Falls when mounting or dismounting or performing maintenance on the equipment; and,
- Falling objects.

General safety precautions should be observed when operating heavy equipment. Equipment should be operated slowly and with care, especially when traveling downgrade, when empty, or when traveling on uneven terrain. Accidents occur most frequently when reversing equipment, therefore additional caution should be exercised when reversing. The operator should be aware of the surroundings, use properly adjusted rear view mirrors and, when lighting is poor, use both front and rear lights or spotlights placed in the work area. Table 2 presents the requirements for work area illumination. A spotter should be utilized whenever the operator's visibility is impaired. The drive train should never be put into reverse gear without looking behind the equipment. Back-up alarms and horns should be inspected daily and be functional. Work should be stopped and the horn used if anyone is observed in the equipment's danger zone.

The operator should always use the three-point contact rule when climbing onto or off heavy equipment: both feet and one hand, or one foot and both hands, should be in contact with the ladder access at all times. No one other than the operator should ride in or on the equipment, unless the equipment is designed to carry a passenger. The equipment cage is designed to protect the operator in the event of rollover as long as the operator is inside the cage, with the seat belt fastened.

Extreme caution should be used when operating articulated extensions to prevent an injury in a pinch point at the pivot. Operators should always check both sides of the machine before moving it to make sure no one is in this danger area. The heavy equipment work area should be demarcated using barricade tape or traffic cones and only spotters should be allowed in the area. The spotter should exercise caution, especially when there is a raised attachment (e.g., bucket). The spotter should never walk under any raised attachment.

4.1.2.1 Communication

Good communication between the operator and a spotter is essential for safe operation of construction equipment. Two-way radios should be used when feasible to ensure clear communication. If the use of radios is impractical, a standardized set of hand signals must be used. All ground-based workers in the vicinity of heavy equipment should wear high visibility vests to help

the operator locate them quickly. The equipment should have a back-up warning alarm that can be heard by all nearby workers.

4.1.2.2 Training and Inspections

Equipment operators must be properly trained in the use of heavy equipment and must inspect the equipment daily.

4.1.3 Concrete Demolition and Mechanical Sifting

Breaking, cutting, and crushing concrete slabs at the site will likely generate airborne dust. A light mist will be maintained during these processes to reduce the potential for fugitive dust and potential worker exposure, while maintaining the material/waste at an acceptable moisture content (i.e., no free liquids) for storage and disposal. Dust exposure will be controlled by the use of water spray or other wetting methods. Continuous monitoring of the dust levels will be performed to ensure that Action Levels and OSHA permissible exposure limits (PELs) listed in Table 3 are not exceeded. If dust exposure cannot be kept below the Action Levels presented in Table 3, respiratory protection will be used.

4.1.4 Trips and Falls

The chemical storage room will contain uneven surfaces with broken concrete slabs. While most of the removal work in the area will be performed with heavy equipment, there may be tasks that require workers to be on the ground. In such cases, the potential for injury due to trips and falls can be high. Prior to any on-the-ground activity, workers will be instructed to exercise extreme caution when working in the area. They will be periodically reminded of the hazards. When possible, the potential trip hazards will be cleared from the immediate work area to provide a more stable ground surface for work activities such as manual shoveling or spotting the equipment operation.

4.1.5 Material Handling

Some of the activities associated with this field work require handling of heavy materials, including tools, sheet plywood and concrete pieces. When loading or unloading materials or tools, care should be taken to avoid bending, twisting or carrying loads for long distances. Safe lifting practices should be used throughout the project. The field crew should not lift something 60 pounds or greater without assistance.

4.1.6 Puncture Hazards

Due to the potential presence of sharp metal rebar in the construction areas, steel-toed safety shoes conforming to American National Standards Institute (ANSI) Z41.1/75 are required for work on-site. Gloves are required when manually handling material presenting a puncture hazard.

4.1.7 Biological Hazards

The chemical storage room may house brown recluse spiders, black widow spiders, and rabid animals (mice, rats, etc.). Boots are required for work on-site. Gloves will be worn if workers are required to place their hands in areas of potential biological hazard (e.g., brush, bushes, or under concrete).

4.1.8 Chemical Exposure

Elevated concentrations of VOCs or TPH are not expected during field activities. However, air monitoring with a PID will be conducted and if concentrations exceed 10 parts per million (ppm) operations will stop while the situation is evaluated and the appropriate PPE donned.

Concrete demolition may present an inhalation exposure to nuisance dust. Real-time nuisance dust (total) air monitoring will be performed using field instruments and the data will be evaluated for any potential occupational hazard. Engineering controls, such as water spray, will be used to reduce the potential exposure to nuisance dust. If nuisance dust levels cannot be maintained below the Action Levels with engineering controls, respiratory protection will be required.

4.1.9 Heat Stress

The field work is anticipated to be performed between July and August when wearing PPE may put workers at risk of heat stress. All workers will have medical clearance prior to working on site. Heat stress prevention will include the following mitigation measures:

- Proper rest prior to work,
- Scheduled breaks,
- Appropriate water intake,
- Shaded work/rest areas when feasible, and
- Rotation of heavy work tasks.

During the tailgate safety meetings, the field team leader will communicate to the workers the signs and symptoms of heat stress, appropriate engineering controls, and the need to replenish body fluids. The buddy system will be used to help monitor heat stress symptoms.

4.1.10 Noise Exposure

High noise levels from equipment, such as jackhammers and percussion hammers used to demolish the concrete slabs can create noise in excess of maximum permissible levels of 85 decibels (dBA) time-weighted average (TWA). Long term exposure to excessive noise may cause permanent hearing loss. Hearing protection will be required and provided when noise levels exceed a TWA of 85 dBA in accordance with Section 7.1.5.3 of the Weiss Corporate HSP.

4.2 Hazard Controls

The following control measures will be implemented during field activities.

4.2.1 Boundaries

The work areas will be marked with yellow caution tape. Additional boundary ropes or tape supported with stanchions may be used to delineate internal work area boundaries as determined necessary by the field team leader. The boundaries will be set up in a manner that facilitates personnel and equipment access to the work area. Appropriate signs will be posted in accordance with the Weiss Corporate HSP.

4.2.2 Personal Protective Equipment

Workers within the construction areas will wear the Level D PPE identified below, unless otherwise specified.

Level D PPE will consist of the following:

- Long pants and a shirt or coveralls;
- Steel-toed boots;
- Inner and outer gloves (chemical-resistant or Tyvek®);
- Safety glasses with side shields;
- Leather work gloves, as necessary; and,
- ANSI-approved hardhat, if potential for overhead hazards or head impact hazards is present.

Chemical resistant PPE will be required only when potential for chemical skin exposure is present.

4.2.3 Decontamination Procedures

A decontamination zone (DZ) for equipment and personnel will be established adjacent to the construction area when workers are handling potentially hazardous waste. The zone will be delineated with traffic cones and/or construction barrier tape. The DZ will be posted with the appropriate warning sign. Decontamination procedures will be conducted in accordance with Section 7.7 of the Weiss Corporate HSP for personnel decontamination, equipment decontamination and PPE decontamination.

4.2.4 Training

All workers performing field activities on site shall have completed the training listed below.

All workers performing field activities at the Site shall have completed the following training prior to beginning work:

- Forty hours of hazardous waste (HW) operations-related training, as required by the Occupational Safety and Health Administration (OSHA), 29 CFR 1910.120;
- Eight-hour refresher course within the past 12 months if the 40-hour training was completed more than 12 months prior to the start of field activities;
- A minimum of three days of actual field experience under the direct supervision of a trained, experienced supervisor. The field team leader shall have also completed an additional eight hours of relevant supervisory H&S training;
- Hazard communications training in accordance with Section 7.14 of the Weiss Corporate HSP;
- Site hazard briefing to include instructions on emergency response procedures, location of emergency equipment, and location of emergency notification list;
- Work Plan training;

Employees working with hazardous waste shall have completed training for the following:

- Waste minimization;
- Personal protective equipment (PPE);
- Respirator fit test (if respirator usage is required); and,
- Medical surveillance.

All visitors entering site areas that require Level C PPE will be required to provide evidence of completing the 40-hour Hazardous Waste Operations and Emergency Response (HAZWOPER) course.

Two or more people certified in First Aid, Cardiopulmonary Resuscitation and Bloodborne Pathogen Exposure Control will be on site at all times during the field activities.

4.2.5 *Buddy System*

The buddy system will be utilized to protect personnel in the work area. At least two persons will be required to be in the work area when there is a potential for worker contamination or injury.

The buddy system is a method of organizing workers into groups and is designed to provide those workers with assistance when needed. Each worker in a group is designated to be observed by at least one other person. Assignment of designated partners should take place during the tailgate safety meeting.

The responsibility of the buddy is to:

- Provide assistance, if needed;
- Maintain line of sight contact or verbal contact with workers in the CA;
- Observe for signs of chemical or physical trauma or heat stress such as:
  - changes in complexion and skin discoloration;
  - changes in coordination or demeanor;
  - excessive saliva and pupillary response; or,
  - changes in speech pattern;
- Periodically verify the integrity of all protective clothing; and,
- Notify the field team leader if emergency help is needed.

4.2.6 *Safety Equipment*

The following safety equipment will be staged in the support zone:

- First aid kit;
- Portable eyewash station and hand shower;
- Hearing protection;
- Spill kit;
- Air horn;
- Directions to medical facilities;
- Fire extinguisher.

4.2.7 *Air Monitoring*

Air monitoring is essential to ensure that all field personnel are adequately protected from airborne contaminants. Air monitoring will be conducted in accordance with Section 7.8 of the Weiss HSP.

All personal air monitoring samples and direct reading instrumentation readings taken for the purpose of determining appropriate H&S controls will be collected in the approximate "breathing zone" of site personnel and integrated over an appropriate time interval. As appropriate, selective monitoring of high-risk workers (i.e., those who are closest to the source of contamination) will be conducted.

Real-time continuous monitoring during field activities will consist of visual observations and respirable dust readings. Nuisance respirable dust and nuisance total dust TWA (8-hour OSHA) monitoring will be conducted if the field instruments indicate that action levels in Table 3 are exceeded and periodically to confirm the validity of real-time monitoring.

All air equipment will be maintained and calibrated in accordance with manufacturer's recommendations. Air monitoring will be conducted daily or until collected data are sufficient to predict exposures to airborne contaminants.

5. REFERENCES

Arcadis, 2001, Soil and Groundwater Investigation, Airweld, Inc. Facility, 8300/8302 Earhart Road, Oakland, California, prepared for the Port of Oakland, June 20, 2001, 9 pages, 4 tables, 8 figures and 3 Appendices.

Weiss Associates, 1997, Weiss Health and Safety Plan, February 14, 1997, 60 pages, 8 tables, 3 figures, and 10 attachments.

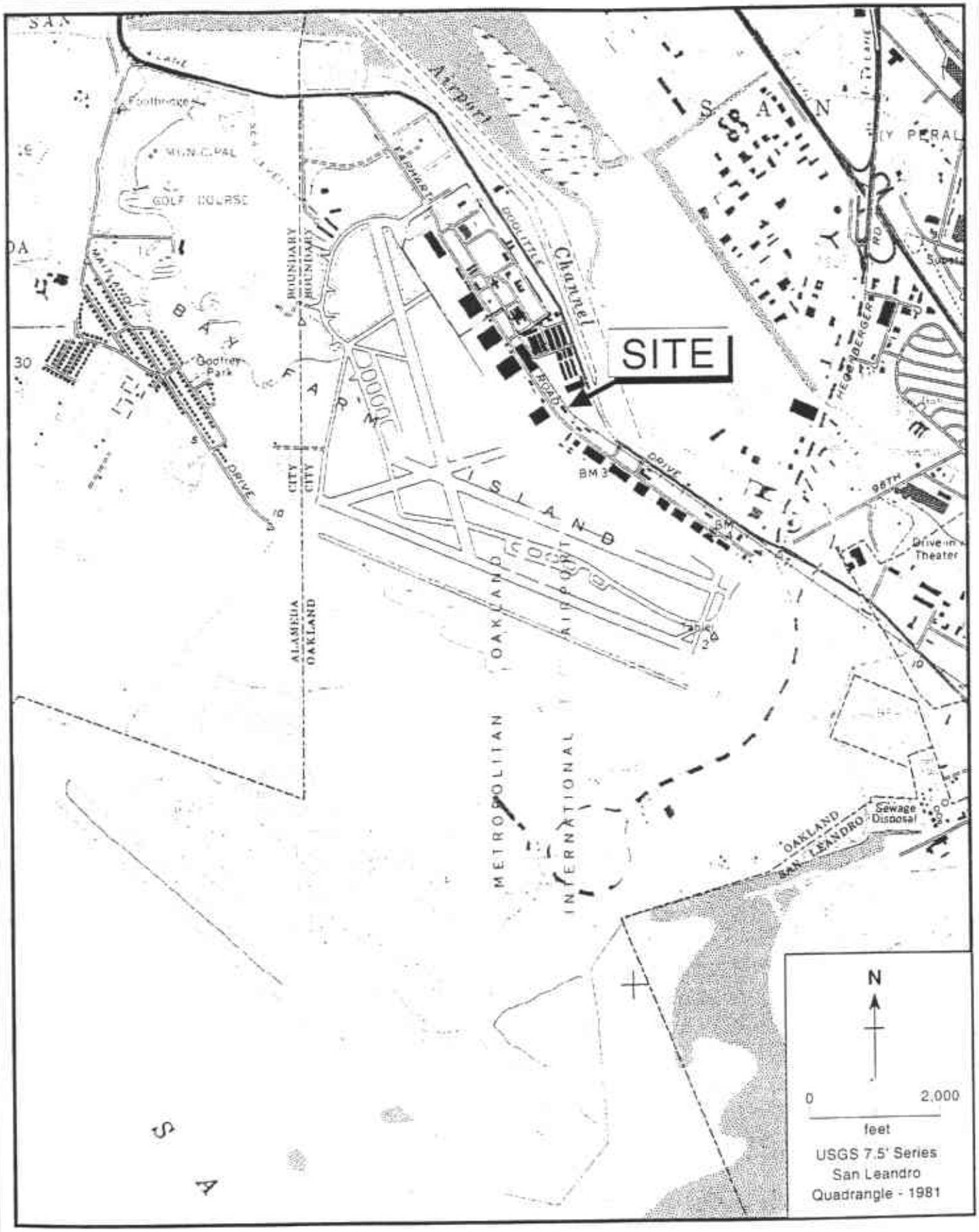

Figure 1. Site Vicinity Map, Airweld Inc. Facility, 8300 Earhart Rd, Oakland, California

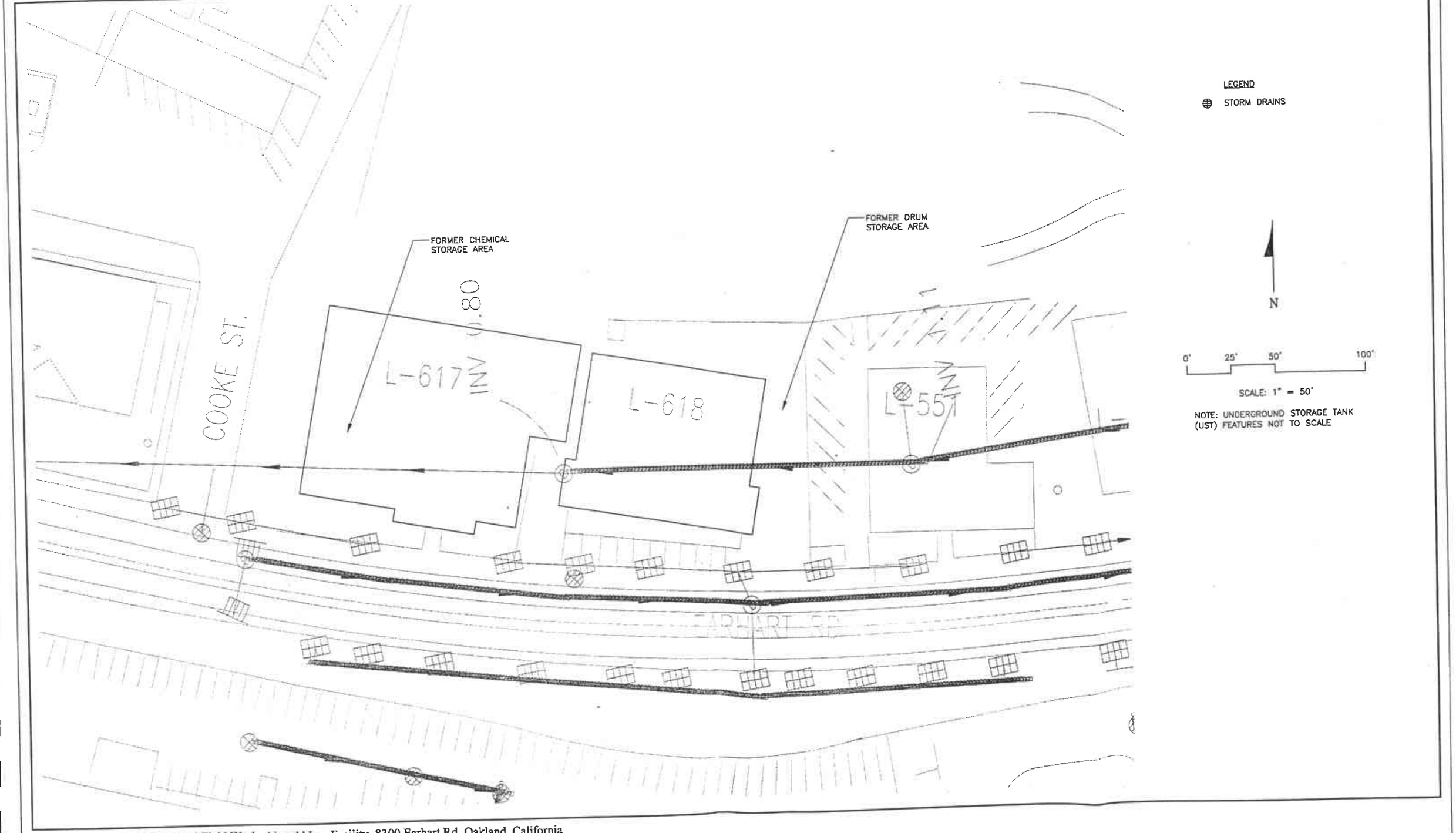

Figure 2. Areas of Proposed Field Work, Airweld Inc. Facility, 8300 Earhart Rd, Oakland, California

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Table 1. Classes of Chemical Analytes, Analytical Methods, and Laboratory Holding Times for Soil Analyses

Chemical Class	Method[2]	Container Type	Preservative	Laboratory Holding Time	Laboratory Reporting Limits[1]
Soil (mg/kg)					
TPH-G	8015M	brass tube or clear plastic sleeves	none	14 days for extraction, 40 days for analysis	1
TPH-D and TPH-MO (extractable, with silica gel cleanup)	8015M	brass tube or clear plastic sleeves	none	14 days for extraction, 40 days for analysis	1 (diesel) and 50 (motor oil)
VOCs	8260	brass tube or clear plastic sleeves	none	14 days for extraction, 40 days for analysis	0.005
CAM 17 Metals or Total Organic lead	6010B, 7040/7041, 200.7	brass tube or clear plastic sleeves	none	14 days for extraction, 40 days for analysis	0.05 to 25

Notes and Abbreviations:

1 = Provided by STL San Francisco, Inc., Pleasanton, California
2 = United States Environmental Protection Agency EPA Method for Chemical Analysis of Water and Wastes
3 = Analysis for these constituents tentative
TPH = Total Petroleum Hydrocarbons as Gasoline (TPH-G), Diesel (TPH-D) and Motor Oil (TPH-MO)
VOC = Volatile Organic Compounds

Table 2. Minimum Lighting Requirements

Facility Name or Function	Intensity (Foot-candles)
Accessways:	
• General Indoor	5
• General Outdoor	3
• Exitways, walkways, stairs	10
Administrative Areas	50
Assessment/Construction Areas	
• General Indoor	5
• General Outdoor	3
• General Underground or Confined Space Areas	5
Docks and Loading Platforms	3
First Aid Stations	30
Maintenance Areas	
• Vehicle Maintenance Shop	30
• Outdoor Field Maintenance Area	5
• Outdoor Refueling Area	5
• Shops (welding, carpentry, etc.)	30
Parking Areas	3
Toilets, Wash Areas	10
Warehouses and Storage Areas	
• Stockroom, Active	10
• Stockroom, Inactive	5
• Outdoor Storage	3
Work Areas not listed above	30

Table 3. Dust and Chemical Action Levels

Compound	Action Level (8-hr TWA)	OSHA PEL (8-hr TWA)	Action if Action Level is Exceeded
Nuisance Respirable Dust	2.5 mg/m^3	5.0 mg/m^3	Actions to include the following progressive steps for all compounds: • Notify Field Team Leader of concentrations; • Field Team Leader to stop work or apply engineering controls, as necessary; • Field Team Leader to decide if upgrade of PPE to Level C with full-face respirators with organic/HEPA cartridges is necessary; and, • Ensure 8-hr TWA exposure is below PELs.
Nuisance Total Dust	7.5 mg/m^3	15.0 mg/m^3	
VOCs	10 ppm	350 ppm	

Abbreviations

HEPA	High-efficiency particulate air
hr	hour
mg/m^3	milligrams per cubic meter
PELs	Permissible Exposure Levels
PPE	personal protective equipment
PPM	Parts per Million
TWA	time-weighted average

Table 1: Soil Sample Analytical Results For Petroleum Hydrocarbons, Volatile Organic Compounds, and Polynuclear Aromatic Hydrocarbons
Port of Oakland
Airweld
8300/8302 Earhart Road
Oakland, California

			Volatile Petroleum Hydrocarbons by USEPA Method 8020					TPHs by USEPA Method 8015, Modified			VOCs by USEPA Method 8260			PAHs by USEPA Method 8270
Soil Sample ID	Date	Depth (feet)	MTBE (mg/kg) (a)	Benzene (mg/kg) (a)	Toluene (mg/kg) (a)	Ethylbenzene (mg/kg) (a)	Xylenes (mg/kg) (a)	TPH-G (mg/kg) (b)	TPH-D (mg/kg) (b)	Motor Oil (mg/kg) (b)	Carbon Disulfide (µg/kg) (c)	1,1,1-TCA (µg/kg) (c)	1,2,4-Trimethylbenzene (µg/kg) (c)	(mg/kg) (d)
GP-1	1-Mar-01	2.0	ND(<0.05)	ND(<0.005)	ND(<0.005)	ND(<0.005)	ND(<0.005)	ND(<1.0)	2.4 (e,f)	7.0	12	ND(<5.0)	ND(<5.0)	NA
GP-2	2-Mar-01	2.0	ND(<0.05)	ND(<0.005)	ND(<0.005)	ND(<0.005)	ND(<0.005)	ND(<1.0)	ND(<1.0)	ND(<5.0)	ND(<5.0)	36	ND(<5.0)	NA
GP-3	2-Mar-01	2.5	ND(<0.05)	ND(<0.005)	ND(<0.005)	ND(<0.005)	ND(<0.005)	ND(<1.0)	ND(<1.0) (f)	6.9	ND(<5.0)	ND(<5.0)	ND(<5.0)	ND(<0.33)
GP-4	1-Mar-01	2.0	ND(<0.05)	ND(<0.005)	ND(<0.005)	ND(<0.005)	ND(<0.005)	ND(<1.0)	ND(<1.0)	ND(<5.0)	ND(<5.0)	ND(<5.0)	ND(<5.0)	NA
GP-5	2-Mar-01	3.0	ND(<0.05)	ND(<0.005)	ND(<0.005)	ND(<0.005)	ND(<0.005)	ND(<1.0)	1.6 (e)	ND(<5.0)	ND(<5.0)	ND(<5.0)	ND(<5.0)	ND(<0.33)
GP-6	1-Mar-01	2.5	ND(<0.05)	ND(<0.005)	ND(<0.005)	ND(<0.005)	ND(<0.005)	ND(<1.0)	ND(<1.0)	ND(<5.0)	ND(<5.0)	ND(<5.0)	ND(<5.0)	NA
GP-7	1-Mar-01	2.5	ND(<0.05)	ND(<0.005)	0.009	ND(<0.005)	0.015	ND(<1.0)	360 (f)	2,100	ND(<5.0)	ND(<5.0)	12	ND(<0.33)
GP-8	1-Mar-01	2.0	ND(<0.05)	ND(<0.005)	ND(<0.005)	ND(<0.005)	ND(<0.005)	ND(<1.0)	ND(<1.0)	ND(<5.0)	ND(<5.0)	ND(<5.0)	ND(<5.0)	NA
PRG			37	1.5	520	230	210	---	---	---	720,000	1,400,000	170,000	---
RBSL			1.0	0.39	8.4	24.0	1.0	400	500	1,000	---	8,000	---	---

(a) Analyzed by USEPA Method 8020.
(b) Analyzed by USEPA Method 8015, modified with a silica gel cleanup.
(c) Analyzed by USEPA Method 8260.
(d) Analyzed by USEPA Method 8270.
(e) Laboratory reports diesel range compounds are significant; no recognizable pattern.
(f) Laboratory reports oil range compounds are significant.

(mg/kg) milligrams per kilogram
(µg/kg) micrograms per kilogram

ND() Not detected (laboratory method detection limit in parentheses)
NA Not analyzed
--- Not established

TPH-G Total petroleum hydrocarbons as gasoline
TPH-D Total petroleum hydrocarbons as diesel
TPH Total petroleum hydrocarbons
VOC Volatile organic compounds
PAH Polynuclear aromatic hydrocarbons
1,1,1-TCA 1,1,1-Trichloroethane

PRG Preliminary Remediation Goal
RBSL Risk-Based Screening Level

Laboratory analysis performed by McCAMPBELL ANALYTICAL INC., Pacheco, California.

Table 2: Soil Sample Analytical Results For Metals
Port of Oakland
Airweld
8300/8302 Earhart Road
Oakland, California

Soil Sample ID	Date	Depth (feet)	Antimony (mg/kg) (a)	Arsenic (mg/kg) (a)	Barium (mg/kg) (a)	Beryllium (mg/kg) (a)	Cadmium (mg/kg) (a)	Chromium (mg/kg) (a)	Cobalt (mg/kg) (a)	Copper (mg/kg) (a)	Lead (mg/kg) (a)	Mercury (mg/kg) (a)	Molybdenum (mg/kg) (a)	Nickel (mg/kg) (a)	Selenium (mg/kg) (a)	Silver (mg/kg) (a)	Thallium (mg/kg) (a)	Vanadium (mg/kg) (a)	Zinc (mg/kg) (a)
GP-1	1-Mar-01	2.0	ND(<2.5)	ND(<2.5)	20	ND(<0.5)	ND(<0.5)	48	8.1	18	4.6	ND(<0.06)	ND(<2.0)	48	ND(<2.5)	ND(<1.0)	ND(<2.5)	26	50
GP-2	2-Mar-01	2.0	ND(<2.5)	ND(<2.5)	94	ND(<0.5)	ND(<0.5)	42	14	17	8.4	ND(<0.06)	ND(<2.0)	56	ND(<2.5)	ND(<1.0)	ND(<2.5)	24	40
GP-3	2-Mar-01	2.5	ND(<2.5)	ND(<2.5)	88	ND(<0.5)	ND(<0.5)	39	8.0	14	7.0	ND(<0.06)	ND(<2.0)	43	ND(<2.5)	ND(<1.0)	ND(<2.5)	25	37
PRG			820	2.7	100,000	2,200	810	100,000	100,000	76,000	750	610	10,000	41,000	10,000	10,000	130	14,000	100,000
RBSL			40	2.7	1,500	8	12	12	80	225	1,000	10	40	150	10	40	29	200	600

(a) Analyzed by USEPA Method 6010.
mg/kg Milligrams per kilogram
ND( ) Not detected (laboratory method detection limit in parentheses)
--- Not established

PRG Preliminary Remediation Goal
RBSL Risk-Based Screening Level

Laboratory analysis performed by McCAMPBELL ANALYTICAL INC., Pacheco, California.

Table 3: Groundwater Analytical Results For Petroleum Hydrocarbons, Volatile Organic Compounds, and Polynuclear Aromatic Hydrocarbons
Port of Oakland
Airweld
8300/8302 Earhart Road
Oakland, California

		Volatile Petroleum Hydrocarbons by USEPA Method 8020					TPHs by USEPA Method 8015, Modified			VOCs by USEPA Method 8260			PAHs by USEPA Method 8270
Groundwater Sample ID	Date	MTBE (µg/L) (a)	Benzene (µg/L) (a)	Toluene (µg/L) (a)	Ethylbenzene (µg/L) (a)	Xylenes (µg/L) (a)	TPH-G (µg/L) (b)	TPH-D (µg/L) (b)	Motor Oil (µg/L) (b)	Methyl ethyl ketone (µg/L) (c)	1,1-DCA (µg/L) (c)	1,1,1-TCA (µg/L) (c)	(mg/L) (d)
GP-1	2-Mar-01	ND(<5.0)	ND(<0.5)	ND(<0.5)	ND(<0.5)	ND(<0.5)	ND(<50)	780 (f,g,h)	3,500	3.7	ND(<1.0)	ND(<1.0)	ND(<10)
GP-2	5-Mar-01	ND(<5.0)	ND(<0.5)	0.75	ND(<0.5)	0.84	150 (e,g)	830	ND(<250)	ND(<5.0)	21	200	ND(<10)
GP-3	2-Mar-01	ND(<5.0)	ND(<0.5)	ND(<0.5)	ND(<0.5)	ND(<0.5)	110 (e,f)	ND(<50)	ND(<250)	ND(<5.0)	11	110	NA
GP-4	2-Mar-01	ND(<5.0)	ND(<0.5)	ND(<0.5)	ND(<0.5)	0.87	ND(<50)	ND(<50)	ND(<250)	ND(<2.0)	ND(<1.0)	ND(<1.0)	NA
GP-5	2-Mar-01	ND(<5.0)	ND(<0.5)	ND(<0.5)	ND(<0.5)	ND(<0.5)	ND(<50)	990 (h)	3,600	ND(<2.0)	ND(<1.0)	ND(<1.0)	NA
GP-6	2-Mar-01	ND(<5.0)	ND(<0.5)	ND(<0.5)	ND(<0.5)	ND(<0.5)	ND(<50)	1,300 (f,g,h)	4,400	3.6	ND(<1.0)	ND(<1.0)	ND(<10)
GP-7	2-Mar-01	ND(<5.0)	ND(<0.5)	0.61	ND(<0.5)	ND(<0.5)	ND(<50)	70 (g)	ND(<250)	4.3	1.3	ND(<1.0)	NA
GP-8	2-Mar-01	ND(<5.0)	ND(<0.5)	0.59	ND(<0.5)	0.67	ND(<50)	55 (h)	330	2.3	ND(<1.0)	ND(<1.0)	NA
TB-LB	2-Mar-01	ND(<5.0)	ND(<0.5)	ND(<0.5)	ND(<0.5)	ND(<0.5)	NA	NA	NA	NA	NA	NA	NA
PRG		6.2	0.35	720	1,300	1,400	---	---	---	1,900	2.0	540	---
MCL		---	1	150	700	1,750	---	---	---	---	5	200	---
RBSL		1,800	46	130	290	13	500	640	640	14,000	47	62	---

Notes appear on the following page.

Table 3: Groundwater Analytical Results For Petroleum Hydrocarbons, Volatile Organic Compounds, and Polynuclear Aromatic Hydrocarbons
Port of Oakland
Airweld
8300/8302 Earhart Road
Oakland, California

(a)	Analyzed by USEPA Method 8020.
(b)	Analyzed by USEPA Method 8015, modified, with a silica gel cleanup.
(c)	Analyzed by USEPA Method 8260.
(d)	Analyzed by USEPA Method 8270.
(e)	Laboratory reports one to a few isolated peaks present.
(f)	Laboratory reports liquid sample that contains greater than 5 vol. % sediment.
(g)	Laboratory reports diesel range compounds are significant; no recognizable pattern.
(h)	Laboratory reports oil range compounds are significant.
(mg/L)	milligrams per liter
(µg/L)	micrograms per liter
ND()	Not detected (laboratory method detection limit in parentheses)
NA	Not analyzed
---	Not established
TPH-G	Total petroleum hydrocarbons as gasoline
TPH-D	Total petroleum hydrocarbons as diesel
TPH	Total petroleum hydrocarbons
VOC	Volatile organic compounds
PAH	Polynuclear aromatic hydrocarbons
1,1-DCA	1,1,-Dichloroethane
1,1,1-TCA	1,1,1-Trichloroethane
PRG	Preliminary Remediation Goal
MCL	Maximum Contaminant Level
RBSL	Risk-Based Screening Level

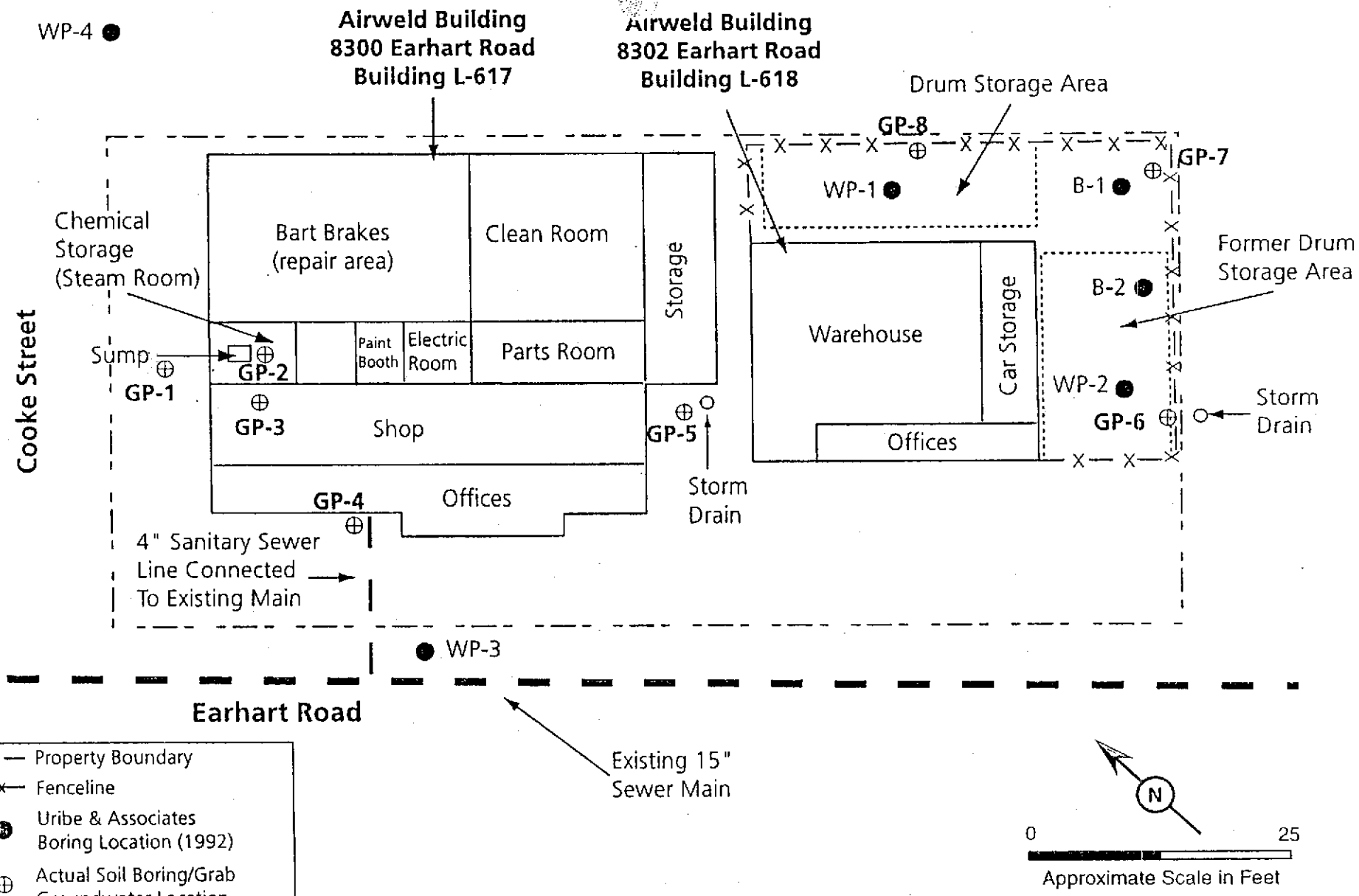
Laboratory analysis performed by McCAMPBELL ANALYTICAL LTD., Pacheco, California.

Table 4: Groundwater Analytical Results For Metals
Port of Oakland
Airweld
8300/8302 Earhart Road
Oakland, California

Groundwater Sample ID	Date	Antimony (mg/L) (a)	Arsenic (mg/L) (a)	Barium (mg/L) (a)	Beryllium (mg/L) (a)	Cadmium (mg/L) (a)	Chromium (mg/L) (a)	Cobalt (mg/L) (a)	Copper (mg/L) (a)	Lead (mg/L) (a)	Mercury (mg/L) (a)	Molybdenum (mg/L) (a)	Nickel (mg/L) (a)	Selenium (mg/L) (a)	Silver (mg/L) (a)	Thallium (mg/L) (a)	Vanadium (mg/L) (a)	Zinc (mg/L) (a)
GP-1	2-Mar-01	ND(<0.006)	ND(<0.05) (b)	0.28	ND(<0.004)	ND(<0.005)	ND(<0.02)	ND(<0.05)	ND(<0.05)	ND(<0.005)	ND(<0.0008)	ND(<0.05)	ND(<0.05)	ND(<0.005)	ND(<0.01)	ND(<0.005)	ND(<0.05)	ND(<0.05)
GP-2	2-Mar-01	ND(<0.006)	0.0057	0.27	ND(<0.004)	0.019	0.41	0.056	0.056	ND(<0.005)	ND(<0.0008)	ND(<0.05)	1.7	ND(<0.005)	ND(<0.01)	ND(<0.005)	ND(<0.05)	0.083
GP-3	2-Mar-01	ND(<0.006)	ND(<0.05) (b)	1.7	ND(<0.004)	0.0095	0.062	0.25	ND(<0.05)	0.0055	ND(<0.0008)	ND(<0.05)	0.24	ND(<0.005)	ND(<0.01)	ND(<0.005)	0.10	0.083
PRG		15	0.045	2,600	73	18	110	2,200	1,400	---	11	180	730	180	180	2.4	260	11,000
MCL		6	50	1,000	4	5	50	---	1,300	15	2	---	100	50	---	2	---	---
RBSL		30	36	3.9	5.1	1.1	180	3	2.4	3.2	0.012	240	8.2	5	0.120	40	19	23

(a) Analyzed by USEPA Method 6010.
(b) Laboratory reports reporting limit raised due to matrix interference.
mg/L Milligrams per liter
ND( ) Not detected (laboratory method detection limit in parentheses)
--- Not established
PRG Preliminary Remediation Goal
MCL Maximum Contaminant Level
RBSL Risk-Based Screening Level

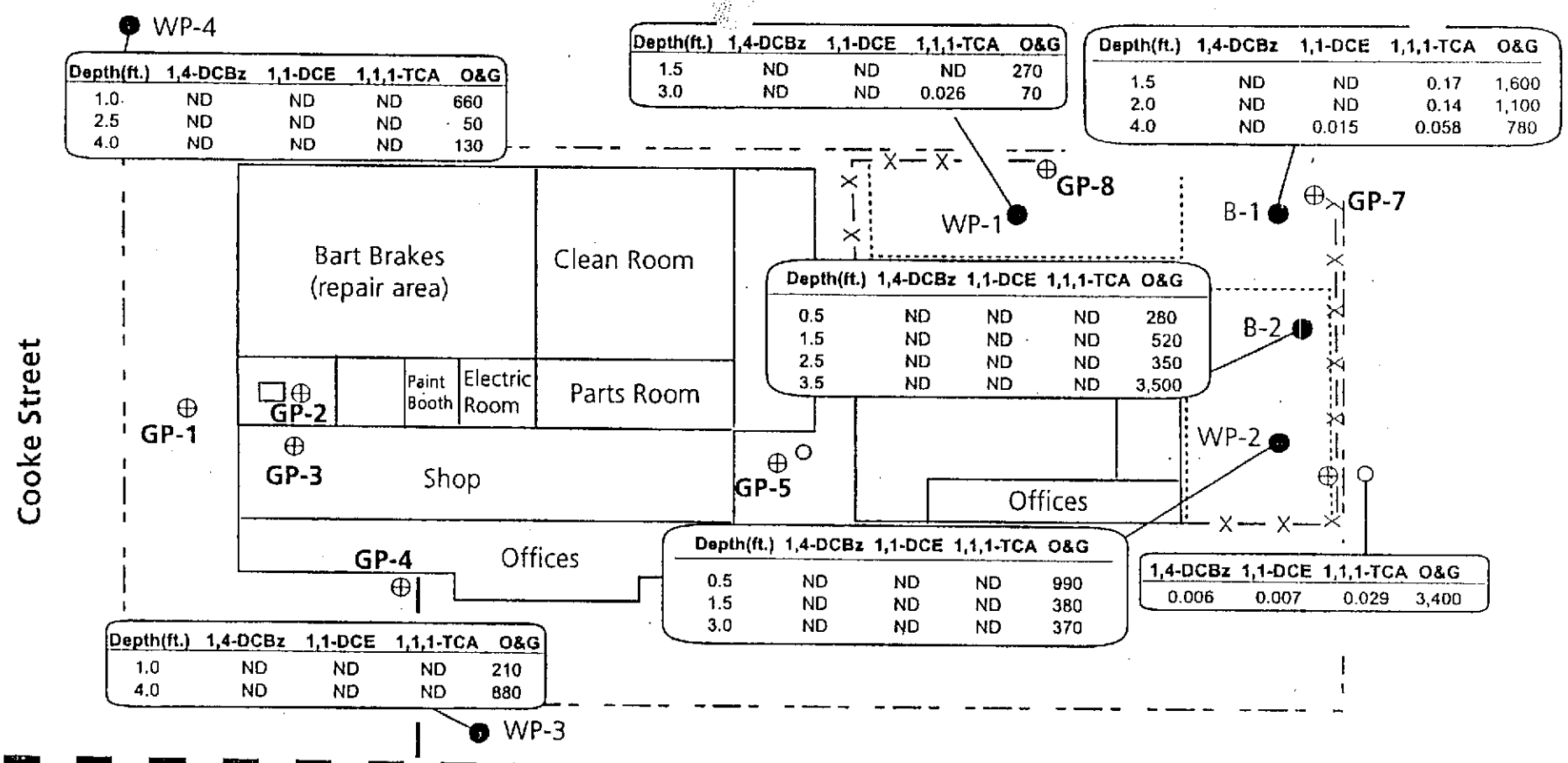
Laboratory analysis performed by McCAMPBELL ANALYTICAL INC., Pacheco, California.



ARCADIS
GERAGHTY & MILLER

SITE PLAN WITH BORING AND WELL POINT LOCATIONS
Airweld
8300/8302 Earhart Road
Oakland, California

RC000548.0001
FIGURE
2



ARCADIS G&M

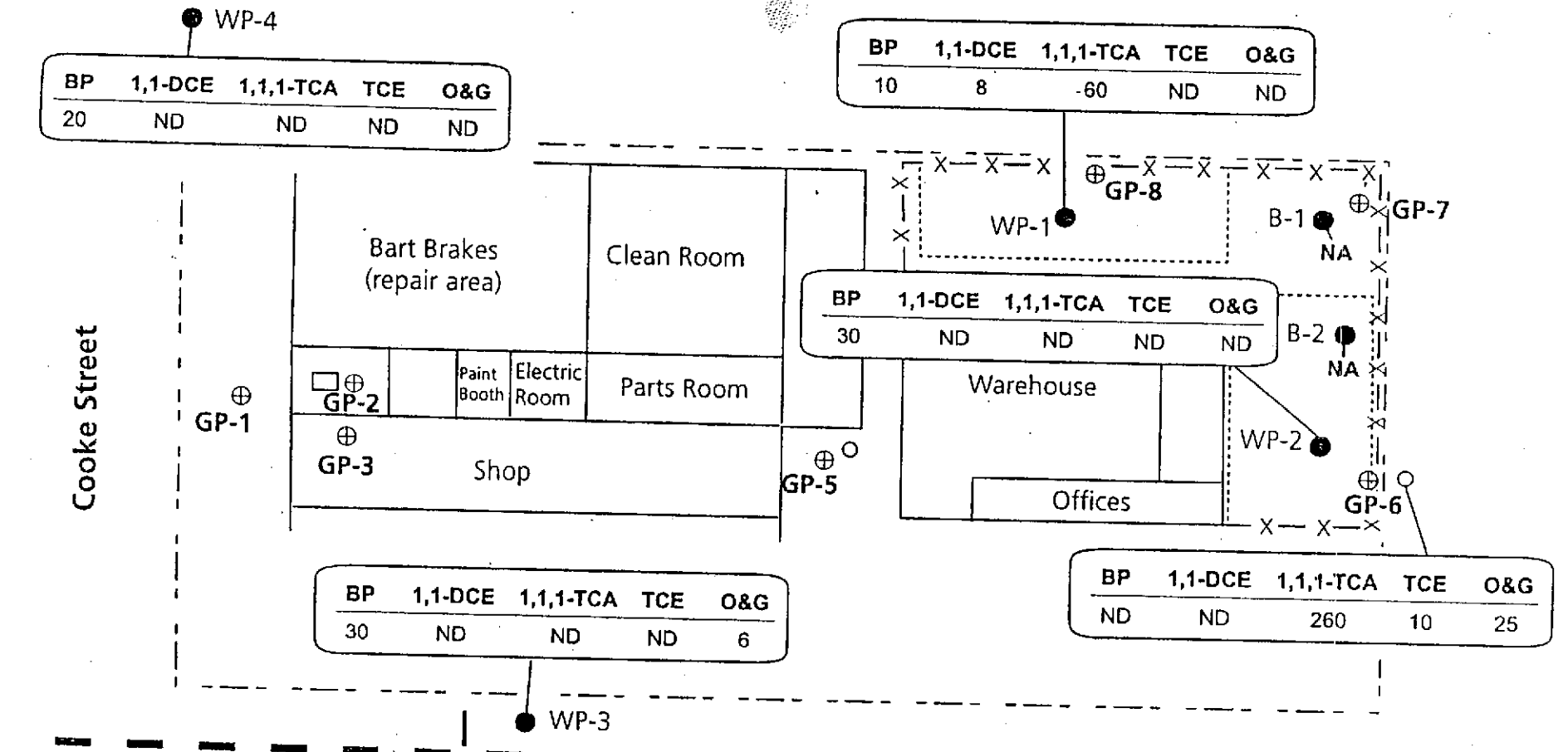
URIBE & ASSOCIATES SOIL SAMPLE RESULTS - JULY 1992

Airweld
8300/8302 Earhart Road
Oakland, California

RC000548.0001

FIGURE

3



ARCADIS G&M

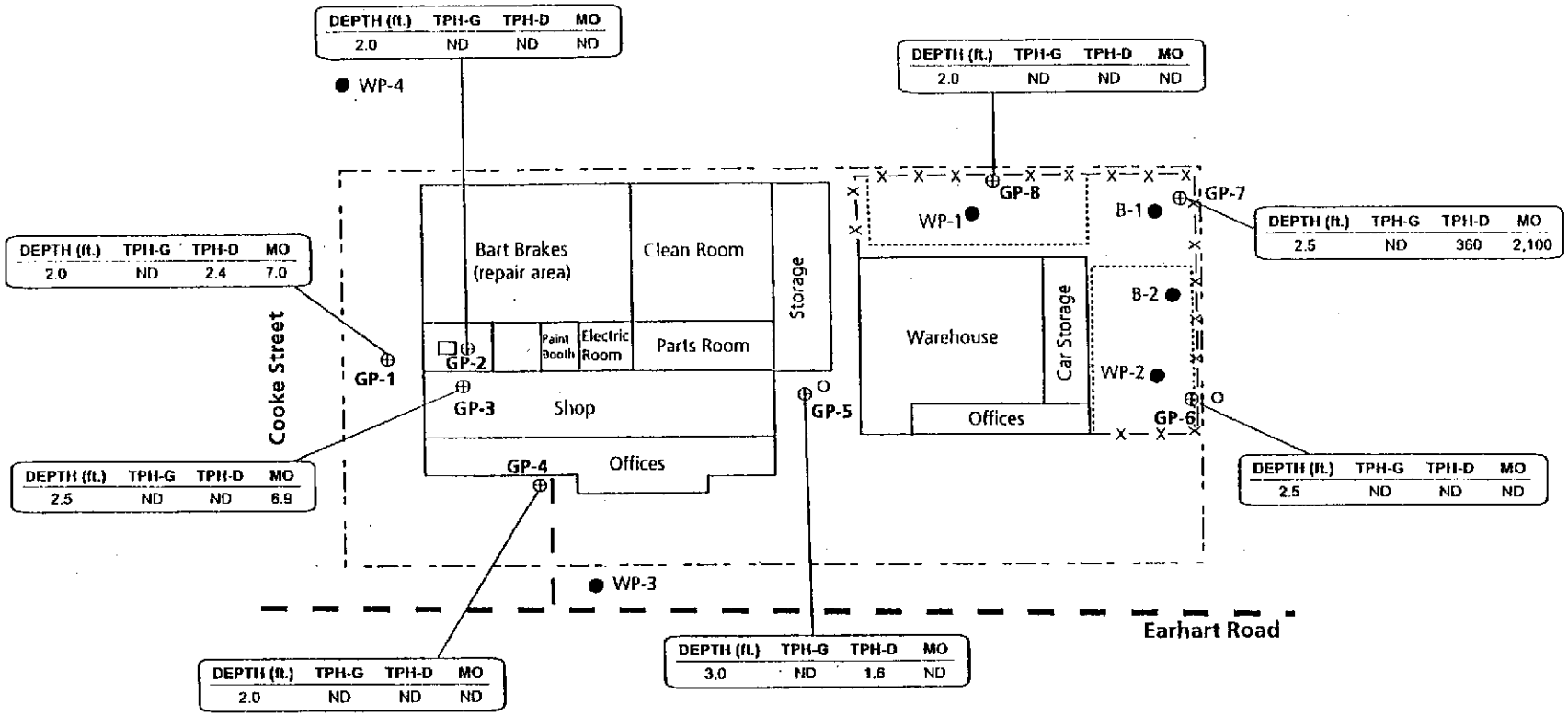
URIBE & ASSOCIATES GROUNDWATER SAMPLE RESULTS - JULY

Airweld
8300/8302 Earhart Road
Oakland, California

RC000548.0001

FIGURE

4



ARCADIS G&M

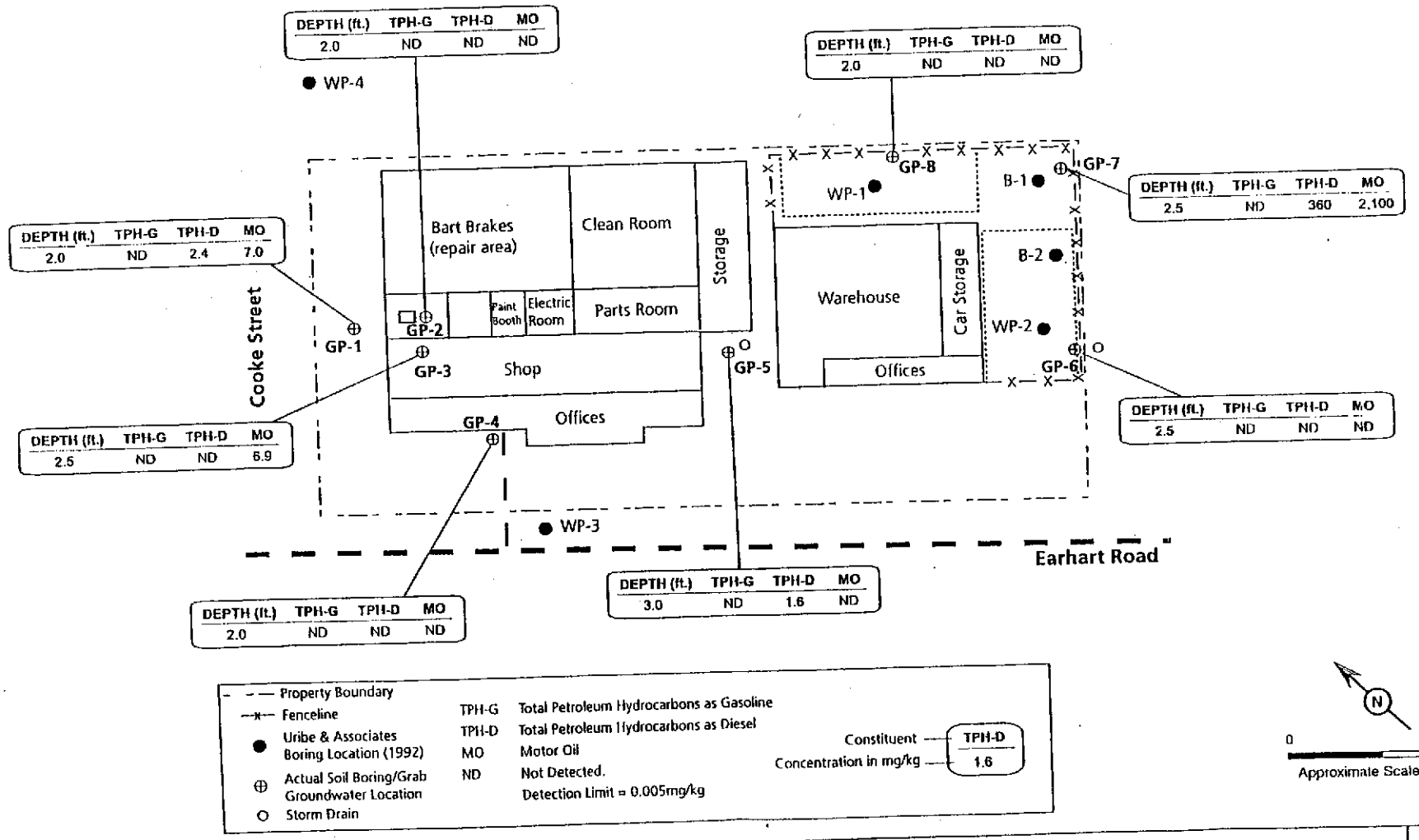
SOIL SAMPLE RESULTS FOR TOTAL PETROLEUM HYDROCARBONS - MARCH 2001

Airweld
8300/8302 Earhart Road
Oakland, California

RC000548.0001

FIGURE

5



ARCADIS G&M

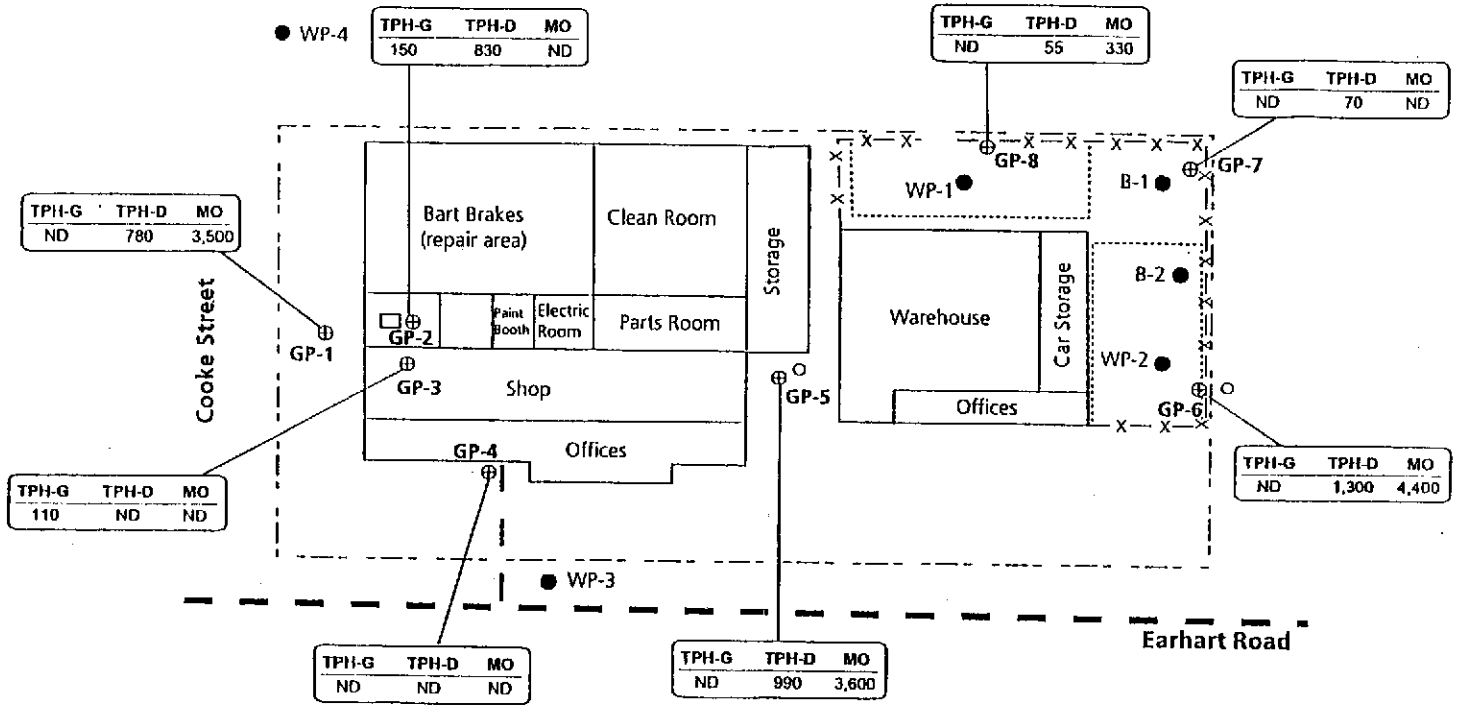
SOIL SAMPLE RESULTS FOR TOTAL PETROLEUM HYDROCARBONS - MARCH 2001

Airweld
8300/8302 Earhart Road
Oakland, California

RC000548.0001

FIGURE

6



ARCADIS G&M

GROUNDWATER RESULTS FOR TOTAL PETROLEUM HYDROCARBONS - MARCH 2001

Airweld

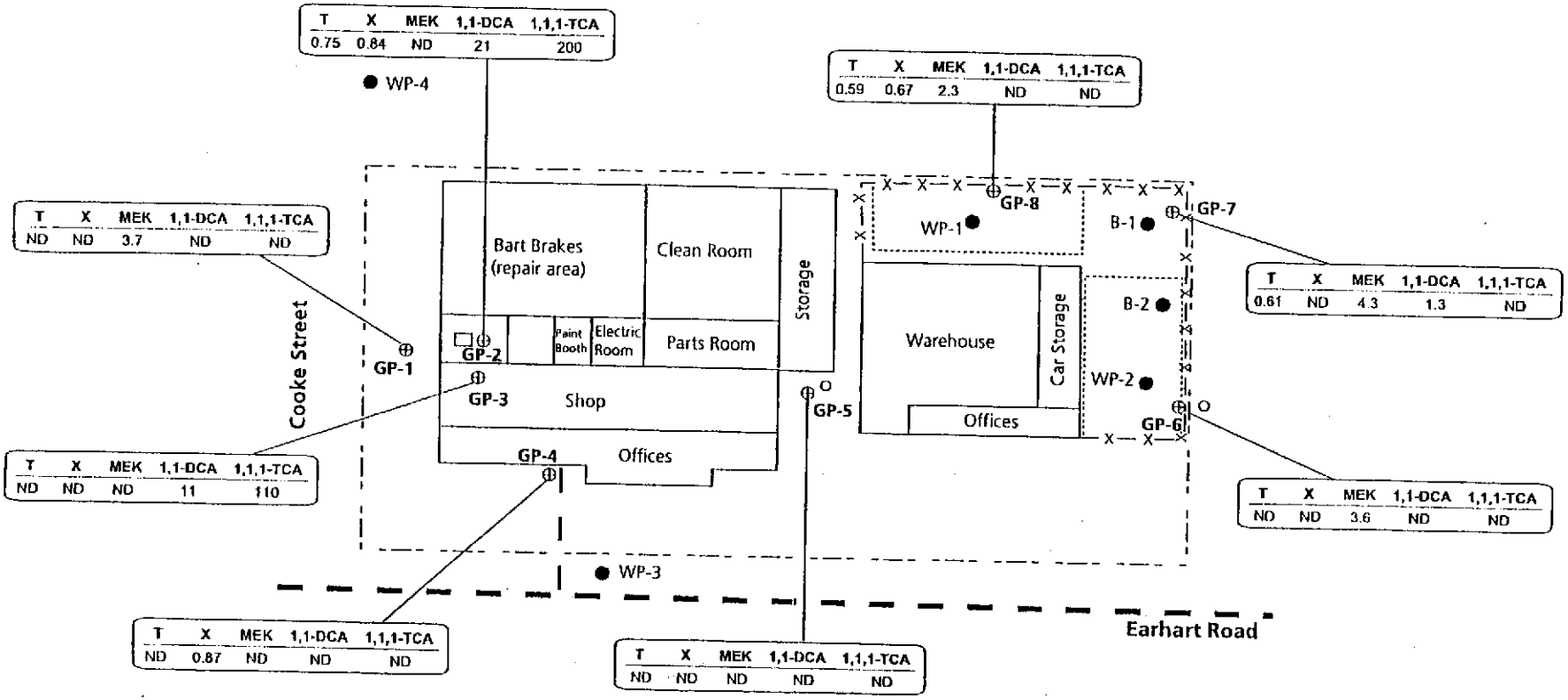
8300/8302 Earhart Road

Oakland, California

RC000548.0001

FIGURE

7



ARCADIS G&M

GROUNDWATER SAMPLE RESULTS FOR VOLATILE ORGANIC COMPOUNDS - MARCH 2001

Airweld
8300/8302 Earhart Road
Oakland, California

RC000548.0001

FIGURE

8