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Environmental, Inc.

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Alameda County
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1533 B Street

Hayward, CA 94541

(510) 247-9885 Facsimile: (510) 886-5399

info@eras.biz

WORKPLAN

FOR

**FORMER PACO PUMPS FACILITY
9201 SAN LEANDRO STREET
OAKLAND, CALIFORNIA**

Prepared for

Mr. Mark Vignoles
Service West
9201 San Leandro Street
Oakland, California 94603

March 17, 2008

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CERTIFICATION

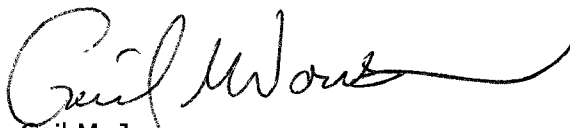
This **Work Plan** for 9201 San Leandro Street, Oakland, California, has been prepared by ERAS Environmental, Inc. (ERAS) under the professional supervision of the Geologist whose signature appears hereon.

This work plan was prepared in general accordance with the accepted standard of practice that exists in Northern California at the time the investigation was performed. Judgments leading to conclusions and recommendations are generally made with an incomplete knowledge of the conditions present. More extensive studies, including additional environmental investigations, can tend to reduce the inherent uncertainties associated with such studies.

Our firm has prepared this work plan for the Client's exclusive use for this particular project and in accordance with generally accepted professional practices within the area at the time of our investigation. No other representations, expressed or implied, and no warranty or guarantee is included or intended.

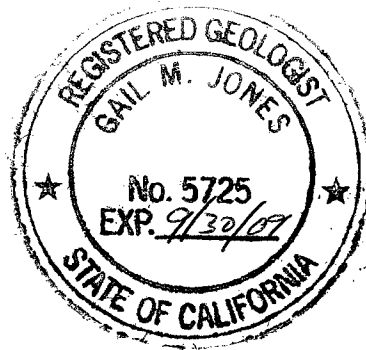
This work plan may be used only by the client and only for the purposes stated within a reasonable time from its issuance. Land use, site conditions (both on-site and off-site) or other factors may change over time, and additional work may be required with the passage of time. Any party other than the client who wishes to use this report shall notify ERAS of such intended use. Based on the intended use of report, ERAS may require that additional work be performed and that an updated report be issued. Non-compliance with any of these requirements by the client or anyone else will release ERAS from any liability resulting from the use of this report by any unauthorized party.

Respectfully submitted,



Gail M. Jones
California Registered Geologist 5725

17 March 2008



1.0 INTRODUCTION AND BACKGROUND

ERAS Environmental, Inc. (ERAS) is pleased to present this work plan for the PACO Pumps, Inc. (PACO) fuel leak site at 9201 San Leandro Street in Oakland, California (the "Property"). The location of the Property is shown on **Figure 1**, Site Location Map.

This plan addresses eight items pertaining to subsurface environmental conditions: (1) location of piping terminus extending from the 1992 UST excavation, (2) groundwater characterization in the vicinity of the former 550-gallon UST, (3) additional soil vapor testing inside the building adjacent to the 550-gallon UST excavation, (4) location of the suspected second former UST located in the vicinity of 9MW-4, (5) identification of source of contamination along railroad tracks on the southwest side of the Property and additional characterization of the soil contamination in this area, (6) determination of source of PCE contamination on the northwest side of the Property, (7) further characterization of soil contamination in the vicinity of boring B18, and (8) groundwater monitoring program.

These issues are addressed in order of the item numbers listed in a letter from Mr. Jerry Wickham of the Alameda County Environmental Health (ACEH) dated January 31, 2008 included in **Appendix A**.

1.1 PREVIOUS INVESTIGATIONS

The following is a summary of the previous subsurface investigation that has been performed at the Property. Work prior to 2007 was performed by the environmental consultant for PACO, Jonas & Associates. The analytical results from the previous investigations for which information was available was compiled in three tables included with this work plan.

1992 UST Removal

A Soil Characterization Report and Work Plan by Jonas & Associates dated in October 1992 identified a former UST site on the Property. The UST location was excavated and gasoline impacted soil was discovered. This site was over excavated but impacted soil remained near the foundation of the building to the west of the former UST. The former UST is shown on the attached **Figure 2**.

1992 Soil Boring Investigation

Soil samples were collected in 1992 from twenty-five locations on the Property. The sample analysis did not detect concentrations of petroleum hydrocarbons, volatile organic compounds (VOCs), or pesticides with one exception. A soil sample from boring B18, located at the southeastern side of the Property near the wood shop building, contained elevated concentrations of Total Petroleum Hydrocarbons as kerosene (TPH-k) and as motor oil (TPH-mo) at shallow depths in an area of surface staining.

The concentration of TPH-k of 8,000 milligrams per kilogram (mg/Kg) is above the current (November 2007) Regional Water Quality Control Board (RWQCB) Environmental Screening Level (ESL) of 100 mg/Kg. The concentration of TPH-mo of 8,000 mg/Kg was above the ESL of

1,000 mg/Kg. The contaminants detected at B18 were not detected in the nearest sample location B19 northeast or in B16 to the southwest indicating the contamination appeared to be limited in extent.

This report also contained a map displaying details of the excavation and soil samples collected in the area suspected to contain a former UST. Piping found in the excavation was believed to be associated with the former UST and is shown on the map which is included as **Appendix B**.

2000 Risk Management Plan and Monitoring

The Risk Management Plan (Jonas & Associates, 2000) addresses a ventilation system to mitigate vapor exposure risks within a room of Building 4, poly chlorinated biphenyls (PCB) in soil, health and safety plans and buyer notification.

The plan recommended that the ventilation system should be maintained, that a small area of PCB contaminated soil currently covered by an asphalt cap not be disturbed, that a Health and Safety Plan be prepared prior to excavation activities in specified areas, that disclosure of these conditions be made to future buyers and that a Risk Management Plan be maintained and provided to any future owner.

The report also documents the detection of polychlorinated biphenyls (PCBs) of 0.4 milligrams per kilogram (mg/Kg) in a soil sample from boring B6 and 0.67 in a soil sample from boring B7, above the RWQCB ESL of 0.3 mg/Kg. The locations of these borings are shown on **Figure 6**. These analytical results of these and other sample results are presented in **Table 2**.

2002 Addendum to Risk Management Plan

The Addendum to Risk Based Corrective Action Model (Jonas & Associates, 2002) evaluated indoor air risk from benzene in soil vapors and evaluated the RBCA model using a residential scenario. This RBCA identified two carcinogenic risks, based on the average and on the maximum groundwater results, using the residential indoor air exposure carcinogenic risk simulations.

Groundwater Monitoring

A total of five groundwater monitoring wells 9MW1 through 9MW5 have been installed at the Property. Monitoring of the groundwater wells has been conducted from 1992 to 2000. The locations of these wells are shown on **Figure 2**.

All of the wells except for 9MW3 have contained only low or less than detectable concentrations of gasoline hydrocarbons. Samples from 9MW3 have contained high concentrations, as high as 40 milligrams per liter (mg/L) of TPH-g and 9 mg/L of benzene. The concentration of TPH-g decreased from 40 mg/L in 1992 to 1.9 mg/L in 2000. The concentration of benzene however was at its highest observed concentration of 9 mg/L in 2000.

Missing Reports

Several investigations were conducted between 1987 and 1991, while the Property was owned by PACO Pumps Inc.. PACO Pumps is not cooperating with the current owners. Due to an

ongoing legal case, ERAS is not authorized to contact PACO Pumps to retrieve the documents requested in the ACEH letter dated 31 January 2008.

1.2 GEOLOGY and HYDROGEOLOGY

The Property is located near the northern edge of an area known as the San Leandro Cone, which is in the Fremont Subarea of the Santa Clara Valley Groundwater Basin (California Department of Water Resources, 1967). The San Leandro Cone generally consists of thick permeable units separated by thick impermeable units. These sediments act as a groundwater recharge area of the Santa Clara Valley Groundwater Basin. Groundwater in the vicinity occurs in thin discontinuous water bearing strata. The regional groundwater flow follows the topography, moving from areas of higher elevation to areas of lower elevation. The regional groundwater flow direction in the area of the Property has been determined to be to the southwest toward San Francisco Bay.

The sediments in the vicinity of the Property are fine-grained alluvial sediments that represent distal deposits of alluvial fans that were deposited by rivers draining upland surfaces to the west and east of the Property. These sediments were deposited in a low energy environment on the margins of San Francisco Bay. At shallow depths beneath these sediments are a series of Recent-age (<10,000 years) blue clay layers that become increasingly thicker toward San Francisco Bay (Helley, et al, 1974). These clay layers are known as the Bay Mud and were deposited in San Francisco Bay during higher stands of sea level. In the vicinity of the Property it is likely that several hundred feet of these sediments overlie sandstone and serpentine sedimentary and metamorphic rocks of the Jurassic-aged Franciscan Formation bedrock.

2.0 GROUNDWATER MONITORING.

2.1 WORK PERFORMED

ERAS conducted a fourth quarter groundwater monitoring event to aid in the determination of boring placement and to evaluate the current subsurface conditions beneath the Property since the last monitoring event was conducted in 2000.

On the 14th of November 2007, ERAS recorded groundwater elevations and collected groundwater samples from five on-site monitoring wells MW-1, MW-2, MW-3, MW-4, and MW-5. The locations of the monitoring wells are shown on **Figure 2**.

At each monitoring well, the water-tight cap was removed and the water level in the well was allowed to equilibrate to atmospheric pressure at least one-half hour. Static water level was measured using an electronic water-level probe. The probe was decontaminated between wells using a non-phosphate detergent and rinsed with purified water. The field records of water-level measurements are included in **Appendix C**. The standard operating procedure for groundwater sampling is included as **Appendix D**.

Groundwater was purged using a new disposable bailer from each well until the pH, conductivity, and temperature stabilized to within 10%. Samples were then collected from each well and transferred to appropriate containers using a VOC-tip. The well purging and sampling forms are included in **Appendix C**. The sample containers were labeled and stored in a cooler with blue-ice, to be transported under chain-of-custody documentation to the State certified analytical laboratory. The chain-of-custody forms are included in **Appendix F**.

Purge water is temporarily stored onsite. The 55-gallon drum will be transported to an appropriate disposal facility.

On November 14th the CSS Environmental Services surveyed the well elevations and locations. The survey report is included as **Appendix E**.

2.2 RESULTS OF GROUNDWATER ELEVATION MONITORING

The depth-to-water data and casing elevation data was used to calculate the groundwater elevation in **Table 1**. The groundwater elevation data was used to infer the contours in the potentiometric map of **Figure 2**. The groundwater flow direction between MW-3 and MW-4 was determined to be to the west with a gradient of 0.02 ft/ft. The groundwater flow direction under the operations building was found to be toward the northwest at a gradient of 0.006 ft/ft. This groundwater flow pattern mirrors the topographic contours shown on **Figure 1**.

All groundwater samples were analyzed for TPH-g, BTEX, and MTBE by EPA method 8015/8021. The groundwater sample collected from groundwater monitoring well MW-4 was also analyzed for TPH-d by EPA method 8015. No concentrations of TPH-g or BTEX were detected in the groundwater samples collected from MW-1, MW-2, and MW-5. No concentrations of MTBE were detected in any of the groundwater samples collected.

Both monitoring wells MW-3 and MW-4 contained concentrations of benzene above the ESL at concentrations of 3,900µg/L (MW-3) to 6.3µg/L (MW-4). Monitoring well MW-3 also contained a concentration of TPH-g at a concentration of 13,000µg/L, toluene at 370µg/L, Ethylbenzene at 300µg/L, and xylenes at 130µg/L. The analytical results are displayed on **Table 1** and the laboratory report is included as **Appendix F**.

3.0 PROPOSED WORK

The following are descriptions of the work proposed for the Property. The items are numbered in the order of the issues presented in the Technical Comments section of the ACEH letter dated August 21, 2007. All proposed borings and utility locating areas are shown on **Figure 3**.

1) Piping Associated with Former 550-gallon UST Area - ERAS will search for piping that was associated with this former UST shown on the UST excavation map included as **Appendix B** and attempt to locate the piping terminus by hand digging at the foundation of the building in the area where piping is shown in the figure. ERAS will then determine if an additional investigation is necessary to determine the extent of this piping.

3) Characterize Fuel Hydrocarbons in Groundwater Associated with Former 550-gallon UST - Concentrations of petroleum hydrocarbons above the ESL for potential drinking water have been consistently detected in samples from monitoring well MW-3. Six soil and groundwater sample borings are proposed to delineate the horizontal and vertical extent of contamination in soil and groundwater.

Six borings are proposed to delineate contamination associated with the former UST near well MW-3. The locations of these borings relative the groundwater flow directions are shown on **Figure 2**. Three soil borings will be located approximately 10-15 feet from the edge of the former 550-gallon excavation on the northwest, northeast, and southeast sides. A fourth boring will be drilled to collect soil and groundwater sample along the southwest Property boundary to assess if contamination is migrating off-site in that direction. The fifth and sixth borings will be located along the property boundary northwest of the operations building to assess if contamination is migrating offsite in the down-gradient direction.

Prior to drilling activities a soil boring permit will be obtained from the Alameda County Public Works Department. The drilling area will be marked for USA Digs three days in advance so that private utility companies can mark their lines. All boring locations will be given final clearance using a private underground line locator. The borings would be advanced using a direct push sample rig to about 4 feet below the top of groundwater. Soil will be continuously cored for lithologic logging and screened in the field for relative level of contamination using an organic vapor meter. One soil sample will be collected from the vadose zone each of the three borings around the former UST pit for chemical analysis. Soil will be collected from the other borings if indications of soil contamination are noted in the field. Groundwater samples will be collected from the top of the water zone at approximately 8-12 feet bgs. A second deeper groundwater sample will be collected from each boring using a hydropunch sampler from the depth interval of about 15-19 feet bgs.

All soil and groundwater samples collected will be submitted to a state certified laboratory and analyzed for TPH-g, BTEX, and MTBE by EPA method 8015/8021. The standard operating procedures for collection of groundwater samples from direct push borings are included in **Appendix D**.

The results of this investigation will be used to assess if additional monitoring wells are necessary and to locate future wells.

4 & 5) Soil Vapor Sampling. The proposed vapor sample locations are shown on **Figure 4**. One sub-slab vapor sample will be collected northwest of the former 550-gallon UST area inside of the building, a boring for collection of a soil vapor sample and a soil sample will be located southwest of monitoring well MW-3.

The sub-slab vapor sample will be collected by cutting a hole in the concrete building pad and sealing a vapor point under the slab for collection of a sub-slab vapor sample. The soil vapor sample will be collected using a direct-push sample rig from the 5 to 5.5 foot depth interval. Once the soil vapor sample is collected the boring will be continued to about 8 feet bgs and a

soil sample will be selected for submission to the analytical lab. This soil will be collected from the vadose zone to delineate soil contamination on the southwest side of the former UST.

The soil vapor samples will be collected into suma canisters fitted with a 30-minute flow meter. The standard operating procedures for collection of soil-gas samples from direct push borings and collection of sub slab soil vapor samples are included in **Appendix D**. The two vapor samples will be submitted to a state certified laboratory and analyzed for TPH-g, BTEX, MTBE, and propanol (leak detection compound) by EPA method TO15, oxygen, carbon dioxide and methane by EPA Method D1945.

6) Search for Suspected 2nd UST Area

No documents verifying the location of this UST near MW-4 reported by Jonas were contained in the files of the City of Oakland Fire Department or in the previous reports made available to ERAS. The Jonas report (October 16, 1992) indicated their mapped location of this UST was based on verbal communication of a previous employee of PACO Pumps.

This warehouse is built on a heavily steel reinforced concrete floor for heavy forklift traffic and contains numerous large steel racks. Due to the steel reinforced concrete and the steel racks ground penetrating radar along with other methods of locating the exact location of this UST are not feasible with out heavily disrupting current operations. Therefore, it is not feasible at this time to physically locate the UST pit and confirm if the tank was removed. However, ERAS proposes to collect soil and groundwater samples from three borings to investigate the extent of residual contamination associated with the UST as part of the groundwater investigation discussed below.

ERAS proposes three borings, as shown on **Figure 2**, downgradient of the northeastern warehouse building to determine the extent of any contamination associated with this suspect 2nd UST. The borings will be placed to address if the UST is not placed in the exact same location as Jonas indicated. The borings would be advanced using a direct push sample rig and will be advanced about 4 feet below the top of groundwater. Soil will be screened in the field using an organic vapor meter. All soil and groundwater samples collected will be submitted to a state certified laboratory and analyzed for TPH-g, TPH-d, BTEX, and MTBE. The standard operating procedures for collection of groundwater samples from direct push borings are included in **Appendix D**.

7) Soil Along Railroad Tracks

Elevated concentrations of petroleum hydrocarbons were reported in two of the four soil borings drilled in this area in 1987. Prior to drilling activities a soil boring permit will be obtained from the Alameda County Public Works Department. A total of six soil borings will be dug using a hand-auger and logged to an approximate depth of 3 feet bgs in the areas of pits 3 and 4. An organic vapor monitor (OVM) will be used for sample selection. If no contamination is detected in the boring a soil sample will be collected at 3 feet bgs for analysis. If signs of contamination is observed at the three foot level, the boring will be continued to about 5 feet and a second sample will be collect at the base of the boring. The standard operating procedure for sample collection from a hand auger is included in **Appendix D**. Three boring will be located around

each pit approximately 5 feet from the pit. The approximate locations of the borings are shown on **Figure 5**.

Soil samples from the borings will be submitted to a state certified laboratory and analyzed for total petroleum hydrocarbons as motor oil (TPH-mo), BTEX, and polyaromatic hydrocarbons (PAH) which includes Creosote. The standard operating procedures for collection of soil samples from hand borings are included in **Appendix D**.

8) PCB in Soil

Soil samples were collected by Jonas and analyzed for polychlorinated biphenyls (PCBs). The samples were collected near the west and south corners of the Property. Two of the three samples collected near the west corner contained elevated concentrations of PCBs.

ERAS proposes three borings to be drilled by hand in the approximate locations shown on the **Figure 6**. The borings will be drilled to a depth of approximately 3 to 4 feet and a soil sample will be collected for analysis. The standard operating procedure for soil sampling collection with a hand auger is included as **Appendix D**. There are no known sources of PCB's in this area other than maybe a previous undocumented leaking transformer. No current sources are present.

9) Boring B18 Area

Elevated concentrations of kerosene and motor oil were found in soil from this area. ERAS proposes that a groundwater sample be collected from MW-2, and that three soil borings be advanced: one in the location of B-18, one southeast of B-18, and one southwest of B-18. The locations of the borings are shown on **Figure 4**. The soil borings will be drilled to depths of approximately 3 feet bgs and soil samples will be collected at 0.5 feet bgs, 1.5 feet bgs, and 3 feet bgs for analysis. The samples will be submitted to a state certified laboratory for analysis for TPH-mo and TPH-kerosene by EPA method 8015, BTEX, and volatile organic compounds (VOCs) by EPA method 8260. The standard operating procedure for groundwater sample collection from a monitoring well and soil sample collection using a hand auger are included as **Appendix D**.

Groundwater Monitoring

ERAS will perform an additional groundwater monitoring event in conjunction with the soil and groundwater sample portion of the investigation and include those results in the investigation report. The report will include proposal of additional wells, if needed, and a groundwater monitoring program.

Report

A final report will detail the field procedures, present the results of the investigation including laboratory reports and boring logs, and interpret the data with respect to the RWQCB ESLs. Analytical results, groundwater elevation data, and survey data will be uploaded to the GeoTracker database. The report will include recommendations for a groundwater monitoring program and, if necessary, additional investigation or well installation.

FIGURES

STATE OF CALIFORNIA
DEPARTMENT OF WATER RESOURCES

50 (CIVIC CENTER) 17 MI.
LAND (CITY HALL) 5.9 MI.

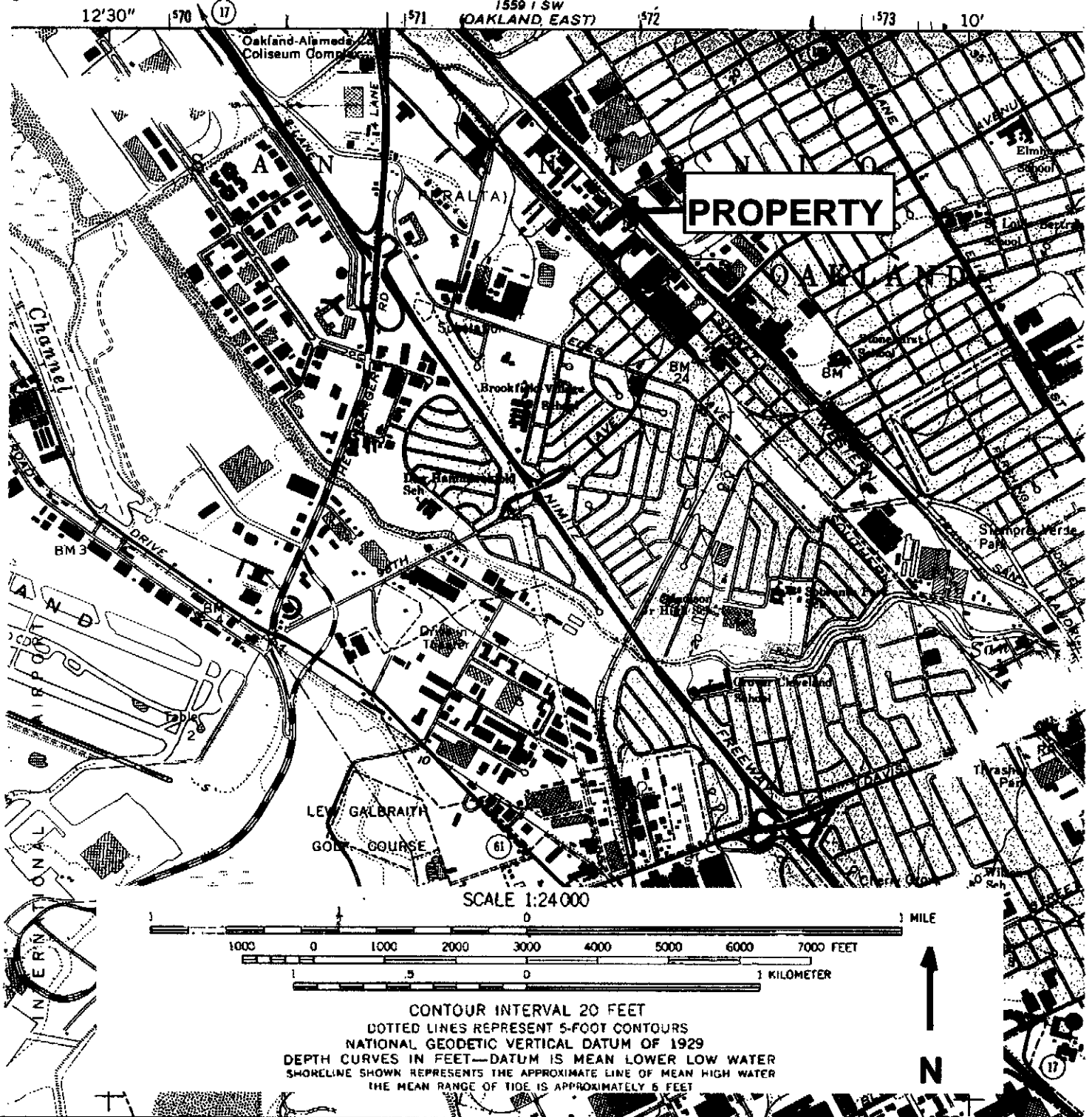
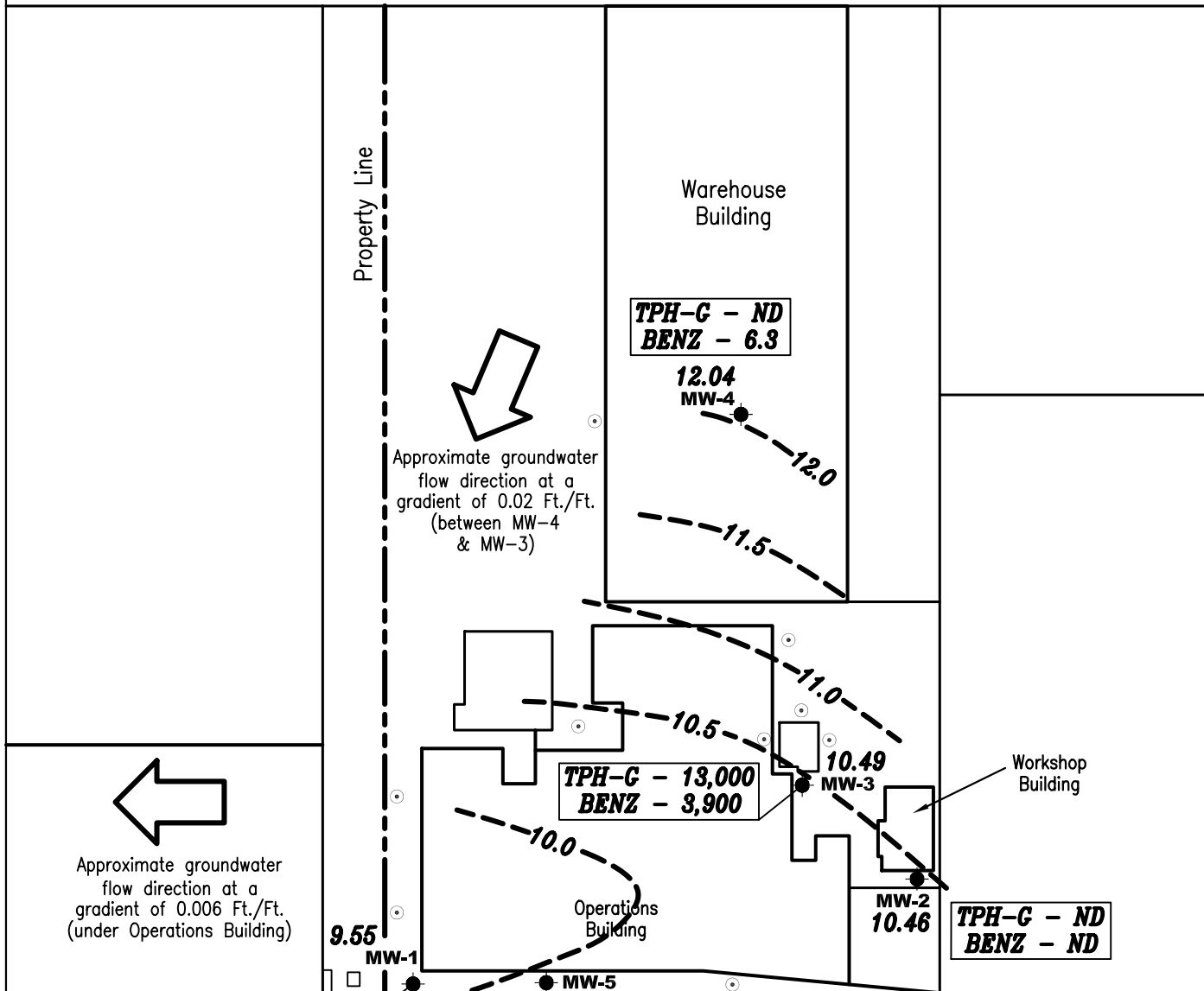


FIGURE 1
LOCATION MAP
9201 San Leandro Street
Oakland, CA 94603

ERAS Environmental, Inc.

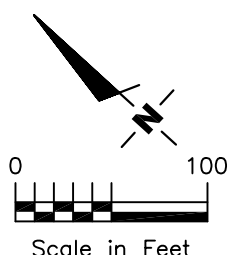
SAN LEANDRO STREET



EXPLANATION

- Groundwater monitoring well
- 10.49 Groundwater elevation in feet referenced to Mean Sea Level
- - - 10.5 - - - Potentiometric surface contour
- Proposed soil & groundwater sample location

- TPH-G** Total petroleum hydrocarbons as gasoline and benzene in ug/L (micrograms per liter)
- BENZ**
- ND** Not Detected



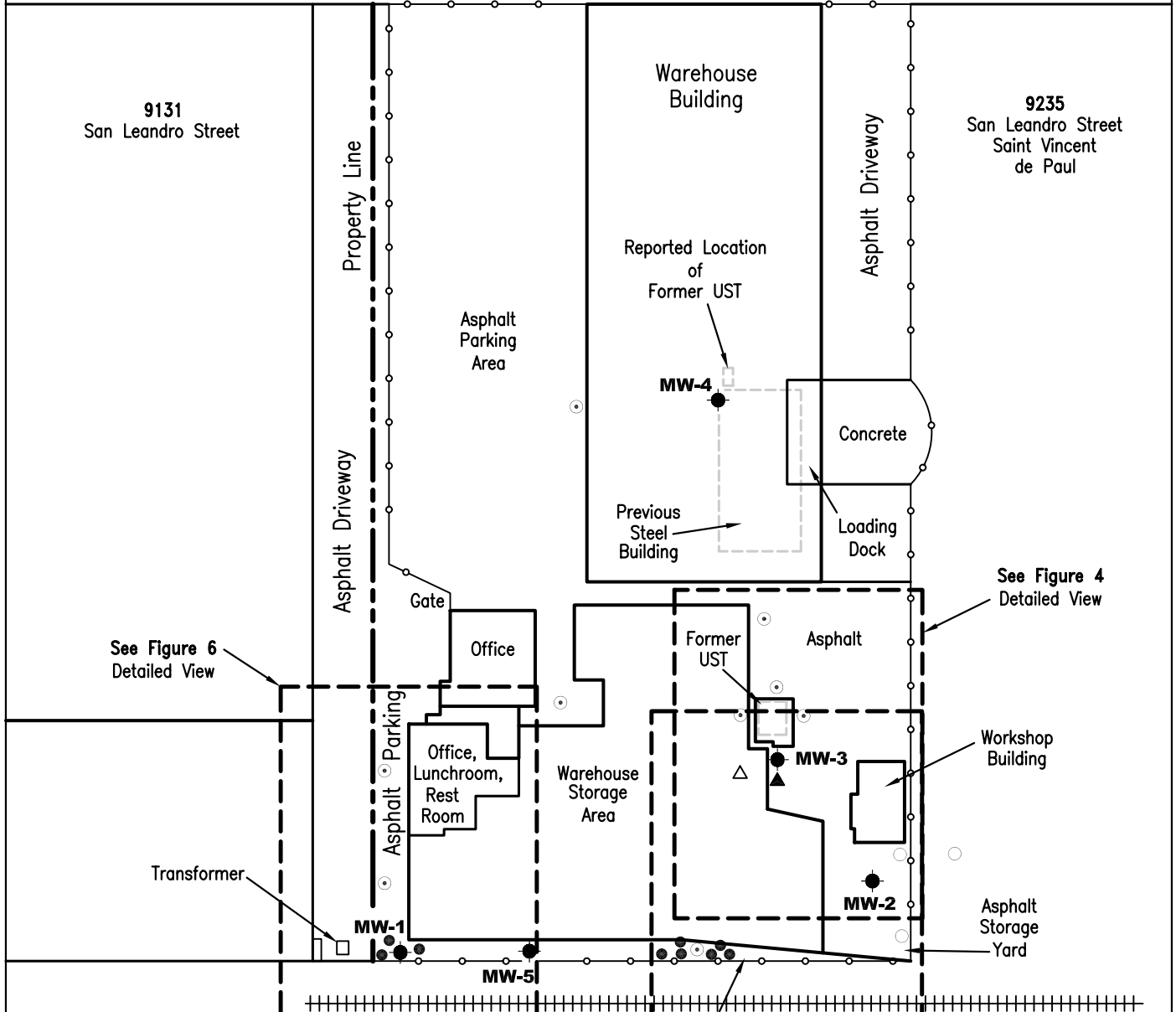
GROUNDWATER POTENTIOMETRIC MAP - QUARTER 4, 2007

DATE
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REVIEWED BY
GJ

Former PACO Pumps Facility
9201 San Leandro Street
Oakland, California

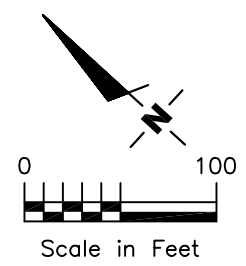
JOB NUMBER
07-001-02
FIGURE
2

SAN LEANDRO STREET



EXPLANATION

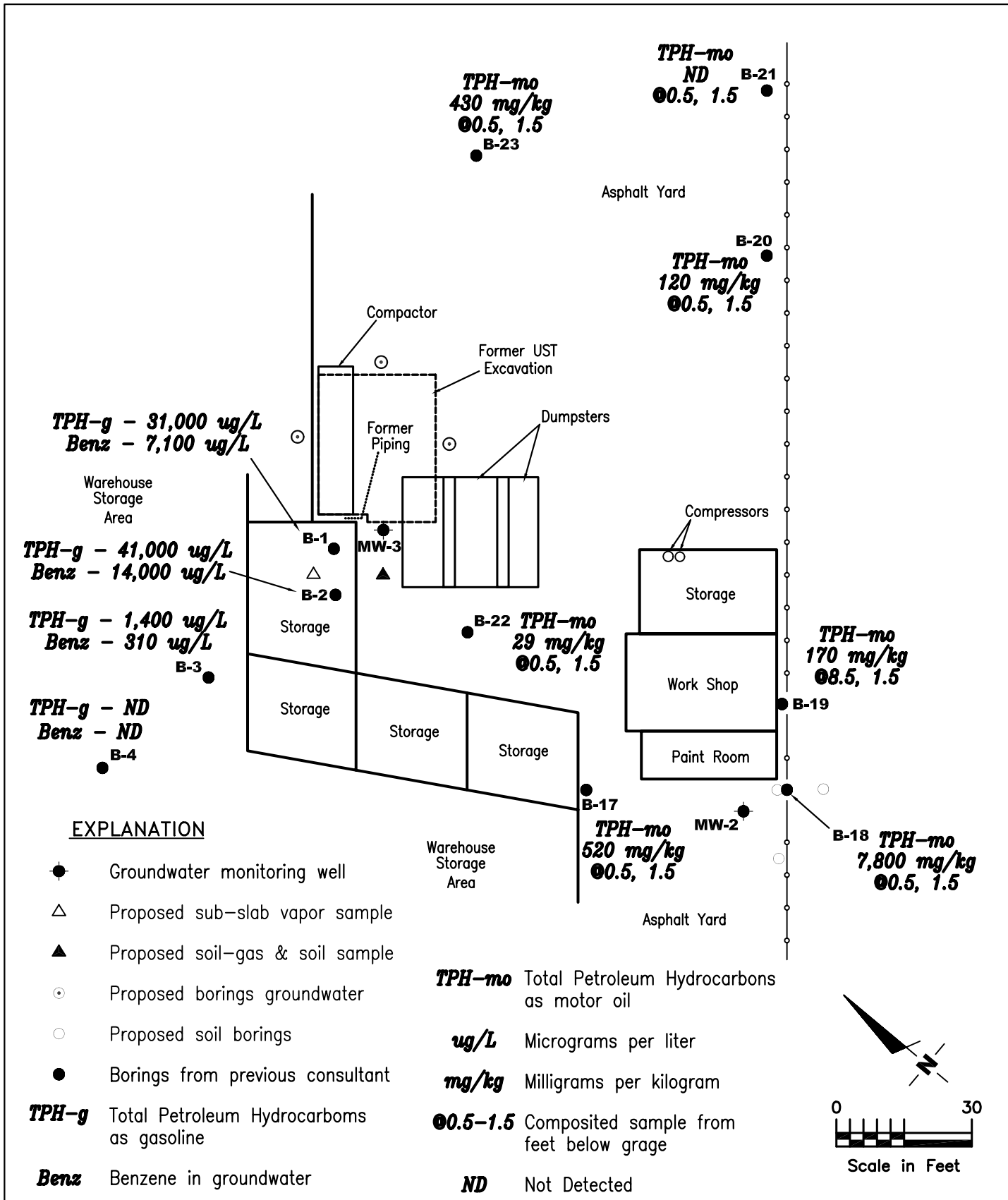
- Groundwater monitoring well
- ⊙ Proposed soil & groundwater sample location
- △ Proposed sub-slab vapor sample location
- ▲ Proposed soil-gas and soil sample location
- Proposed soil boring location
- Proposed soil sample location



SITE PLAN

DATE 03/08 REVIEWED BY GJ/AS	Former PACO Pumps Facility 9201 San Leandro Street Oakland, California	JOB NUMBER 07-001-02 FIGURE 3
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ERAS Environmental Inc.

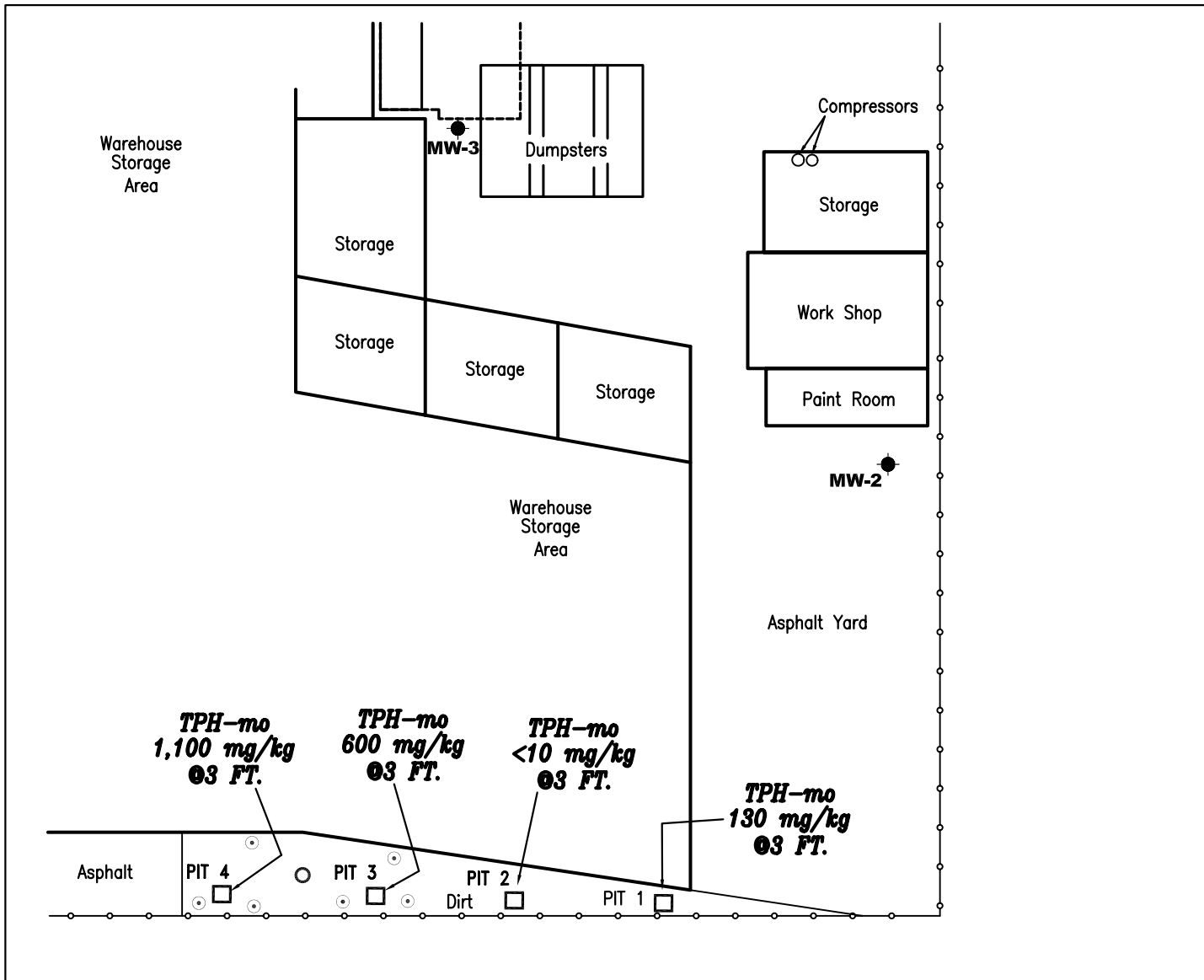


DETAILED VIEW of FORMER UST EXCAVATION & PROPOSED SAMPLING

DATE
03/08
REVIEWED BY
AS/GJ

Former PACO Pumps Facility
9201 San Leandro Street
Oakland, California

JOB NUMBER
07-001-02
FIGURE
4

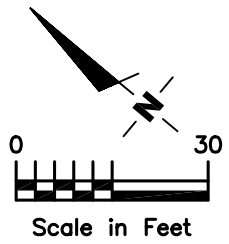


EXPLANATION

- Groundwater monitoring well
- Proposed borings- soil
- Proposed borings- groundwater
- Pits from 1987 investigation (3 foot square)

TPH-mo Total Petroleum Hydrocarbons as motor oil **mg/kg** Milligrams per kilogram

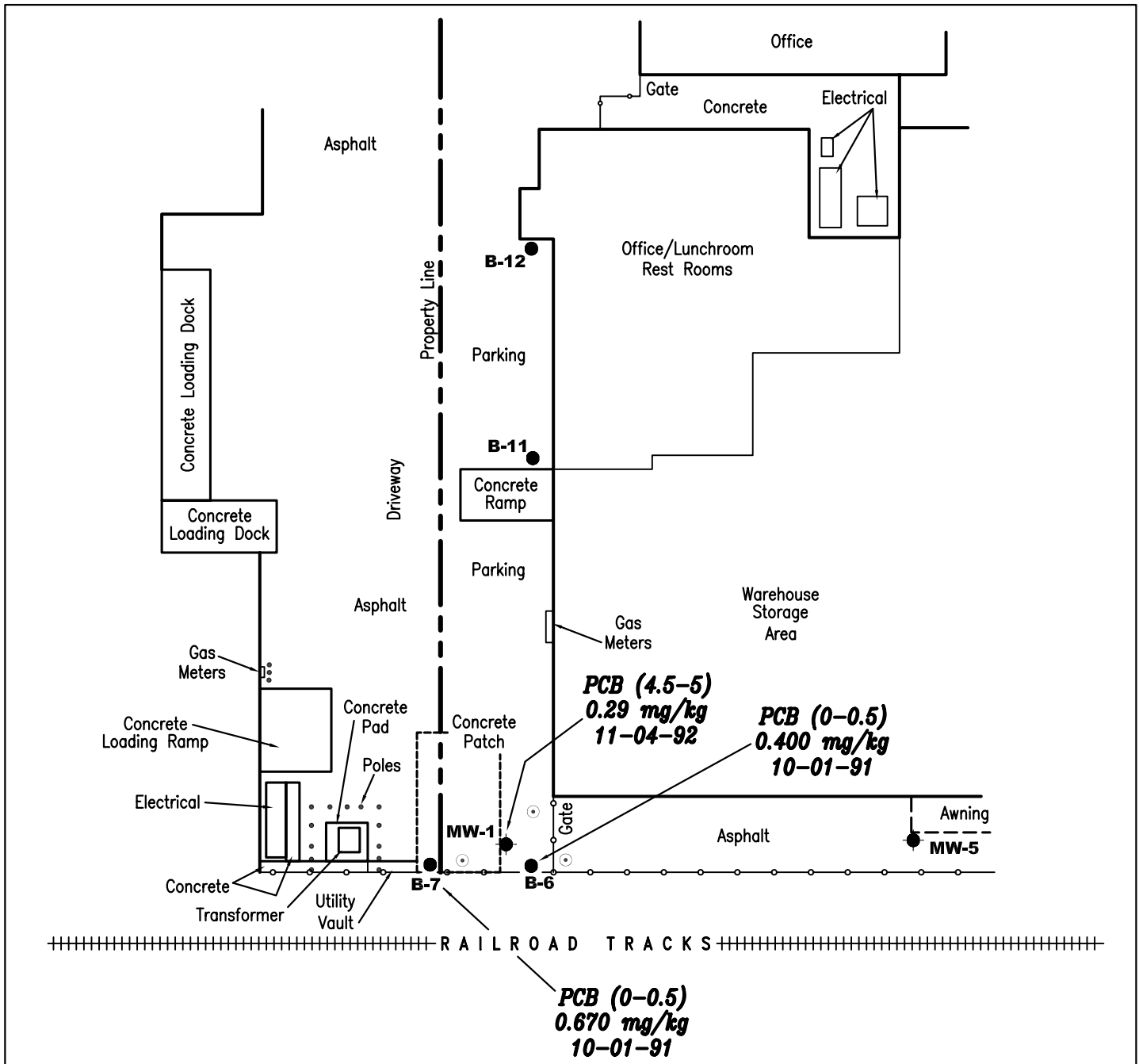
03 FT. Sample collected 3 feet below grade



DETAILED VIEW of SAMPLE LOCATIONS along RAILROAD

DATE 03/08 REVIEWED BY AS/GJ	Former PACO Pumps Facility 9201 San Leandro Street Oakland, California	JOB NUMBER 07-001-02 FIGURE 5
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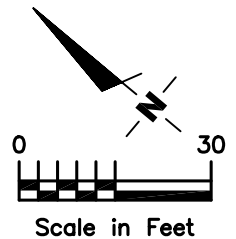
ERAS Environmental Inc.



EXPLANATION

- Groundwater monitoring well
- Proposed borings- soil
- Borings from previous consultant

PCB Polychlorinated biphenyl's



PROPOSED BORINGS for PCB's

DATE
03/08
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AS/GJ

9201 San Leandro Street
Oakland, California

JOB NUMBER
07-001-02
FIGURE
6

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TABLES

TABLE 1. GROUNDWATER DATA AND ANALYTICAL RESULTS NOVEMBER 14, 2007

9201 San Leandro Street, Oakland CA

Sample ID	Date Monitored	Total Depth (feet bgs)	TOC Elevation (feet amsl)	Depth to Water (feet)	GW Elevation (feet amsl)	TPH-d (µg/l)	TPH-g (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethylbenze (µg/l)	Xylenes (µg/l)	MTBE (µg/l)
MW-1	14-Nov-07	20	18.05	8.50	9.55	NA	<50	<0.50	<0.50	<0.50	<0.50	<2.0
MW-2	14-Nov-07	20	19.40	8.94	10.46	NA	<50	<0.50	<0.50	<0.50	<0.50	<2.0
MW-3	14-Nov-07	19.9	19.70	9.21	10.49	NA	13,000	3,900	370	300	130	<40
MW-4	14-Nov-07	19.9	19.65	7.61	12.04	<50	<50	6.3	0.56	3.4	1.0	<2.0
MW-5	14-Nov-07	19.9	18.49	8.16	10.33	NA	<50	<0.50	<0.50	<0.50	<0.50	<2.0
ESL						100	100	1	40	30	20	5

Notes

TOC ELEV = Top of well casing elevation in feet above mean sea level

GW ELEV = Top of groundwater elevation.

TPH-G = Total petroleum hydrocarbons as gasoline.

MTBE = Methyl-tert-butyl ether.

NA = Not Analyzed

TABLE 2 - HISTORICAL ANALYTICAL RESULTS - SOIL SAMPLES

**9201 San Leandro Street
Oakland, California**

Sample Id	Date	Boring or Pit	Depth (feet)	TPH-g (mg/kg)	TPH-d (mg/kg)	TPH-mo (mg/kg)	TPH-k	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes (mg/kg)	VOC's	PCB's (mg/kg)	Arsenic* (mg/kg)
<i>Excavation Samples</i>														
B-1	6/30/1992	Sidewall	6	9.2	ND	NA	NA	0.043	ND	0.086	0.067	NA	NA	NA
B-2	7/27/1992	Sidewall	6	6.2	NA	NA	NA	1.800	ND	0.180	ND	NA	NA	NA
B-3	7/27/1992	Sidewall	6	7.3	NA	NA	NA	0.053	ND	0.200	ND	NA	NA	NA
B-4	7/27/1992	Sidewall	6	5.3	NA	NA	NA	0.650	ND	0.160	0.014	NA	NA	NA
B-5	7/27/1992	Sidewall	6	1.9	NA	NA	NA	0.034	ND	0.012	ND	NA	NA	NA
B-6	8/3/1992	Sidewall	6	13	NA	NA	NA	2.100	0.018	0.340	0.190	NA	NA	NA
B-7	8/3/1992	Sidewall	6	11	NA	NA	NA	2.100	0.011	0.230	0.067	NA	NA	NA
B-8	8/3/1992	Sidewall	6	7.4	NA	NA	NA	0.750	0.0092	0.180	0.026	NA	NA	NA
B-9	8/3/1992	Sidewall	6	2.3	NA	NA	NA	0.039	0.0058	0.008	0.009	NA	NA	NA
B-10	8/11,12/1992	Sidewall	6	4.4	NA	NA	NA	0.371	0.0047	0.080	0.028	NA	NA	NA
B-11	8/11,12/1992	Sidewall	6	13	NA	NA	NA	0.670	0.0076	0.160	0.100	NA	NA	NA
B-12	8/11,12/1992	Sidewall	6	ND	NA	NA	NA	0.010	ND	ND	ND	NA	NA	NA
B-13	8/11,12/1992	Sidewall	6	1.1	NA	NA	NA	0.013	ND	ND	0.007	NA	NA	NA
1993 Jonas & Assoc Rpt														
MW-1	11/4/1992	Boring	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.29	NA
MW-1	11/4/1992	Boring	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
MW-1	11/4/1992	Boring	15	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
1997 Jonas & Assoc Rpt														
<i>Inside building</i>														
B-1	1/31/1997	Boring	8.5	ND (1.0)	NA	NA	NA	0.012	ND (0.0050)	ND (0.0050)	ND (0.0050)	NA	NA	NA
B-2	1/31/1997	Boring	8.5	9.5	NA	NA	NA	0.042	0.014	0.035	0.058	NA	NA	NA
ESLres				83	83	410		0.044	2.9	3.3	2.3		0.089	0.38
ESLind				83	83	2500		0.044	2.9	3.3	2.3		0.3	1.5

Notes

mg/kg = milligrams per kilogram

ND = Not detected above the reported detection limit

NA = Not Analyzes

TPH-g = Total petroleum hydrocarbons as gasoline

TPH-d = Total petroleum hydrocarbons as diesel

TPH-mo = Total petroleum hydrocarbons as motor oil

VOC's = Volatile Organic Compounds

PCB's = Polychlorinated biphenyls

* = Analyzed for Antimony, Barium, Beryllium, Cadmium, Chromium (IV), Chromium (total), Cobalt, copper, lead, mercury, molybdenum, nickel, selenium, silver, thallium, vanadium, zinc as well - all concentrations below residential and industrial ESL's

** = Duplicate Sample

¹ = Quantitated as cresote

³ = composited

ESLres = Environmental screening levels set forth by the Regional Water Quality Control Board, November 2007, residential area, groundwater is shallow and a potential source of drinking water

ESLind = Environmental screening levels set forth by the Regional Water Quality Control Board, November 2007, industrial area, groundwater is shallow and a potential source of drinking water

TABLE -3 HISTORICAL ANALYTICAL RESULTS - GROUNDWATER SAMPLES

**9201 San Leandro Street
Oakland, California**

Sample Id	Date	Depth (feet)	TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)
MW-1	26-May-94	5.25-20.25	<50	<0.5	<0.5	<0.5	<0.5	NA
MW-1	24-Sep-94	5.25-20.25	<50	<0.5	<0.5	<0.5	<0.5	NA
MW-1	22-Nov-94	5.25-20.25	<50	<0.5	<0.5	<0.5	<0.5	NA
MW-1	8-Feb-95	5.25-20.25	<50	<0.5	<0.5	<0.5	<0.5	NA
MW-1	31-May-95	5.25-20.25	<50	<0.5	<0.5	<0.5	<0.5	NA
MW-1	23-May-96	5.25-20.25	<50	<0.5	<0.5	<0.5	<0.5	NA
MW-1	27-Oct-00	5.25-20.25	<50	<0.5	<0.5	<0.5	<0.5	NA
MW-2	16-Nov-92	5.25-20.25	<50	<0.5	<0.5	<0.5	<1.5	NA
MW-2	9-Mar-93	5.25-20.25	<50	<0.5	<0.5	<0.5	<0.5	NA
MW-2	21-Jul-93	5.25-20.25	<50	<0.5	<0.5	<0.5	<0.5	NA
MW-2	29-Jan-94	5.25-20.25	<50	<2.0	<2.0	<2.0	<2.0	NA
MW-2	26-May-94	5.25-20.25	<50	2.3	0.8	<0.5	<0.5	NA
MW-2	24-Sep-94	5.25-20.25	<50	6.1	1.4	0.5	0.6	NA
MW-2	22-Nov-94	5.25-20.25	<50	3.4	1.8	<0.5	0.5	NA
MW-2	8-Feb-95	5.25-20.25	<50	4.5	1.3	<0.5	0.5	NA
MW-2	9-Aug-95	5.25-20.25	<50	<0.5	<0.5	<0.5	<0.5	NA
MW-2	29-Feb-96	5.25-20.25	<50	<0.5	<0.5	<0.5	<0.5	NA
MW-3	16-Nov-92	5.25-20.25	40,000	2,900	6,700	550	1700	NA
MW-3	9-Mar-93	5.25-20.25	12,000	1,000	300	110	170	NA
MW-3	21-Jul-93	5.25-20.25	3,400	420	63	36	37	NA
MW-3	29-Jan-94	5.25-20.25	5,600	910	220	47	36	NA
MW-3	26-May-94	5.25-20.25	5,200	890	180	45	43	NA
MW-3	24-Sep-94	5.25-20.25	5,200	580	76	29	22	NA
MW-3	22-Nov-94	5.25-20.25	2,200	670	130	31	28	NA
MW-3	8-Feb-95	5.25-20.25	2,900	780	120	31	33	NA
MW-3	31-May-95	5.25-20.25	9,100	2,800	160	91	72	NA
MW-3	31-May-95	5.25-20.25	5,300	1,300	170	37	44	NA
MW-3	28-Aug-95	5.25-20.25	1,400	<0.5	<0.5	1.7	7.9	NA
MW-3	28-Aug-95	5.25-20.25	4,800	2,500	150	53	44	NA
MW-3	29-Nov-95	5.25-20.25	3,000	780	43	32	32	NA
MW-3	29-Nov-95	5.25-20.25	2,400	830	38	21	16	NA
MW-3	29-Feb-96	5.25-20.25	3,800	1,200	130	36	35	NA
MW-3	29-Feb-96	5.25-20.25	8,000	3,400	430	100	99	NA
MW-3	23-May-96	5.25-20.25	6,900	3,300	340	71	74	NA
MW-3	23-May-96	5.25-20.25	4,300	3,200	350	72	74	NA
MW-3	4-Nov-96	5.25-20.25	4,900	2,100	110	70	44	NA
MW-3	4-Nov-96	5.25-20.25	4,500	2,100	130	61	39	NA
MW-3	13-May-97	5.25-20.25	10,000	4,800	530	100	92	<100
MW-3	26-Jan-98	5.25-20.25	12,000	5,000	250	91	100	NA
MW-3	27-Oct-00	5.25-20.25	19,000	9,000	1,000	250	130	NA

TABLE -3 HISTORICAL ANALYTICAL RESULTS - GROUNDWATER SAMPLES

**9201 San Leandro Street
Oakland, California**

Sample Id	Date	Depth (feet)	TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)
MW-4	16-Nov-92	5.25-20.25	560	66	73	16	130	NA
MW-4	16-Nov-92	5.25-20.25	520	63	67	15	140	NA
MW-4	9-Mar-93	5.25-20.25	750	67	12	29	62	NA
MW-4	21-Jul-93	5.25-20.25	250	21	4.2	8.4	11	NA
MW-4	29-Jan-94	5.25-20.25	180	28	2.2	6.2	10	NA
MW-4	26-May-94	5.25-20.25	130	14	3.2	6.1	4.7	NA
MW-4	24-Sep-94	5.25-20.25	70	6.7	0.9	2.8	2.6	NA
MW-4	22-Nov-94	5.25-20.25	90	16	1.7	5.6	3.4	NA
MW-4	8-Feb-95	5.25-20.25	90	17	1.3	5.5	3.0	NA
MW-4	31-May-95	5.25-20.25	80	13	0.6	2.3	1.2	NA
MW-4	9-Aug-95	5.25-20.25	<50	3.6	<0.5	1.4	0.6	NA
MW-4	29-Nov-95	5.25-20.25	<50	4.5	0.7	1.0	0.7	NA
MW-4	29-Feb-96	5.25-20.25	80	7.4	1	3.2	2.4	NA
MW-4	23-May-96	5.25-20.25	<50	11	2	2.3	1.9	NA
MW-5	24-Sep-94	5.25-20.25	<50	<0.5	<0.5	<0.5	<0.5	NA
MW-5	22-Nov-94	5.25-20.25	<50	<0.5	<0.5	<0.5	<0.5	NA
MW-5	8-Feb-95	5.25-20.25	<50	<0.5	<0.5	<0.5	<0.5	NA
MW-5	9-Aug-95	5.25-20.25	<50	<0.5	<0.5	<0.5	<0.5	NA
MW-5	29-Feb-96	5.25-20.25	<50	0.6	<0.5	<0.5	<0.5	NA
MW-5	13-May-97	5.25-20.25	<50	<0.5	<0.5	<0.5	<0.5	NA
MW-5	27-Oct-00	5.25-20.25	<50	<0.5	<0.5	<0.5	<0.5	NA
<i>Southwest of former 550-gallon UST</i>								
B1	3-Feb-97	15-20	31,000	7,100	4,100	520	1,400	NA
B2	3-Feb-97	15-20	41,000	14,000	2,600	740	1,700	NA
B3	2-Feb-98	15-20	1,400	310	9.9	27	56	NA
B4	2-Feb-98	15-20	<50	<0.5	<0.5	<0.5	<0.5	NA
ESL			100	1	40	30	20	5

Notes

µg/L = Micrograms per liter

TPH-g = Total petroleum hydrocarbons as gasoline

MTBE = Methel Tertiary Butyl Ether

ESL = Environmental screening levels set forth by the Reginol Water Quality Control Board, November 2007, residential area, groundwater is shallow and a potential source of drinking water

NA = Not Analyzed

TABLE 4 - HISTORICAL ANALYTICAL RESULTS - SOIL GAS SAMPLES

**9201 San Leandro Street
Oakland, California**

Sample Id	Date	Depth (feet)	TPH-g (C5+) (mg/m ³)	TPH-g (C2-C4) (mg/m ³)	Benzene (mg/m ³)	Toluene (mg/m ³)	Ethylbenzene (mg/m ³)	Xylenes (mg/m ³)
<i>Unknown Location</i>								
B-5	16-Oct-98	3.0	61,350	262	162.9	25.6	<10.9	19.1
B-6	16-Oct-98	3.0	40,082	3,272	92.7	20.0	<9.1	21.3
ESLres			10,000	10,000	84	63,000	210,000	21,000
ESLind			29,000	29,000	280	180,000	580,000	58,000

Notes

mg/m³ = milligrams per cubic meter

TPH-g = Total petroleum hydrocarbons as gasoline

ESLres = Environmental screening levels set forth by the Regional Water Quality Control Board, November 2007, residential area, shallow soil gas

ESLind = Environmental screening levels set forth by the Regional Water Quality Control Board, November 2007, industrial area, shallow soil gas

APPENDIX A

ACEH Letter January 31, 2008

ALAMEDA COUNTY
HEALTH CARE SERVICES

AGENCY
DAVID J. KEARS, Agency Director



RECEIVED
2.9.08

January 31, 2008

ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
FAX (510) 337-9335

Mr. John Lilla
PACO Pumps, Inc.
800 Koomey Road
Brookshire, TX 77423

Mr. Harold Vignoles
9201 San Leandro LLC
9201 San Leandro Street
Oakland, CA 94603

Mr. Dallas Nelson
GP Holdings LLC
5977 Keith Avenue
Oakland, CA 94618-1545

Subject: Fuel Leak Case No. RO0000320 and Geotracker Global ID T0600101592, PACO Pumps Inc, 9201 San Leandro Street, Oakland, CA 94603

Dear Mr. Lilla, Mr. Vignoles, and Mr. Nelson:

Alameda County Environmental Health (ACEH) staff has reviewed the fuel leak case file for the above-referenced site including the recently submitted document entitled, "Workplan for Former Paco Pumps Facility, 9201 San Leandro Street, Oakland, California," dated January 16, 2008. The Work Plan proposes shallow soil borings in several areas of the site to address technical comments in our August 21, 2007 correspondence. However, the Work Plan does not present sufficient background or detail regarding the proposed sampling to evaluate the proposed scope of work. We request that you prepare a Revised Work Plan by **March 18, 2008** that addresses the issues discussed in the technical comments below.

REQUEST FOR INFORMATION

We previously requested that you submit copies of the following reports, which are referenced in other technical reports for the site but are not in the ACEH case file. None of these reports are provided or referenced in the January 16, 2008 Work Plan. The purpose of reviewing these documents is to assure that previously encountered conditions are considered in planning future work. Therefore, we request that you submit the documents listed below with the Revised Work Plan requested by March 18, 2008. In addition, please submit any other technical reports presenting the results of environmental investigations or cleanup that were not previously submitted to ACEH.

- Cutliffe, S., 1987. Findings and Results of the Cleanup Project Performed on 14 and 15 December 1987 at PACO Oakland Site.
- Dames & Moore, 1987. Site Contamination Study – PACO Pumps Facility, Oakland, for Amsted Industries.
- Ecology and Environment Inc., 1985. CERCLA Site Inspection, PACO Pumps 845 92nd Avenue, Oakland, CA. Site ERRIS #CAD 088772629, Inspection ID# C(85)C371, Date of Inspection 9/17/85, Report Due November 8, 1985.
- Jonas & Associates, Inc., 1991. Soil Characterization Report Stained Asphalt/Concrete Area – PACO Pumps, 9201 San Leandro Street, Oakland, CA, October 30, 1991.

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Mr. Dallas Nelson
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- Van Aken, B., 1987. Internal PACO Correspondence to Mr. John G. Terranova regarding excavation, November 4, 1987.

TECHNICAL COMMENTS

1. **Utility Surveys.** Our August 21, 2007 technical comments requested that you determine whether UST system piping encountered during the 1992 UST excavation remains in place beneath the adjacent building or extends to a dispenser in another location. The Work Plan indicates that utility location using magnetic and ground penetrating radar methods will be conducted within the former UST area. Utility location is proposed within an area outlined on a small-scale hand drawn map labeled, "ACHSA Item #1," in Appendix B. We concur with the use of magnetic and ground-penetrating radar geophysical methods. However, since the objective is to locate UST system piping, we recommend that you review the more detailed maps that show the approximate location of piping encountered during the UST excavation. The geophysical survey should initially be conducted using a high density of measurements within the area where piping was previously observed to locate the piping and then trace the piping away from the former UST excavation. If the piping cannot be located initially, the geophysical survey should move outward with expanded line spacings to attempt to locate the system piping over a broader area. Please include a more detailed map in the Revised Work Plan requested below to show the former UST system piping and relevant site features and expand the description of how the geophysical survey is to be conducted.
2. **Maps Showing Proposed Sampling Locations.** Figure 3 in the Work Plan, which is entitled, "Proposed Borings," presents the proposed boring locations at a scale of approximately 0.9 inches equals 100 feet. This small scale is not sufficient to show site features and proposed sampling locations at an appropriate scale for planning environmental investigations. Several similar small-scale maps are included with hand notations showing data and proposed borings in Appendix B. In general, work plans submitted to ACEH include maps that are more professional in appearance than the maps included in Appendix B. In the Revised Work Plan requested below, we request that you include larger scale maps for each area of the site where investigation is proposed and improve the quality of the figures to meet industry standards. The maps must show site features that are relevant to sample design. As an example, a map of the former UST area should show the former location of the tank, limits of overexcavation, confirmation soil sampling results, piping, dispensers, nearby utilities, soil borings, monitoring wells, other site features that potentially could be a source of discharges, waste storage areas, processing or loading areas, nearby structures, type of surface covering such as concrete or asphalt, and general features such as streets, parking lots, etc.
3. **Groundwater Characterization for Former 550-Gallon UST Area.** The Work Plan proposes three soil borings within approximately 20 feet of the former UST, one soil boring approximately 125 feet southwest of the former UST, and two soil borings more than 250 feet northwest of the former UST. No vertical delineation of soil and groundwater contamination is proposed in the Work Plan. Vertical delineation is required and is to be included in the Revised Work Plan. The use of transects oriented perpendicular to the groundwater flow direction are to be considered for characterization of groundwater quality in the Revised

- Work Plan requested below. In addition, please show the proposed soil boring locations in close proximity to the former UST on a more detailed map as discussed in technical comment 2.
4. **Soil Vapor Sampling.** The Work Plan proposes collection of one sub-slab vapor sample within the building and one soil vapor sample outside the building. The two proposed locations are shown on a small-scale map (Figure 3) that does not show any features within the building such as walls or office space and does not show the locations of previous sampling locations B5 and B6 where elevated concentrations of benzene were detected in soil gas. Proposed soil vapor sampling locations are also shown on a hand-annotated map in Appendix B which also lacks detail. In addition, the scope of the proposed soil vapor sampling investigation is inadequate to characterize the extent of the elevated concentrations of benzene in soil vapor. Therefore, the scope of proposed work must be expanded and presented on a more detailed site map. The more detailed site map must show site features as discussed in technical comment 2 and current uses of each room in the adjacent building.
 5. **Proposed Method for Soil Vapor Sampling.** The Work Plan refers to Appendix D for a description of the method for collection of soil vapor samples. Appendix E includes a standard operating procedure for collection of soil vapor samples from direct push borings. However, no description of sub-slab vapor sampling is provided in the Work Plan. Some description of sub-slab probe construction and sampling must be included. In the Revised Work Plan requested below, please describe the procedures for sub-slab sampling in addition to soil vapor sampling from direct push borings.
 6. **Proposed Utility Survey for UST In Area of Well 9MW4.** The Work Plan indicates that no information could be found regarding a suspected UST in the area of well 9MW4. Since no information is available, conducting a geophysical survey within the approximate area shown on the hand annotated figure designated, "ACHSA Item #4," is acceptable. However, the Work Plan does not describe the proposed line spacing or density of measurements for the geophysical survey. In the Revised Work Plan requested below, please expand the description of the proposed geophysical survey.
 7. **Soil Removal Along Railroad Tracks.** The Work Plan proposes collection of soil samples from hand auger borings that will extend to a depth of approximately 3 feet. The proposed locations surrounding previous sampling locations B3 and B4 are shown on a hand-annotated map derived from a previous report. The extent of excavation in this area was apparently based on visual observation and odor. In the Revised Work Plan requested below, we request that you describe the procedures for logging, screening, and selecting soil samples for laboratory analysis. In addition, please review the extent of the former excavations and propose sampling as necessary to define the horizontal extent of contamination outside the former excavations.
 8. **PCBs in Soil.** The Revised Work Plan requested below must include a more detailed map of the proposed PCB sampling locations than the hand-annotated small-scale figure entitled, "ACHSA Item #6," that is presented in Appendix B of the Work Plan. We repeat the request in our August 21, 2007 technical comments to please provide a more detailed map of the

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Mr. Harold Vignoles
Mr. Dallas Nelson
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area that shows the likely source of the PCBs and the sampling locations where PCBs have been detected in soil (see technical comment 2 regarding appropriate site maps).

9. **Elevated Concentrations of TPH as Kerosene and TPH as Motor Oil Detected in Boring B18.** In the Revised Work Plan requested below, please provide a more detailed map of the area of boring B18 and proposed sampling locations.

TECHNICAL REPORT REQUEST

Please submit technical reports to Alameda County Environmental Health (Attention: Jerry Wickham), according to the following schedule:

- **March 18, 2008 – Revised Work Plan**

These reports are being requested pursuant to California Health and Safety Code Section 25296.10. 23 CCR Sections 2652 through 2654, and 2721 through 2728 outline the responsibilities of a responsible party in response to an unauthorized release from a petroleum UST system, and require your compliance with this request.

ELECTRONIC SUBMITTAL OF REPORTS

The Alameda County Environmental Cleanup Oversight Programs (LOP and SLIC) require submission of all reports in electronic form to the county's ftp site. Paper copies of reports will no longer be accepted. The electronic copy replaces the paper copy and will be used for all public information requests, regulatory review, and compliance/enforcement activities. Instructions for submission of electronic documents to the Alameda County Environmental Cleanup Oversight Program ftp site are provided on the attached "Electronic Report Upload (ftp) Instructions." Please do not submit reports as attachments to electronic mail.

Submission of reports to the Alameda County ftp site is an addition to existing requirements for electronic submittal of information to the State Water Resources Control Board (SWRCB) Geotracker website. Submission of reports to the Geotracker website does not fulfill the requirement to submit documents to the Alameda County ftp site. In September 2004, the SWRCB adopted regulations that require electronic submittal of information for groundwater cleanup programs. For several years, responsible parties for cleanup of leaks from underground storage tanks (USTs) have been required to submit groundwater analytical data, surveyed locations of monitor wells, and other data to the Geotracker database over the Internet. Beginning July 1, 2005, electronic submittal of a complete copy of all necessary reports was required in Geotracker (in PDF format). Please visit the SWRCB website for more information on these requirements (http://www.swrcb.ca.gov/ust/cleanup/electronic_reporting).

PERJURY STATEMENT

All work plans, technical reports, or technical documents submitted to ACEH must be accompanied by a cover letter from the responsible party that states, at a minimum, the following: "I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge." This letter must be

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Mr. Dallas Nelson
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signed by an officer or legally authorized representative of your company. Please include a cover letter satisfying these requirements with all future reports and technical documents submitted for this fuel leak case.

PROFESSIONAL CERTIFICATION & CONCLUSIONS/RECOMMENDATIONS

The California Business and Professions Code (Sections 6735, 6835, and 7835.1) requires that work plans and technical or implementation reports containing geologic or engineering evaluations and/or judgments be performed under the direction of an appropriately registered or certified professional. For your submittal to be considered a valid technical report, you are to present site specific data, data interpretations, and recommendations prepared by an appropriately licensed professional and include the professional registration stamp, signature, and statement of professional certification. Please ensure all that all technical reports submitted for this fuel leak case meet this requirement.

UNDERGROUND STORAGE TANK CLEANUP FUND

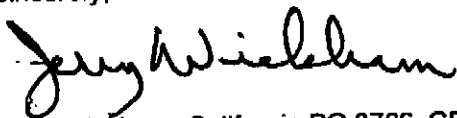
Please note that delays in investigation, later reports, or enforcement actions may result in your becoming ineligible to receive grant money from the state's Underground Storage Tank Cleanup Fund (Senate Bill 2004) to reimburse you for the cost of cleanup.

AGENCY OVERSIGHT

If it appears as though significant delays are occurring or reports are not submitted as requested, we will consider referring your case to the Regional Board or other appropriate agency, including the County District Attorney, for possible enforcement actions. California Health and Safety Code, Section 25299.76 authorizes enforcement including administrative action or monetary penalties of up to \$10,000 per day for each day of violation.

If you have any questions, please call me at (510) 567-6791 or send me an electronic mail message at jerry.wickham@acgov.org.

Sincerely,



Jerry Wickham, California PG 3766, CEG 1177, and CHG 297
Senior Hazardous Materials Specialist

Enclosure: ACEH Electronic Report Upload (ftp) Instructions

cc: Stacie Boothe, Gibson, Dunn, & Crutcher, LLP, 1050 Connecticut Avenue, N.W.,
Washington, D.C. 20036-5306

Donna Drogos, Jerry Wickham, ACEH
File

Alameda County Environmental Cleanup Oversight Programs (LOP and SLIC)	ISSUE DATE: July 5, 2005
	REVISION DATE: December 16, 2005
	PREVIOUS REVISIONS: October 31, 2005
SECTION: Miscellaneous Administrative Topics & Procedures	SUBJECT: Electronic Report Upload (ftp) Instructions

Effective **January 31, 2006**, the Alameda County Environmental Cleanup Oversight Programs (LOP and SLIC) require submission of all reports in electronic form to the county's ftp site. Paper copies of reports will no longer be accepted. The electronic copy replaces the paper copy and will be used for all public information requests, regulatory review, and compliance/enforcement activities.

REQUIREMENTS

- Entire report including cover letter must be submitted to the ftp site as a **single portable document format (PDF) with no password protection**. (Please do not submit reports as attachments to electronic mail.)
- It is **preferable** that reports be converted to PDF format from their original format, (e.g., Microsoft Word) rather than scanned.
- Signature pages and perjury statements **must** be included and have either original or electronic signature.
- **Do not password protect the document**. Once indexed and inserted into the correct electronic case file, the document will be secured in compliance with the County's current security standards and a password. **Documents with password protection will not be accepted.**
- Each page in the PDF document should be rotated in the direction that will make it easiest to read on a computer monitor.
- Reports must be named and saved using the following naming convention:
RO#_Report Name_Year-Month-Date (e.g., RO#5555_WorkPlan_2005-06-14)

Additional Recommendations

- A separate copy of the tables in the document should be submitted by e-mail to your Caseworker in **Excel** format. These are for use by assigned Caseworker only.

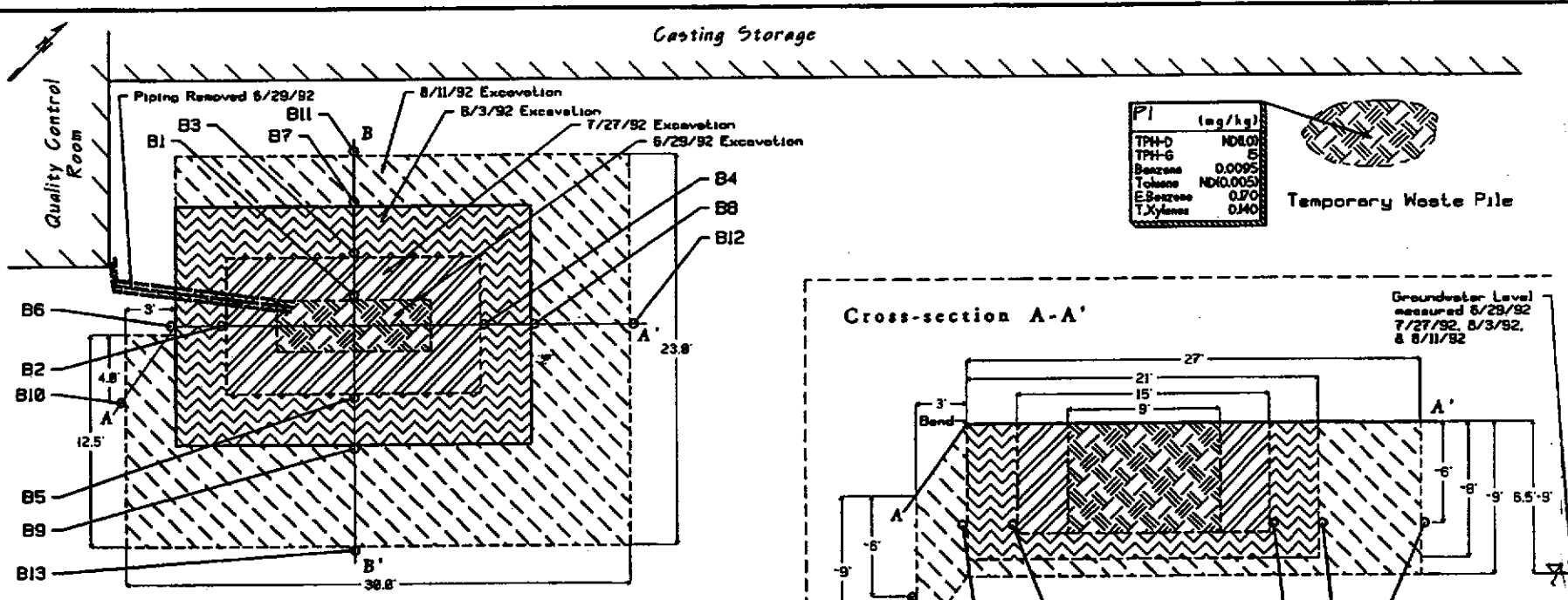
Submission Instructions

- 1) Obtain User Name and Password:
 - a) Contact the Alameda County Environmental Health Department to obtain a User Name and Password to upload files to the ftp site.
 - i) Send an e-mail to dehloptoxic@acgov.org
or
 - ii) Send a fax on company letterhead to (510) 337-9335, to the attention of Alicia Lam-Finneke.
 - b) In the subject line of your request, be sure to include **"ftp PASSWORD REQUEST"** and in the body of your request, include the **Contact Information, Site Addresses, and the Case Numbers (RO# available in Geotracker) you will be posting for.**
- 2) Upload Files to the ftp Site
 - a) Using Internet Explorer (IE4+), go to <ftp://alcoftp1.acgov.org>
 - (i) Note: Netscape and Firefox browsers will not open the FTP site.
 - b) Click on File, then on Login As.
 - c) Enter your User Name and Password. (Note: Both are Case Sensitive.)
 - d) Open "My Computer" on your computer and navigate to the file(s) you wish to upload to the ftp site.
 - e) With both "My Computer" and the ftp site open in separate windows, drag and drop the file(s) from "My Computer" to the ftp window.
- 3) Send E-mail Notifications to the Environmental Cleanup Oversight Programs
 - a) Send email to dehloptoxic@acgov.org notify us that you have placed a report on our ftp site.
 - b) Copy your Caseworker on the e-mail. Your Caseworker's e-mail address is the entire first name then a period and entire last name at acgov.org. (e.g., firstname.lastname@acgov.org)
 - c) The subject line of the e-mail must start with the RO# followed by **Report Upload**. (e.g., Subject: RO1234 Report Upload)

APPENDIX B

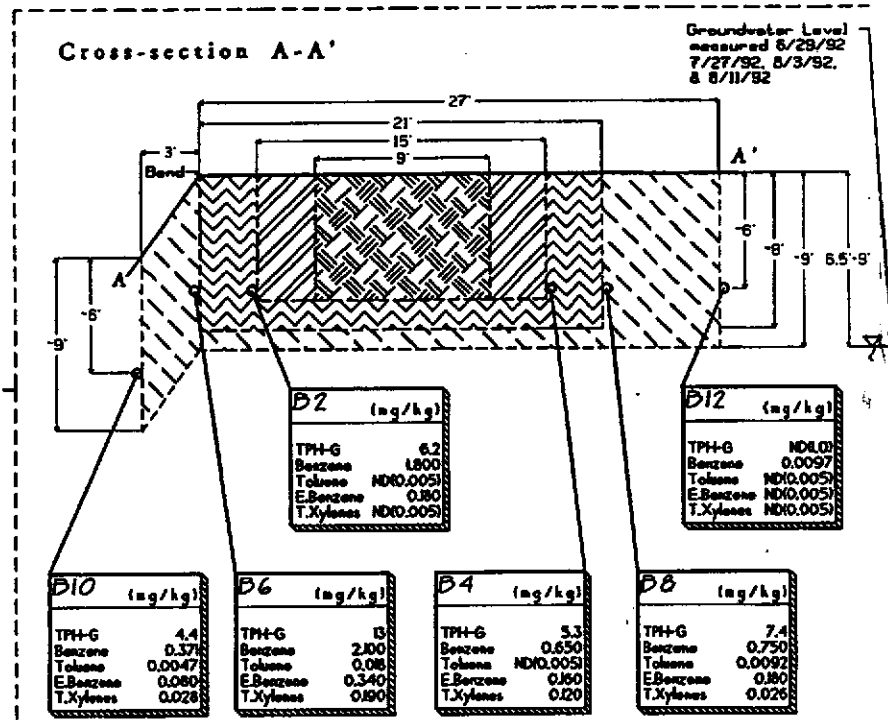
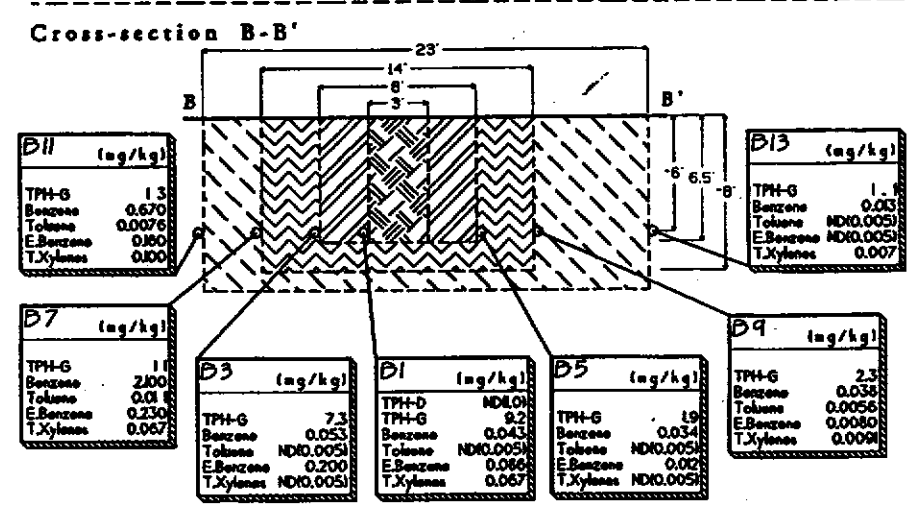
Maps of UST Excavation

Drawing Number: PC0221-8/92:F5-2
 Figure 5-2
 Checked by: [Blank]
 Approved by: [Blank]
 Drawn by: A.J. 8/12/92



P1 (mg/kg)

TPH-G	ND(0.05)
TPH-G	5
Benzene	0.0095
Toluene	ND(0.005)
E-Benzene	0.70
T-Xylenes	0.40



Legend:

A — A' Cross Sections

B3 Sample Number

B1 to B13: Soil Samples

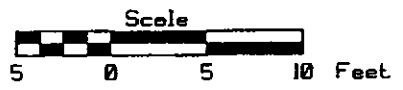
P1: Pile Sample

ND(0.005) - Not Detected above the laboratory detection limit in parentheses.

Measurements were made with a tape measure and are approximate.

No tank was found in the excavation, only piping and debris.

Excavations occurred on 6/29/92, 7/27/92, 8/3/92, & 8/11/92



EXCAVATION SAMPLING RESULTS
PACO PUMPS, INC.
 9201 San Leandro Street
 Oakland, California
 Prepared by
JONAS & ASSOCIATES INC.

Date: 8/12/92	Figure 5-2	Drawing Number PC0221-8/92:F5-2
Locations Approx.		

APPENDIX C

Field Forms

GROUNDWATER SAMPLE DATA

Well #	9MW1		
Project #	07-001-01	Project Location	9201 SL St.
Purge Date	11.14.07	Personnel	KC
Purge Method	Bailer	Purge Rate (pump only)	
Parameter Meter	Oakton		

Depth to Bottom	- Depth to Water	= Casing volume	* Volume Factor 0.75"=.023 2"=0.17 4"=0.66	= Gallons per CV
20	8.50	11.1	0.66	7.32

Time (24 hour clock)	Gallons Removed	EC (uS/cm)	Temp [C]	pH	Sheen (Y,N,U)	NOTES
14:40	START					
14:45	8	91.0	19.4	7.78		
14:49	16	88.9	19.6	7.82		
14:53	24	87.9	19.1	7.88		
14:56	SAMPLE					

Well Dewatered (Y/N)	Total Volume Removed (gal)	Casing Vol removed
N	24	3

Depth to Water at Sampling	Date Sampled	Time Sampled	Sample Method	#/type containers
✓	11.14.07	14:56	Disp Bailer	4/VOA

Well # 9MW1

GROUNDWATER SAMPLE DATA

Well #	9MW2	Project Location	9201 SL St.
Project #	07-001-01	Personnel	KC
Purge Date	11.14.07	Purge Rate (pump only)	
Purge Method	Bailer	Parameter Meter	
	Oakton		

Depth to Bottom	- Depth to Water	= Casing volume	* Volume Factor 0.75"=0.023 2"=0.17 4"=0.66	= Gallons per CV
20	8.94	12.06	0.66	7.55

Time (24 hour clock)	Gallons Removed	EC (uS/cm)	Temp [C]	pH	Sheen (Y,N,U)	NOTES
12:05	START					
12:25	8	107.9	21.2	7.59		
12:35	16	105.5	19.8	7.61		
12:42	24	108.3	19.5	7.68		
12:44	SAMPLE					

Well Dewatered (Y/N)	Total Volume Removed (gal)	Casing Vol removed
N	24	3

Depth to Water at Sampling	Date Sampled	Time Sampled	Sample Method	#/type containers
/	11.14.07	12:44	Disp Bailer	4/VOA

Well # 9MW2

GROUNDWATER SAMPLE DATA

Well #	9MW3		
Project #	07-001-01	Project Location	9201 SL St.
Purge Date	11.14.07	Personnel	KC
Purge Method	Bailer	Purge Rate (pump only)	
Parameter Meter	Oakton		

Depth to Bottom	- Depth to Water	= Casing volume	* Volume Factor 0.75"=.023 2"=0.17 4"=0.66	= Gallons per CV
19.9	9.21	10.69	0.66	7.05

Time (24 hour clock)	Gallons Removed	EC (uS/cm)	Temp [C]	pH	Sheen (Y,N,U)	NOTES
12:57	START					
13:03	7	137.5	19.7	7.54		
13:15	14	133.7	19.9	7.67		
13:30	21	139.4	20.0	7.62		
13:33	SAMPLE					

Well Dewatered (Y/N)	Total Volume Removed (gal)	Casing Vol removed
N	21	3

Depth to Water at Sampling	Date Sampled	Time Sampled	Sample Method	#/type containers
/	11.14.07	13:33	Disp Bailer	4/VOA

Well # 9MW3

GROUNDWATER SAMPLE DATA

Well #	9MW4		
Project #	07-001-01	Project Location	9201 SL St.
Purge Date	11.14.07	Personnel	KC
Purge Method	Baller	Purge Rate (pump only)	
Parameter Meter	Oakton		

Depth to Bottom	- Depth to Water	= Casing volume	* Volume Factor 0.75"=.023 2"=0.17 4"=0.66	= Gallons per CV
19.9	7.61	12.29	0.66	8.11

Time (24 hour clock)	Gallons Removed	EC (uS/cm)	Temp [C]	pH	Sheen (Y,N,U)	NOTES
14:00	START					
14:03	8	105.5	18.5	7.62		
14:07	16	101.1	18.2	7.69		
14:14	24	97.8	18.1	7.70		
14:16	SAMPLE					
14:18	TPHD					

Well Dewatered (Y/N)	Total Volume Removed (gal)	Casing Vol removed
N	24	3

Depth to Water at Sampling	Date Sampled	Time Sampled	Sample Method	#/type containers
—	11.14.07	14:16	Disp Baller	4/VOA

Well # 9MW4

14:18-TPHD

GROUNDWATER SAMPLE DATA

Well #	9MW5		
Project #	07-001-01	Project Location	9201 SL St.
Purge Date	11.14.07	Personnel	KC
Purge Method	Bailer	Purge Rate (pump only)	
Parameter Meter	Oakton		

Depth to Bottom	- Depth to Water	= Casing volume	* Volume Factor 0.75"=.023 2"=0.17 4"=0.66	= Gallons per CV
19.9	8.16	11.74	0.66	7.81

Time (24 hour clock)	Gallons Removed	EC (uS/cm)	Temp [C]	pH	Sheen (Y,N,U)	NOTES
11:20	START					
11:30	8	66.6	21.2	7.49		
11:35	16	65.7	20.6	7.80		
11:40	24	63.7	20.7	7.88		
11:45	SAMPLE					

Well Dewatered (Y/N)	Total Volume Removed (gal)	Casing Vol removed
N	24	3

Depth to Water at Sampling	Date Sampled	Time Sampled	Sample Method	#/type containers
—	11.14.07	11:45	Disp Bailer	4/VOA

Well # 9MW5

APPENDIX D

Standard Operating Procedures

STANDARD OPERATING PROCEDURES - GROUNDWATER SAMPLING

Prior to groundwater sampling, a measurement is made of the static water level using a water level probe. At sites where the presence of separate-phase hydrocarbons is suspected, a product bailer or an interface probe is used to measure product thickness. The water level probe is cleaned with non-phosphate detergent and rinsed with de-ionized (DI) water between wells.

STANDARD PURGE PROCEDURES

The static water level and well depth are used to calculate the well casing volume. A minimum of 4 well casing volumes of water are purged from the well prior to sampling in order to obtain a representative sample of the groundwater from the formation surrounding the well. Wells should be purged and sampled in order of least to highest suspected concentrations.

Standard purging equipment is a new disposable bailer for each well. Alternatively, purging and sampling systems may be a stainless steel bailers; HDPE tubing with a foot-valve, or low-flow purging using a peristaltic pumps. Appropriate personal protective equipment is worn during purging. The well is purged until the clarity, pH, and conductivity of the discharged water have stabilized. "Stabilized" is defined as three consecutive readings within 10% of one another.

These parameters are measured and recorded initially, after every well casing volume is removed, and after the sample is collected. In some localities, turbidity, Eh, and dissolved oxygen measurements may also be required. If the well is purged dry prior to the removal of three or four casing volumes of water, the water level is allowed to recover to 80% of the static level before sampling. Whenever possible, samples will be collected within 24 hours after purging. Ideally, samples will be collected immediately after purging to minimize volatilization of aromatic hydrocarbons.

The standard sampling equipment will be inert polyethylene disposable bailers. New sampling gloves are worn during each sample collection. Sample containers typically consist, depending on the analysis, 40 milliliter volatile organic analysis (VOA) vials with Teflon septa, 1 liter amber glass bottles, or plastic bottles. HCl or other preservative are added to the sample containers as appropriate by the laboratory prior to sampling. The groundwater sample is decanted into each VOA vial to form a meniscus at the top to eliminate air bubbles when capped. The sample is labeled with date, time, sample number, project number and analysis. The samples are stored in a cooler with blue ice or ice, and delivered under chain-of-custody to the state-certified analytical laboratory. For quality control purposes, duplicate samples, trip blanks, and equipment blanks may also be collected. The duplicate sample is given a different number than the original sample from the same well. Trip blanks are prepared by the laboratory using DI water and remain in the cooler. Equipment blanks are collected from sampling equipment using DI water after the equipment has been decontaminated and rinsed.

All non-dedicated purging and sampling equipment is washed in non-phosphate detergent solution and double rinsed with DI water after use in every well to avoid cross-contamination.

Purge water will be properly disposed or temporarily contained in labeled steel barrels pending chemical analysis to determine proper disposal procedure.

STANDARD OPERATING PROCEDURE – DIRECT PUSH BORINGS

SOIL CORING AND SAMPLING PROCEDURES

Prior to drilling, all boreholes will be hand dug to a depth of 4-5 feet below ground surface (bgs) to check for underground utility lines.

Soil and groundwater samples are collected for lithologic and chemical analyses using a direct driven soil coring system. A hydraulic hammer drives sampling rods into the ground to collect continuous soil cores. As the rods are advanced, soil is driven into an approximately 2.5-inch-diameter sample barrel that is attached to the end of the rods. Soil samples are collected in sleeves inside the sample barrel as the rods are advanced. After being driven 4 to 5 feet into the ground, the rods are removed from the borehole. The sleeve containing the soil core is removed from the sample barrel, and can then be preserved for chemical analyses, or used for lithologic description. This process is repeated until the desired depth is reached.

A soil core interval selected for analyses is cut from the sleeve using a hacksaw. The ends of the tube are covered with aluminum foil or Teflon liner and sealed with plastic caps. The soil-filled liner is labeled with the bore number, sample depth, site location, date, and time. The samples are placed in bags and stored in a cooler containing ice. Soil from the core adjacent to the interval selected for analyses is placed in a plastic zip-top bag. The soil is allowed to volatilize for a period of time, depending on the ambient temperature. The soil is scanned with a flame-ionization detector (FID) or photo-ionization detector (PID).

All sample barrels, rods, and tools are cleaned with Alconox or equivalent detergent and de-ionized water. All rinsate from the cleaning is contained in 55-gallon drums at the project site.

GROUNDWATER SAMPLING FROM DIRECT PUSH BORINGS

After the targeted water-bearing zone has been penetrated, the soil-sample barrel is removed from the borehole. Small-diameter well casing with 0.010-inch slotted well screen may be installed in the borehole to facilitate the collection of groundwater samples. Threaded sections of PVC are lowered into the borehole. Groundwater samples may then be collected with a bailer, peristaltic pump, or WaTerra pump until adequate sample volume is obtained.

Groundwater samples are preserved, stored in an ice-filled cooler, and are delivered, under chain-of-custody, to a laboratory certified by the California Department of Health Services (DHS) for hazardous materials analysis.

BOREHOLE GROUTING FOR DIRECT PUSH BORINGS

Upon completion of soil and water sampling, boreholes will be abandoned with neat cement grout to the surface. If the borehole was advanced into groundwater, the grout is pumped through a grouting tube positioned at the bottom of the borehole.

STANDARD OPERATING PROCEDURE – HAND BORINGS

SOIL CORING AND SAMPLING PROCEDURES

Prior to drilling, the surface is either cored if concrete or hammered through using a pick, if asphalt.

A hand operated coring device equipped with a 3-inch diameter auger bit is advanced into the soil until full. The auger is removed and emptied and this process is repeated until the desired depth is reached. The hand auger is removed and a slide hammer core sampling device, equipped with two 3-inch long, 2-inch diameter brass liners is advanced six inches into the undisturbed soil at the bottom of the borehole.

One of the 3-inch liners is selected and the ends of the tube are covered with Teflon liner and sealed with plastic caps. The soil-filled liner is labeled with the borehole number, sample depth, site location, date, and time. The samples are placed in bags and stored in a cooler containing ice. Soil from the core adjacent to the interval selected for analyses is placed in a plastic zip-top bag. The soil is allowed to volatilize for a period of time, depending on the ambient temperature. The soil is scanned with a flame-ionization detector (FID) or photo-ionization detector (PID).

All sample barrels, rods, and tools are cleaned with Alconox or equivalent detergent and de-ionized water. All rinsate from the cleaning is contained in covered 5-gallon plastic buckets or 55-gallon drums at the project site.

BOREHOLE GROUTING FOR HAND BORINGS

Upon completion of soil and water sampling, boreholes will be abandoned with neat cement grout. If the borehole was advanced into groundwater, the grout is pumped through a grouting tube positioned at the bottom of the borehole.

STANDARD OPERATING PROCEDURE - GEOPORBE SOIL-GAS SAMPLING

A soil-gas sample will not be collected within seven days following a measurable precipitation event.

Sample rods are driven to the desired depth. A soil-gas sampling tubing system is inserted into the rods and connected to an expendable point holder. The rods are retracted a desired 6-inch interval and the expendable drive point on the bottom of the rods is released. Hydrated bentonite is placed around where the drill rod exits the ground to prevent surface air migrating down the outer portion of the rods. The bentonite will be allowed to hydrate and expand prior to purging the sample line.

The soil sample is then collected into a Summa canister. A summa canister is a stainless steel vessel which has had the internal surfaces specially passivated using a "Summa" process. The Summa canister arrives pre-cleaned from the laboratory and with an internal vacuum between 25" Hg and 20" Hg. Prior to use, the pressure in the summa canister is checked with a pressure gauge to ensure a vacuum of at least 25" Hg for quality control purposes.

As a check for air leaks a paper towel or rag wetted with isopropyl alcohol will be placed on all sample line fittings and the top of the inside of the drill rod. Analysis of the sample for isopropyl alcohol will indicate if ambient air entered the sample.

A vacuum is applied to the tubing to purge the ambient air from the sample tubing. Once the tubing has been purged of ambient air, it is connected to a summa canister. A particulate filter is used in-line to filter out particles and liquids.

In areas of fine-grained soils, a flow controller is placed in line between the filter and the canister to maintain a low purge rate.

The valve on the summa canister is opened, and the soil-gas sample is drawn into the canister. The sample tubing will be checked for condensation. If observed, the sample will be discarded. The flow controller will stop drawing in air after a pre-set time interval. The remaining canister vacuum should be about 5-inches Hg. The vacuum left inside the canister is recorded on the chain-of-custody. The soil-gas samples will be transferred under chain-of-custody procedures to a state certified laboratory for analyses. Upon receipt, the laboratory will check the pressure in the canister and compare it to the pressure recorded on the chain-of-custody for quality control purposes.

STANDARD OPERATING PROCEDURE – SUBSLAB SOILGAS SAMPLING

A sub slab soil-gas sample will not be collected within seven days following a measurable precipitation event.

A core will be removed from the building slab. Dirt and base rock will be removed to approximately 1 foot below the base of the slab. A particulate filter will be installed on the bottom of sample tubing and placed in the hole. A 2/12 Sand pack is placed around the vapor tip to approximately 6 inches below the surface of the slab. Hydrated bentonite is placed around the sample tube to the surface of the slab to prevent surface air migrating under the slab. The bentonite will be allowed to hydrate and expand prior to purging the sample line.

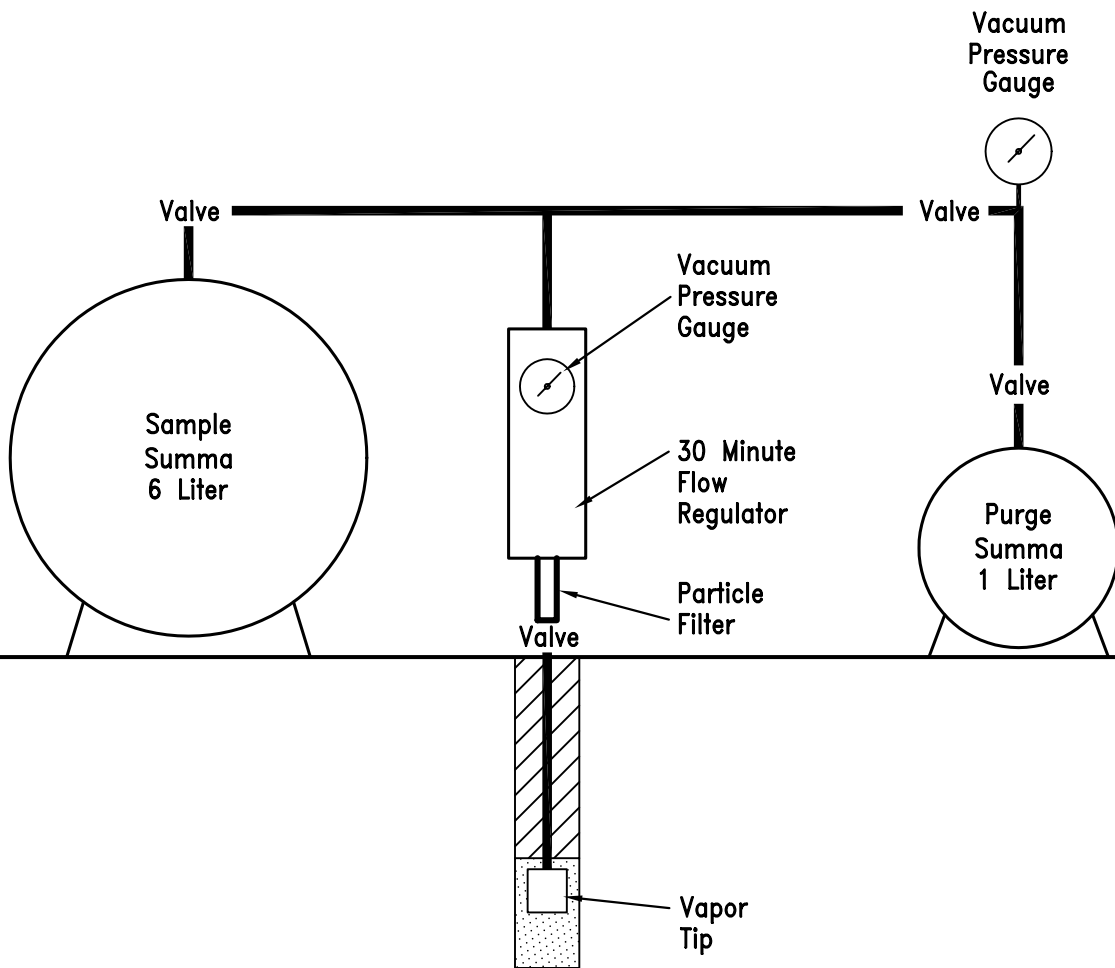
The sub slab sample is then collected into a Summa canister. A Summa canister is a stainless steel vessel which has had the internal surfaces specially passivated using a "Summa" process. The Summa canister arrives pre-cleaned from the laboratory and with an internal vacuum between 25" Hg and 20" Hg. Prior to use, the pressure in the Summa canister is checked with a pressure gauge to ensure a vacuum of at least 25" Hg for quality control purposes.

As a check for air leaks a paper towel or rag wetted with isopropyl alcohol will be placed on all sample line fittings and the top of the inside of the bentonite sealed slab. Analysis of the sample for isopropyl alcohol will indicate if ambient air entered the sample.

A vacuum is applied to the tubing to purge the ambient air from the sample tubing. Once the tubing has been purged of ambient air, it is connected to a Summa canister. A particulate filter is used in-line to filter out particles and liquids.

In areas of fine-grained soils, a flow controller is placed in line between the filter and the canister to maintain a low purge rate.

The valve on the Summa canister is opened, and the sub slab soil-gas sample is drawn into the canister. The sample tubing will be checked for condensation. If observed, the sample will be discarded. The flow controller will stop drawing in air after a pre-set time interval. The remaining canister vacuum should be about 5-inches Hg. The vacuum left inside the canister is recorded on the chain-of-custody. The sub slab soil-gas samples will be transferred under chain-of-custody procedures to a state certified laboratory for analyses. Upon receipt, the laboratory will check the pressure in the canister and compare it to the pressure recorded on the chain-of-custody for quality control purposes.



NOTE: All fittings swagelok

SOIL VAPOR SAMPLE TRAIN

APPENDIX E

Well Elevation Survey



CSS ENVIRONMENTAL SERVICES, INC.
 Managing Cost, Scope and Schedule
 100 Galli Drive, Suite 1
 Novato, CA 94949
 Telephone: (415) 883-6203
 Facsimile: (415) 883-6204

Site Positions

CSS PROJECT 6513 - ERAS Environmental, Inc.
 9201 San Leandro Street, Oakland

Horizontal Coordinate System: North American 1983-CONUS Survey Date: 11/14/07
 Height System: North American Vertical Datum 1988-Ortho. Ht. (GEOID03)
 Project file: 6513 ERAS Oakland.spr
 Desired Horizontal Accuracy: 0.100Ft + 1ppm
 Desired Vertical Accuracy: 0.100Ft + 2ppm
 Confidence Level: 95% Err.
 Linear Units of Measure: Int. Feet

Site ID	Site Descriptor	Position	95% Error	Fix Status	Position Status
1 9MW1	TBM-A IS ON PIN	Lat. 37° 44' 31.93309" N	0.016		Adjusted
	PIN SET DUE TO LOOSE BOX	Lon. 122° 11' 10.99377" W	0.015		
	TBM-A/PIN	Elv. 18.41	0.029		
	N RIM WELL LOCATION	Elv. 18.72			
	N TOC	Elv. 18.05			
2 9MW2	NR WELL LOC	Lat. 37° 44' 30.08494" N	0.017		Adjusted
		Lon. 122° 11' 07.74021" W	0.016		
	N RIM WELL LOCATION	Elv. 19.80			
	N TOC	Elv. 19.40			
3 9MW4	NR WELL LOC	Lat. 37° 44' 32.68602" N	2.000		Adjusted
	INDOOR MW/SHOT OFFSET & ADJ	Lon. 122° 11' 06.40506" W	2.000		
	N RIM WELL LOCATION	Elv. 20.19			
	N TOC	Elv. 19.65			
4 3814	MONUMENT AA3814	Lat. 37° 44' 59.76244" N	0.000	Fixed	Adjusted
		Lon. 122° 12' 18.12186" W	0.000	Fixed	
		Elv. 11.581	0.000	Fixed	
5 9MW3	TBM-B ON N RIM	Lat. 37° 44' 31.02555" N	0.018		Adjusted
		Lon. 122° 11' 07.83577" W	0.017		
	TBM-B/N RIM WELL LOCATION	Elv. 19.98			
	N TOC	Elv. 19.70			
6 9MW5	NR WELL LOC	Lat. 37° 44' 31.34461" N	0.018		Adjusted
		Lon. 122° 11' 10.32096" W	0.016		
	N RIM WELL LOCATION	Elv. 18.72			
	N TOC	Elv. 18.49			
8 2327	MONUMENT HT2327	Lat. 37° 42' 03.09518" N	0.000	Fixed	Adjusted
		Lon. 122° 11' 22.16561" W	0.000	Fixed	
		Elv. 8.825	0.000	Fixed	



APPENDIX F

Laboratory Reports and Chain-of-Custody Forms



Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878

2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

Laboratory Job Number 199356
ANALYTICAL REPORT

ERAS Environmental
1533 B Street
Hayward, CA 94541


Project : 07-001-01
Location : 9201 SL St
Level : II

<u>Sample ID</u>	<u>Lab ID</u>
9MW1	199356-001
9MW2	199356-002
9MW3	199356-003
9MW4	199356-004
9MW5	199356-005

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signatures. The results contained in this report meet all requirements of NELAC and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

Signature: 
Project Manager

Date: 11/30/2007

Signature: 
Operations Manager

Date: 12/05/2007

CASE NARRATIVE

Laboratory number: 199356
Client: ERAS Environmental
Project: 07-001-01
Location: 9201 SL St
Request Date: 11/16/07
Samples Received: 11/16/07

This hardcopy data package contains sample and QC results for five water samples, requested for the above referenced project on 11/16/07. The samples were received cold and intact.

TPH-Purgeables and/or BTXE by GC (EPA 8015B and EPA 8021B):

No analytical problems were encountered.

TPH-Extractables by GC (EPA 8015B):

No analytical problems were encountered.

CHAIN OF CUSTODY FORM

Curtis & Tompkins, Ltd.

Analytical Laboratories, Since 1878
 2323 Fifth Street
 Berkeley, CA 94710
 (510) 486-0900 Phone
 (510) 486-0532 Fax

C&T
 LOGIN # 199356

Analyses

Sampler: Kasey Cordoza

Project No:	07-001-01	Report To:	Gail Jones
Project Name:	9201 SL St	Company :	ERAS Environmental, Inc.
Project P.O.:	07-001-02	Telephone:	510.247.9885
Turnaround Time:	EMAIL <u>info@eras.biz</u>		

Lab Number	Sample ID.	Sampling Date Time	Matrix			# of Containers	Preservative					Field Notes	TPH-G/MTBE/BTEX BY 8015/8021 TPH-D
			Soil	Water	Waste		HCL	H ₂ SO ₄	HNO ₃	ICE	None		
	9MW1	11.14.07/ 14:56	X			4	X						X
	9MW2	11.14.07/ 12:44	X			4	X						X
	9MW3	11.14.07/ 13:33	X			4	X						X
	9MW4	11.14.07/ 14:16	X			4	X						X
	9MW5	11.14.07/ 11:45	X			4	X						X
	9MW4	11.14.07/4:18	X			2					X		

Notes:

Global ID T0608564059; NEED PDF AND EDF

<p>RELINQUISHED BY: 11.16.07 DATE/TIME</p>	<p>RECEIVED BY: 11/16/07 1424 DATE/TIME</p>
DATE/TIME	DATE/TIME
DATE/TIME	DATE/TIME

Signature on this form constitutes a firm Purchase Order for the services requested above.

intact cord re

Curtis & Tompkins Laboratories Analytical Report

Lab #:	199356	Location:	9201 SL St
Client:	ERAS Environmental	Prep:	EPA 5030B
Project#:	07-001-01		
Matrix:	Water	Sampled:	11/14/07
Units:	ug/L	Received:	11/16/07

Field ID:	9MW1	Diln Fac:	1.000
Type:	SAMPLE	Batch#:	131912
Lab ID:	199356-001	Analyzed:	11/19/07

Analyte	Result	RL	Analysis
Gasoline C7-C12	ND	50	EPA 8015B
MTBE	ND	2.0	EPA 8021B
Benzene	ND	0.50	EPA 8021B
Toluene	ND	0.50	EPA 8021B
Ethylbenzene	ND	0.50	EPA 8021B
m,p-Xylenes	ND	0.50	EPA 8021B
o-Xylene	ND	0.50	EPA 8021B

Surrogate	%REC	Limits	Analysis
Trifluorotoluene (FID)	92	73-134	EPA 8015B
Bromofluorobenzene (FID)	96	77-140	EPA 8015B
Trifluorotoluene (PID)	74	65-142	EPA 8021B
Bromofluorobenzene (PID)	78	74-135	EPA 8021B

Field ID:	9MW2	Diln Fac:	1.000
Type:	SAMPLE	Batch#:	131912
Lab ID:	199356-002	Analyzed:	11/19/07

Analyte	Result	RL	Analysis
Gasoline C7-C12	ND	50	EPA 8015B
MTBE	ND	2.0	EPA 8021B
Benzene	ND	0.50	EPA 8021B
Toluene	ND	0.50	EPA 8021B
Ethylbenzene	ND	0.50	EPA 8021B
m,p-Xylenes	ND	0.50	EPA 8021B
o-Xylene	ND	0.50	EPA 8021B

Surrogate	%REC	Limits	Analysis
Trifluorotoluene (FID)	96	73-134	EPA 8015B
Bromofluorobenzene (FID)	104	77-140	EPA 8015B
Trifluorotoluene (PID)	78	65-142	EPA 8021B
Bromofluorobenzene (PID)	86	74-135	EPA 8021B

ND= Not Detected
 RL= Reporting Limit

Curtis & Tompkins Laboratories Analytical Report

Lab #:	199356	Location:	9201 SL St
Client:	ERAS Environmental	Prep:	EPA 5030B
Project#:	07-001-01		
Matrix:	Water	Sampled:	11/14/07
Units:	ug/L	Received:	11/16/07

Field ID:	9MW3	Diln Fac:	20.00
Type:	SAMPLE	Batch#:	131976
Lab ID:	199356-003	Analyzed:	11/21/07

Analyte	Result	RL	Analysis
Gasoline C7-C12	13,000	1,000	EPA 8015B
MTBE	ND	40	EPA 8021B
Benzene	3,900	10	EPA 8021B
Toluene	370	10	EPA 8021B
Ethylbenzene	300	10	EPA 8021B
m,p-Xylenes	87	10	EPA 8021B
o-Xylene	42	10	EPA 8021B

Surrogate	%REC	Limits	Analysis
Trifluorotoluene (FID)	104	73-134	EPA 8015B
Bromofluorobenzene (FID)	101	77-140	EPA 8015B
Trifluorotoluene (PID)	90	65-142	EPA 8021B
Bromofluorobenzene (PID)	91	74-135	EPA 8021B

Field ID:	9MW4	Diln Fac:	1.000
Type:	SAMPLE	Batch#:	131976
Lab ID:	199356-004	Analyzed:	11/20/07

Analyte	Result	RL	Analysis
Gasoline C7-C12	ND	50	EPA 8015B
MTBE	ND	2.0	EPA 8021B
Benzene	6.3	0.50	EPA 8021B
Toluene	0.56	0.50	EPA 8021B
Ethylbenzene	3.4	0.50	EPA 8021B
m,p-Xylenes	1.0	0.50	EPA 8021B
o-Xylene	ND	0.50	EPA 8021B

Surrogate	%REC	Limits	Analysis
Trifluorotoluene (FID)	95	73-134	EPA 8015B
Bromofluorobenzene (FID)	99	77-140	EPA 8015B
Trifluorotoluene (PID)	83	65-142	EPA 8021B
Bromofluorobenzene (PID)	89	74-135	EPA 8021B

ND= Not Detected
 RL= Reporting Limit

Curtis & Tompkins Laboratories Analytical Report

Lab #:	199356	Location:	9201 SL St
Client:	ERAS Environmental	Prep:	EPA 5030B
Project#:	07-001-01		
Matrix:	Water	Sampled:	11/14/07
Units:	ug/L	Received:	11/16/07

Field ID:	9MW5	Diln Fac:	1.000
Type:	SAMPLE	Batch#:	131976
Lab ID:	199356-005	Analyzed:	11/20/07

Analyte	Result	RL	Analysis
Gasoline C7-C12	ND	50	EPA 8015B
MTBE	ND	2.0	EPA 8021B
Benzene	ND	0.50	EPA 8021B
Toluene	ND	0.50	EPA 8021B
Ethylbenzene	ND	0.50	EPA 8021B
m,p-Xylenes	ND	0.50	EPA 8021B
o-Xylene	ND	0.50	EPA 8021B

Surrogate	%REC	Limits	Analysis
Trifluorotoluene (FID)	91	73-134	EPA 8015B
Bromofluorobenzene (FID)	100	77-140	EPA 8015B
Trifluorotoluene (PID)	79	65-142	EPA 8021B
Bromofluorobenzene (PID)	89	74-135	EPA 8021B

Type:	BLANK	Batch#:	131912
Lab ID:	QC416194	Analyzed:	11/19/07
Diln Fac:	1.000		

Analyte	Result	RL	Analysis
Gasoline C7-C12	ND	50	EPA 8015B
MTBE	ND	2.0	EPA 8021B
Benzene	ND	0.50	EPA 8021B
Toluene	ND	0.50	EPA 8021B
Ethylbenzene	ND	0.50	EPA 8021B
m,p-Xylenes	ND	0.50	EPA 8021B
o-Xylene	ND	0.50	EPA 8021B

Surrogate	%REC	Limits	Analysis
Trifluorotoluene (FID)	101	73-134	EPA 8015B
Bromofluorobenzene (FID)	102	77-140	EPA 8015B
Trifluorotoluene (PID)	81	65-142	EPA 8021B
Bromofluorobenzene (PID)	81	74-135	EPA 8021B

ND= Not Detected
 RL= Reporting Limit

Curtis & Tompkins Laboratories Analytical Report

Lab #:	199356	Location:	9201 SL St
Client:	ERAS Environmental	Prep:	EPA 5030B
Project#:	07-001-01		
Matrix:	Water	Sampled:	11/14/07
Units:	ug/L	Received:	11/16/07

Type:	BLANK	Batch#:	131976
Lab ID:	QC416449	Analyzed:	11/20/07
Diln Fac:	1.000		

Analyte	Result	RL	Analysis
Gasoline C7-C12	ND	50	EPA 8015B
MTBE	ND	2.0	EPA 8021B
Benzene	ND	0.50	EPA 8021B
Toluene	ND	0.50	EPA 8021B
Ethylbenzene	ND	0.50	EPA 8021B
m,p-Xylenes	ND	0.50	EPA 8021B
o-Xylene	ND	0.50	EPA 8021B

Surrogate	%REC	Limits	Analysis
Trifluorotoluene (FID)	95	73-134	EPA 8015B
Bromofluorobenzene (FID)	96	77-140	EPA 8015B
Trifluorotoluene (PID)	85	65-142	EPA 8021B
Bromofluorobenzene (PID)	88	74-135	EPA 8021B

ND= Not Detected
 RL= Reporting Limit

Batch QC Report

Curtis & Tompkins Laboratories Analytical Report

Lab #:	199356	Location:	9201 SL St
Client:	ERAS Environmental	Prep:	EPA 5030B
Project#:	07-001-01	Analysis:	EPA 8015B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC416195	Batch#:	131912
Matrix:	Water	Analyzed:	11/19/07
Units:	ug/L		

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	1,000	927.9	93	79-120

Surrogate	%REC	Limits
Trifluorotoluene (FID)	116	73-134
Bromofluorobenzene (FID)	102	77-140

Batch QC Report

Curtis & Tompkins Laboratories Analytical Report

Lab #:	199356	Location:	9201 SL St
Client:	ERAS Environmental	Prep:	EPA 5030B
Project#:	07-001-01	Analysis:	EPA 8015B
Field ID:	ZZZZZZZZZZ	Batch#:	131912
MSS Lab ID:	199069-009	Sampled:	11/07/07
Matrix:	Water	Received:	11/08/07
Units:	ug/L	Analyzed:	11/19/07
Diln Fac:	1.000		

Type: MS Lab ID: QC416196

Analyte	MSS Result	Spiked	Result	%REC	Limits
Gasoline C7-C12	116.2	2,000	1,791	84	72-120

Surrogate	%REC	Limits
Trifluorotoluene (FID)	131	73-134
Bromofluorobenzene (FID)	105	77-140

Type: MSD Lab ID: QC416197

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	2,000	1,778	83	72-120	1	20

Surrogate	%REC	Limits
Trifluorotoluene (FID)	129	73-134
Bromofluorobenzene (FID)	103	77-140

RPD= Relative Percent Difference

Batch QC Report
Curtis & Tompkins Laboratories Analytical Report

Lab #:	199356	Location:	9201 SL St
Client:	ERAS Environmental	Prep:	EPA 5030B
Project#:	07-001-01	Analysis:	EPA 8021B
Matrix:	Water	Batch#:	131912
Units:	ug/L	Analyzed:	11/19/07
Diln Fac:	1.000		

Type: BS Lab ID: QC416198

Analyte	Spiked	Result	%REC	Limits
MTBE	10.00	8.944	89	73-123
Benzene	10.00	8.669	87	80-120
Toluene	10.00	8.747	87	80-120
Ethylbenzene	10.00	8.612	86	80-120
m,p-Xylenes	10.00	8.818	88	80-121
o-Xylene	10.00	8.752	88	80-120

Surrogate	%REC	Limits
Trifluorotoluene (PID)	76	65-142
Bromofluorobenzene (PID)	76	74-135

Type: BSD Lab ID: QC416199

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
MTBE	10.00	9.244	92	73-123	3	20
Benzene	10.00	8.906	89	80-120	3	20
Toluene	10.00	9.553	96	80-120	9	20
Ethylbenzene	10.00	8.871	89	80-120	3	20
m,p-Xylenes	10.00	9.086	91	80-121	3	20
o-Xylene	10.00	8.894	89	80-120	2	20

Surrogate	%REC	Limits
Trifluorotoluene (PID)	77	65-142
Bromofluorobenzene (PID)	77	74-135

RPD= Relative Percent Difference

Batch QC Report

Curtis & Tompkins Laboratories Analytical Report

Lab #:	199356	Location:	9201 SL St
Client:	ERAS Environmental	Prep:	EPA 5030B
Project#:	07-001-01		
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC416450	Batch#:	131976
Matrix:	Water	Analyzed:	11/20/07
Units:	ug/L		

Analyte	Spiked	Result	%REC	Limits	Analysis
MTBE	10.00	9.696	97	73-123	EPA 8021B
Benzene	10.00	10.04	100	80-120	EPA 8021B
Toluene	10.00	9.787	98	80-120	EPA 8021B
Ethylbenzene	10.00	10.52	105	80-120	EPA 8021B
m,p-Xylenes	10.00	10.29	103	80-121	EPA 8021B
o-Xylene	10.00	10.28	103	80-120	EPA 8021B

Surrogate	%REC	Limits	Analysis
Trifluorotoluene (FID)	94	73-134	EPA 8015B
Bromofluorobenzene (FID)	99	77-140	EPA 8015B

Batch QC Report

Curtis & Tompkins Laboratories Analytical Report

Lab #:	199356	Location:	9201 SL St
Client:	ERAS Environmental	Prep:	EPA 5030B
Project#:	07-001-01	Analysis:	EPA 8015B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC416451	Batch#:	131976
Matrix:	Water	Analyzed:	11/20/07
Units:	ug/L		

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	1,000	889.8	89	79-120

Surrogate	%REC	Limits
Trifluorotoluene (FID)	110	73-134
Bromofluorobenzene (FID)	99	77-140

Batch QC Report

Curtis & Tompkins Laboratories Analytical Report

Lab #:	199356	Location:	9201 SL St
Client:	ERAS Environmental	Prep:	EPA 5030B
Project#:	07-001-01	Analysis:	EPA 8015B
Field ID:	ZZZZZZZZZZ	Batch#:	131976
MSS Lab ID:	199368-003	Sampled:	11/19/07
Matrix:	Water	Received:	11/19/07
Units:	ug/L	Analyzed:	11/20/07
Diln Fac:	1.000		

Type: MS Lab ID: QC416452

Analyte	MSS Result	Spiked	Result	%REC	Limits
Gasoline C7-C12	167.6	2,000	1,841	84	72-120

Surrogate	%REC	Limits
Trifluorotoluene (FID)	118	73-134
Bromofluorobenzene (FID)	104	77-140

Type: MSD Lab ID: QC416453

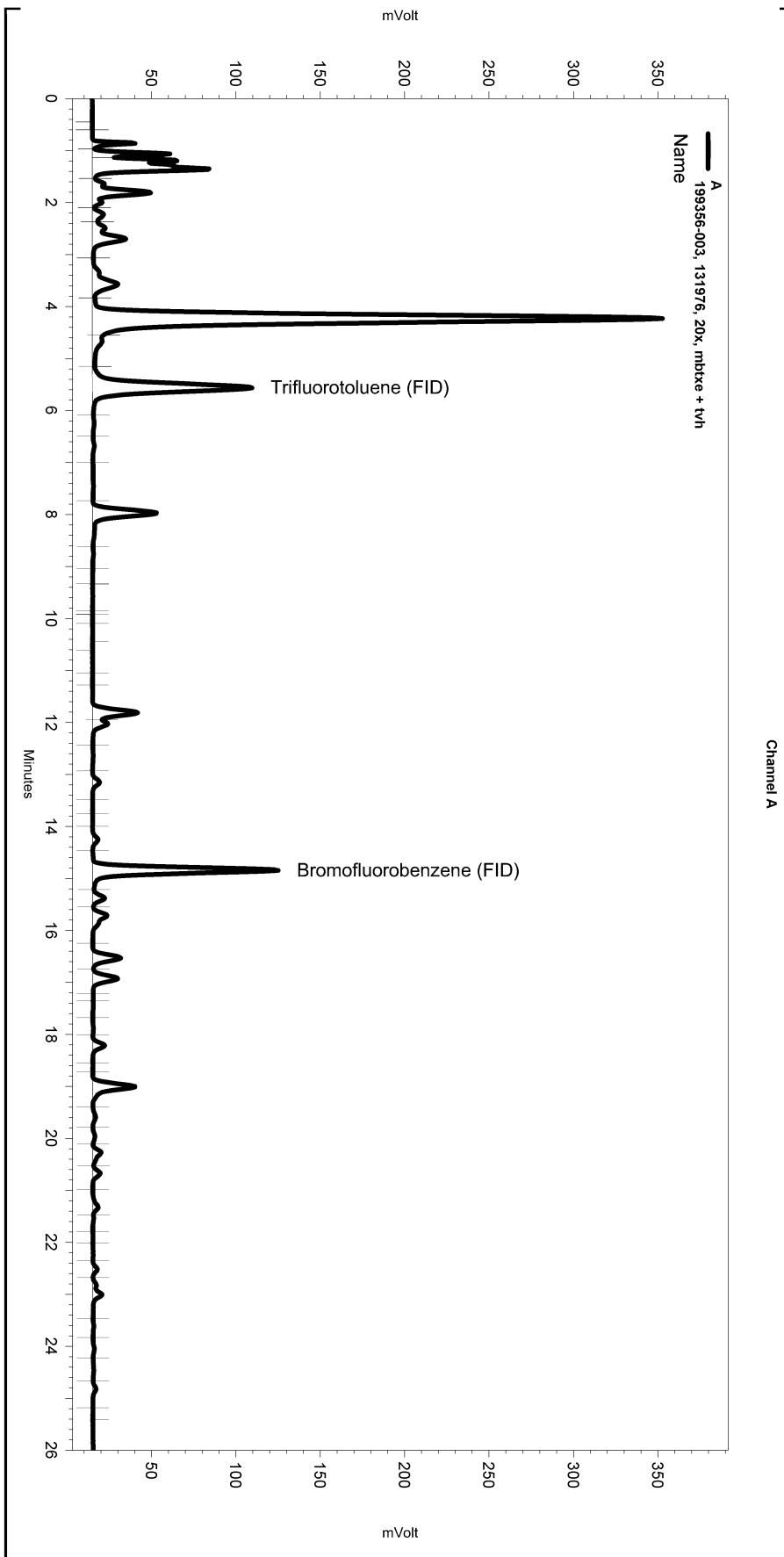
Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	2,000	1,825	83	72-120	1	20

Surrogate	%REC	Limits
Trifluorotoluene (FID)	118	73-134
Bromofluorobenzene (FID)	105	77-140

RPD= Relative Percent Difference

Sequence File: \\Lims\gdrive\ezchrom\Projects\GC07\Sequence\324.seq
 Sample Name: 199356-003, 131976, 20x, mbtXe + tvh
 Data File: \\Lims\gdrive\ezchrom\Projects\GC07\Data\324_021
 Instrument: GC07 (Offline) Vial: N/A Operator: Tvh 2. Analyst (lims2k3\tvh2)
 Method Name: \\Lims\gdrive\ezchrom\Projects\GC07\Method\TVHBTXe310.met

Software Version 3.1.7
 Run Date: 11/21/2007 12:24:56 AM
 Analysis Date: 11/21/2007 8:29:14 AM
 Sample Amount: 5 Multiplier: 5
 Vial & pH or Core ID: c1.3



---< General Method Parameters >---

No items selected for this section

---< A >---

No items selected for this section

Integration Events

Enabled	Event Type	Start (Minutes)	Stop (Minutes)	Value
Yes	Width	0	0	0.2
Yes	Threshold	0	0	50

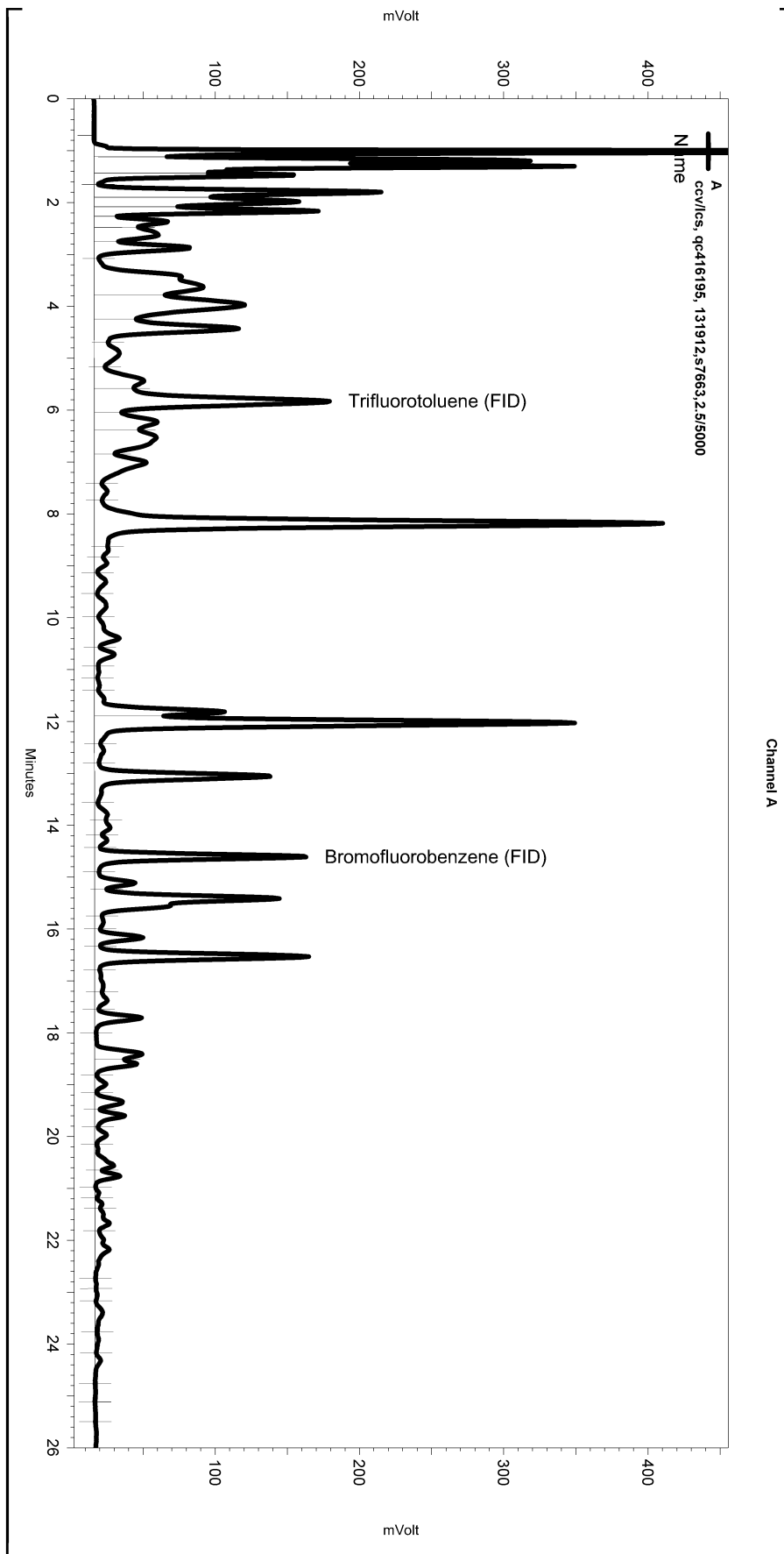
Manual Integration Fixes

Data File: \\Lims\gdrive\ezchrom\Projects\GC07\Data\324_021

Enabled	Event Type	Start (Minutes)	Stop (Minutes)	Value
Yes	Split Peak	4.546	0	0

Sequence File: \\Lims\gdrive\ezchrom\Projects\GC04\Sequence\323.seq
 Sample Name: ccv/lcs, qc416195, 131912,s7663,2.5/5000
 Data File: \\Lims\gdrive\ezchrom\Projects\GC04\Data\323_004
 Instrument: GC04 (Offline) Vial: N/A Operator: Tvh 2. Analyst (lims2k3\tvh2)
 Method Name: \\Lims\gdrive\ezchrom\Projects\GC04\Method\tvhbtxe302.met

Software Version 3.1.7
 Run Date: 11/19/2007 9:16:16 AM
 Analysis Date: 11/20/2007 11:50:23 AM
 Sample Amount: 5 Multiplier: 5
 Vial & pH or Core ID: {Data Description}



 ---< General Method Parameters >-----

No items selected for this section

 ---< A >-----

No items selected for this section

Integration Events

Enabled	Event Type	Start (Minutes)	Stop (Minutes)	Value
Yes	Width	0	0	0.2
Yes	Threshold	0	0	50

Manual Integration Fixes

Data File: \\Lims\gdrive\ezchrom\Projects\GC04\Data\323_004

Enabled	Event Type	Start (Minutes)	Stop (Minutes)	Value
None				

Total Extractable Hydrocarbons			
Lab #:	199356	Location:	9201 SL St
Client:	ERAS Environmental	Prep:	EPA 3520C
Project#:	07-001-01	Analysis:	EPA 8015B
Field ID:	9MW4	Sampled:	11/14/07
Matrix:	Water	Received:	11/16/07
Units:	ug/L	Prepared:	11/19/07
Diln Fac:	1.000	Analyzed:	11/21/07
Batch#:	131927		

Type: SAMPLE Lab ID: 199356-004

Analyte	Result	RL
Diesel C10-C24	ND	50

Surrogate	%REC	Limits
Hexacosane	89	61-133

Type: BLANK Lab ID: QC416275

Analyte	Result	RL
Diesel C10-C24	ND	50

Surrogate	%REC	Limits
Hexacosane	97	61-133

ND= Not Detected
 RL= Reporting Limit

Batch QC Report

Total Extractable Hydrocarbons			
Lab #:	199356	Location:	9201 SL St
Client:	ERAS Environmental	Prep:	EPA 3520C
Project#:	07-001-01	Analysis:	EPA 8015B
Matrix:	Water	Batch#:	131927
Units:	ug/L	Prepared:	11/19/07
Diln Fac:	1.000	Analyzed:	11/20/07

Type: BS Cleanup Method: EPA 3630C
 Lab ID: QC416276

Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24	2,500	1,726	69	58-128

Surrogate	%REC	Limits
Hexacosane	70	61-133

Type: BSD Cleanup Method: EPA 3630C
 Lab ID: QC416277

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Diesel C10-C24	2,500	1,967	79	58-128	13	29

Surrogate	%REC	Limits
Hexacosane	80	61-133

APPENDIX G

GeoTracker Upload Confirmation

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<u>Submittal Title:</u>	9201 - XY survey EDF
<u>Facility Global ID:</u>	T0600101592
<u>Facility Name:</u>	PACO PUMPS INC
<u>Submittal Date/Time:</u>	1/8/2008 2:23:09 PM
<u>Confirmation Number:</u>	1953017294

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UPLOADING A GEO_Z FILE

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<u>Facility Global ID:</u>	T0600101592
<u>Facility Name:</u>	PACO PUMPS INC
<u>Submittal Date/Time:</u>	1/8/2008 2:24:25 PM
<u>Confirmation Number:</u>	9913683831

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<u>Submittal Title:</u>	9201 - Q4.07 Geo_well
<u>Facility Global ID:</u>	T0600101592
<u>Facility Name:</u>	PACO PUMPS INC
<u>Submittal Date/Time:</u>	1/8/2008 2:21:05 PM
<u>Confirmation Number:</u>	2379397332

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Confirmation Number: 8690705955
Date/Time of Submittal: 1/8/2008 2:05:45 PM
Facility Global ID: T0600101592
Facility Name: PACO PUMPS INC
Submittal Title: 9201 - Q4.07 EDF
Submittal Type: GW Monitoring Report

Click [here](#) to view the detections report for this upload.

PACO PUMPS INC 9201 SAN LEANDRO OAKLAND, CA 94603	<u>Regional Board - Case #: 01-1721</u> SAN FRANCISCO BAY RWQCB (REGION 2) <u>Local Agency (lead agency) - Case #: R00000320</u> ALAMEDA COUNTY LOP - (JTW)
--	--

<u>CONF #</u>	<u>TITLE</u>	<u>QUARTER</u>
8690705955	9201 - Q4.07 EDF	Q4 2007
<u>SUBMITTED BY</u>	<u>SUBMIT DATE</u>	<u>STATUS</u>
Kasey Cordoza	1/8/2008	PENDING REVIEW

SAMPLE DETECTIONS REPORT

# FIELD POINTS SAMPLED	5
# FIELD POINTS WITH DETECTIONS	2
# FIELD POINTS WITH WATER SAMPLE DETECTIONS ABOVE MCL	1
SAMPLE MATRIX TYPES	WATER

METHOD QA/QC REPORT

METHODS USED	CATPH-D,CATPH-G,SW8021B
TESTED FOR REQUIRED ANALYTES?	N
MISSING PARAMETERS NOT TESTED:	
- CATPH-D REQUIRES TPHC28C40 TO BE TESTED - CATPH-D REQUIRES TPHC10C28 TO BE TESTED - CATPH-G REQUIRES TPHC6C12 TO BE TESTED - SW8021B REQUIRES ETBE TO BE TESTED - SW8021B REQUIRES TAME TO BE TESTED - SW8021B REQUIRES DIPE TO BE TESTED - SW8021B REQUIRES TBA TO BE TESTED - SW8021B REQUIRES DCA12 TO BE TESTED - SW8021B REQUIRES EDB TO BE TESTED - SW8021B REQUIRES XYLENES TO BE TESTED	
LAB NOTE DATA QUALIFIERS	Y

QA/QC FOR 8021/8260 SERIES SAMPLES

TECHNICAL HOLDING TIME VIOLATIONS	0
METHOD HOLDING TIME VIOLATIONS	0
LAB BLANK DETECTIONS ABOVE REPORTING DETECTION LIMIT	0

LAB BLANK DETECTIONS		0
DO ALL BATCHES WITH THE 8021/8260 SERIES INCLUDE THE FOLLOWING?		
- LAB METHOD BLANK		Y
- MATRIX SPIKE		N
- MATRIX SPIKE DUPLICATE		N
- BLANK SPIKE		Y
- SURROGATE SPIKE		Y
<u>WATER SAMPLES FOR 8021/8260 SERIES</u>		
MATRIX SPIKE / MATRIX SPIKE DUPLICATE(S) % RECOVERY BETWEEN 65-135%		n/a
MATRIX SPIKE / MATRIX SPIKE DUPLICATE(S) RPD LESS THAN 30%		n/a
SURROGATE SPIKES % RECOVERY BETWEEN 85-115%		Y
BLANK SPIKE / BLANK SPIKE DUPLICATES % RECOVERY BETWEEN 70-130%		Y
<u>SOIL SAMPLES FOR 8021/8260 SERIES</u>		
MATRIX SPIKE / MATRIX SPIKE DUPLICATE(S) % RECOVERY BETWEEN 65-135%		n/a
MATRIX SPIKE / MATRIX SPIKE DUPLICATE(S) RPD LESS THAN 30%		n/a
SURROGATE SPIKES % RECOVERY BETWEEN 70-125%		n/a
BLANK SPIKE / BLANK SPIKE DUPLICATES % RECOVERY BETWEEN 70-130%		n/a
<u>FIELD QC SAMPLES</u>		
<u>SAMPLE</u>	<u>COLLECTED</u>	<u>DETECTIONS > REPD</u>
QCTB SAMPLES	N	0
QCEB SAMPLES	N	0
QCAB SAMPLES	N	0

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