P & D ENVIRONMENTAL
A Division of Paul H. King, Inc.
4020 Panama Court
Oakland, CA 94611
(510) 658-6916

March 6, 1998
Report 0067.R3

Mr. Edward T. Simas
2307 Pacific Ave.
Alameda, CA 94501

SUBJECT: SUBSURFACE INVESTIGATION REPORT
Former Service Station
5330 Foothill Blvd.
Oakland, CA

Dear Mr. Simas:

P&D Environmental, a division of Paul H. King, Inc. (P&D) is pleased to present this report documenting the drilling of three offsite exploratory boreholes, designated as B10 through B12, for the collection of soil samples in the vicinity of the subject site. In addition, six soil gas samples and one duplicate soil gas sample were collected from various locations at the subject site. This work was performed in accordance with the following documents.

- A letter dated July 15, 1996 from Ms. Eva Chu of Alameda County Department of Environmental Health (ACDEH),
- P&D's Subsurface Investigation Work Plan (Work Plan 0067.W2) dated October 10, 1996,
- A letter from Ms. Eva Chu dated October 18, 1996 approving the work plan,
- P&D's proposal 110596.P3 dated November 5, 1996,
- P&D's Work Plan Addendum 0067.W3 dated October 16, 1997,
- P&D's Work Plan Addendum 0067.L10 dated November 18, 1997
- A letter from Ms. Eva Chu dated November 24, 1997 approving the work plan addenda, and
- P&D's proposal 101697.P1 dated October 16, 1997.

A Site Location Map (Figure 1) and a Site Vicinity Map (Figure 2) showing the soil boring and soil gas sample collection locations are attached with this report.

All work was performed under the direct supervision of an appropriately registered professional. This report is prepared in accordance with guidelines set forth in the document "Tri-Regional Board Staff Recommendations for Preliminary Evaluation and Investigation of Underground Tank Sites" dated August 10, 1990 and "Appendix A - Workplan for Initial Subsurface Investigation" dated August 20, 1991.

BACKGROUND

The site is presently used as a parking lot for a transmission repair shop. It is P&D's understanding that prior to the inheritance of the site by Mr. Edward T. Simas, the site was operated as a gasoline station. It is also P&D's understanding that the site was acquired by Mr. Edward T. Simas in February, 1983, for a period of six months. Based on conversations with Mr. Simas, the service station was not operating at the time that the site was inherited, and the service station was not put into service during the six months that it was owned by Mr. Simas. The property was subsequently sold to Mr. Hue Crosby. It is P&D's understanding that the tanks were subsequently removed by Mr. Crosby. Based upon conversations with Ms. Eva Chu of the ACDEH, it is P&D's understanding that the site is presently owned by Mr. Miguel Flores of Redwood City, California and Mr. Jorge Del Rio of Palo Alto, California.

Review of the ACDEH file for the site reveals only one report dated May 19, 1989, prepared by Polymatrix Associates (Polymatrix) of Hayward, California which documents previous investigation activities at the site. Review of the Polymatrix report indicates that three gasoline underground storage tanks were

removed from the site in June, 1988. At the time of tank removal, soil and groundwater samples were reported to have been collected. A detailed evaluation of documentation provided by others is provided in P&D's Soil Investigation Report 0067.R1 dated September 26, 1994.

On August 10, and 12, 1994 P&D personnel oversaw the drilling of boreholes B1 through B6 at the subject site by Exploration Geoservices, Inc. of San Jose, California. All of the boreholes were drilled to a depth of 20.5 or 25.5 feet with the exception of boring B4, which was drilled to a depth of 50.5 feet. Soil samples were collected at various depths in the boreholes for laboratory analysis based upon photoionization detector readings. Groundwater was not encountered in any of the boreholes, and the laboratory analysis indicated that diesel fuel was not a contaminant at the site. Documentation of the investigation and sample results is provided in P&D's Soil Investigation Report 0067.R1 dated September 26, 1994.

On March 28 and 29, 1995 P&D personnel oversaw the drilling of three boreholes at the subject site, designated as B7 through B9. Borings B7, B8 and B9 were drilled to total depths of 50.5, 75.5 and 39.0 feet, respectively. Groundwater was not encountered in boreholes B7 or B8. However, groundwater was encountered in borehole B9 initially at a depth of 34.5 feet below grade the morning after an overnight temporary cessation of drilling activities. The water level later was measured at a depth of approximately 24.5 feet below grade approximately 6 hours after withdrawal of the augers from the borehole. The borehole had been advanced to a total depth of 39 feet before the temporary overnight cessation of drilling activities.

Detectable concentrations of organic vapors and petroleum hydrocarbon odors were recorded in borings B8 and B9. However, organic vapors and petroleum hydrocarbon odors were not detected in boring B7, and were not detected in the lower-most 15 feet of boring B8. Documentation of the investigation and sample results is provided in P&D's Soil Investigation Report 0067.R2 dated June 14, 1995.

FIELD ACTIVITIES

On January 12 and 13, 1998 P&D personnel oversaw the drilling of three offsite boreholes to a depth of 41 feet in the vicinity of the subject site, designated as B10 through B12, by Vironex of Hayward, California. These boreholes were drilled using Geoprobe push technology for the collection of soil samples. In addition, a total of eight boreholes were drilled onsite at the subject site to a depth of three feet, designated as SG1 through SG6, SG1-Dup and SG2-Dup . These boreholes were drilled by Vironex using Geoprobe push technology for the collection of soil gas samples. Following sample collection, all of the offsite boreholes were backfilled with neat cement by Vironex, and the onsite boreholes were backfilled with bentonite. The locations of the boreholes are shown on the attached Site Vicinity Map, Figure 2.

Prior to performing field work, a permit was obtained from the Alameda County Public Works Agency; encroachment permits were obtained from the City of Oakland; notification was provided to the ACDEH of the scheduled drilling date; Underground Service Alert was notified for buried utility location; and a site health and safety plan was prepared.

Soil Boring

All of the boreholes were drilled using truck-mounted 1.5-inch outside diameter Geoprobe push technology. All of the boreholes were continuously cored. Offsite boreholes B10 through B12 were each drilled to total depths of 41 feet, and onsite boreholes SG1 through SG6, SG1-Dup, and SG2-Dup were each drilled to a total depth of three feet. Groundwater was not encountered in any of the

boreholes, with the exception of SG6, which filled with water to the ground surface immediately after drilling. Because of the water encountered in borehole SG6, the SG6 location was moved from the originally proposed location to the location shown on Figure 2. The water in borehole SG6 was attributed to rain which occurred immediately prior to drilling.

The drilling and soil sample collection equipment was cleaned with an Alconox solution wash followed by a clean water rinse prior to use in each borehole. Soil cuttings were stockpiled onsite on a sheet of visqueen and covered with visqueen at the end of each day. Cleaning water generated during drilling activities was placed into one DOT-approved 55-gallon drum and stored onsite pending appropriate disposal.

Soil Sample Collection

Soil samples were collected in all of the offsite boreholes (B10 through B12) at a maximum of five foot intervals. The soil samples were classified lithologically in the field in accordance with standard geologic field techniques and the Unified Soil Classification System. In addition, the soil samples were evaluated in the field using a Model 580B OVM Photoionization Detector (PID) equipped with a 10.0 eV bulb and calibrated against a 100 ppm isobutylene standard. PID readings were recorded on the boring logs.

Detectable concentrations of organic vapors and petroleum hydrocarbon odors were detected in the field only in boreholes B10 and B12. In borehole B10, the PID detected organic vapors at the 10.0, 30.0 and 35.0 foot depths. In borehole B12, the PID detected organic vapors at the 30.0, 35.0 and 40.0 foot depths. Organic vapors and petroleum hydrocarbon odors were not detected in the field in boreholes B11, SG1 through SG6, SG1-Dup and SG2-Dup.

Based upon PID readings and lithologic changes, soil samples were collected from the offsite borings for laboratory moisture and density analysis at the following depths. In boreholes B10, B11 and B12, samples were collected at the 15.5, 20.5 and 25.5 foot depth, respectively.

Based upon PID readings and lithologic changes, soil samples were collected from the offsite borings for laboratory fractional organic content analysis at the following depths. In boring B10, one soil sample was retained from the 15.0 foot depth. In boring B11, two soil samples were retained from the 15.0 and 20.0 foot depths. In boring B12, one soil sample was retained from the 25.0 foot depth.

Based upon PID readings and lithologic changes, soil samples were collected from the offsite borings for laboratory petroleum hydrocarbon chemical analysis at the following depths. In boring B10, four soil samples were retained from the 10.0, 15.0, 35.0 and 40.0 foot depths. In boring B11, two soil samples were retained from the 20.0 and 40.0 foot depths. In boring B12, three soil samples were retained from the 25.0, 30.0 and 40.0 foot depths.

Soil samples collected from the boreholes were retained for laboratory analysis in the following manner. After sample collection, the ends of the brass tubes were sealed in aluminum foil, covered with plastic endcaps, labeled, and placed in ziplock baggies. The capped brass tubes were then placed into a cooler with ice pending delivery to McCampbell Analytical Laboratory in Pacheco, California. McCampbell Analytical Laboratory is a State-certified hazardous waste testing laboratory. Chain of custody procedures were followed for all sample handling. Copies of the boring logs for boreholes B10 through B12 are attached with this report.

Soil Gas Sample Collection

The eight boreholes for soil gas sample collection were drilled to a total depth of three feet. The boreholes were continuously cored to ensure that the boreholes extended below fill material into native material. Fill material encountered in the boreholes extended to approximately one foot below the ground surface. Boreholes SG1-Dup and SG2-Dup were drilled at a distance of approximately one foot from boreholes SG1 and SG2, respectively, for the purpose of duplicate soil gas sample collection.

Following the drilling of the boreholes, a Teflon tube for soil gas sample collection was placed into each borehole to a depth of approximately 2.75 feet. The upper 2.5 feet of the borehole was sealed with bentonite pellets which were hydrated to prevent the entrance of air from the ground surface into the borehole.

Following hydration of the bentonite pellets, the soil gas in each borehole was evacuated using a vacuum pump for five minutes prior to sample collection. The tube into the borehole was then valved shut and the vacuum in the borehole was observed to decay with a vacuum gauge. The vacuum gauge was connected to the tube entering the borehole between the borehole and the vacuum pump valve. The vacuum gauge read in increments of 0.2 inches mercury vacuum. On average, approximately ten minutes were required for the pressure in the borehole to return to atmospheric pressure.

After the pressure in each borehole had returned to atmospheric pressure, a soil gas sample was collected from each borehole using a Summa canister. The Summa canisters were connected with a tee and a valve to the tube entering the borehole. The Summa canister tee and valve were located between the borehole and the vacuum pump valve.

Vacuum was evaluated in each Summa canister before and after each sample was collected. The vacuum in each Summa canister prior to sample collection was measured to be approximately 27.5 inches of mercury, with the exception of the Summa canister for borehole SG2-Dup, which did not have a detectable vacuum. All of the Summa canisters were allowed to collect soil gas from their respective boreholes for approximately ten minutes. Vacuum in the boreholes was monitored during sample collection. Vacuum in all of the boreholes was observed to reduce to atmospheric pressure with the exception of SG2 and SG6 which were recorded by the laboratory to have final vacuums of 2.0 and 2.5 inches mercury, respectively.

The soil gas sample collection locations are shown in Figure 2. The soil gas sample results are summarized in Table 4.

GEOLOGY AND HYDROGEOLOGY

Based on review of regional geologic maps from U.S. Geological Survey Professional Paper 943, "Flatland Deposits - Their Geology and Engineering Properties and Their Importance to Comprehensive Planning," by E.J. Helley and K.R. Lajoie, 1979 the subject site is underlain by Holocene coarse-grained alluvium (Qhac). The alluvium is described as unconsolidated, moderately sorted permeable sand and silt with coarse sand and gravel. The site borders on subsurface materials identified on the geologic maps as Late Pleistocene alluvium (Qpa). The alluvium is described as typically consisting of weakly consolidated slightly weathered poorly sorted irregularly interbedded clay, silt, sand and gravel and is considered to overlie bedrock on the alluvial plain marginal to San Francisco Bay.

Based on review of the regional geologic map from U.S. Geological Survey Miscellaneous Field Studies Map MF-2196, "Map of Recently Active Traces of the Hayward Fault, Alameda and Contra Costa Counties, California," by J.J.

Lienkaemper, 1992 the subject site is located approximately 6,800 feet to the southwest of the active Hayward Fault.

The subsurface materials encountered in boreholes B10 through B12 indicate that the site is underlain predominantly by fine-grained materials (silty clay, clayey silt or silt) with occasional lenses of sand. However, in boring B10, a clayey sand layer was encountered between the depths of approximately 8 and 13 feet, and in borehole B12, sand layers were encountered between the depths of approximately 10 and 12.5 feet and 35 and 40 feet.

Based upon review of the nine borings from the previous onsite subsurface investigations performed by P&D in 1994 and 1995 (B1 through B9), sand and gravel layers encountered onsite are not interpreted to be continuous with the sand layers encountered in borehole B12. However, the clayey sand layer encountered in borehole B10 between the depths of approximately 8 and 13 feet is interpreted to potentially be continuous with sandy layers encountered at similar depths in boreholes B1 and B9 in the southern portion of the site. With this exception, the sand and gravel layers encountered onsite do not appear to extend to the offsite locations investigated.

Groundwater was not encountered in the offsite boreholes B10 through B12. The groundwater encountered during the 1995 investigation in borehole B9 is interpreted to be representative of perched groundwater and appears to be associated with the sand body encountered in borehole B9. The absence of groundwater to the total depth explored of 75.5 feet in boring B8 during the 1995 investigation indicates that the depth to regional water at the site is unknown. In addition, the groundwater flow direction at the site is unknown.

LABORATORY ANALYTICAL RESULTS

The soil samples from offsite boreholes (B10 through B12) were analyzed for Total Petroleum Hydrocarbons as Gasoline (TPH-G) using EPA Method 5030 in conjunction with Modified EPA Method 8015 (GC/FID); and for benzene, toluene, ethylbenzene and xylenes (BTEX) using EPA Method 8020. In addition, selected soil samples from the offsite boreholes were analyzed for moisture, density, and fraction organic carbon. Soil samples collected from the onsite boreholes (SG1 through SG6, and SG1-Dup) were analyzed for TPH-G, BTEX and MTBE using GC/PID methods.

The chemical laboratory analytical results of the soil samples collected from offsite boreholes B11 and B12 show that TPH-G, BTEX and MTBE were not detected. In borehole B10, TPH-G was detected in the samples collected at the depths of 35.0 and 40.0 feet at concentrations of 740 and 3.6 ppm, respectively, benzene was detected at concentrations of 5.6 and 0.16 ppm, respectively, and MTBE was not detected. The sample results are summarized in Table 1.

The physical laboratory analytical results of the three selected soil samples from the offsite boreholes showed wet density values ranging from 106.7 to 122.0 pounds per cubic foot, dry density values ranging from 90.6 to 95.2 pounds per cubic foot, and percent moisture ranging from 17.7 to 29.2 percent. The sample results are summarized in Table 2.

The results of the fraction organic carbon analysis of the four selected soil samples from the offsite boreholes showed concentrations ranging from 1.2 to 2.0 percent. The sample results are summarized in Table 3.

The chemical laboratory analytical results of the soil gas samples collected from onsite boreholes SG1 through SG6 and SG1-Dup show that TPH-G, BTEX and MTBE were not detected in borehole SG6. In boreholes SG2, SG4 and SG5, TPH-G was detected at concentrations of 440, 59 and 200 ppmv, respectively; and benzene was detected at concentrations of 0.26, 0.13 and 1.8 ppmv, respectively. In

boreholes SG1 and SG3, TPH-G was detected at concentrations of 0.18 and 6.2 ppmv, respectively; and benzene was not detected. The duplicate soil gas sample for SG1 (sample SG1-Dup) showed a TPH-G concentration of 5.2, with benzene not detected.

DISCUSSION AND RECOMMENDATIONS

Review of the site geology and vicinity shows that the site is underlain predominantly by silty clay to the total depth explored of 75.5 feet, with sand or silt layers encountered at various depths in several of the boreholes. Sand layers encountered in offsite borehole B10 are interpreted to be potentially continuous with the sand body encountered in onsite borings B2 and B9.

Groundwater was not encountered in any of the offsite boreholes. The depth to regional groundwater and the groundwater flow direction at the site is not known.

Evidence of petroleum hydrocarbons consisting of odors and detectable PID values were detected in boreholes B10 and B12 during drilling. However, the results of laboratory analysis of soil samples collected from all of the offsite boreholes showed that petroleum hydrocarbons were only detected in soil samples from borehole B10.

The results of soil gas samples collected from the onsite soil gas boreholes SG1 through SG6 and SG1-Dup showed that petroleum hydrocarbons were detected in all of the boreholes with the exception of borehole SG6.

P&D recommends that a risk management plan be prepared for the site.

DISTRIBUTION

Copies of this report should be distributed to Ms. Eva Chu at the ACDEH, and to Mr. Kevin Graves at the San Francisco Bay Regional Water Quality Control Board. Copies of the report should be accompanied by a transmittal letter signed by Mr. Edward T. Simas.

LIMITATIONS

This report was prepared solely for the use of Mr. Edward T. Simas. The content and conclusions provided by P&D in this assessment are based on information collected during our investigation, which may include, but not be limited to, visual site inspections; interviews with site owner, regulatory agencies and other pertinent individuals; review of available public documents; subsurface exploration and our professional judgement based on said information at the time of preparation of this document. Any subsurface sample results and observations presented herein are considered to be representative of the area of investigation; however, geological conditions may vary between borings and may not necessarily apply to the general site as a whole. If future subsurface or other conditions are revealed which vary from these findings, the newly-revealed conditions must be evaluated and may invalidate the findings of this report.

This report is issued with the understanding that it is the responsibility of the owner, or his representative, to ensure that the information contained herein is brought to the attention of the appropriate regulatory agencies, where required by law. Additionally, it is the sole responsibility of the owner to properly dispose of any hazardous materials or hazardous wastes left onsite, in accordance with existing laws and regulations.

This report has been prepared in accordance with generally accepted practices using standards of care and diligence normally practiced by recognized

consulting firms performing services of a similar nature. P&D is not responsible for the accuracy or completeness of information provided by other individuals or entities which is used in this report. This report presents our professional judgement based upon data and findings identified in this report and interpretation of such data based upon our experience and background, and no warranty, either express or implied, is made. The conclusions presented are based upon the current regulatory climate and may require revision if future regulatory changes occur.

Should you have any questions, please do not hesitate to contact us at (510) 658-6916.

Sincerely,

P&D Environmental

Paul H. King

Paul H. King
Hydrogeologist

Don R. Braun

Don R. Braun
Certified Engineering Geologist
Registration No. : 1310
Expires: 6/30/98

PHK
0067.R3

Attachments: Tables 1, 2, 3 & 4
Site Location Map (Figure 1)
Site Vicinity Map (Figure 2)
Boring Logs
Construction Materials Testing Laboratory Analytical Report
McCampbell Analytical Inc. Laboratory Analytical Reports
Air Toxics Ltd. Laboratory Analytical Report
Chain of Custody Documentation

TABLE 1
SUMMARY OF LABORATORY ANALYTICAL RESULTS
SOIL SAMPLES (CHEMICAL ANALYSIS)
(Samples collected on January 12 and 13, 1998)

Sample No.	TPH-G	MTBE	Benzene	Toluene	Ethyl-benzene	Total Xylenes
B10-10.0	ND	ND	ND	ND	ND	ND
B10-15.0	ND	ND	ND	ND	ND	ND
B10-35.0	740	ND<5.6	5.6	32	12	57
B10-40.0	3.6	ND	0.16	0.35	0.072	0.34
B11-20.0	ND	ND	ND	ND	ND	ND
B11-40.0	ND	ND	ND	ND	ND	ND
B12-25.0	ND	ND	ND	ND	ND	ND
B12-30.0	ND	ND	ND	ND	ND	ND
B12-40.0	ND	ND	ND	ND	ND	ND

TPH-G = Total Petroleum Hydrocarbons as Gasoline.
ND = Not Detected.
Results are in parts per million (ppm), unless otherwise indicated.

TABLE 2
SUMMARY OF LABORATORY ANALYTICAL RESULTS
SOIL SAMPLES (MOISTURE AND DENSITY ANALYSIS)
(Samples collected on January 12 and 13, 1998)

Sample No.	Wet Density	Dry Density	Percent Moisture
B10-15.5	106.7	90.7	17.7
B11-20.5	122.0	95.2	28.2
B12-25.5	117.0	90.6	29.2

NOTES:

Density expressed in pounds per cubic foot.

TABLE 3
SUMMARY OF LABORATORY ANALYTICAL RESULTS
SOIL SAMPLES (FRACTIONAL ORGANIC CONTENT ANALYSIS)
(Samples collected on January 12 and 13, 1998)

Sample No.	FOC Weight Percent
B10-15.0	1.4
B11-15.0	1.2
B11-20.0	2.0
B12-25.0	1.7

NOTES:

FOC = Fractional Organic Content.

TABLE 4
SUMMARY OF LABORATORY ANALYTICAL RESULTS
SOIL GAS SAMPLES
(Samples collected on January 12, 1998)

Sample No.	TPH-G	MTBE	Benzene	Toluene	Ethyl-benzene	Total Xylenes
SG1	0.18	0.002	ND	0.004	ND	0.005
SG1-Dup	5.2	0.002	ND	ND	ND	ND
SG2	440	8.9	0.26	1.7	ND	0.64
SG2-Dup	NA	NA	NA	NA	NA	NA
SG3	6.2	0.036	ND	0.014	0.008	0.008
SG4	59	ND	0.13	0.031	ND	0.042
SG5	200	4.5	1.8	0.65	0.11	0.15
SG6	ND	ND	ND	ND	ND	ND

TPH-G = Total Petroleum Hydrocarbons as Gasoline.
ND = Not Detected.
NA = Not Analyzed.
Results are in parts per million (ppm), unless otherwise indicated.

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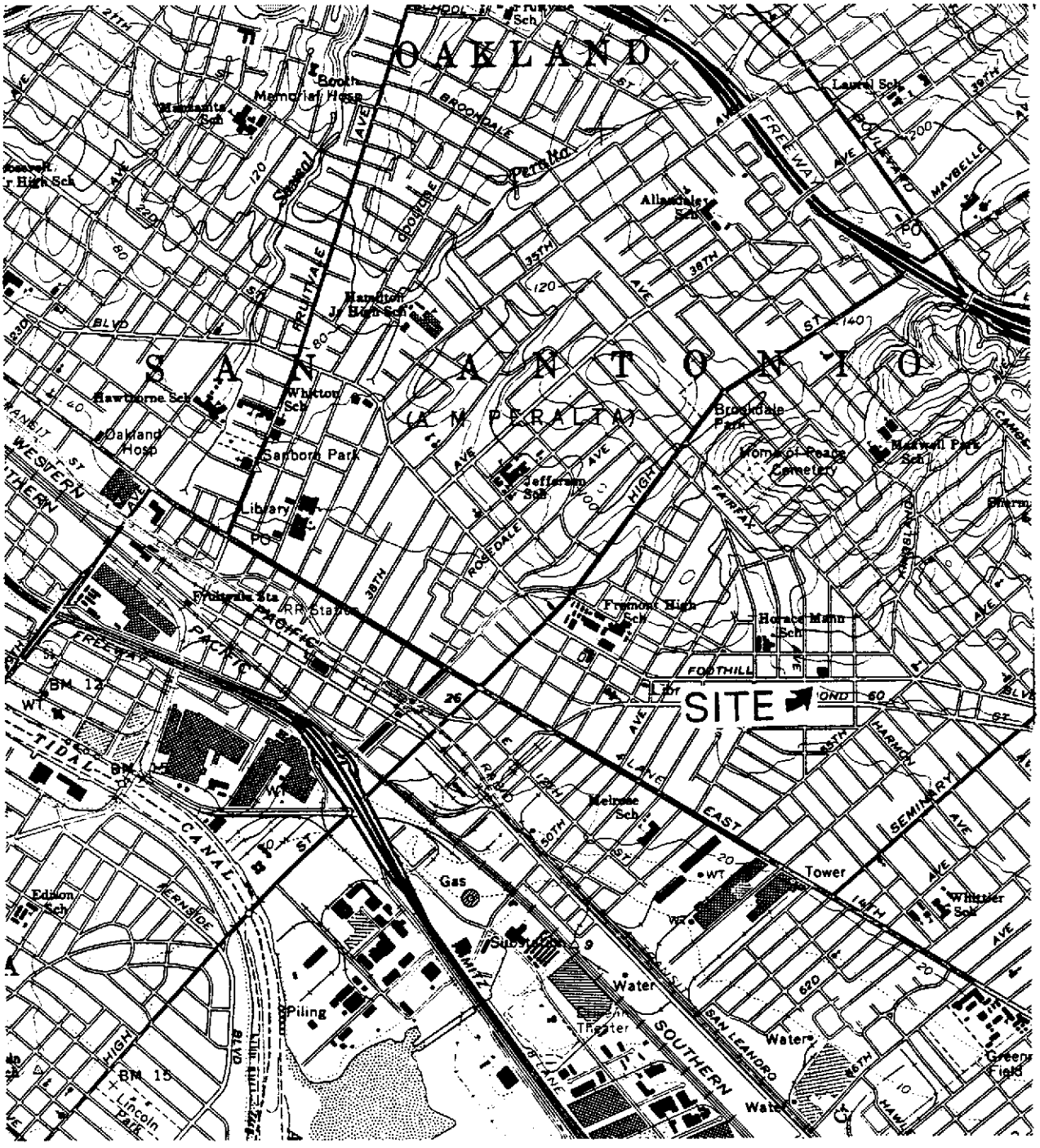

Base Map From
U.S. Geological Survey
Oakland East, Calif.
7.5 Minute Quadrangle
Photorevised 1980

Scale in Feet
0 1000 2000 3000

Figure 1
SITE LOCATION MAP
Former Service Station
5330 Foothill Blvd.
Oakland, California

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A Division of Paul H. King, Inc.
4020 Panama Court
Oakland, CA 94611
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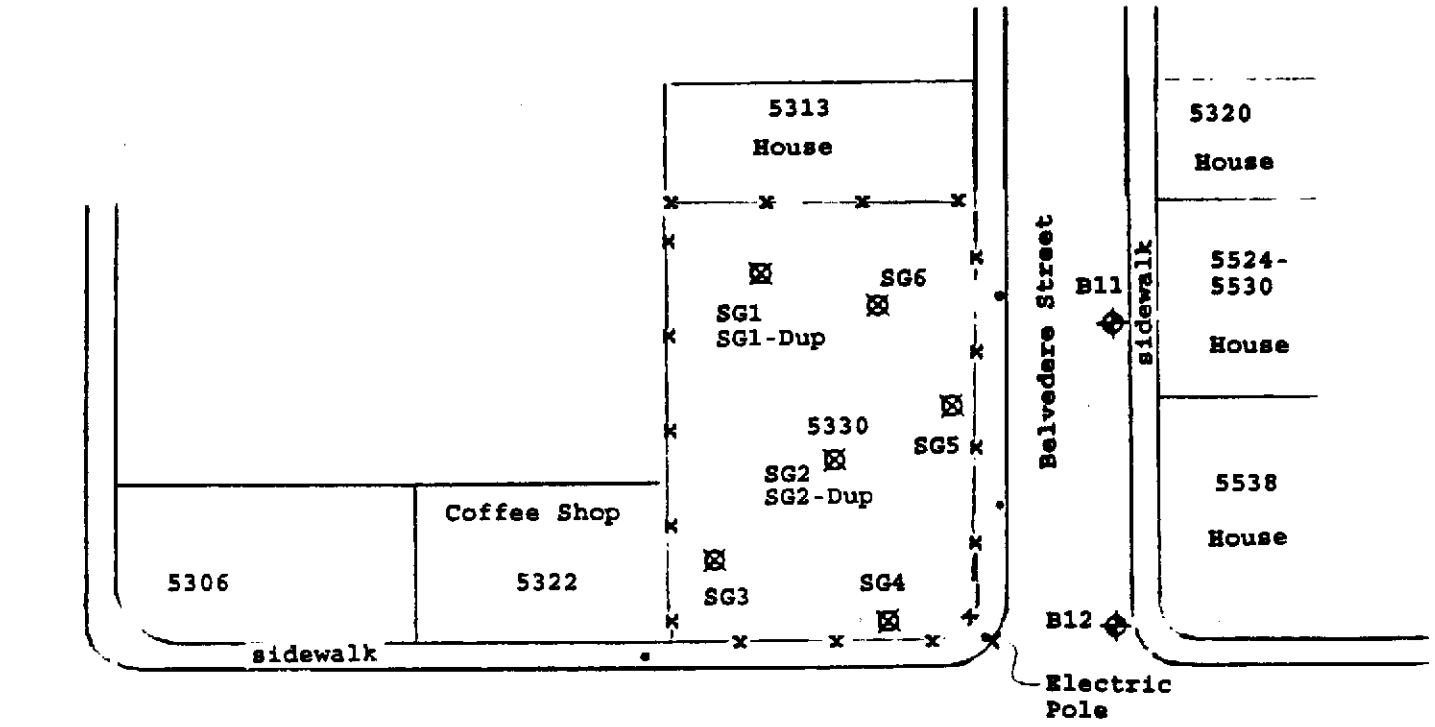

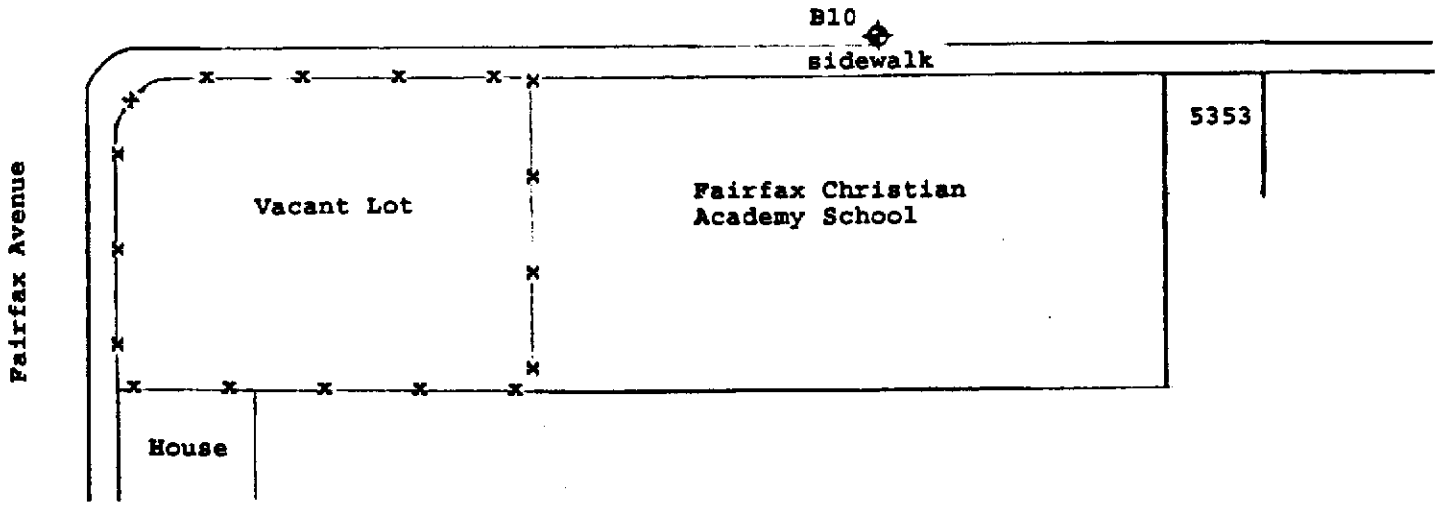

North

LEGEND

Soil Boring Location
Soil Gas Sample Location

0 60

Scale in Feet

Base Map From
P&D Environmental
July, 1996

Figure 2
SITE VICINITY MAP
Former Service Station
5330 Foothill Blvd.
Oakland, California

P & D ENVIRONMENTAL

BORING NO.: B10 PROJECT NO.: 0067 PROJECT NAME: XTRA OIL COMPANY - OAKLAND (FOOTHILL)

BORING LOCATION: ON FOOTHILL BLVD. ACROSS FOOTHILL FROM SITE ELEVATION AND DATUM: NONE

DRILLING AGENCY: VIRONEX DRILLER: SCOTT DATE & TIME STARTED: 1/13/98 DATE & TIME FINISHED: 1/13/98

DRILLING EQUIPMENT: 1.5" OD GEOPROBE

COMPLETION DEPTH: 41 FEET BEDROCK DEPTH: NONE LOGGED BY: PHP CHECKED BY:

FIRST WATER DEPTH: NONE NO. OF SAMPLES: 5 Soil

DEPTH (FT)	DESCRIPTION	GRAPHIC COLUMN	SAMPLE IDENTIFICATION	BLOW COUNT PER 6"	PID	REMARKS
0	Asphalt					Borehole drilled using 1.5" OD geoprobe
	Brown SANDY CLAY (CL); fine to coarse sand, minor white sand grains, moist, very stiff. No Petroleum Hydrocarbon (PHC) odor.	CL			0	
5						
	Brown CLAYEY SAND (SC); fine to coarse sand, green mottling, moist, dense. No PHC odor.	SC			0	
10	10.0 - 10.3 ft gray fine sand, moist, dense. Moderate non-descriptive PHC odor, PID = 19.		B10-10.0		19	
					0	
15	Brown SILTY CLAY (CL); orange and white mottling, moist, stiff. No PHC odor.	CL	B10-15.0 B10-15.5		0	
20	Brown SANDY CLAY (CL); medium to coarse sand, minor gravel 1/4" diameter, moist, stiff. No PHC odor.				0	
25	Brown SILTY CLAY (CL), gray mottling, minor black mottling, moist, stiff. No PHC odor.				0	
	Brown SILT (ML); trace gray mottling, stiff, moist. No PHC odor.	ML			83	
30						

02/21/98 100;BL10.DWG

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BORING NO.: B10 PROJECT NO: 0067 PROJECT NAME: XTRA OIL COMPANY - OAKLAND (FOOTHILL)

DEPTH (FT.)	DESCRIPTION	GRAPHIC COLUMN	SAMPLE IDENTIFICATION	BLOW COUNT PER 6"	PID/FID	REMARKS
35	Brown SILT (ML); trace gray motting, stiff, moist No PHC odor	ML				
	Brown SILT (ML); orange motting, trace gray motting, stiff, moist. Strong PHC odor		B10-35.0		384	Fresh gasoline odor
40	Dark brown SILTY CLAY (CL), minor silt, trace coarse sand, gray motting, stiff, moist No PHC odor.	CL	B10-40.0		0	
						Borehole terminated at 41.0 feet.
45						
50						
55						
60						
65						

02/11/98 101SL10A.DWG

P & D ENVIRONMENTAL

BORING NO.: B11 PROJECT NO.: 0067 PROJECT NAME: XTRA OIL COMPANY - OAKLAND (FOOTHILL)

BORING LOCATION: IN PARKING LANE ON BELVEDERE STREET ELEVATION AND DATUM: NONE

DRILLING AGENCY: VIRONEX DRILLER: SCOTT DATE & TIME STARTED: 1/12/98 DATE & TIME FINISHED: 1/12/98

DRILLING EQUIPMENT: 1.5" OD GEOPROBE LOGGED BY: PHK CHECKED BY:

COMPLETION DEPTH: 41 FEET BEDROCK DEPTH: NONE

FIRST WATER DEPTH: NONE NO. OF SAMPLES: 4 Soil

DEPTH (FEET)	DESCRIPTION	GRAPHIC COLUMN	SAMPLE IDENTIFICATION	BLOW COUNT PER 6"	PID	REMARKS
0	Asphalt					Borehole drilled using 1.5" OD geoprobe.
	Brown SILTY CLAY (CL), minor fine to medium sand, minor white and black sand grains (incipient carbonate nodules), moist, stiff. No Petroleum Hydrocarbon (PHC) odor.	CL			0	
5						
10					0	
15					0	
	Brown SILTY CLAY (CL); minor black mottling, moist, very stiff. No PHC odor.		B11-20.0 B11-20.5		0	
20						
	Light brown SILTY CLAY (CL); extensive diffuse white mottling (higher silt content than above). No PHC odor.				0	
25						
30						

02/21/98 0067B11.DWG

P & D ENVIRONMENTAL

BORING NO. B11 PROJECT NO. 0067 PROJECT NAME. XTRA OIL COMPANY – OAKLAND (FOOTHILL)

DEPTH (FT.)	DESCRIPTION	GRAPHIC COLUMN	SAMPLE IDENTIFICATION	BLOW COUNT PER 6"	PID/HD	REMARKS
	Light brown SILTY CLAY (CL), minor black mottling. No PHC odor.	CL			0	
35	Expansive clay encountered between 34 and 36 foot depth. No PHC odor.		B11-35.0		0	
	Light brown CLAYEY SILT (ML), minor black mottling, moist, stiff. No PHC odor.	ML	B11-40.0		0	
40						Borehole terminated at 41.0 feet.
45						
50						
55						
60						
65						

05/21/98 10:B11A.DWG

P & D ENVIRONMENTAL

BORING NO.: B12 PROJECT NO.: 0067 PROJECT NAME: XTRA OIL COMPANY - OAKLAND (FOOTHILL)

BORING LOCATION: N STREET AT CORNER OF FOOTHILL AND BELVEDERE ELEVATION AND DATUM: NONE

DRILLING AGENCY: VIRONEX DRILLER: SCOTT DATE & TIME STARTED: 1/13/98 DATE & TIME FINISHED: 1/13/98

DRILLING EQUIPMENT: 1.5" OD GEOPROBE LOGGED BY: PHH CHECKED BY:

COMPLETION DEPTH: 41 FEET BEDROCK DEPTH: NONE

FIRST WATER DEPTH: NONE NO. OF SAMPLES:

DEPTH (FT.)	DESCRIPTION	GRAPHIC COLUMN	SAMPLE IDENTIFICATION	BLOW COUNT PER 6"	PID	REMARKS
0	Asphalt					Borehole drilled using 1.5" OD geoprobe.
	Gray SILTY CLAY (CL); minor fine sand, minor white sand grains, faint brown mottling, moist very stiff. No Petroleum Hydrocarbon (PHC) odor.	CL			0	
5						
10	Gray CLAYEY SAND (SW); fine to coarse sand, minor silty clay, wet, loose. No PHC odor.	SW			0	
15	Brown CLAYEY SILT (ML); gray and orange mottling, wet, soft. No PHC odor.	ML			0	
20	Light brown GRAVELLY CLAY (CL); gravel 1/4" diameter, extensive gray and orange mottling, wet, soft. No PHC odor.	CL			0	
	Light brown CLAYEY SILT (ML); minor light gray mottling, moist, stiff. No PHC odor.	ML	B12-25.0 B12-25.5		0	
25						
30	Light gray CLAYEY SILT (ML); extensive brown mottling, moist, loose. Slight PHC odor at 30.0 feet.				0	Nondescript old PHC odor

P & D ENVIRONMENTAL

BORING NO. B12 PROJECT NO. 0067 PROJECT NAME: XTRA OIL COMPANY - OAKLAND (FOOTHILL)

DEPTH (FT.)	DESCRIPTION	GRAPHIC COLUMN	SAMPLE IDENTIFICATION	BLOW COUNT PER 6"	PID/FID	REMARKS
	Light grey CLAY SILTY (ML)	ML	B12-30.0		6	
35	Grey FINE SAND (SP), minor medium and coarse sand, wet, loose W/o PHC odor.	SP			3	Nondescript o.a. PHC odor
40	Light brown SILTY CLAY (CL), trace medium sand, extensive black mottling, no PHC odor.	CL	B12-40.0		12	
						Borehole terminated at 41.0 feet
45						
50						
55						
60						
65						

02/21/96 10:BL12A.DWG

CMT CONSTRUCTION MATERIALS TESTING, INC.

Job Name: XTRA Oil - Oakland Job No: 94354

Sample Description: Sample No:

Source: Date: 1-19-98

Client Name: P & D Environmental # 0067 Sampled: Tested: jm

MOISTURE - DENSITY

#	Location / Elevation	Wet Weight.	Dry Weight.	Sample Length	Wet Density	% Moisture	Dry Density
1	Boring 10 - 15.5	171.82	145.96	6.45	106.7	17.7	90.7
2	Boring 11 - 20.5	204.08	159.14	6.70	122.0	28.2	95.2
3	Boring 12 - 25.5	185.45	143.57	6.35	117.0	29.2	90.6

Remarks: Results based on sample diameter of 1.10"

1000-U Detroit Avenue • Concord, CA 94518
(510) 825-2840 • FAX (510) 682-7953

McCAMPBELL ANALYTICAL INC.
110 Second Avenue South, #D7, Pacheco, CA 94553
Telephone : 510-798-1620 Fax : 510-798-1622
http://www.mccampbell.com E-mail: main@mccampbell.com

P&D Environmental 4020 Panama Court Oakland, CA 94611	Client Project ID: #0067; Xtra Oil–Oakland (Foothill)	Date Sampled: 01/12-01/13/98 Date Received: 01/13/98
	Client Contact: Paul King	Date Extracted: 01/13/98
	Client P.O:	Date Analyzed: 01/13-01/14/98

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

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

Lab ID	Client ID	Matrix	TPH(g)[+]	MTBE	Benzene	Toluene	Ethylben-zene	Xylenes	% Recovery Surrogate
84875	B10-10.0	S	ND	ND	ND	ND	ND	ND	99
84876	B10-15.0	S	ND	ND	ND	ND	ND	ND	97
84877	B10-35.0	S	740,a	ND<5.6	5.6	32	12	57	101
84878	B10-40.0	S	3.6,a	ND	0.16	0.35	0.072	0.34	102
84880	B11-20.0	S	ND	ND	ND	ND	ND	ND	97
84881	B11-40.0	S	ND	ND	ND	ND	ND	ND	97
84882	B12-25.0	S	ND	ND	ND	ND	ND	ND	104
84883	B12-30.0	S	ND	ND	ND	ND	ND	ND	102
84884	B12-40.0	S	ND	ND	ND	ND	ND	ND	100
Reporting Limit unless otherwise stated; ND means not detected above the reporting limit		W	50 ug/L	5.0	0.5	0.5	0.5	0.5	
		S	1.0 mg/kg	0.05	0.005	0.005	0.005	0.005	

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

[a] cluttered chromatogram; sample peak coelutes with surrogate peak

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

DHS Certification No. 1644

Edward Hamilton, Lab Director

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

P&D Environmental 4020 Panama Court Oakland, CA 94611	Client Project ID: #0067; Xtra Oil – Oakland (Foothill)	Date Sampled: 01/12-13/98
		Date Received: 01/13/98
	Client Contact: Paul King	Date Extracted: ---
	Client P.O:	Date Analyzed: 01/13-01/29/98

			Moisture	**Bulk Density**	**Porosity**	**Air Filled Void Space**	**Fractional Organic Content**
Analytical methods			ASTM E3173	*	&	&	ASTM 2974c
Lab ID	Client ID	Matrix	Weight %	Grams / cc	Vol % Porosity	Vol % Porosity	Weight %
84876	B10-15.0	S	---	---	---	---	1.4
84879	B11-15.0	S	---	---	---	---	1.2
84880	B11-20.0	S	---	---	---	---	2.0
84882	B12-25.0	S	---	---	---	---	1.7
Reporting Limit or Method Accuracy unless otherwise stated; ND means not detected above the reporting limit		S	± 2%	± 0.1g/cc	± 2%	± 2%	± 0.3%

* calculated

& calculated volume percentage assuming that the specific gravity of soil is 2.65 grams/cc.

DHS Certification No. 1644

Edward Hamilton, Lab Director

McCAMPBELL ANALYTICAL INC.
110 2nd Avenue South, #D7, Pacheco, CA 94553
Tele: 510-798-1620 Fax: 510-798-1622

QC REPORT FOR HYDROCARBON ANALYSES

Date: 01/13/98 Matrix: SOIL

Analyte	Concentration (mg/kg) Sample (#79458)	MS	MSD	Amount Spiked	% Recovery MS	MSD	RPD
TPH (gas)	0.000	1.861	1.884	2.03	92	93	1.2
Benzene	0.000	0.170	0.166	0.2	85	83	2.4
Toluene	0.000	0.184	0.180	0.2	92	90	2.2
Ethylbenzene	0.000	0.178	0.172	0.2	89	86	3.4
Xylenes	0.000	0.532	0.520	0.6	89	87	2.3
TPH(diesel)	0	268	268	300	89	89	0.1
TRPH (oil and grease)	0.0	22.3	19.9	20.8	107	96	11.4

% Rec. = (MS - Sample) / amount spiked x 100

RPD = (MS - MSD) / (MS + MSD) x 2 x 100

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Tele: 510-798-1620 Fax: 510-798-1622

QC REPORT FOR HYDROCARBON ANALYSES

Date: 01/14/98 Matrix: SOIL

Analyte	Concentration (mg/kg) Sample (#79458)	MS	MSD	Amount Spiked	% Recovery MS	MSD	RPD
TPH (gas)	0.000	1.821	1.891	2.03	90	93	3.8
Benzene	0.000	0.166	0.164	0.2	83	82	1.2
Toluene	0.000	0.180	0.178	0.2	90	89	1.1
Ethylbenzene	0.000	0.172	0.172	0.2	86	86	0.0
Xylenes	0.000	0.516	0.510	0.6	86	85	1.2
TPH(diesel)	0	277	277	300	92	92	0.1
TRPH (oil and grease)	N/A	N/A	N/A	N/A	N/A	N/A	N/A

% Rec. = (MS - Sample) / amount spiked x 100

RPD = (MS - MSD) / (MS + MSD) x 2 x 100

P & D ENVIRONMENTAL
A Division of Paul H. King, Inc.
4020 Panama Court
Oakland, CA 94611
(510) 658-6916

CHAIN OF CUSTODY RECORD

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PAGE 1 OF 1

PROJECT NUMBER:	PROJECT NAME:
0067	XTRA OIL - Oakland (Foothill)

SAMPLED BY: (PRINTED AND SIGNATURE) Paul H. King Paul H. King

SAMPLE NUMBER	DATE	TIME	TYPE	SAMPLE LOCATION	NUMBER OF CONTAINERS	ANALYSIS(ES): TPH-Gas	BTEX/MTBE by	FOC	PRESERVATIVE	REMARKS	
B10 - 10.0	1/13/98		Soil		1	X	X		ICE	Normal Turn Around	84875
B10 - 15.0	"				1	X	X	X	"	"	84876
B10 - 35.0	"				1	X	X		"	"	84877
B10 - 40.0	"				1	X	X		"	"	84878
											84879
B11 - 15.0	1/12/98				1			X	"	"	84880
B11 - 20.0	"				1	X	X	X	"	"	84881
B11 - 40.0	"				1	X	X		"	"	84882
											84883
B12 - 25.0	1/13/98				1	X	X	X	"	"	84884
B12 - 30.0	"				1	X	X		"	"	
B12 - 40.0	"				1	X	X		"	"	

ICE/ ✓
GOOD CONDITION ✓
HEAD SPACE ABSENT ✓
PRESERVATION APPROPRIATE ✓
VOAS | O&G | METALS | OTHER

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)
Paul H. King	1/13/98	1400	[illegible] 1/13/98
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)
[illegible]	1/13/98	1520	Heidi Bicca
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED FOR LABORATORY BY: (SIGNATURE)

TOTAL NO. OF SAMPLES (THIS SHIPMENT)	10
TOTAL NO. OF CONTAINERS (THIS SHIPMENT)	10
LABORATORY:	McCampbell Analytical
LABORATORY CONTACT:	Ed Hamilton
LABORATORY PHONE NUMBER:	(510) 798-1620
SAMPLE ANALYSIS REQUEST SHEET ATTACHED:	( )YES (X)NO

REMARKS: Please Analyze samples for TPH and BTEX and call Paul King prior to analyzing for FOC
(X) OK TO RUN FOC per P.K. 1/21/98 5dal

@AIR TOXICS LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

WORK ORDER #: 9801088

Work Order Summary

CLIENT: Mr. Paul King
P & D Environmental
4020 Panama Court
Oakland, CA 94611

BILL TO: Mr. Keith Simas
XTRA Oil Company
2307 Pacific Ave.
Alameda, CA 94501

PHONE: 510-658-6916
FAX: 510-658-9074

DATE RECEIVED: 1/14/98
DATE COMPLETED: 1/30/98

P.O. # NR
PROJECT # 0067 ATRA OIL - Oakland (Foothill)

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.
01A	SG1	TO-3	0.2 psi
02A	SG1-Dup	TO-3	0.4 psi
03A	SG2	TO-3	2.0 "Hg
04A	SG2-Dup*	TO-3	27.5 "Hg
05A	SG3	TO-3	0.4 psi
06A	SG4	TO-3	0.2 psi
07A	SG5	TO-3	0.4 psi
08A	SG6	TO-3	2.5 "Hg
09A	Lab Blank	TO-3	NA
10A	Method Spike	TO-3	NA

LAB NARRATIVE:
***Sample not analyzed per client's request.**

CERTIFIED BY: Linda J. Furman
Laboratory Director

DATE: 2/2/98

Certification numbers: CA ELAP - 1149, NY ELAP - 11291, UT ELAP - E-217

AIR TOXICS LTD.

SAMPLE NAME: SG1

ID#: 9801088-01A

EPA METHOD TO-3

(Aromatic Volatile Organics in Air)

GC/PID

File Name: 6012415 **Date of Collection:** 1/12/98

Dil. Factor: 1.99 **Date of Analysis:** 1/24/98

Compound	Rpt. Limit (ppmv)	Rpt. Limit (uG/L)	Amount (ppmv)	Amount (uG/L)
Benzene	0.002	0.006	Not Detected	Not Detected
Toluene	0.002	0.008	0.004	0.015
Ethyl Benzene	0.002	0.009	Not Detected	Not Detected
Total Xylenes	0.002	0.009	0.005	0.022
Methyl t-Butyl Ether	0.002	0.007	0.002	0.007

TOTAL PETROLEUM HYDROCARBONS

GC/FID

(Quantitated as Gasoline)

File Name: 6012415 **Date of Collection:** 1/12/98

Dil. Factor: 1.99 **Date of Analysis:** 1/24/98

Compound	Rpt. Limit (ppmv)	Rpt. Limit (uG/L)	Amount (ppmv)	Amount (uG/L)
TPH* (C5+ Hydrocarbons)	0.020	0.083	0.18	0.75
C2 - C4** Hydrocarbons	0.020	0.036	0.056	0.10

*TPH referenced to Gasoline (MW=100)

**C2 - C4 Hydrocarbons referenced to Propane (MW=44)

Container Type: 1 Liter Summa Canister

AIR TOXICS LTD.

SAMPLE NAME: SG1-Dup
ID#: 9801088-02A

EPA METHOD TO-3
(Aromatic Volatile Organics in Air)

GC/PID

File Name: 6012414 **Date of Collection: 1/12/98**
Dil. Factor: 1.97 **Date of Analysis: 1/24/98**

Compound	Rpt. Limit (ppmv)	Rpt. Limit (uG/L)	Amount (ppmv)	Amount (uG/L)
Benzene	0.002	0.006	Not Detected	Not Detected
Toluene	0.002	0.008	Not Detected	Not Detected
Ethyl Benzene	0.002	0.009	Not Detected	Not Detected
Total Xylenes	0.002	0.009	Not Detected	Not Detected
Methyl t-Butyl Ether	0.002	0.007	0.002	0.007

TOTAL PETROLEUM HYDROCARBONS
GC/FID
(Quantitated as Gasoline)

File Name: 6012414 **Date of Collection: 1/12/98**
Dil. Factor: 1.97 **Date of Analysis: 1/24/98**

Compound	Rpt. Limit (ppmv)	Rpt. Limit (uG/L)	Amount (ppmv)	Amount (uG/L)
TPH* (C5+ Hydrocarbons)	0.020	0.082	5.2	22
C2 - C4** Hydrocarbons	0.020	0.036	Not Detected	Not Detected

*TPH referenced to Gasoline (MW=100)
**C2 - C4 Hydrocarbons referenced to Propane (MW=44)

Container Type: 1 Liter Summa Canister

AIR TOXICS LTD.

SAMPLE NAME: SG2

ID#: 9801088-03A

EPA METHOD TO-3

(Aromatic Volatile Organics in Air)

GC/PID

File Name: 6012411 **Date of Collection: 1/12/98**

Dil. Factor: 216 **Date of Analysis: 1/24/98**

Compound	Rpt. Limit (ppmv)	Rpt. Limit (uG/L)	Amount (ppmv)	Amount (uG/L)
Benzene	0.22	0.70	0.26	0.84
Toluene	0.22	0.83	1.7	6.5
Ethyl Benzene	0.22	0.95	Not Detected	Not Detected
Total Xylenes	0.22	0.95	0.64	2.8
Methyl t-Butyl Ether	0.22	0.79	8.9	33

TOTAL PETROLEUM HYDROCARBONS

GC/FID

(Quantitated as Gasoline)

File Name: 6012411 **Date of Collection: 1/12/98**

Dil. Factor: 216 **Date of Analysis: 1/24/98**

Compound	Rpt. Limit (ppmv)	Rpt. Limit (uG/L)	Amount (ppmv)	Amount (uG/L)
TPH* (C5+ Hydrocarbons)	2.2	9.0	440	1800
C2 - C4** Hydrocarbons	2.2	4.0	24	44

*TPH referenced to Gasoline (MW=100)

**C2 - C4 Hydrocarbons referenced to Propane (MW=44)

Container Type: 1 Liter Summa Canister

AIR TOXICS LTD.

SAMPLE NAME: SG2-Dup*
ID#: 9801088-04A

EPA METHOD TO-3
(Aromatic Volatile Organics in Air)

GC/PID

File Name: NA
Dil. Factor: NA
Date of Collection: 1/12/98
Date of Analysis: NA

Compound	Rpt. Limit (ppmv)	Rpt. Limit (uG/L)	Amount (ppmv)	Amount (uG/L)
Benzene	NA	NA	Not Analyzed	
Toluene	NA	NA	Not Analyzed	
Ethyl Benzene	NA	NA	Not Analyzed	
Total Xylenes	NA	NA	Not Analyzed	
Methyl t-Butyl Ether	NA	NA	Not Analyzed	

TOTAL PETROLEUM HYDROCARBONS
GC/FID
(Quantitated as Gasoline)

File Name: NA
Dil. Factor: NA
Date of Collection: 1/12/98
Date of Analysis: NA

Compound	Rpt. Limit (ppmv)	Rpt. Limit (uG/L)	Amount (ppmv)	Amount (uG/L)
TPH* (C5+ Hydrocarbons)	NA	NA	Not Analyzed	
C2 - C4** Hydrocarbons	NA	NA	Not Analyzed	

*TPH referenced to Gasoline (MW=100)
**C2 - C4 Hydrocarbons referenced to Propane (MW=44)

Container Type: 1 Liter Summa Canister

AIR TOXICS LTD.

SAMPLE NAME: SG3
ID#: 9801088-05A

EPA METHOD TO-3
(Aromatic Volatile Organics in Air)

GC/PID

File Name: 6012413 **Date of Collection: 1/12/98**
Dil. Factor: 4.92 **Date of Analysis: 1/24/98**

Compound	Rpt. Limit (ppmv)	Rpt. Limit (uG/L)	Amount (ppmv)	Amount (uG/L)
Benzene	0.005	0.016	Not Detected	Not Detected
Toluene	0.005	0.019	0.014	0.054
Ethyl Benzene	0.005	0.022	0.008	0.035
Total Xylenes	0.005	0.022	0.008	0.035
Methyl t-Butyl Ether	0.005	0.018	0.036	0.13

TOTAL PETROLEUM HYDROCARBONS
GC/FID
(Quantitated as Gasoline)

File Name: 6012413 **Date of Collection: 1/12/98**
Dil. Factor: 4.92 **Date of Analysis: 1/24/98**

Compound	Rpt. Limit (ppmv)	Rpt. Limit (uG/L)	Amount (ppmv)	Amount (uG/L)
TPH* (C5+ Hydrocarbons)	0.049	0.20	6.2	26
C2 - C4** Hydrocarbons	0.049	0.090	1.7	3.1

*TPH referenced to Gasoline (MW=100)
**C2 - C4 Hydrocarbons referenced to Propane (MW=44)

Container Type: 1 Liter Summa Canister

AIR TOXICS LTD.

SAMPLE NAME: SG4

ID#: 9801088-06A

EPA METHOD TO-3

(Aromatic Volatile Organics in Air)

GC/PID

File Name: 6012412 **Date of Collection: 1/12/98**

Dil. Factor: 19.9 **Date of Analysis: 1/24/98**

Compound	Rpt. Limit (ppmv)	Rpt. Limit (uG/L)	Amount (ppmv)	Amount (uG/L)
Benzene	0.020	0.065	0.13	0.42
Toluene	0.020	0.076	0.031	0.12
Ethyl Benzene	0.020	0.088	Not Detected	Not Detected
Total Xylenes	0.020	0.088	0.042	0.18
Methyl t-Butyl Ether	0.020	0.073	Not Detected	Not Detected

TOTAL PETROLEUM HYDROCARBONS

GC/FID

(Quantitated as Gasoline)

File Name: 6012412 **Date of Collection: 1/12/98**

Dil. Factor: 19.9 **Date of Analysis: 1/24/98**

Compound	Rpt. Limit (ppmv)	Rpt. Limit (uG/L)	Amount (ppmv)	Amount (uG/L)
TPH* (C5+ Hydrocarbons)	0.20	0.83	59	240
C2 - C4** Hydrocarbons	0.20	0.36	Not Detected	Not Detected

*TPH referenced to Gasoline (MW=100)

**C2 - C4 Hydrocarbons referenced to Propane (MW=44)

Container Type: 1 Liter Summa Canister

AIR TOXICS LTD.

SAMPLE NAME: SG5
ID#: 9801088-07A

EPA METHOD TO-3
(Aromatic Volatile Organics in Air)

GC/PID

File Name: 6012410 **Date of Collection: 1/12/98**
Dil. Factor: 98.5 **Date of Analysis: 1/24/98**

Compound	Rpt. Limit (ppmv)	Rpt. Limit (uG/L)	Amount (ppmv)	Amount (uG/L)
Benzene	0.099	0.32	1.8	5.8
Toluene	0.099	0.38	0.65	2.5
Ethyl Benzene	0.099	0.43	0.11	0.48
Total Xylenes	0.099	0.43	0.15	0.66
Methyl t-Butyl Ether	0.099	0.36	4.5	16

TOTAL PETROLEUM HYDROCARBONS
GC/FID
(Quantitated as Gasoline)

File Name: 6012410 **Date of Collection: 1/12/98**
Dil. Factor: 98.5 **Date of Analysis: 1/24/98**

Compound	Rpt. Limit (ppmv)	Rpt. Limit (uG/L)	Amount (ppmv)	Amount (uG/L)
TPH* (C5+ Hydrocarbons)	0.99	4.1	200	830
C2 - C4** Hydrocarbons	0.99	1.8	6.5	12

*TPH referenced to Gasoline (MW=100)
**C2 - C4 Hydrocarbons referenced to Propane (MW=44)

Container Type: 1 Liter Summa Canister

AIR TOXICS LTD.

SAMPLE NAME: SG6

ID#: 9801088-08A

EPA METHOD TO-3

(Aromatic Volatile Organics in Air)

GC/PID

File Name:	**6012416**	**Date of Collection:**	**1/12/98**
Dil. Factor:	**2.20**	**Date of Analysis:**	**1/24/98**

Compound	Rpt. Limit (ppmv)	Rpt. Limit (uG/L)	Amount (ppmv)	Amount (uG/L)
Benzene	0.002	0.007	Not Detected	Not Detected
Toluene	0.002	0.008	Not Detected	Not Detected
Ethyl Benzene	0.002	0.010	Not Detected	Not Detected
Total Xylenes	0.002	0.010	Not Detected	Not Detected
Methyl t-Butyl Ether	0.002	0.008	Not Detected	Not Detected

TOTAL PETROLEUM HYDROCARBONS

GC/FID

(Quantitated as Gasoline)

File Name:	**6012416**	**Date of Collection:**	**1/12/98**
Dil. Factor:	**2.20**	**Date of Analysis:**	**1/24/98**

Compound	Rpt. Limit (ppmv)	Rpt. Limit (uG/L)	Amount (ppmv)	Amount (uG/L)
TPH* (C5+ Hydrocarbons)	0.022	0.091	1.6	6.6
C2 - C4** Hydrocarbons	0.022	0.040	0.023	0.042

*TPH referenced to Gasoline (MW=100)

**C2 - C4 Hydrocarbons referenced to Propane (MW=44)

Container Type: 1 Liter Summa Canister

AIR TOXICS LTD.

SAMPLE NAME: Lab Blank

ID#: 9801088-09A

EPA METHOD TO-3

(Aromatic Volatile Organics in Air)

GC/PID

File Name: 6012404 **Date of Collection: NA**

Dil. Factor: 1.00 **Date of Analysis: 1/24/98**

Compound	Rpt. Limit (ppmv)	Rpt. Limit (uG/L)	Amount (ppmv)	Amount (uG/L)
Benzene	0.001	0.003	Not Detected	Not Detected
Toluene	0.001	0.004	Not Detected	Not Detected
Ethyl Benzene	0.001	0.004	Not Detected	Not Detected
Total Xylenes	0.001	0.004	Not Detected	Not Detected
Methyl t-Butyl Ether	0.001	0.004	Not Detected	Not Detected

TOTAL PETROLEUM HYDROCARBONS

GC/FID

(Quantitated as Gasoline)

File Name: 6012404 **Date of Collection: NA**

Dil. Factor: 1.00 **Date of Analysis: 1/24/98**

Compound	Rpt. Limit (ppmv)	Rpt. Limit (uG/L)	Amount (ppmv)	Amount (uG/L)
TPH* (C5+ Hydrocarbons)	0.010	0.042	Not Detected	Not Detected
C2 - C4** Hydrocarbons	0.010	0.018	Not Detected	Not Detected

*TPH referenced to Gasoline (MW=100)

**C2 - C4 Hydrocarbons referenced to Propane (MW=44)

Container Type: NA

AIR TOXICS LTD.

SAMPLE NAME: Method Spike
ID#: 9801088-10A

EPA METHOD TO-3
(Aromatic Volatile Organics in Air)

GC/PID

File Name: 6012401 **Date of Collection: NA**
Dil. Factor: 1.00 **Date of Analysis: 1/24/98**

Compound	Rpt. Limit (ppmv)	Rpt. Limit (uG/L)	% Recovery
Benzene	0.001	0.003	87
Toluene	0.001	0.004	87
Ethyl Benzene	0.001	0.004	87
Total Xylenes	0.001	0.004	89
Methyl t-Butyl Ether	0.001	0.004	71

TOTAL PETROLEUM HYDROCARBONS
GC/FID
(Quantitated as Gasoline)

File Name: 6012403 **Date of Collection: NA**
Dil. Factor: 1.00 **Date of Analysis: 1/24/98**

Compound	Rpt. Limit (ppmv)	Rpt. Limit (uG/L)	% Recovery
TPH* (C5+ Hydrocarbons)	0.010	0.042	104
C2 - C4** Hydrocarbons	0.010	0.018	104

*TPH referenced to Gasoline (MW=100)
**C2 - C4 Hydrocarbons referenced to Propane (MW=44)

Container Type: NA

P & D ENVIRONMENTAL
A Division of Paul H. King, Inc.
4020 Panama Court
Oakland, CA 94611
(510) 658-6916

9801088

CHAIN OF CUSTODY RECORD

PAGE 1 OF 1

PROJECT NUMBER:	PROJECT NAME:
0067	ATRA OEL - Oakland (Foothill)

SAMPLED BY: (PRINTED AND SIGNATURE) Paul H. King Paul H. King

	SAMPLE NUMBER	DATE	TIME	TYPE	SAMPLE LOCATION	NUMBER OF CONTAINERS	ANALYSIS(ES): TPH-Gas	BTEX / MTBE					PRESERVATIVE	REMARKS	
01A	SG1	1/12/98		Soil Gas	Bore hole SG1, at depth of 2-3ft	1	X	X					None	Normal Turn Around	0.2psi
02A	SG1-Dup	"		"	" SG1-Dup, " " " " "	1	X	X					"	" " "	0.4psi
03A	SG2	"		"	" SG2 " " " " "	1	X	X					"	" " "	2.0"Hg
04A*	SG2-Dup	"		"	" SG2-Dup " " " " "	1	X	X					"	" " "	27.5"Hg
05A	SG3	"		"	" SG3 " " " " "	1	X	X					"	" " "	0.4psi
06A	SG4	"		"	" SG4 " " " " "	1	X	X					"	" " "	0.2psi
07A	SG5	"		"	" SG5 " " " " "	1	X	X					"	" " "	0.4psi
08A	SG6	"		"	" SG6 " " " " "	1	X	X					"	" " "	2.5"Hg

1/14/98

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)
Paul H. King	1/13/98	3:32PM	
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED FOR LABORATORY BY: (SIGNATURE)
	1/14/98	1015	

TOTAL NO. OF SAMPLES (THIS SHIPMENT)	8
TOTAL NO. OF CONTAINERS (THIS SHIPMENT)	8
LABORATORY:	Air Toxics
LABORATORY CONTACT:	Debbie Pearce
LABORATORY PHONE NUMBER:	(916) 985-1000
SAMPLE ANALYSIS REQUEST SHEET ATTACHED:	( )YES (X)NO

REMARKS:
* Sample not analyzed per clients request.

Condition when received: good
Custody Seal intact? Y N None Temp Ambient