



**CERTIFIED
ENVIRONMENTAL
CONSULTING INC.**

February 2, 1994

REF: 94-510-1440

Mr. Danny Chauhan
Airport Alliance
16384 Foothill Boulevard #12
San Leandro, CA 94578
(510) 481-0166
(510) 887-6337 FAX

**SUBJECT: SITE INVESTIGATION FOR ALLIANCE GAS STATION LOCATED
AT 20450 HESPERIAN BOULEVARD, HAYWARD, CALIFORNIA**

Dear Mr. Chauhan:

Please find enclosed Certified Environmental Consulting, Inc's Site Investigation Report for the Alliance Gas Station located at 20450 Hesperian Boulevard, Hayward, California.

We are pleased to be able to perform this work for you and look forward to helping you in the future. If you have any questions regarding this report, please call me at (707) 745-0171.

Respectfully,

Rafael Gallardo
Project Manager/Geologist

Stanley L. Klemetson, Ph.D., P.E.
Executive Vice President

Enclosure

RG/tc

SITE INVESTIGATION REPORT

PROJECT SITE:

**20450 HESPERIAN BOULEVARD
HAYWARD, CALIFORNIA**

PREPARED FOR:

**DANNY CHAUHAN
AIRPORT ALLIANCE
16384 FOOTHILL BOULEVARD #12
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PREPARED BY:

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CEC PROJECT # 94-510-1440

February 2, 1994

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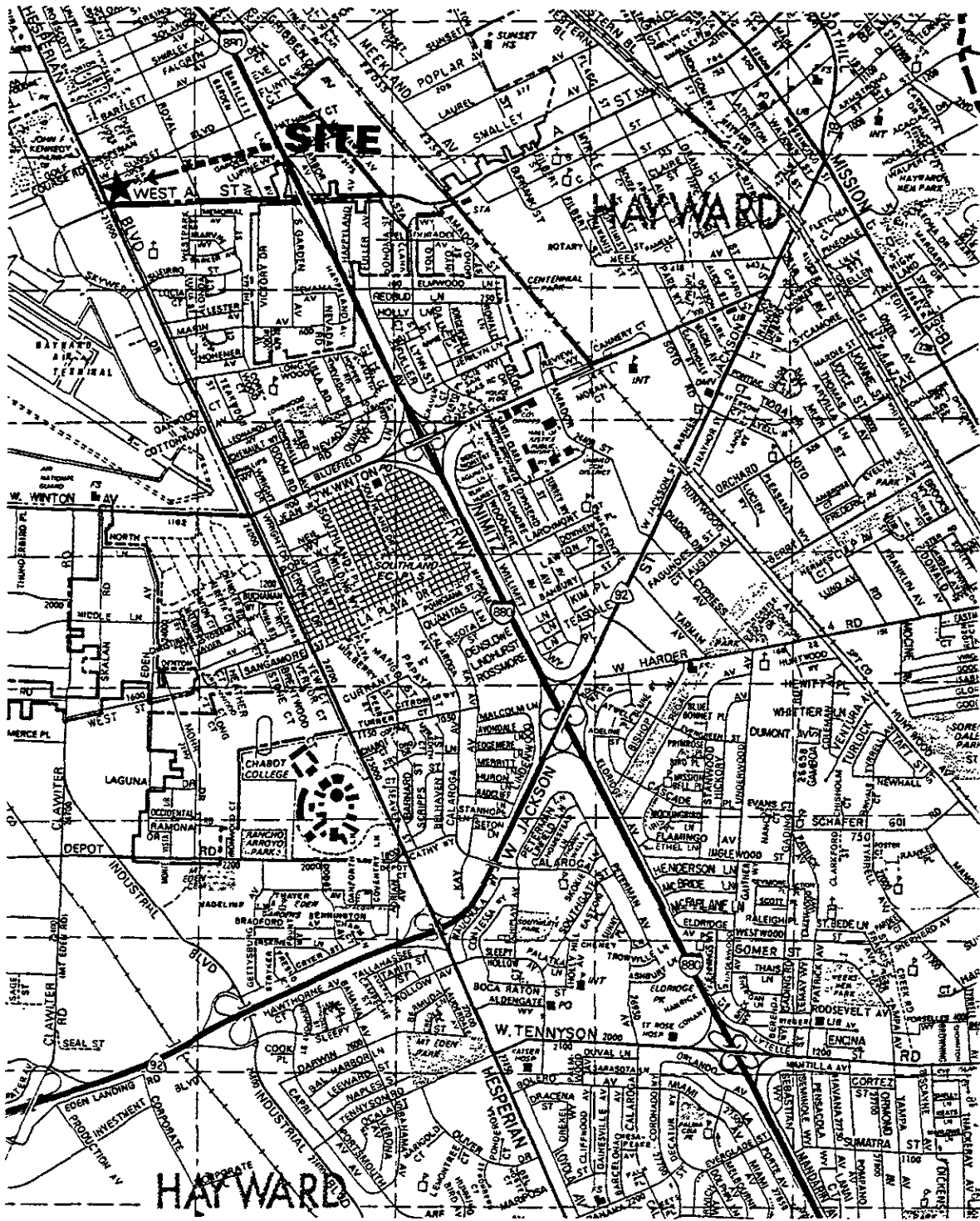
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EXECUTIVE SUMMARY

On January 24, 1994, Certified Environmental Consulting, Inc. (CEC) conducted a Site Investigation at 20450 Hesperian Boulevard, Hayward, California (see Figure 1). The intent of this investigation was to determine if soil and groundwater contamination was present under the assessment site. Four investigative borings were drilled within the property line (see Figure 2). They consisted of one continuous and three standard borings drilled to a depth ranging between 21.5 and 14.5 feet below surface grade (BSG). The borings were sampled at 5 foot intervals for soil and a water sample was obtained at each location once groundwater was penetrated. The soil and groundwater samples were delivered to a certified analytical laboratory and tested for Total Petroleum Hydrocarbons as Diesel (TPH-D), Total Petroleum Hydrocarbons as Gas (TPH-G), and Benzene, Toluene, Ethylbenzene, and Xylene (BTEX). The results of the analytical data indicated the presence of elevated levels of Diesel, Gasoline, and BTEX in the groundwater at Boring 1, Boring 3, and Boring 4. Elevated levels of TPH-D, TPH-G, and BTEX were present in the soil samples from Boring 1, and Boring 4. Boring 4 registered non-detectable levels for TPH-D. CEC recommends that the site be fully characterized to determine the extent of the soil and groundwater plumes.



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FIGURE I

SITE LOCATION MAP

2045 HESPERIAN BLVD.
HAYWARD CA 94541
PROJECT: 94-510-1440

7-10

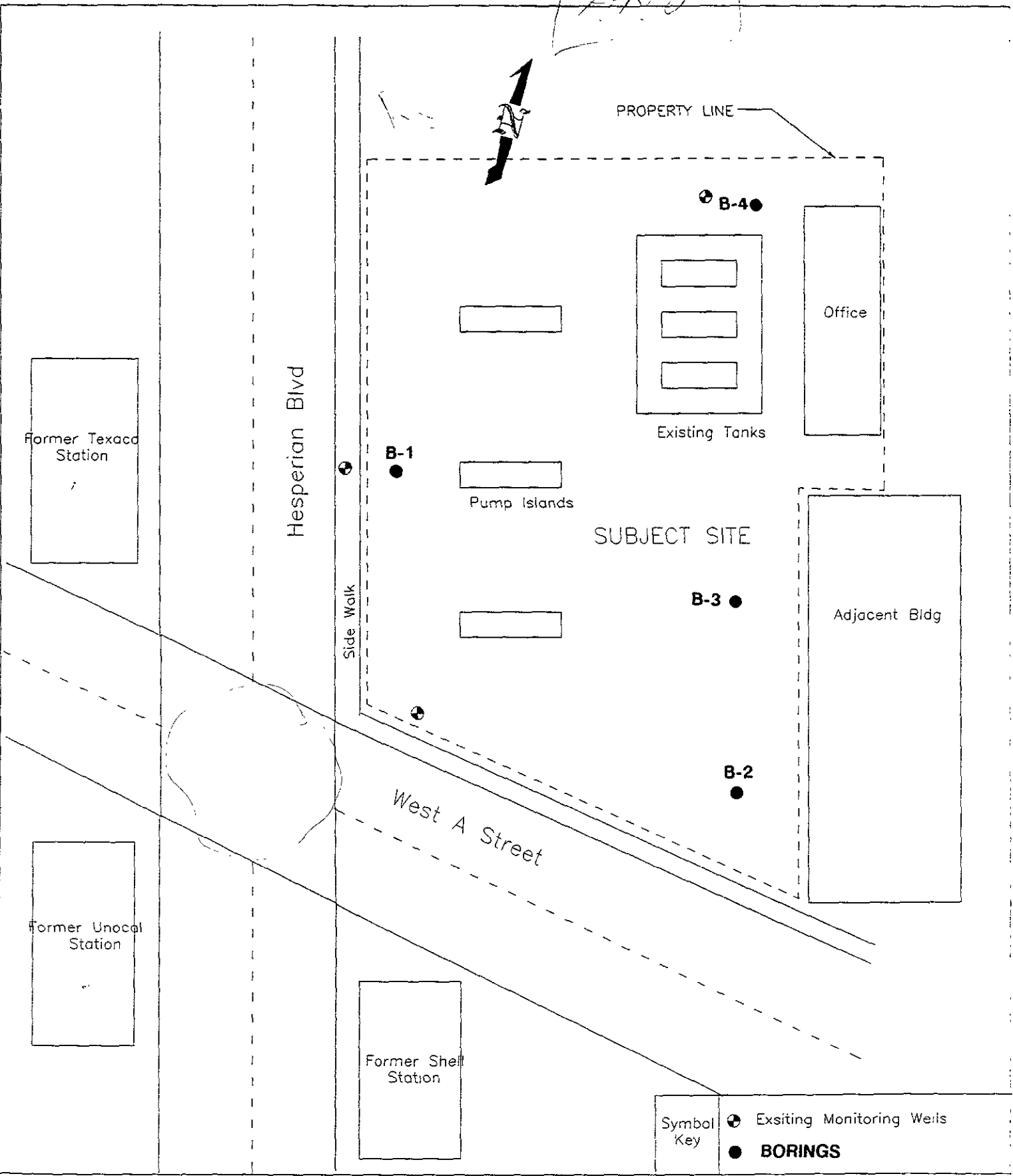


Figure 2
BORING LOCATION MAP
 20450 Hesperian Blvd
 Hayward, CA
 Project No. 94-510-1440



SITE HISTORY

On March 19, 1991, Mr. Danny Chauhan, owner of the Alliance Service Station, received a letter from Alameda County requesting proof that the tank systems on the assessment site were not a contributing source of groundwater contamination for the area located at the corner of Hesperian Boulevard and West A Street.

On July 24, 1991, Mr. Chauhan received another letter requesting the same information as requested in the March 19, 1991, letter.

On September 23, 1991, Alameda County submitted a second notice of violation to Mr. Danny Chauhan. The letter requested the following information by October 5, 1991:

1. Precision tank test results for the leaded gasoline tank for 1990 and tank test results for all three tanks for 1989.
2. A written report of the investigation of inventory variations noted in excess of tolerance during the past three years.
3. A technical report describing Subsurface Investigation Plan. Include a timetable for implementation.

On January 2, 1992, Alameda County submitted a final notice of violation to Mr. Danny Chauhan.

On January 26, 1993, Alameda County submitted a letter to Mr. Chauhan requesting him to submit a Work Plan to investigate the vertical and lateral extent of the potential contamination at his site.

On August 9, 1993, Mr. Zane Miller, a consultant representing Mr. Chauhan, submitted a Drilling Permit Application to Zone 7 Water Agency, for placement of monitoring wells on site.

On August 24, 1993, Viking Drillers, Inc. drilled and placed three groundwater monitoring wells at the site. The wells were drilled to a depth of 25 feet. Groundwater was encountered at a depth of 18 feet. Nine soil samples were obtained and delivered on September 9, 1993 to Sequoia Analytical in Sacramento, for analysis of TPH-G and BTEX.

On September 28, 1993, Alameda County submitted a letter to Mr. Danny Chauhan requesting information on the site investigation work performed by Mr. Zane Miller.

On December 2, 1993, Alameda County submitted a letter to Mr. Danny Chauhan stating that they believed the assessment site was contributing to a regional groundwater contaminant plume consisting of separate and dissolved-phase hydrocarbons.

On January 7, 1994, the Alliance Gas Station retained the services of Certified Environmental Consulting, Inc. to perform a Phase I Preliminary Site Assessment and a Phase II Site Investigation on the subject site.

On January 10, 1994, CEC submitted a Work Plan to Ms. Juliet Shin of Alameda County for a Subsurface Investigation.

On January 20, 1994, CEC submitted a Phase I Environmental Site Assessment Report of the property to Mr. Chauhan.

SCOPE OF WORK

This report details the work performed during the site investigation on January 24, 1994. The purpose of the investigation was to obtain soil and groundwater samples for laboratory analysis to ascertain whether or not the subject site was contributing to a regional groundwater contaminated plume consisting of separate and dissolved-phase hydrocarbons. The following actions were taken:

- Four borings were drilled at the site; one continuous core (B-2), and three standard borings.
- The borings were sampled at 5 foot intervals.
- Soil and groundwater samples were taken at each boring and delivered to an analytical laboratory and tested for TPH-D, TPH-G, and BTEX.
- The soil cuttings were placed in DOT approved 55 gallon drums and stored on-site pending laboratory analysis.
- Each boring was backfilled with neat cement to the surface to prevent any migratory pathways for contamination.
- A report disclosing work performed, data collected, conclusions and recommendations was prepared.

GEOLOGY AND HYDROGEOLOGY

Geology

The site rests on undifferentiated deposits consisting of marine clay and sand with minor lenses of gravel underlying a thin cover of alluvium and slope wash. The deposits are of Quaternary age upper pleistocene to recent (QU). These are thick unconsolidated deposits with an average thickness exceeding 600 feet. Bedrock occurs at depths of between 468 and 732 feet.

The closest faults in the Quadrangle are the Hayward Fault located approximately 1-3/4 miles to Northeast, the West Chabot Fault located approximately 2-1/4 miles to the Northeast, and the East Chabot Fault located approximately 2-3/4 miles to the Northeast. The Hayward Fault is considered to be the most threatening to the area. It is an active fault having displayed movement within the last 11,000 years. The East and West Chabot Faults are considered to be inactive.

Hydrogeology

The site rests within the East Bay Plain. The plain covers an area of approximately 114 square miles. Most of the groundwater is used for irrigation and industrial use, with very little of it pumped for domestic consumption. The groundwater reservoir is comprised of three main unconsolidated water bearing units: The Older Alluvium, the Younger Alluvium, and the Merritt Sand. The reservoir is greater than 1100 feet thick and occurs in unconfined and confined conditions.

The groundwater beneath the East Bay Plain has been seriously threatened by hundreds of documented toxic spills and leaks since 1984. The most serious threat to the groundwater reservoir occurs where the Younger Alluvium and Merritt Sand outcrop and also along the recharge area of the Older Alluvium. Groundwater in the Older Alluvium has not yet been degraded by toxins.

Groundwater flow direction within the plain in general is from the Eastern part of the reservoir to the West, towards San Francisco Bay.

Sources:

Geohydrology and Groundwater-Quality Overview East Bay Plain Area, Alameda County, California, June 1988. 205(J) Report.

Geology of the Hayward Quadrangle, by G.D. Robinson, 1956.

DRILLING

On January 24, 1994, Certified Environmental Consulting, Inc. arrived at the investigation site. The four borings were drilled using a CME 55 truck mounted rig with 4.5 inch I.D. hollow stem augers, and equipped with a 140 lb. hammer. Three borings were located up gradient of the service islands and one was placed down gradient of the underground tanks and service islands (see figure 2).

Two of the up-gradient borings were placed to the north and south sides of the underground tank locations. The continuous core boring (B-2), was placed near the southeast corner of the site in the direction of flow of potential contamination from sites up gradient of the property.

SITE SOILS

The site consisted of approximately a 1/2 inch layer of asphalt overlying a 1 to 1.5 foot thick layer of imported yellowish brown baserock (Leona Quarry). Below the baserock was a 4 to 4.5 foot thick layer of very dark grey silty clay (Danville silty clay loam) of medium plasticity. A 2 foot layer of mottled grey-brown silty clay with sand followed the dark grey silty clay in two of the borings. At a depth of between 5 to 7 feet, a greenish brown silty clay with 3 inch silty sand seams was encountered. The layer varied in thickness from between 4.5 to 10.5 feet. Below the greenish clay layer, at a depth of approximately 14.0 feet, a 2 to 3 foot zone of transitional silty sand/sandy silt soil was encountered. The saturated zone was encountered within this layer at each boring location. The deepest soil discovered below the site consisted of a saturated brown silty sand at a depth below 18 feet, with the exception of Boring B-4 in which the silty sand was encountered at a depth of approximately 11.5 feet (see Appendix B).

PRELIMINARY FINDINGS

Boring B-1

No hydrocarbon odor was detected in the upper soils to a depth of 5 feet. At a depth of 5 feet, a slight petroleum odor was detected in the greenish grey silty clay. The odor became stronger with depth. At a depth of 10 feet, a very strong odor of fresh product (gasoline) was present. The strongest odors were present in the silty sand seams located within the clay. The strong hydrocarbon odor dissipated with depth and was not noticeably detectable after 14 feet. A water sample was obtained at a depth of 17.36 feet with no petroleum odor noted. The sampled groundwater was distinctly clearer than the other three water samples.

Boring B-2 (Continuous Core)

No hydrocarbon odor was detected in the upper soils down to a depth of 7 feet. At a depth of 7 feet, a slight petroleum odor was encountered at the top of the core barrel. The barrel contained a greenish brown silty clay containing seams of clayey sand which contained the strongest petroleum odor. The odor was analogous to weathered product. The odor disappeared at an approximate depth of 13.8 feet. It appears that the three clayey sand seams may be acting as a mechanism of transportation of Petroleum Hydrocarbon contamination to this zone of material. Groundwater was first encountered at a depth of 14.7 feet. No petroleum hydrocarbon odor was detected in the sample.

Boring B-3

No hydrocarbon odor was detected in the imported baserock or the first foot of dark grey silty clay. At a depth of 2 feet, a petroleum odor was detected in the dark grey silty clay layer as well as the underlying mottled grey-brown sandy clay, and greenish-grey silty clay. At a depth of 14 feet, a very slight odor could still be noticed. A groundwater sample was obtained at a depth of 14.54 feet. No hydrocarbon odor was detected.

Boring B-4

No hydrocarbon odor was detected in the upper imported baserock or for the first half-foot of dark grey silty clay. At 1.5 feet, a strong petroleum odor was detected in the clay layer. The odor was analogous to weathered product. The weathered product odor continued down through the succeeding layer of greenish-grey sandy silty clay to a depth of approximately 11.5 feet. At this depth the odor was non-detectable. A water sample was obtained at a depth of 12.3 feet within a brown silty sand layer. No petroleum odor was detected in the sample.

SOIL SAMPLING

The soil samples were collected using a 2-inch modified California Split Spoon Sampler containing 3, six-inch-long brass tubes. The sampler was driven into the ground 18 inches, using a 140 lb. hammer with a 30 inch drop. The standard borings (B-1, B-3, B-4) were sampled at 5 foot intervals and in some cases at the first detection of hydrocarbon odor. The soil samples obtained from the continuous core boring (B-2) were sampled at the end of each 5 foot run, again exercising the same sampling method as for the other three borings.

The sampler barrel was decontaminized before and after each use by using an Alconox solution wash and tap water. Each sample was covered at each end with Teflon sheeting and PVC end caps. The samples were then placed in an ice chest fill with ice for transportation to an analytical laboratory.

A total of 10 soil samples were collected from the 4 borings. Three of the deeper soil samples located in the saturated zone could not be retrieved. Mr Scott O. Seery, Senior Hazardous Materials Specialist, with Alameda County was present at the site and witnessed all the sampling. Mr. Seery agreed with CEC's Geologist that the saturated zone samples would not be of any value and that the water samples taken in this zone would indicate whether or not Petroleum Hydrocarbons were present.

GROUNDWATER SAMPLING

Groundwater sampling was attempted using a Hydro Punch sample probe system. The Hydro Punch was advanced through the center of the hollow stem augers through the vadose zone to a depth of 5 feet below the augers. The system was left to collect water for approximately 20 minutes each attempt. The system was checked after the aforementioned time and in each instance the system was dry. The augers were advanced an additional 2 feet at each boring and hit water. The Hydro Punch system was not used on the second attempts as the vadose zone was already penetrated. A sample was obtained after approximately 5 minutes to allow an ample amount of water to enter the boring. A disposable bailer was inserted down the augers to retrieve the water samples. A one liter amber bottle was filled at each boring location for diesel analysis along with two VOA vials containing HCL as a preservative for gasoline and BTEX analysis.

The groundwater samples were labeled and placed in an ice chest filled with ice for transportation to an analytical laboratory.

The soil and groundwater samples were properly labeled and recorded on the chain of custody and delivered the following morning to McCampbell Analytical Inc. for TPH-D, TPH-G, and BTEX analysis.

The analysis results are listed in Table 1, Appendix B, of this report.

CLEANUP

The cuttings from each boring were placed in 55 gallon DOT approved drums and properly labeled. A total of 6 drums were left on site pending laboratory results.

The boreholes were filled with neat cement to the surface to eliminate any migratory pathways for contamination.

ANALYTICAL RESULTS

A total of 4 groundwater samples and 10 soil samples were obtained from the 4 borings and analyzed for TPH-D, TPH-G, and BTEX (See Figure 3). The following are the results of the analysis:

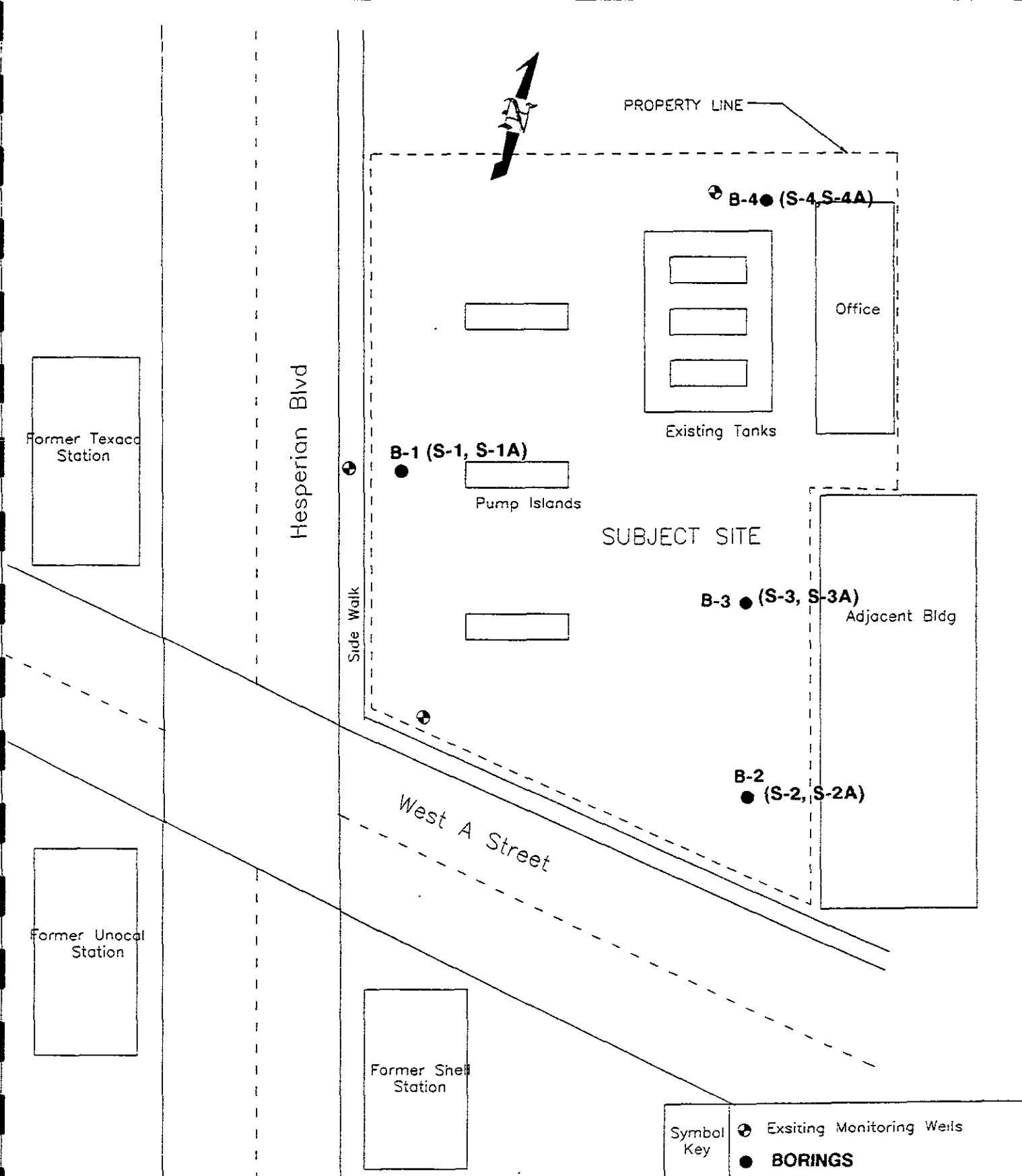
GROUNDWATER

The analytical results revealed elevated levels of TPH-D, TPH-G, and BTEX in Boring #1. Elevated levels of TPH-G were detected in Borings #3 and #4. Elevated levels of TPH-D were detected in Boring #4. Boring #2 was non-detect for TPH-G, and BTEX, but detected 70 ppb for TPH-D.

The concentrations for TPH-G ranged between 31,000 ppb to 400 ppb for Benzene between 8200 ppb to 91 ppb and for TPH-D between 2,700 ppb to 70 ppb (see Appendix B, Table 1). ^{21ppm}

SOIL

The analytical results revealed elevated levels of TPH-D (350 ppm), TPH-G (520 ppm), and BTEX (6.8 ppm, 3.8 ppm, 7.2 ppm, 15 ppm) for Boring #1 and detectable to non-detectable levels of TPH-D (ND), TPH-G (4.8 ppm), and BTEX (0.16 ppm, 0.023 ppm, 0.078 ppm, 0.033 ppm) for Boring #4. The detectable levels were first detected at a depth of 11.5 feet below surface grade (bsg). The remaining samples ranged between (ND) to very slight.



Symbol Key	⊕ Existing Monitoring Wells
	● BORINGS

FIGURE 3
SAMPLE LOCATION MAP
 20450 Hesperian Blvd
 Hayward, CA
 Project No. 94-510-1440

CONCLUSIONS

Based on the lab analytical obtained during the initial sampling phase, it is apparent that the soil and groundwater located at the assessment site contains elevated concentrations of TPH-D, TPH-G, and BTEX. The elevated hydrocarbon concentrations were present in the unsaturated zone in a greenish grey silty clay layer at a depth of 10 feet below surface grade (bsg). The silty clay layer ranged in thickness between 4.5 to 10.5 feet and was encountered at a depth of between 5 and 7 feet. The strongest hydrocarbon odor was detected in the silty sand seams located within the silty clay layer.

The elevated hydrocarbon concentrations of the saturated zone were located within a brown silty sand to sandy silt layer. The saturated zone varied from boring to boring with a depth to groundwater elevation between 12.3 to 17.36 feet (bsg).

The highest concentrations were detected in Boring #1, which was located down gradient of the on-site underground storage tanks.

CEC therefore concludes that a more detailed investigation is required.

RECOMMENDATIONS

Based on the data collected and observations recorded during the exploratory drilling, CEC supports the following step-wise recommendations:

- Site characterization to define the lateral and vertical extent of the soil and groundwater contamination.
- Installation of groundwater monitoring wells after site characterization.
- Pump test to determine the aquifer characteristics (Transmissivity, Storage Coefficient, etc.).

LIMITATIONS

This report was prepared by Certified Environmental Consulting, Inc. under the professional direction and review of the person whose name and seal are shown below.

This report has been prepared according to generally accepted geologic and environmental practices. No other warranty, either expressed or implied about the professional advice provided is made. The conclusions and recommendations contained in this report are based on currently available information, and site conditions as they existed at the time of the investigation.



A handwritten signature in black ink, appearing to read "Stanley L. Klemetson", written over a horizontal line.

Stanley L. Klemetson, Ph.D, P.E.
Executive Vice President

APPENDIX A

DRILLING LOGS
JANUARY 24, 1994



CERTIFIED ENVIRONMENTAL CONSULTING

336 STONE ROAD SUITE J BENICIA CA 94510
 (707) 745-0171 / (800) 228-0171 / (707) 745-0163 FAX

BORING NUMBER **B1**

SHEET 1 OF 1

PROJECT **Alliance Gas Station**

LOCATION **Hayward, CA**

CONTRACT NUMBER **94-510-1440**

LOGGED BY **R. Gallardo**

COORDINATES

SURFACE ELEVATION

DATUM

SAMPLE INFORMATION						STRATA	DESCRIPTION	WELL CONSTRUCTION DETAIL	ELEVATION FEET
DEPTH FEET	LAB SAMPLE	SAMPLE TYPE	BLOW COUNTS	Recovery %	HNu (ppm)				
0.0						0.0 - 1/2" Black asphalt			
1/2" - 1.0'						1/2" - 1.0' Silty sandy gravel (GM), yellow brown, dry to moist FILL fill material, (Leona Quarry)			
						SILTY CLAY (CL) stiff, dark grey, moist, medium plasticity, no odor			
5						SANDY SILTY CLAY (CL) greenish grey, stiff, moist, platy structure; petroleum odor.			
10			3			10' - 10.3' silty sand seam			
			4			10' - 11.5' very strong fresh product odor (gasoline)			
			4						
15			3			SILTY SANDY CLAY (CL) stiff, brown-grey, moist, mottled			
			6			SILTY SAND (SM) brown, loose, saturated			
			5						
			1						
			3						
			4						
Total depth of boring 19.5' BGS.									

DRILLING CONTRACTOR **SES**
 DRILLING METHOD **Hollow Stem Auger**
 DRILLING EQUIPMENT **CME55**
 DRILLING STARTED **1/24/94** ENDED **1/24/94**

REMARKS
 See key sheet for symbols and abbreviations used above.



CERTIFIED ENVIRONMENTAL CONSULTING

536 STONE ROAD SUITE J BENICIA CA, 94510
(707) 745-0171 / (800) 228-0171 / (707) 745-0163 FAX

BORING NUMBER **B2**

SHEET 1 OF 1

PROJECT **Alliance Gas Station**

LOCATION **Hayward, CA**

CONTRACT NUMBER **94-510-1440**

COORDINATES

SURFACE ELEVATION

DATUM

LOGGED BY **R. Gallardo**

SAMPLE INFORMATION						STRATA	DESCRIPTION	WELL CONSTRUCTION DETAIL	ELEVATION FEET
DEPTH FEET	LAB SAMPLE	SAMPLE TYPE	BLOW COUNTS	Recovery %	HNu (ppm)				
0.0						0.0 - 1/2" Black asphalt			
0.5						1/2" - 1.0' Silty sandy gravel (GM), yellow brown, dry to moist, dense FILL fill material, (Leona Quarry)			
5.0	B-2-1		4 9 13			SANDY SILTY CLAY (CL) stiff, dark grey, moist, medium plasticity.			
10.0	B-2-2		3 3 4			SILTY CLAY (CL) medium (brownish-grey), stiff, moist, low to medium plasticity; mottled, some sand present SILTY CLAY (CL) greenish brown, soft to medium stiff, moist, low to medium plasticity with small 3" clayey sand seams. 3" clayey sand seam at 9.5' 3" clayey sand seam at 10.5'			
15.0	B-2-3		3 5 8			3.5" silty sand seam at 12.5' SANDY SILT (ML) greenish brown, stiff, moist, low plasticity; increasing sand and moisture with depth. greenish-brown mottling from 15' to 16' with trace worm holes with free water. No odor			
20.0						SILT SAND (SM) yellow brown, medium dense, wet to saturated, no odor. Small sand seams. Sand is coarse to fine grained, sub-angular, multi colored grains. Total depth of boring 20' BGS.			

DRILLING CONTRACTOR **SES**
 DRILLING METHOD **Hollow Stem Auger**
 DRILLING EQUIPMENT **CME55**
 DRILLING STARTED **1/24/94** ENDED **1/24/94**

REMARKS **Borehole was logged using a continuous core barrel. Soil samples were collected on select intervals using a modified california split spoon sampler.**

 See key sheet for symbols and abbreviations used above.



CERTIFIED ENVIRONMENTAL CONSULTING

536 STONE ROAD SUITE J BENICIA CA 94510
(707) 745-0171 / (800) 228-0171 / (707) 745-0163 FAX

BORING NUMBER **B3**

SHEET 1 OF 1

PROJECT **Alliance Gas Station**

LOCATION **Hayward, CA**

CONTRACT NUMBER **94-510-1440**

LOGGED BY **R. Gallardo**

COORDINATES

SURFACE ELEVATION

DATUM

SAMPLE INFORMATION						STRATA	DESCRIPTION	WELL CONSTRUCTION DETAIL	ELEVATION FEET
DEPTH FEET	LAB SAMPLE	SAMPLE TYPE	BLOW COUNTS	Recovery %	HNu (ppm)				
0.0						0.0 - 1/2" Black asphalt			
1/2" - 1.0'						1/2" - 1.0' Silty sandy gravel (GM), yellow brown, dry to moist, dense FILL fill material, (Leona Quarry)			
						SILTY CLAY (CL) stiff, dark grey, moist, medium plasticity, strong petroleum odor at 2'			
5			6 13 16			SANDY CLAY (CL) dark grey-brown, stiff, moist, mottled; petroluem odor.			
						SILTY CLAY (CL) medium green-grey, stiff, moist with silty sand lense; petroleum odor			
10			3 5 6			Grey silty sand lense from 10.5' - 11.0', wet			
						SANDY SILT (ML) greyish brown, moist to wet, slight hydrocarbon odor			
15						SILTY SAND (SM) brown, loose, saturated, no odor			
						Total depth of boring 17.0' BGS.			

DRILLING CONTRACTOR **SES**
 DRILLING METHOD **Hollow Stem Auger**
 DRILLING EQUIPMENT **CME55**
 DRILLING STARTED **1/24/94** ENDED **1/24/94**

REMARKS
 See key sheet for symbols and abbreviations used above.



CERTIFIED ENVIRONMENTAL CONSULTING

336 STONE ROAD SUITE J BENICIA CA 94510
 (707) 745-0171 / (800) 228-0171 / (707) 745-0163 FAX

BORING NUMBER **B4**

SHEET 1 OF 1

PROJECT **Alliance Gas Station**

LOCATION **Hayward, CA**

CONTRACT NUMBER **94-510-1440**

COORDINATES

SURFACE ELEVATION

DATUM

LOGGED BY **R. Gallardo**

SAMPLE INFORMATION						STRATA	DESCRIPTION	WELL CONSTRUCTION DETAIL	ELEVATION FEET
DEPTH FEET	LAB SAMPLE	SAMPLE TYPE	BLOW COUNTS	Recovery %	HNu (ppm)				
5	X		1			[Cross-hatched pattern]	0.0 - 1/2" Black asphalt 1/2" - 1.0' Silty sandy gravel (GM), yellow brown, dry to moist, dense FILL fill material, (Leona Quarry)		
			3						
			3						
10	X		3			[Diagonal hatching pattern]	SILTY CLAY (CL) green-grey, stiff, moist, medium plasticity; slight petroleum odor		
			4						
			4			[Dotted pattern]	SILTY SAND (SM) brown, loose to medium dense, saturated, no odor		
			5						
			7						
							Total depth of boring 14.5' BGS.		

DRILLING CONTRACTOR **SES**
 DRILLING METHOD **Hollow Stem Auger**
 DRILLING EQUIPMENT **CME55**
 DRILLING STARTED **1/24/94** ENDED **1/24/94**

REMARKS
 See key sheet for symbols and abbreviations used above.

APPENDIX B

LABORATORY ANALYSIS RESULTS

TABLE 1

**SOILS RESULTS
FOR
ALLIANCE GAS STATION
20450 HESPERIAN BOULEVARD
HAYWARD, CALIFORNIA**

Sample Number	Sample Date	Depth	TPH-G PPM	TPH-D PPM	Benzene PPM	Toluene PPM	Ethylbenzene ppm	Xylene PPM
S-1	1-24-94	6 - 6.5	ND	ND	0.14	0.008	ND	0.006
S-1	1-24-94	11 - 11.5	520	350	6.8	3.8	7.2	15
S-2	1-24-94	6 - 6.5	ND	ND	ND	ND	ND	ND
S-2	1-24-94	11 - 11.5	ND	ND	0.007	0.007	ND	0.013
S-2	1-24-94	16 - 16.5	ND	ND	ND	ND	ND	ND
S-2	1-24-94	21 - 21.5	ND	ND	ND	ND	ND	ND
S-3	1-24-94	6 - 6.5	ND	0.014	ND	ND	ND	ND
S-3	1-24-94	11 - 11.5	ND	ND	0.13	0.005	0.013	0.011
S-4	1-24-94	3 - 3.5	ND	ND	ND	ND	ND	ND
S-4	1-24-94	11 - 11.5	4.8	ND	0.16	0.023	0.078	0.033
S-1A	1-24-94	17.36	31,000	2,700	8,200	1,200	1,200	2,100
S-2A	1-24-94	14.70	ND	ND	ND	ND	ND	ND
S-3A	1-24-94	14.54	400	ND	91	1.8	4.0	2.2
S-4A	1-24-94	12.3	990	150	6.8	3.8	7.2	15

Water Samples

ND = Below Detectable Levels

NOTE: As indicated on the analytical documents, TPH-D results were predominantly gasoline range compounds.

Certified Environmental Consulting 536 Stone Road, Ste. J Benicia, CA 94510-1016	Client Project ID: # 94-510-1440:	Date Sampled: 01/24/94
	Airport Alliancc, Hayward	Date Received: 01/25/94
	Client Contact: Rafael Gallardo	Date Extracted: 01/25-01/27/94
	Client P.O:	Date Analyzed: 01/25-01/27/94

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline*, with 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) ⁺	Benzene	Toluene	Ethylbenzene	Xylenes	% Rec. Surrogate
33989	WS-1	W	31,000,a	8200	1200	1200	2100	102
33991	WS-2	W	ND	ND	ND	ND	ND	100
33993	WS-3	W	400,c	91	1.8	4.0	2.2	107
33995	WS-4	W	990,a	210	17	50	14	113 [#]
33997	# 1 @ 6-6.5	S	ND,d	0.14	0.008	ND	0.006	98
33998	# 1 @ 11-11.5	S	520,a	6.8	3.8	7.2	15	102
33999	# 2 @ 6-6.5	S	ND	ND	ND	ND	ND	103
34000	# 2 @ 11-11.5	⊙ S	ND,d	0.007	0.007	ND	0.013	98
34001	# 2 @ 16-16.5	⊙ S	ND	ND	ND	ND	ND	103
34002	# 2 @ 21-21.5	⊙ S	ND	ND	ND	ND	ND	104
34003	# 3 @ 6-6.5	⊙ S	ND,c	0.014	ND	ND	ND	103
34004	# 3 @ 11-11.5	⊙ S	ND,c,d	0.13	0.005	0.013	0.011	105
34005	# 4 @ 3-3.5	S	ND,d	ND	ND	ND	ND	106
34006	# 4 @ 11-11.5	S	4.8,d	0.16	0.023	0.078	0.033	99
Detection Limit unless otherwise stated; ND means Not Detected		W	50 ug/L	0.5	0.5	0.5	0.5	
		S	1.0 mg/kg	0.005	0.005	0.005	0.005	

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

[#] cluttered chromatogram; sample peak co-elutes 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 are significant; no recognizable pattern; 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 phase is present.

McCAMPBELL ANALYTICAL INC.

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

Certified Environmental Consulting 536 Stone Road, Ste. J Benicia, CA 94510-1016	Client Project ID: # 94-510-1440; Airport Alliance, Hayward	Date Sampled: 01/24/94
	Client Contact: Rafael Gallardo	Date Received: 01/25/94
	Client P.O:	Date Extracted: 01/26-01/27/94
		Date Analyzed: 01/26-01/27/94

Diesel Range (C10-C23) Extractable Hydrocarbons as Diesel *

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

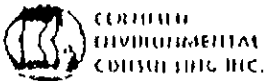
Lab ID	Client ID	Matrix	TPH(d) ⁺	% Recovery Surrogate
33985	WS-1A	W	2700,d,e,f	96
33986	WS-2A	W	70,b,f	96
33987	WS-3A	W	ND,d,f	89
33988	WS-4A	W	150,d,f	89
33997	# 1 @ 6-6.5	S	ND	93
33998	# 1 @ 11-11.5	S	350,d	86
33999	o # 2 @ 6-6.5	S	ND	91
34000	o # 2 @ 11-11.5	S	ND	92
34001	o # 2 @ 16-16.5	S	ND	91
34002	o # 2 @ 21-21.5	S	ND	92
34003	o # 3 @ 6-6.5	S	ND	93
34004	o # 3 @ 11-11.5	S	ND	93
34005	# 4 @ 3-3.5	S	ND,g	94
34006	# 4 @ 11-11.5	S	ND	89
Detection Limit unless otherwise stated; ND means Not Detected		W	50 ug/L	
		S	10 mg/kg	

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

cluttered chromatogram; surrogate and sample peaks co-elute or surrogate peak is on elevated baseline

* The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified diesel is significant; b) diesel range compounds are significant; no recognizable pattern; c) modified diesel?: light(CL) or heavy(CH) diesel compounds are significant; d) gasoline range compounds are significant; e) medium boiling point pattern that does not match diesel(kerosine-range compounds); f) one to a few isolated peaks present; g) oil range compounds are significant; h) lighter than water immiscible phase is present

2011 ACELS82



CERTIFIED ENVIRONMENTAL CONSULTING INC.

Chain of Custody Record

536 Stone Road, Ste. J., Berkeley, CA 94510-1016
 (Tel. (707) 745-0171 (800) 228-0171 Fax. (707) 745-0163

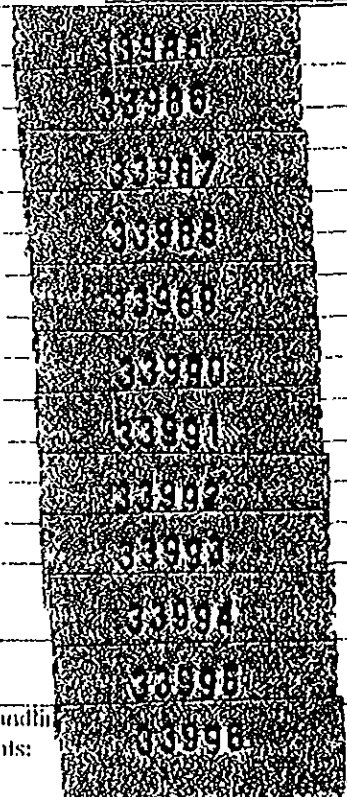
Date: 1-25-94 Sheet 2 of 2

Project Number: 94-510-1440
 Project Name: Sub. part RILLANCE
 Address: 20450 HESPERIAN BLVD,
HAYWARD
 Sampler's Name: RAFAEL GALLARDO
 Sampler's Signature: Rafael Gallardo

				Parameters										Matrix (Soil/Water)		
Sample Number	Location	Date	Time	TPH as Gasoline S015	TPH as Diesel S015	TPH-G and B.T.E.X S015/8020	B.T.X. & E 8020	Oil and Grease 5520	Volatile Organics (8010)	CA.M. Metals (17)	P. Pollutant Metals (15)	Base/New/Acids (Organic)	Pesticides 8140/6141			
25-1A	B-1	1-24-94	5:25 PM		X											
5-2A	B-2		9:30 AM		X											
5-3A	B-3		1:50 PM		X											
5-4A	B-4		2:40 PM		X											
5-1	B-1		5:20 PM			X										
5-1	B-1 Backup		5:20 PM			X										
5-2	B-2		9:35 AM			X										
5-2	B-2 Backup		9:35 AM			X										
5-3	B-3		1:55 PM			X										
5-3	B-3 Backup		1:55 PM			X										
5-4	B-4		2:45 PM			X										
5-4	B-4 Backup		2:45 PM			X										

Lab Name _____
 Address _____
 Phone Number _____
 Turnaround Time
 Rush 24 Hour 48 Hour 5-Day
 Report to: _____

1-25-94
 1-27-94
 25-1A
 5-2A
 5-3A
 5-4A
 5-1
 5-1
 5-2
 5-2
 5-3
 5-3
 5-4
 5-4



Requisitioned By	Date	Time	Received By	Date	Time
<u>Rafael Gallardo</u>	<u>1-25-94</u>	<u>10:26 AM</u>	<u>J.P. Hernandez</u>	<u>1-25-94</u>	<u>10:26 AM</u>
<u>J.P. Hernandez</u>	<u>1-25-94</u>	<u>10:50 AM</u>			
Dispatched By	Date	Time	Received in Lab By	Date	Time
			<u>Heidi Roca</u>	<u>1/25/94</u>	<u>10:50 AM</u>

Total Number of Containers This Sheet: _____
 Method of Shipment _____
 Special Shipment / Handling or Storage Requirements: _____

GOOD CONDITION ✓
 HEAD SPACE ABSENT ✓
 PRESERVATIVE APPROPRIATE ✓
 CONTAINERS ✓



CERTIFIED ENVIRONMENTAL CONSULTING INC.

536 Stone Road, Ste. J., Berkeley, CA 94510-1016
Ofc. (707) 745-0171 (800) 228-0171 Fax. (707) 745-0163

Chain of Custody Record

2011

Date 1-25-94 Sheet 1 of 2

Project Number: 94-510-1440
Project Name: AIRPORT AVIANCE
Address: 2045 S. HESPERIAN BLVD Hayward

Sampler's Name: RISRAEL GALLARDO
Sampler's Signature: Risrael Gallardo

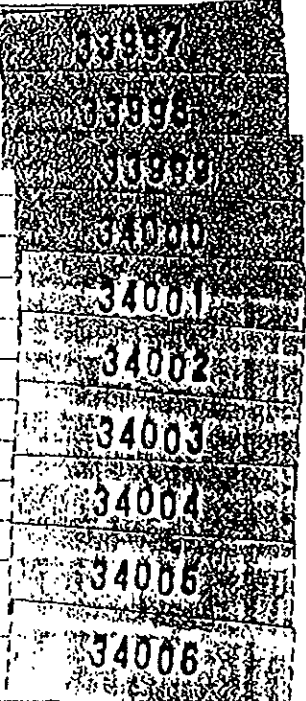
Parameters

TPH as Gasoline S015	TPH as Diesel S015	TPH-G and B.I.E.X. S015/S020	B.I.X. & E S020	Oil and Grease S520	Volatile Organics (S010)	CAAM Metals (17)	Pt. Pollutant Metals (15)	Base/Neu./Acids (Organic)	Pesticides S140/S141	Matrix (Soil/Water)

Lab Name _____
Address _____
Phone Number _____
Turnaround Time
 Rush 24 Hour 48 Hour 5-Day
 Report to: _____

Sample Number	Location	Date	Time
<u>BORING #1</u>	<u>#1</u>	<u>1-24-94</u>	<u>5:00 PM</u>
	<u>#1</u>		<u>5:15 PM</u>
	<u>#2</u>		<u>9:00 AM</u>
	<u>#2</u>		<u>9:25 AM</u>
	<u>#2</u>		<u>10:00 AM</u>
	<u>#2</u>		<u>10:45 AM</u>
	<u>#3</u>		<u>1:00 PM</u>
	<u>#3</u>		<u>1:30 PM</u>
	<u>#4</u>		<u>2:15 PM</u>
	<u>#4</u>		<u>2:45 PM</u>

6-6 1/2	11-11 1/2	6-6 1/2	11-11 1/2	16-16 1/2	21-21 1/2	6-6 1/2	11-11 1/2	3-3 1/2	11-11 1/2
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Relinquished By	Date	Time	Received By	Date	Time
<u>Risrael Gallardo</u>	<u>1-25-94</u>	<u>10:26 AM</u>	<u>J.R. Hamilton</u>	<u>1-25-94</u>	<u>10:26</u>
<u>J.R. Hamilton</u>	<u>1-25-94</u>	<u>10:50^A</u>			

Dispatched By	Date	Time	Received in Lab By	Date	Time
			<u>Heidi Roca</u>	<u>1/26/94</u>	<u>10:00</u>

Total Number of Containers This Sheet: _____
 Method of Shipment: _____
 Special Shipment / Handling or Storage Requirements: _____
 PRESERVATIVE APPROPRIATE CONTAINERS
 GOOD CONDITION
 HEAD SPACE ABSENT

01-30-1994 08:35AM FPCN McComber 11