

95 JUN 19 AM 9:44

SUBSURFACE SITE INVESTIGATION
1211 SEVENTH STREET
OAKLAND, CALIFORNIA

Prepared for:

Mr. Willie Everidge
c/o Mr. Wayne Hooper, Esq.
33 Ivy Drive
Orinda, CA 94563

March 1995

Project Number 94-6161-1.0

Prepared by:

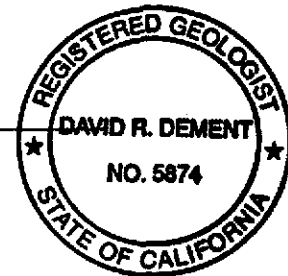
Misty Kaltreider

Misty Kaltreider
Project Geologist

Reviewed by:

David R. DeMent

David R. DeMent, RG #5874
Registered Geologist



ENVIRONMENTAL
PROTECTION

95 JUN 19 AM 9:45

June 16, 1995

Ms. Jennifer Eberle
Alameda County Health Care Services Agency
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502


RE: Subsurface Environmental Site Investigation
1211 7th Street, Oakland, CA

Dear Jennifer:

Enclosed, please find the Subsurface Environmental Site Investigation relative to the former underground storage tank located on the above referenced property.

If you have any questions, please feel free to contact me.

Sincerely,



Misty Kaltreider
Geologist

Encl.

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Appendix B	Chain of Custody Forms and Analytical Results - Soil and Water

1.0 INTRODUCTION

The attached report describes the procedures used during the Subsurface Site Investigation at the subject site located at 1211 7th Street, Oakland, California, see Figure 1.

The purpose of this project is to evaluate the extent and nature of contamination in the area of the former fuel tanks. The investigation includes removal of piping and performing associated sampling under the removed lines; backfilling of the existing pit; and a soil and groundwater investigation. The scope of work performed by ACC was based on review of a Report of Findings, Underground Storage Tank Removal, prepared by Applied Environmental Solutions (AES), dated December 1992 and analytical results from Precision Analytical collected September 23, 1993, for the samples collected within the excavation and stockpiled soil.

2.0 BACKGROUND

The subject property is an automobile service station. Four tanks were installed on the property in 1960 and consisted of one 250-gallon waste oil and three 4,000-gallon underground storage tanks (USTs) shown of Figure 2. In October 1992, Applied Environmental Solutions (AES), contractor, removed the USTs from the above referenced property. The waste oil tank was located behind the service building on the southern side of the site. After overexcavation of the area around the waste oil tank, sample analysis indicated below laboratory detection limits for the constituents evaluated.

The three 4,000-gallon gasoline USTs were parallel to each other, on the east side of the service building. Soil samples collected from the gasoline tank excavation indicated Total Petroleum Hydrocarbons (TPH) ranging from 3,200 parts per million (ppm) TPH as gasoline, and 2.1 ppm benzene (under the UST located on the west side of the excavation) to 20,000 ppm TPH as gasoline and 18 ppm benzene (from under the center UST).

During the tank removal, soil was stockpiled onsite. Analysis of samples collected from the stockpiled material indicated 870 ppm TPH as gasoline, 1 ppm benzene, and 95 ppm total lead. Laboratory analysis of additional samples collected from the stockpiled material in November 1993 indicated up to 2.2 ppm TPH as gasoline, 84 ppm total lead, and below detectable levels of benzene, toluene, ethylbenzene, and total xylenes (BTEX). Laboratory analysis of additional samples collected from the existing gasoline excavation in September 1993 indicated up to 2.0 ppm benzene and 365 ppm total lead. As a result of analytical results reported during the tank excavation, ACHCSA has requested additional investigation of the subsurface to evaluate the extent of soil impact.

3.0 FIELD PROCEDURES

3.1 Drilling

On September 7, 1994, a soil and groundwater investigation was attempted using a pneumatic sampling tool. However, due to the consolidated subsurface soil onsite the pneumatic sampling technology was not successful. An alternate subsurface investigation, utilizing a drill rig, was

then performed on September 26, 1994. Six borings, B1 through B6, were drilled by Gregg Drilling and Testing using a B-57 mobile drill rig equipped with six-inch hollow-stem auger and a Modified California Split-Spoon sampler housing three six-inch stainless steel liners for collection of the soil samples.

The drilling and sampling equipment were all pre-cleaned prior to use and between sample drives by washing with trisodium phosphate (TSP) as potable water solution, a potable water rinse, and distilled water rinse. Figure 2 - Site Plan, illustrates the boring locations.

Soil samples were collected at five foot intervals below the ground surface (bgs) in each boring drilled. During drilling, approximately 18 inches of soil sample was collected during each sampling interval. Subsurface soil samples were obtained by drilling to the approximate sampling location and driving the sampler 18 inches into undisturbed material. Upon removal from the sampler, each sample was examined by the field geologist for lithologic characteristics. Samples chosen for analysis were labeled with pertinent information, and stored in an ice-filled cooler to be transported under chain of custody to Chromalab, Inc., in Pleasanton, California, a state certified analytical laboratory. If water was encountered within the boring, a "grab" water sample was collected using a designated disposable bailer.

An HNu photoionization detector (PID) was used during drilling and sampling procedures to detect field evidence of volatile hydrocarbon vapor in the soil. Field indications of petroleum hydrocarbons (i.e. HNu readings and discoloration) were detected in the soil from borings B3, B4, and B6.

Samples chosen for analysis were based on their location with respect to the abandoned USTs and field indications of volatile organic carbons (VOCs). Samples with indicated detectable levels of VOCs were submitted for analysis of TPH as gasoline with benzene, toluene, ethylbenzene and total xylenes (BTEX).

Water was encountered within boring B1, B2, B3, B4, B5 and B6 during drilling. Free phase product was observed on the water collected from boring B4. Product thickness was measured within boring B4, using a clear bailer, and was approximately 0.25 inch.

Water samples were collected from the borings with the use of pre-cleaned stainless bailers. The water was immediately transferred to laboratory supplied 40 ml VOA vials (without head space). Each water sample was labeled, and stored in an ice-filled cooler to be transported under chain of custody to Chromalab, Inc., a state certified analytical laboratory.

3.2 Piping Removal

On January 5, 1995, Applied Environmental Solutions (AES), contractor, removed the existing piping from the former tanks and dispenser islands. To remove the piping, a trench was excavated to a total depth of approximately four feet bgs, where the 2 inch diameter fuel line piping was encountered. After removal, three subsurface soil samples (P1, P2, and P3) were

collected from under the piping trench and the dispenser islands. Figure 3 illustrates the locations of the piping samples. The samples were collected using a 25 pound slide hammer attached to a hollow sampler equipped with stainless steel sample tubes. A soil sample from the piping trench was obtained by excavating to the depth desired, then hammering the sampler 6-inches into undisturbed soil. After obtaining a sample, each end of the sample was inspected for discoloration and lithology, and immediately covered with Teflon tape, capped, labeled, and stored in an ice filled cooler pending transport to a state- certified laboratory for analysis. The piping fuel piping was stockpiled onsite for pending acceptance into an appropriate disposal facility.

In addition to the soil borings and piping samples, soil samples were collected from the stockpiled material to determine if the stockpiled material can be used as backfill within the open tank excavation. Five soil samples (SP-1 through SP-5) were collected from the stockpiled material and submitted to Chromalab for analysis of soluble lead by EPA Method 7420.

4.0 FINDINGS

4.1 Subsurface Conditions

The area of investigation was located on the subject site around the former dispenser island, former tank excavation and along the Magnolia Street as shown on Figure 2. The area investigated was covered with a 4 to 6 inch thick asphalt or concrete cap over base material. Below base material, the subsurface soil consisted of fine grain brown sand to the total depth investigated, approximately 15 feet bgs.

The soil cuttings and samples were logged by an ACC geologist, during drilling operations and are described in accordance with the Unified Soil Classification System. Copies of boring logs for borings B1 through B6 and the Unified Soil Classification System are attached as Appendix A.

4.2 Local Geology and Hydrogeology

The property is located approximately 500 feet east of the San Francisco Bay at an elevation of approximately 25 feet above mean sea level. The local topography slopes southwest toward the bay. According to soil and groundwater investigations performed in the surrounding area, the area is underlain by sand interpreted as Merritt Sand Formational Material.

According to groundwater investigations conducted on sites in the area, shallow groundwater is first encountered at a depth of approximately 10 to 12 feet bgs. Shallow groundwater reportedly flows west to southwest.

4.3 Analytical Results - Soil

Two soil samples were collected from each boring, B1 through B6, from under the removed piping, P1 through P3, and from the stockpiled material, and analyzed for TPH as gasoline with BTEX. Results of the sample analyses for the soil are summarized in Table 1.

Analytical results with chain of custody forms are attached as Appendix B and illustrated in Figure 3.

Table 1 - Analytical Results - Soil

Boring/ Sample Number	Depth (feet)	TPH gasoline (ppm)	Benzene (ppm)	Toluene (ppm)	Ethyl- benzene (ppm)	Xylenes (ppm)	Lead (ppm)
B1-6	6	<1.0	<0.005	<0.005	<0.005	<0.005	NT
B1-11	11	<1.0	<0.005	<0.005	<0.005	<0.005	NT
B2-6.5	6.5	1.1	<0.005	<0.005	<0.005	<0.005	NT
B2-11.5	11.5	<1.0	<0.005	<0.005	<0.005	<0.005	NT
B3-6.5	6.5	<1.0	<0.005	<0.005	<0.005	<0.005	NT
B3-11.5	11.5	1.5	0.056	0.063	0.020	0.120	NT
B4-6.5	6.5	<1.0	<0.005	<0.005	<0.005	<0.005	5.4 ✓
B4-11.5	11.5	7,000	37	250	92	440	NT
B5-6.5	6.5	<1.0	<0.005	<0.005	<0.005	<0.005	NT
B5-11.5	11.5	<1.0	<0.005	<0.005	<0.005	<0.005	NT
B6-6.5	6.5	<1.0	<0.005	<0.005	<0.005	<0.005	NT
<u>B6-11.5</u>	11.5	6,500	33	210	82	380	NT
<u>P-1</u>	4 2	630	<1.0	2.6	2.8	67	NT
<u>P-2</u>	4 3	2,100	<1.0	21	27	220	NT
<u>P-3</u>	4 0	<1.0	<0.005	<0.005	<0.005	<0.005	5.4 ✓
<u>S-1</u>	---	NT	NT	NT	NT	NT	5 ✓
<u>S-2</u>	---	NT	NT	NT	NT	NT	3 ✓
<u>S-3</u>	---	NT	NT	NT	NT	NT	5 ✓
<u>S-4</u>	---	NT	NT	NT	NT	NT	(13/* <1 ✓
<u>S-5</u>	---	NT	NT	NT	NT	NT	3 ✓

Notes: TPH = Total Petroleum Hydrocarbons

ppm = parts per million

NT = not tested

* Stockpile sample S-4 was reanalyzed for STLC lead using deionized water. ✓

Results indicated below detectable levels.

4.4 Analytical Results - Water

Shallow subsurface water was encountered in borings B1, B2, B3, B4, B5, and B6. Grab water samples were collected and submitted for analysis of TPH as gasoline with BTEX. Free phase product was observed on the water sample collected from boring B4.

Results of the water sample analyses are summarized in Table 2. Analytical results with chain of custody form are attached as Appendix B and illustrated in Figure 4.

Table 2 - Analytical Results - Water

Boring/ Sample Number	TPH gasoline (ppb)	Benzene (ppb)	Toluene (ppb)	Ethylbenzene (ppb)	Xylenes (ppb)
B1-H20	<50	<0.5	<0.5	<0.5	<0.5
B2-H20	37,000	7,100	30	270	470
B3-H20	1,000	39	50	14	74
B4-H20 Free Phase Product Detected	269,000	6,900			
B5-H20	<50	0.7	1.2	<0.5	1.7
B6-H20	<50	<0.5	<0.5	<0.5	<0.5

Notes: TPH = Total Petroleum Hydrocarbons
ppm = parts per million

5.0 DISCUSSION

Four underground storage tanks were removed in 1992. The excavation remained open and the piping remained in the ground. A subsurface investigation was conducted to evaluate the conditions of the soil and water onsite. Results of soil samples collected from borings drilled adjacent to the tank excavation and the piping indicated detectable levels of TPH as gasoline and BTEX. The most elevated levels of gasoline constituents were reported in the soil collected from a boring located west of the former dispenser island, adjacent to the fuel piping in boring B-4.

From review of investigations conducted on neighboring sites, the regional groundwater gradient flows to the west to southwest. The most elevated levels of constituents were reported in samples from boring B4, adjacent to the fuel piping and dispenser island. *→ which?*

During the investigation, water was encountered between 11.5 to 12 feet bgs within the borings. Water level rose in the borings to approximately 10 to 11 feet bgs indicating a semi-confined water zone. Grab water samples were collected from each boring and submitted for analysis. Analysis of the water sample collected from boring B4 indicated free-phase petroleum product. Laboratory results of water collected from borings B2 and B3 indicated detectable levels of TPH as gasoline and BTEX. Detectable levels of benzene, toluene, and total xylenes were reported in the water collected from boring B5. Below detectable levels of TPH as gasoline, benzene, and ethylbenzene were reported in the water sample collected from borings B1 and B6.

Grab water samples from boreholes are prescreening tools. However, results of the water analysis indicated that subsurface water onsite has been impacted with petroleum hydrocarbons. The extent of petroleum hydrocarbon impact appears to be localized around the former UST excavation and former dispenser island.

In accordance with a letter from Alameda County Health Care Services Agency dated January 20, 1995, laboratory analysis of soil samples collected from the stockpiled material indicated concentrations to be within acceptable levels, and therefore can be used as backfill material onsite. AES is currently backfilling the former tank excavation with the stockpiled material.

6.0 CONCLUSION

A Phase II Site Investigation was conducted onsite to help evaluate the subsurface environmental conditions. The data and observations discussed herein indicate that subsurface soil and water in the vicinity of the former tank excavation, fuel lines, and dispenser island have been impacted due to a release of petroleum hydrocarbons. The highest reported levels of constituents in the soil and water are located adjacent to the former dispenser island and fuel piping, upgradient of the former tank excavation. Below detectable levels of constituents were reported in the soil downgradient from the former tank excavation (borings B1 and B2) and upgradient of the former dispenser island (boring B5), indicating a horizontal extent of soil impact. *aren't they DG + CG?*

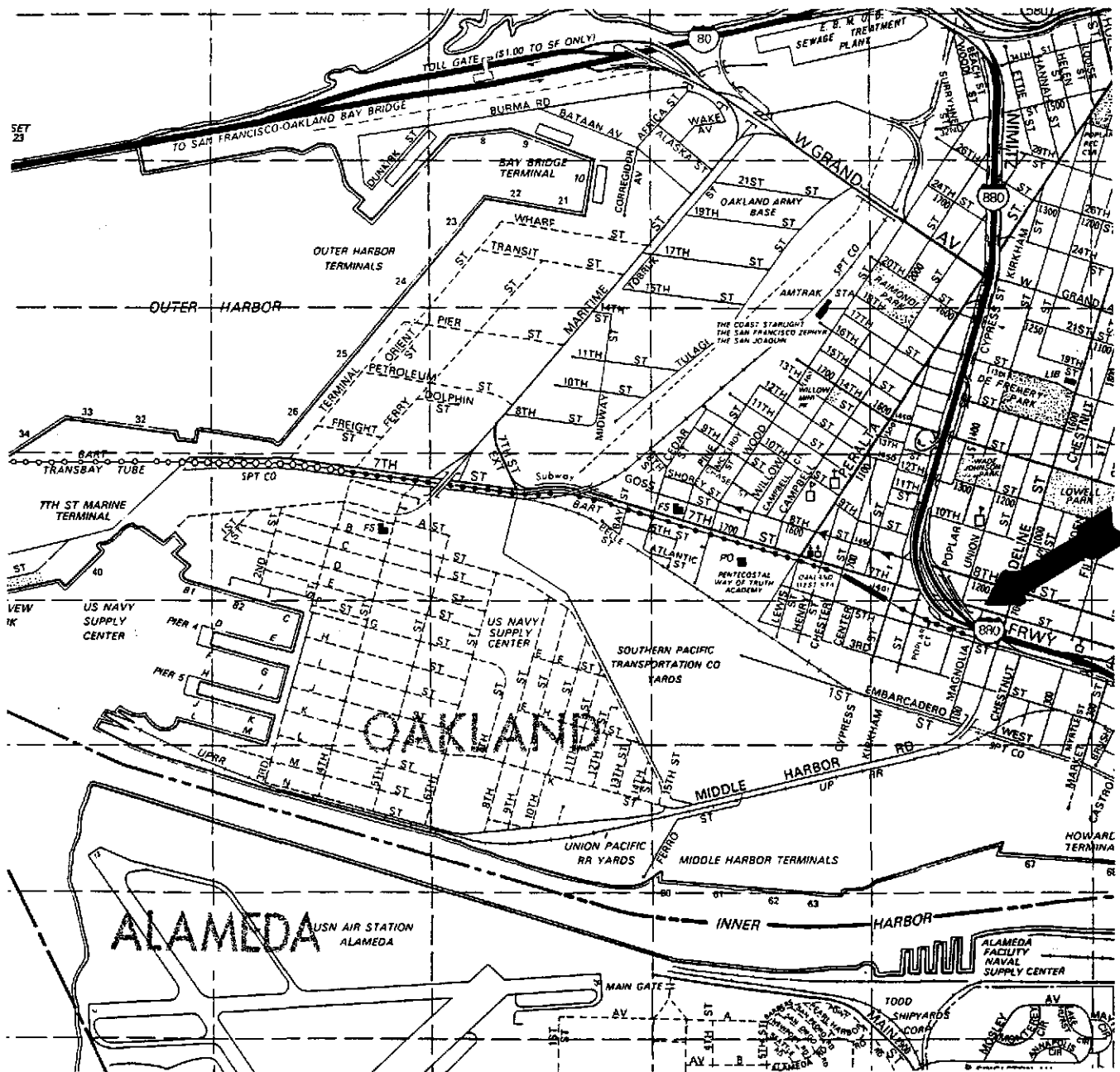
isn't this DG fm dispensers?

Boring sample results indicate that the soil impact is primarily in the capillary fringe zone, localized to specific sections of the piping and dispenser island. Migration appears to be primarily in the groundwater.

Detectable levels of constituents were reported in the groundwater downgradient of the former tank excavation (boring B2). Below detectable levels of constituents were reported in the groundwater in borings located in the presumed upgradient direction from the dispenser island, fuel lines, and tank excavation (borings B5 and B6). Based on the analytical results of the grab *?*

you said gw flows W to SW on pg 3.

water samples collected from the downgradient boring, the downgradient extent of petroleum hydrocarbons has not been determined. The highest concentrations reported appear to be localized around the former fuel line and dispenser island locations.



Location Map
1211 7th Street
Oakland, CA

October 19, 1994

Drawn By: MCK

Project: 94-6162-1

Figure 1



Seventh Street

Sidewalk

B6

B5

P1

Dispenser Island

P2

B3

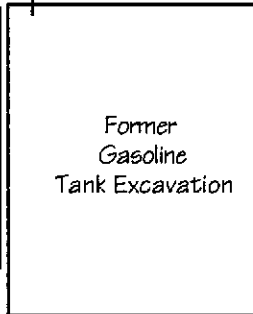
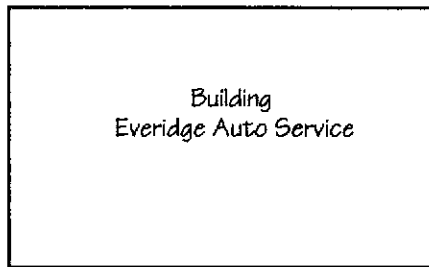
B4

P3

Piping

Sidewalk

Magnolia Street



Former Waste Oil Tank Excavation

B1

B2

LEGEND

Boring Location ● B2

Piping Samples ● P2

Scale: 1" = 20'



Site Plan
1211 7th Street
Oakland, CA

October 19, 1994

Drawn By: MCK

Project: 94-6162-1

Figure 2



Handwritten notes:
 1211 7th St
 1211 7th St
 1211 7th St

Seventh Street

B6	6.5	11.5
TPHg	ND	6500
Benzene	ND	33000
Toluene	ND	210000
E.benzene	ND	82000
Xylene	ND	380000

Sidewalk

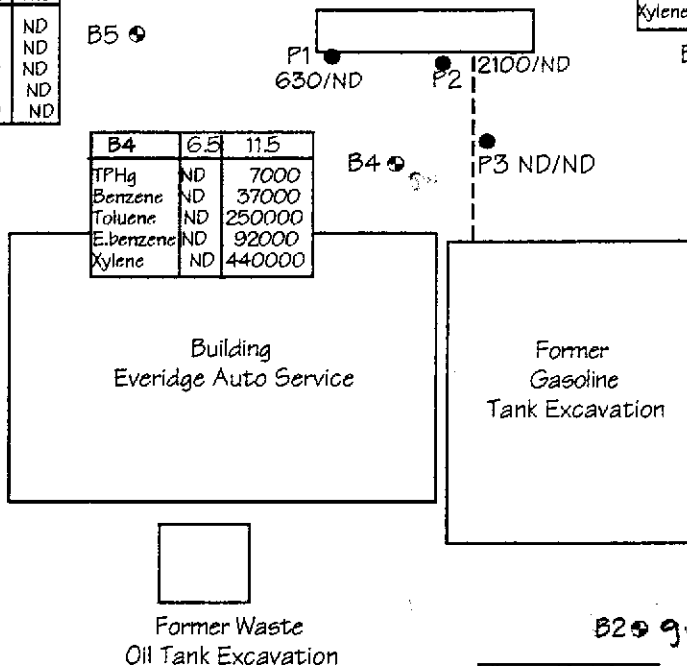
B3	6.5	11.5
TPHg	ND	1.5
Benzene	ND	56
Toluene	ND	63
E.benzene	ND	20
Xylene	ND	120

B5	6.5	11.5
TPHg	1.1	ND
Benzene	ND	ND
Toluene	ND	ND
E.benzene	ND	ND
Xylene	ND	ND

B4	6.5	11.5
TPHg	ND	7000
Benzene	ND	37000
Toluene	ND	250000
E.benzene	ND	92000
Xylene	ND	440000

B2	6.5	11.5
TPHg	1.1	ND
Benzene	ND	ND
Toluene	ND	ND
E.benzene	ND	ND
Xylene	ND	ND

B1	6	11
TPHg	ND	ND
Benzene	ND	ND
Toluene	ND	ND
E.benzene	ND	ND
Xylene	ND	ND

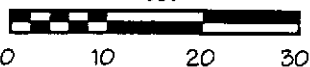


Sidewalk

Magnolia Street

LEGEND

Boring Location ● B2
 Piping Samples ● P2
 TPHg = Total Petroleum Hydrocarbon as gasoline
 TPHg Results in parts per million (ppm)
 Benzene, Toluene, Ethylbenzene, Xylenes (BTEX)
 BTEX Results in parts per billion (ppb)
 Piping results in ppm shown as TPHg/Benzene
 ND = Non Detect
 Scale: 1" = 20'
 Feet



Soil Sample Results
 1211 7th Street
 Oakland, CA

October 19, 1994

Drawn By: MCK

Project: 94-6162-1

Figure 3



Seventh Street

B6	
TPHg	ND
Benzene	ND
Toluene	ND
E.benzene	ND
Xylene	ND

Sidewalk

B3	
TPHg	1000
Benzene	39
Toluene	50
E.benzene	14
Xylene	74

B5	
TPHg	ND
Benzene	0.7
Toluene	1.2
E.benzene	ND
Xylene	1.7

B5

B6

B3

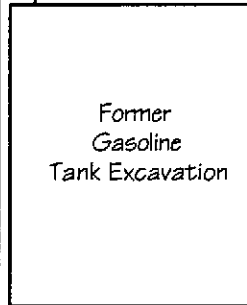
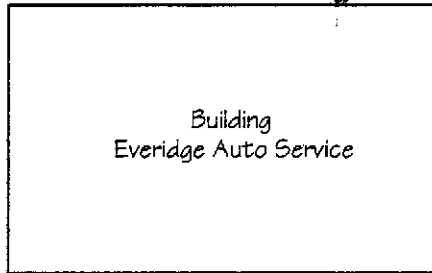
P1

P2

P3

B4 Free Product

B4



Former Waste Oil Tank Excavation

Sidewalk

Magnolia Street

B1

B1	
TPHg	ND
Benzene	ND
Toluene	ND
E.benzene	ND
Xylene	ND

B2

B2	
TPHg	37000
Benzene	7100
Toluene	30
E.benzene	270
Xylene	470

Boring Location ● B2

Piping Samples ● P2

TPHg = Total Petroleum Hydrocarbon as gasoline

Benzene, Toluene, Ethylbenzene, Xylenes (BTEX)

All Results in parts per billion (ppb)

ND = Non Detect

Scale: 1" = 20'

Feet



0 10 20 30

Water Sample Results

1211 7th Street
Oakland, CA

October 19, 1994

Drawn By: MCK

Project: 94-6162-1

Figure 4

APPENDIX A

LITHOLOGIC LOGS AND

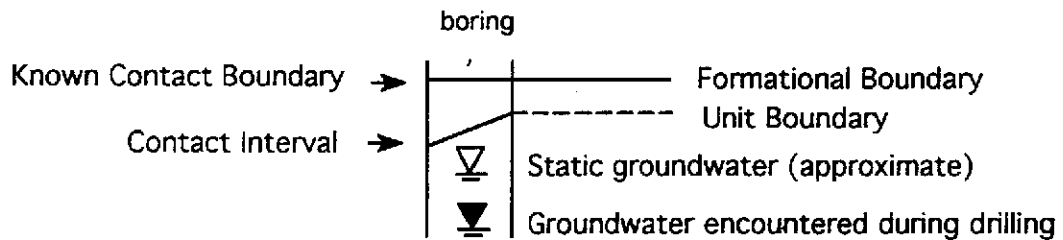
UNIFIED SOIL

CLASSIFICATION SYSTEM

UNIFIED SOIL CLASSIFICATION SYSTEM

MAJOR DIVISIONS				TYPICAL NAMES	
COARSE GRAINED SOILS more than half > #200 sieve	GRAVELS more than half coarse fraction is larger than No. 4 sieve	CLEAN GRAVELS WITH LITTLE OR NO FINES	GW		well graded gravels, gravel-sand mixtures
		GRAVELS WITH OVER 12% FINES	GP		poorly graded gravels, gravel-sand mixtures
		GRAVELS WITH OVER 12% FINES	GM		silty gravels, poorly graded gravel-sand silt mixtures
		GRAVELS WITH OVER 12% FINES	GC		clayey gravels, poorly graded gravel-sand clay mixtures
	SANDS more than half coarse fraction is smaller than No. 4 sieve	CLEAN SANDS WITH LITTLE OR NO FINES	SW		well graded sands, gravelly sands
		CLEAN SANDS WITH LITTLE OR NO FINES	SP		poorly graded sands, gravelly sands
		SANDS WITH OVER 12% FINES	SM		silty sands, poorly graded sand-silt mixtures
		SANDS WITH OVER 12% FINES	SC		clayey sands, poorly graded sand-clay mixtures
FINE GRAINED SOILS more than half < #200 sieve	SILTS AND CLAYS liquid limit less than 50	ML		inorg. silts and v. fine sands, rock flour silty or clayey sands, or clayey silts w/sl. plasticity	
		CL		inorg. clays of low-med plasticity, gravelly clays, sandy clays, silty clays, lean clays	
		OL		organic clays and organic silty clays of low plasticity	
	SILTY AND CLAYS liquid limit greater than 50	MH		inorganic silty, micaceous or diatomaceous fine sandy or silty soils, elastic silts	
		CH		inorganic clays of high plasticity, fat clays	
		OH		organic clays of medium to high plasticity organic silts	
HIGHLY ORGANIC SOILS		Pt		peat and other highly organic soils	

LEGEND FOR BORING LOGS



Date: 2/15/95

Project No. 94-6162-1

Willie Everidge
1211 Seventh Street
Oakland, CA



Soil color described using Munsell soil color charts	Blows/foot	SAMPLE #	Sample Int.	Depth (feet)	Driller: Gregg Drilling, B-53 Rig Equipment: Hollow Stem Auger Logged By: M. Kaltreider PROJECT: Willie Everidge Start Date: 09/26/94
(10YR-5/8)	50	B1-6.5		0 2 4 6 8 10 12 14	<p>Asphalt/baserock</p> <p>Yellowish brown, mottled reddish sand (SP), very fine grain sand, trace clay, very dense, moist.</p>
					(5Y-5/2)
ACC ENVIRONMENTAL CONSULTANTS 1000 ATLANTIC AVEUNUE, SUITE 110 ALAMEDA, CA 94501				JOB NO: 94-6162-1 DATE: 09/26/94	Boring B1 Willie Everidge 1211 7th Street Oakland, California

Soil color described using Munsell soil color charts	Blows/foot	SAMPLE #	Sample Int.	Depth (feet)	Driller: Gregg Drilling, B-53 Rig Equipment: Hollow Stem Auger Logged By: M. Kaltreider PROJECT: Willie Everidge Start Date: 09/26/94
(7.5YR-4/6)	20	B2-6.5		0	<p>Asphalt/baserock</p> <p>Brown sand (SP), very fine grain, with trace clay, slight layering of fines, very dense, moist.</p> <p>Olive grey sand (SP) slight mottling, very fine grain, med. dense, saturated.</p>
				12	
(5Y-5/2)	35	B2-11		14	
ACC ENVIRONMENTAL CONSULTANTS 1000 ATLANTIC AVEUNUE, SUITE 110 ALAMEDA, CA 94501			JOB NO: 94-6162-1 DATE: 09/26/94		Boring B2 Willie Everidge 1211 7th Street Oakland, California

Soil color described using Munsell soil color charts	Blows/foot	SAMPLE #	Sample Int.	Depth (feet)	Driller: Gregg Drilling, B-53 Rig Equipment: Hollow Stem Auger Logged By: M. Kaltreider PROJECT: Willie Everidge Start Date: 09/26/94
(7.5YR-4/6)	35	B3-6.5		0 2 4 6 8	Asphalt/baserock Brown sand (SP), very fine grain, with <5% fines, roots, slight mottling reddish brown, very dense, moist.
					(5Y-5/2)
					BOTTOM OF BORING @ 15 FEET 16 18 20 22 24 26 28
ACC ENVIRONMENTAL CONSULTANTS 1000 ATLANTIC AVEUNUE, SUITE 110 ALAMEDA, CA 94501			JOB NO: 94-6162-1 DATE: 09/26/94		Boring B3 Willie Everidge 1211 7th Street Oakland, California

Soil color described using Munsell soil color charts	Blows/foot	SAMPLE #	Sample Int.	Depth (feet)	Driller: Gregg Drilling, B-53 Rig Equipment: Hollow Stem Auger Logged By: M. Kaltreider PROJECT: Willie Everidge Start Date: 09/26/94
(7.5YR-4/6)	35	B4-6.5		0 2 4 6 8 10 12 14	Asphalt/baserock Brown sand (SP), very fine grain, very dense, moist.
					(5Y-5/2)
					BOTTOM OF BORING @ 15 FEET 16 18 20 22 24 26 28
ACC ENVIRONMENTAL CONSULTANTS 1000 ATLANTIC AVEUNUE, SUITE 110 ALAMEDA, CA 94501			JOB NO: 94-6162-1 DATE: 09/26/94		Boring B4 Willie Everidge 1211 7th Street Oakland, California

Soil color described using Munsell soil color charts	Blows/foot	SAMPLE #	Sample Int.	Depth (feet)	Driller: Gregg Drilling, B-53 Rig Equipment: Hollow Stem Auger Logged By: M. Kaltreider PROJECT: Willie Everidge Start Date: 09/26/94	
(7.5YR-4/6)	7	B5-6.5		0	Asphalt/baserock	
				2	Brown sand (SP), very fine grain, dense, moist (poor sample).	
(5Y-5/2)	20	B5-11.5		4		Dark grey to olive grey sand (SP), mottled very light brown, very fine grain, med. dense, saturated, strong hydrocarbon odor.
				6	8	
					BOTTOM OF BORING @ 15 FEET	
ACC ENVIRONMENTAL CONSULTANTS 1000 ATLANTIC AVEUNUE, SUITE 110 ALAMEDA, CA 94501					JOB NO: 94-6162-1	Boring B5 Willie Everidge 1211 7th Street Oakland, California
					DATE: 09/26/94	

Soil color described using Munsell soil color charts	Blows/foot	SAMPLE #	Sample Int.	Depth (feet)	Driller: Gregg Drilling, B-53 Rig Equipment: Hollow Stem Auger Logged By: M. Kaltreider PROJECT: Willie Everidge Start Date: 09/26/94
(7.5YR-4/6)	20	B6-6.5		0 2 4 6 8	Asphalt/baserock Brown sand (SP), very fine grain, dense, moist.
(5Y-5/2)	20	B6-11.5		10 12 14 16 18 20 22 24 26 28	Dark grey to olive grey sand (SP), mottled very light brown, very fine grain, med. dense, saturated, hydrocarbon odor. BOTTOM OF BORING @ 15 FEET
ACC ENVIRONMENTAL CONSULTANTS 1000 ATLANTIC AVEUNUE, SUITE 110 ALAMEDA, CA 94501			JOB NO: 94-6162-1 DATE: 09/26/94		Boring B6 Willie Everidge 1211 7th Street Oakland, California

APPENDIX B

CHAIN OF CUSTODY FORMS

AND

ANALYTICAL RESULTS

CHROMALAB, INC.

Environmental Services (SDB)

October 4, 1994

Submission #: 9409385

ACC ENVIRONMENTAL CONSULTANTS

Atten: Misty Kaltreider

Project: WILLIE EVERIDGE

Project#: 6162-1

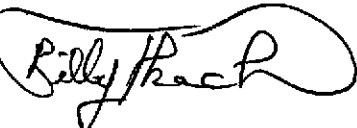
Received: September 27, 1994

re: 12 samples for Gasoline and BTEX analysis.

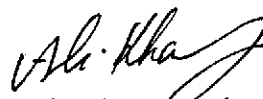
Sampled: September 26, 1994 Matrix: SOIL Run#: 4070 Analyzed: October 3, 1994
Method: EPA 5030/8015M/8020

Spl #	CLIENT SMPL ID	Gasoline (mg/Kg)	Benzene (ug/Kg)	Toluene (ug/Kg)	Ethyl Benzene (ug/Kg)	Total Xylenes (ug/Kg)
64247	B1-6	N.D.	N.D.	N.D.	N.D.	N.D.
64248	B1-11	N.D.	N.D.	N.D.	N.D.	N.D.
64250	B2-6.5	1.1	N.D.	N.D.	N.D.	N.D.
64251	B2-11.5	N.D.	N.D.	N.D.	N.D.	N.D.
64253	B3-6.5	N.D.	N.D.	N.D.	N.D.	N.D.
64254	B3-11.5	1.5	56	63	20	120
64256	B4-6.5	N.D.	N.D.	N.D.	N.D.	N.D.
64257	B4-11.5	7000	37000	250000	92000	440000
Note: DET. LIMIT: BTEX=10000UG/KG & GASOLINE=2000MG/KG						
64259	B5-6.5	N.D.	N.D.	N.D.	N.D.	N.D.
64260	B5-11.5	N.D.	N.D.	N.D.	N.D.	N.D.
64262	B6-6.5	N.D.	N.D.	N.D.	N.D.	N.D.
64263	B6-11.5	6500	33000	210000	82000	380000
Note: DETECTION LIMIT: BTEX=4200UG/KG & GASOLINE=840MG/KG						

Reporting Limits	1.0	5.0	5.0	5.0	5.0
Blank Result	N.D.	N.D.	N.D.	N.D.	N.D.
Blank Spike Result (%)	118	96	104	112	108



Billy Thach
Chemist



Ali Kharrazi
Organic Manager

CHROMALAB, INC.

Environmental Services (SDB)

October 4, 1994

Submission #: 9409385

ACC ENVIRONMENTAL CONSULTANTS

Atten: Misty Kaltreider

Project: WILLIE EVERIDGE
Received: September 27, 1994

Project#: 6162-1

re: 6 samples for Gasoline and BTEX analysis.

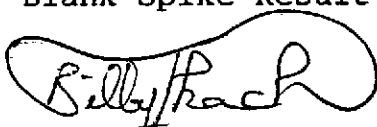
Sampled: September 26, 1994
Method: EPA 5030/8015M/602/8020

Matrix: WATER

Run#: 4055

Analyzed: September 30, 1994

Spl #	CLIENT SMPL ID	Gasoline (mg/L)	Benzene (ug/L)	Toluene (ug/L)	Ethyl Benzene (ug/L)	Total Xylenes (ug/L)
64249	B1-H2O	N.D.	N.D.	N.D.	N.D.	N.D.
64252	B2-H2O*	37	7100	30	270	470
64255	B3-H2O	1.0	39	50	14	74
64258	B4-H2O	260	6900	16000	2700	13000
Note: DETECTION LIMIT : BTEX=100UG/L & GASOLINE 10 MG/L						
64261	B5-H2O	N.D.	0.70	1.2	N.D.	1.7
64264	B6-H2O	N.D.	N.D.	N.D.	N.D.	N.D.
Reporting Limits		0.05	0.5	0.5	0.5	0.5
Blank Result		N.D.	N.D.	N.D.	N.D.	N.D.
Blank Spike Result (%)		99	94	108	96	103



Billy Thach
Chemist



Ali Kharrazi
Organic Manager

* Detection Limit: Benzene = 50 ug/L
Toluene, Ethyl Benzene, Xylenes = 5ug/L
Gasoline = 0.5mg/L

CHROMALAB, INC.

Environmental Services (SDB)

September 29, 1994

Submission #: 9409385

ACC ENVIRONMENTAL CONSULTANTS

Atten: Misty Kaltreider

Project: WILLIE EVERIDGE
Received: September 27, 1994


Project#: 6162-1

re: 1 sample for Lead analysis.

Sampled: September 26, 1994 Matrix: SOIL Extracted: September 29, 1994
Method: EPA 3050/7420 Run#: 4031 Analyzed: September 29, 1994

Spl #	CLIENT	SMPL ID	LEAD (mg/Kg)	REPORTING LIMIT (mg/Kg)	BLANK RESULT (mg/Kg)	BLANK SPIKE RESULT (%)
64256	B4-6.5		5.8	0.5	N.D.	116


Doina Danet
Chemist


John S. Labash
Inorganic Supervisor

CHROMALAB, INC.

Environmental Services (SOB)

January 10, 1995

Submission #: 9501033

ACC ENVIRONMENTAL CONSULTANTS

Atten: Misty Kaltreider

Project: WILLIE
Received: January 5, 1995

Project#: 6162-1

re: 3 samples for Gasoline and BTEX analysis.

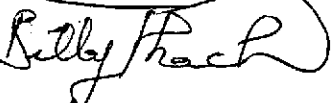
Matrix: SOIL

Sampled: January 5, 1995
Method: EPA 5030/8015M/8020

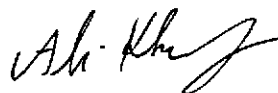
Run#: 5067

Analyzed: January 9, 1995

Spl #	CLIENT SMPL ID	Gasoline (mg/Kg)	Benzene (ug/Kg)	Toluene (ug/Kg)	Ethyl Benzene (ug/Kg)	Total Xylenes (ug/Kg)
74533	P-1	630	N.D.	2600	2800	67000
Note: DETECTION LIMIT: BTEX=100UG/KG & GASOLINE=20MG/KG						
74534	P-2	2100	N.D.	21000	27000	220000
Note: DETECTION LIMIT: BTEX=100UG/KG & GASOLINE=20MG/KG						
74535	P-3	N.D.	N.D.	N.D.	N.D.	N.D.
Reporting Limits		1.0	5.0	5.0	5.0	5.0
Blank Result		N.D.	N.D.	N.D.	N.D.	N.D.
Blank Spike Result (%)		93	98	102	102	105



Billy Thach
Chemist



Ali Kharrazi
Organic Manager

CHROMALAB, INC.

Environmental Services (SDB)

January 10, 1995

Submission #: 9501033

ACC ENVIRONMENTAL CONSULTANTS

Atten: Misty Kaltreider

Project: WILLIE
Received: January 5, 1995

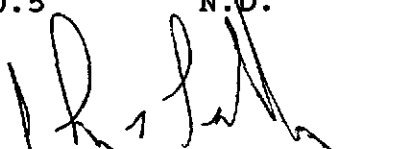
Project#: 6162-1

re: 1 sample for Lead analysis.

Sampled: January 5, 1995 Matrix: SOIL Extracted: January 9, 1995
Method: EPA 3050/7420 Run#: 5069 Analyzed: January 10, 1995

<u>Spl #</u>	<u>CLIENT</u>	<u>SMPL ID</u>	<u>LEAD</u>	<u>REPORTING</u>	<u>BLANK</u>	<u>BLANK SPIKE</u>
			<u>(mg/Kg)</u>	<u>LIMIT</u>	<u>RESULT</u>	<u>RESULT</u>
				<u>(mg/Kg)</u>	<u>(mg/Kg)</u>	<u>(%)</u>
74535	P-3		5.4	0.5	N.D.	110


Doina Danet
Chemist


John S. Labash
Inorganic Supervisor

CHROMALAB, INC.

Environmental Services (SDB)

January 10, 1995

Submission #: 9501033

ACC ENVIRONMENTAL CONSULTANTS

Atten: Misty Kaltreider

Project: WILLIE
Received: January 5, 1995


Project#: 6162-1


re: 5 samples for STLC/7420 LEAD - PB AA analysis.

Sampled: January 5, 1995
Method: CA WET/EPA 3010/7420

Matrix: SOIL Extracted: January 9, 1995
Run#: 5071 Analyzed: January 10, 1995

Spl #	CLIENT	SMPL ID	LEAD (mg/L)	REPORTING LIMIT (mg/L)	BLANK RESULT (mg/L)	BLANK SPIKE RESULT (%)
74536	SP-1		5	1	N.D.	106
74537	SP-2		3	1	N.D.	106
74538	SP-3		5	1	N.D.	106
74539	SP-4		13	1	N.D.	106
74540	SP-5		3	1	N.D.	106


Doina Danet
Chemist


John S. Labash
Inorganic Supervisor

CHROMALAB, INC.

DOHS 1094

052/745 2.3 - 415410
 SUBM #: 9501033
 2239 C CLIENT: ACC
 DUE: 01/12/95
 REF #: 20007

20007
Chain of Custody

VIE PAGE OF

PROJ. MGR. Misty Kalthreider
 COMPANY ACC Environmental
 ADDRESS 1000 Atlantic Ave. Suite 110
Alameda, CA 94501

SAMPLERS (SIGNATURE) Misty Kalthreider (50) (PHONE NO.) 522-2198

SAMPLE ID	DATE	TIME	MATRIX	PRESERV.
P-1	1/5/95		S	
P-2				
P-3				
SP-1				
SP-2				
SP-3				
SP-4				
SP-5				

TPH - Gasoline (EPA 5030, 8015)	TPH - Gasoline (5030, 8015) w/BTEX (EPA 602, 8020)	TPH - Diesel (EPA 3510/3550, 8015)	PURGEABLE AROMATICS BTEX (EPA 602, 8020)	PURGEABLE HALOCARBONS (EPA 601, 8010)	VOLATILE ORGANICS (EPA 624, 8240, 524.2)	BASE/NEUTRALS, ACIDS (EPA 625/627, 8270, 525)	TOTAL OIL & GREASE (EPA 5520, 8+F, E-F)	PCB (EPA 608, 8080)	PESTICIDES (EPA 608, 8080)	TOTAL RECOVERABLE HYDROCARBONS (EPA 418.1)	METALS: Cd, Cr, Pb, Zn, Ni	CAM METALS (17)	PRIORITY POLLUTANT METALS (13)	TOTAL LEAD	EXTRACTION (TCLP/STC) <u>Lead</u>	NUMBER OF CONTAINERS
	X															1
	X															1
	X													X		1
														X		1
														X		1
														X		1
														X		1

PROJECT INFORMATION		SAMPLE RECEIPT	
PROJECT NAME: <u>Willie</u>	TOTAL NO. OF CONTAINERS: <u>8</u>	HEAD SPACE	
PROJECT NUMBER: <u>10162-1</u>	REC'D GOOD CONDITION/COLD	CONFORMS TO RECORD	
P.O. # <u>10162-1</u>	TAT	STANDARD 5-DAY	24 48 72 OTHER

SPECIAL INSTRUCTIONS/COMMENTS:

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
1. <u>Misty Kalthreider</u> (SIGNATURE) (TIME) <u>Misty Kalthreider</u> (PRINTED NAME) (DATE) <u>ACC Environmental</u> (COMPANY)	1. <u>[Signature]</u> (SIGNATURE) (TIME) <u>[Printed Name]</u> (PRINTED NAME) (DATE) <u>[Company]</u> (COMPANY)	2. <u>[Signature]</u> (SIGNATURE) (TIME) <u>[Printed Name]</u> (PRINTED NAME) (DATE) <u>[Company]</u> (COMPANY)	2. <u>[Signature]</u> (SIGNATURE) (TIME) <u>[Printed Name]</u> (PRINTED NAME) (DATE) <u>[Company]</u> (COMPANY)
3. <u>[Signature]</u> (SIGNATURE) (TIME) <u>[Printed Name]</u> (PRINTED NAME) (DATE) <u>[Company]</u> (COMPANY)	3. <u>[Signature]</u> (SIGNATURE) (TIME) <u>[Printed Name]</u> (PRINTED NAME) (DATE) <u>[Company]</u> (COMPANY)	3. <u>[Signature]</u> (SIGNATURE) (TIME) <u>[Printed Name]</u> (PRINTED NAME) (DATE) <u>[Company]</u> (COMPANY)	3. <u>[Signature]</u> (SIGNATURE) (TIME) <u>[Printed Name]</u> (PRINTED NAME) (DATE) <u>[Company]</u> (COMPANY)

CHROMALAB, INC.

Environmental Services (SDB)

January 20, 1995

Submission #: 9501103

ACC ENVIRONMENTAL CONSULTANTS

Atten: Misty Kaltreider

Project: WILLIE

Project#: 6162-1


Received: January 5, 1995

re: 1 sample for STLC/7420 LEAD - PB - DI WATER AA analysis.

Sampled: January 5, 1995 Matrix: SOIL Extracted: January 20, 1995
Method: CA WET/EPA 3010/7420M DI WATER Run#: 5166 Analyzed: January 20, 1995

Spl #	CLIENT	SMPL ID	LEAD (mg/L)	REPORTING LIMIT (mg/L)	BLANK RESULT (mg/L)	BLANK SPIKE RESULT (%)
75115	SP-4		N.D.	1	N.D.	110


Doina Danet
Chemist


John S. Labash
Inorganic Supervisor

