Wahler Associates

Geotechnical, Environmental and Water Resources Engineering

November 10, 1993
MAR-W01H

Mr. Michael Marr
27737 Fallen Leaf Court
Hayward, California 94542

Subject: Limited Subsurface Investigation
2504 MacArthur Blvd.
Oakland, California 94602

Dear Mr. Marr:

Wahler Associates (Wahler) is pleased to present this report on a limited subsurface investigation program performed on the property located at 2504 MacArthur Boulevard, Oakland, California.

Included in this report are a copy of "Underground Storage Tank Unauthorized Release (Leak)/Contamination Site Report," and a workplan for removal and disposal of underground storage tanks. These documents are required components of eventual site closure.

Please call if you have any questions or comments.

Very truly yours,

WAHLER ASSOCIATES

Ray N. Kahler, CEG
Project Manager

Fred A. Seirafi
Manager, East Bay Office

FAS/db:wp
enclosure

cc: B.F. Rose, Esq.
Randick & O'Dea

One Walnut Creek Center, 100 Pringle Ave., Suite 580, Walnut Creek, CA 94596 • Telephone Number (510) 746-8890
FAX: (510) 746-3838

LIMITED SUBSURFACE INVESTIGATION
2504 MACARTHUR BOULEVARD
OAKLAND, CALIFORNIA

A. INTRODUCTION/BACKGROUND

Wahler Associates (Wahler) was retained by Mr. Michael Marr to conduct a limited subsurface investigation on the property located at 2504 MacArthur Boulevard, Oakland, California (Site Location Map, Figure 1 and Site Plan, Figure 2).

The site is a former service station with three 4,000-gallon gasoline tanks, and one 500-gallon waste oil tank. As the tanks are believed to be old, there was a concern that one or more of the tanks have leaked fuel hydrocarbons into the subsurface. The purpose of the investigation was to determine if fuel hydrocarbons have impacted the subject property.

The scope of services consisted of utilizing the services of Underground Service Alert (USA) and a private underground surveyor to locate and identify underground utilities and to confirm tank locations; advance soil borings for soil sampling; soil gas measurements; chemical analysis of samples; preparation of a report summarizing the results; and preparation of a workplan for future activities leading to the closure of the site.

B. SUBSURFACE INVESTIGATION

1. Drilling

Prior to drilling activities, all utilities were located using the services of USA and a private locator, Underground Services, Inc. of San Leandro, California.

Wahler completed one [redacted] on the site to a depth of 13 feet on October 14, 1993. Originally, it was planned to use a mobile power auger to drill the hole; however, due to the softness of substrata, a hand auger was used to advance the boring. During the drilling operation several soil samples were collected at appropriate intervals using a slide hammer with soil sampler. Soil cuttings were logged by an experienced registered geologist and were screened in the field with an organic vapor monitor using head space analysis. For the head space test, the soil cuttings were placed in a ziplock plastic bag and exposed to sunlight to enhance volatilization of any hydrocarbon pollutants in the soil cuttings. The head space in the ziplock bags was then tested for hydrocarbon content using a portable organic vapor monitor.

Two soil samples were collected at depths of [redacted] feet below ground surface by driving a slide hammer sampler. After collection of samples, the brass tube ends were covered with aluminum foil and capped with plastic end-caps which were taped to the brass tubes with duct tape. The tubes were then labeled and placed in an iced cooler for transport under chain-of-custody to Chromalab Laboratory for chemical analysis. Groundwater was not encountered during drilling activities. The log of the boring is presented in Appendix A. The boring was backfilled with neat cement grout.

2. Soil Sampling Results

Each soil sample was analyzed for Total Petroleum Hydrocarbons as Gasoline (TPH-G), test method 5030/8015, and for Benzene, Toluene, Ethylbenzene, and Xylenes (BTEX), test method 8020. In addition, the sample from 5 feet depth was tested for Total Extractable Petroleum Hydrocarbon (TEPH), test method 3550/8015.

Soil sample from the depth of 5 feet displayed [redacted] parts per million (ppm) of TPH and 3,900 parts per billion (ppb) of ethylbenzene. Other components were not detected at the laboratory detection limit; however, it should be noted that due to the needed dilution, detection limit was

set at 200 ppb. The sample also displayed 700 ppm of kerosene, 31 ppm of diesel and 22 ppm of motor oil. The sample at the depth of 12.5 feet contained 20 ppm of gasoline, 200 ppb of ethylbenzene and 190 ppb of total xylenes. Copies of laboratory test results along with the chain-of-custody are presented in Appendix B.

The above test results indicate that the property has been moderately impacted by petroleum hydrocarbons which most likely emanated from the underground storage tanks at the site. The spatial extent of such impact will be best determined once the underground storage tanks, which are presently empty and out of service, have been removed and a full site characterization study performed. A draft workplan for the removal and disposal of the tanks is presented in Appendix C.

An Underground Storage Tank Unauthorized Release (Leak)/contamination Site Report has been prepared for this site and is attached to this report. It is recommended that a copy of this report be submitted to the proper regulatory agency.

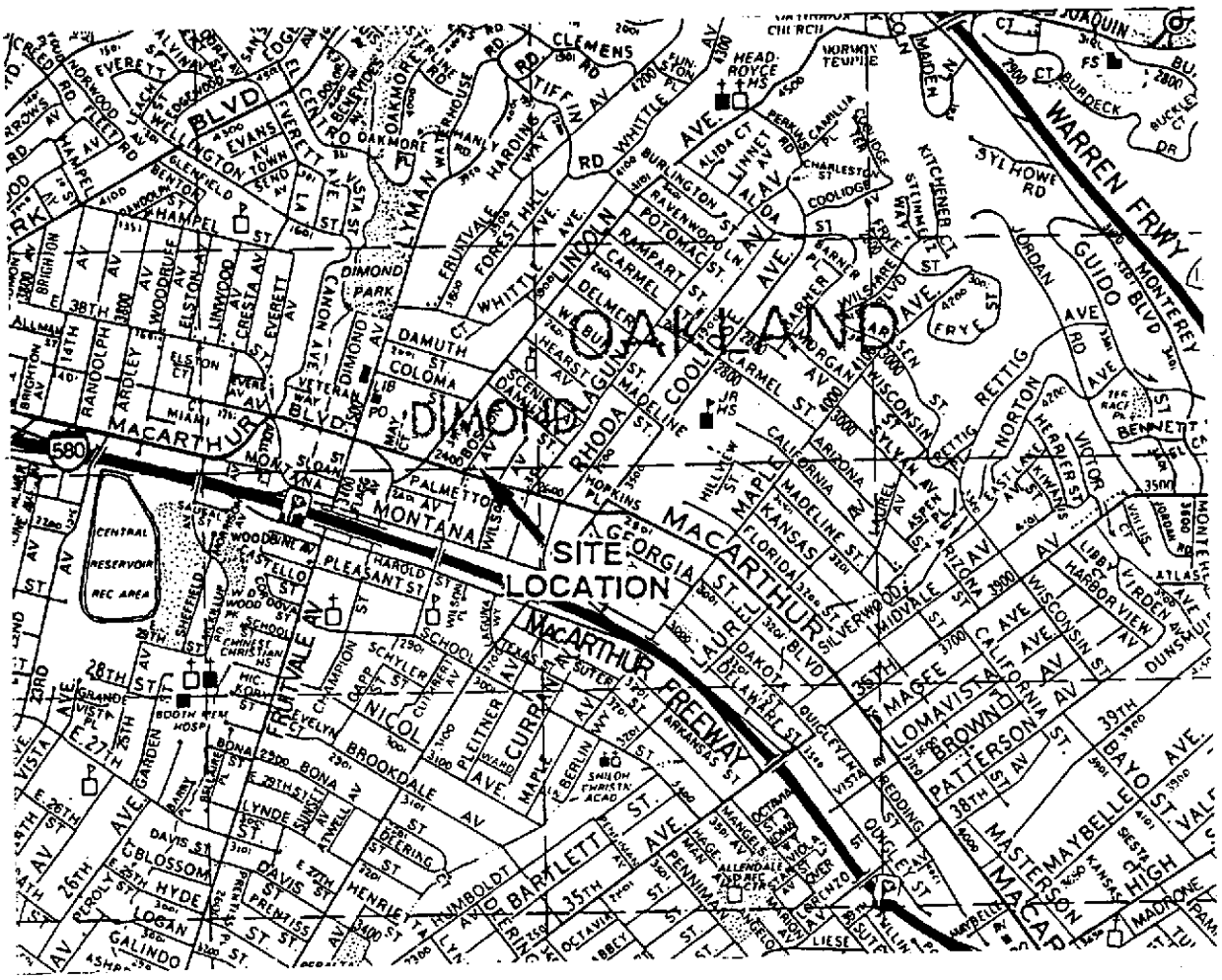
C. LIMITATIONS

The data, information, interpretations, and recommendations contained in this technical report are presented solely as preliminary bases and guides to the existing environmental conditions of the property located at 2504 MacArthur Boulevard, Oakland, California. The conclusions and professional opinions presented herein were developed by Wahler Associates in accordance with generally accepted engineering principles and practices. As with all geotechnical and environmental reports, the opinions expressed here are subject to revisions in light of new information, new governmental regulations or new interpretations of existing regulations, which may be developed in the future, and no warranties are expressed or implied.

This report has not been prepared for use by parties other than Mr. Michael Marr. It may not contain sufficient information for the purposes of other parties or other uses. If any changes are

made in the project as described in this report, the conclusions and recommendations contained herein should not be considered valid, unless the changes are reviewed by Wahler Associates, and the conclusions and recommendations are modified or approved in writing.

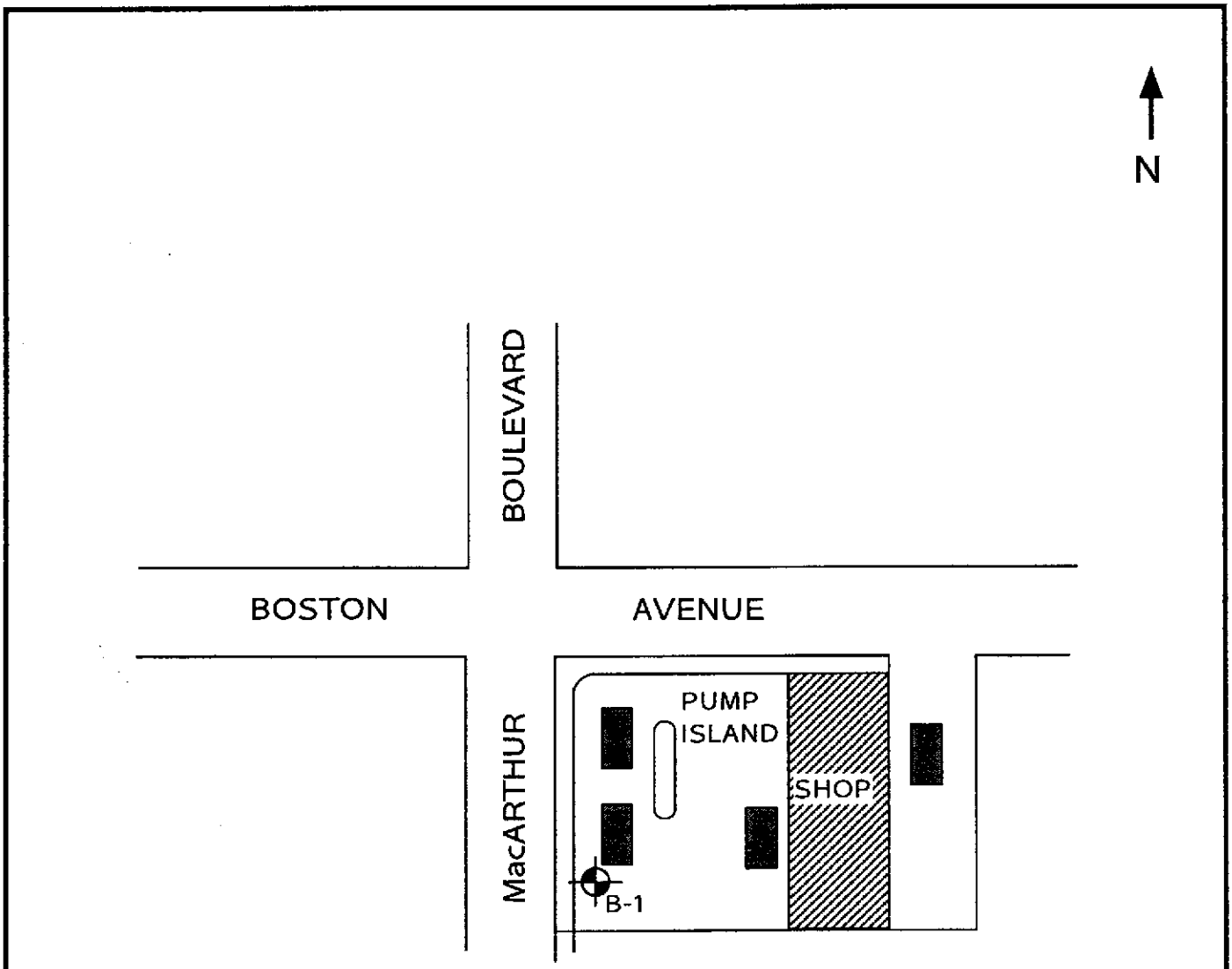
Soil deposits may vary in type, strength, permeability, and many other important properties between points of observation and exploration. Additionally, changes can occur in groundwater and soil moisture conditions due to seasonal variations, or for other reasons. Furthermore, the distribution of chemical concentrations in the soil and groundwater can vary spatially and over time. The chemical analysis results presented herein are illustrative of only the sampling locations at the time of sampling. Therefore, it must be recognized that Wahler does not and cannot have complete knowledge of the subsurface conditions underlying the subject site. The opinions presented are based upon the findings at the points of exploration and upon interpretative data, including interpolation and extrapolation of information obtained at points of observation.



Base from Thomas Bros. Map

Not to Scale

Wahler Associates PALO ALTO / WALNUT CREEK CA	2504 MacArthur Blvd. Oakland, California	SITE LOCATION MAP		
		Project No.	Date	Figure No.
		MAR-W01H	November 1993	1



LEGEND

Approximate Boring Location

Approximate Tank Location

Not to Scale

Wahler Associates

PALO ALTO / WALNUT CREEK CA

2504 MacArthur Blvd.
Oakland, California

Site Plan

Project No.	Date	Figure No.
MAR-W01H	November 1993	2

BORING LOCATION: Southwest edge of property		APPROVED BY: RNK	GROUND EL:
DEPTH/ELEV.WATER : Not encountered	DRILL CONTRACTOR: N/A		TOTAL DEPTH: 13 ft.
DRILL RIG: Hand Augered	BORING DIA.: 4 inch	DATE DRILLED: 10/12/93	LOGGED BY: RNK

SOIL CLASS	DESCRIPTION	DEPTH	SAMPLE NO.	PR / RQD	REC.	MODE	REMARKS
	ASPHALT	0				AU	Advance boring with 4" O.D. hand auger (AU). Samples obtained by driving (DR) a 2" I. D. stainless steel sampler using a hand held slide hammer .
CL	0.3'-3.0' SANDY LEAN CLAY: yellowish brown; moist; ~55% medium plastic fines; ~45% fine to coarse sand.	1					1.0': Bag Sample; OVM = 49 ppm
	~1.5': color change to greenish grey		SB-1-1.5		100%	DR	1.5': Bag sample; OVM = 13 ppm 1.5'-2.0' DR SB-1-1.5: 1.5'-2.0'
		2					
SM	3.0'-5.0' SILTY SAND: grey; very moist; ~70% fine to coarse sand, angular to subrounded; ~30% low plastic fines; hydrocarbon odor.	3				AU	3.0': Bag sample; OVM = 396 ppm
	~4'-6': product apparent in cuttings	4					
		5	SB-1-5.0		100%	DR	5.0'-5.5': DR SB-1-5.0: 5.0'-5.5'
ML	5.0'-7.0' SANDY SILT: greenish grey; moist; ~55% low plastic fines; ~45% fine to medium sand; hydrocarbon odor.	6					6.0': Bag sample; OVM = 476 ppm
		7				AU	
CL	7.0'-8.5' SANDY LEAN CLAY (CL): yellowish brown; moist; ~55% medium plastic fines; ~45% fine to medium sand.						
	~8': color change to greenish grey	8					
CL	8.5'-9.0' SANDY LEAN CLAY with GRAVEL (CL): greenish grey; moist; ~55% medium plastic fines; ~30% fine to coarse sand; angular to subrounded; ~25% gravel to 2", angular to subrounded.						
		9	SB-1-9.0		100%	DR	9.0': Bag sample; OVM = 105 ppm 9.0'-9.5': DR SB-1-9.0: 9.0'-9.5'
GC	9.0'-12.5' CLAYEY GRAVEL with SAND (GC): yellowish brown; moist; ~40% medium plastic fines; ~35% gravel to 2", angular to subrounded; ~25% fine to coarse sand, angular to subrounded; hydrocarbon odor.					AU	
		10					

Wahler Associates PALO ALTO · WALNUT CREEK	Limited Subsurface Investigation 2504 MacArthur Blvd. Oakland, California	EXPLORATION BORING LOG	BORING NO. SB-1
		PROJECT NO. MAR-W01H	SHEET: 1 of 2

BORING LOCATION:		APPROVED BY:	GROUND EL:
DEPTH/ELEV.WATER :	DRILL CONTRACTOR:		TOTAL DEPTH:
DRILL RIG:	BORING DIA.:	DATE DRILLED:	LOGGED BY:

SOIL CLASS	DESCRIPTION	DEPTH	SAMPLE NO.	PR / RQD	REC.	MODE	REMARKS
GC	9.0'-12.5' CLAYEY GRAVEL with SAND (continued).	10					
		11				AU	10.5': Bag sample; OVM = 10 ppm
		12					11.5': Bag sample; OVM = 14 ppm
SC	12.5'-13.0' CLAYEY SAND: yellowish brown; moist; ~70% fine to coarse sand, angular to subrounded; ~20% medium plastic fines; ~10% gravel.		SB-1-12.5		100%	DR	12.5'-13.0': DR SB-1-12.5: 12.5'-13.0' 13.0': Bag sample; OVM = 10 ppm
	TOTAL DEPTH 13.0'	13					Boring terminated at 13.0'
		14					HOLE COMPLETION Backfilled with neat cement grout
		15					
		16					
		17					
		18					
		19					
		20					

Data on this log are an approximation of the geologic and subsurface conditions because the information was obtained from indirect, discontinuous, and possibly disturbed sampling necessitated by the use of small diameter holes. Rotary and wash boring holes have further complications in this regard because of the need to use drilling fluid and/or casing in advanced holes.

This log indicates conditions in this hole only on the date indicated and may not represent conditions at other locations and on other dates. Any water levels shown are subject to variation.

This hole was logged in such a way as to provide data primarily for design purposes and not necessarily for the purposes of specific contractors.

The stratification lines or depth intervals represent the approximate boundaries between material types, and the transitions may be gradual.

Soil classifications shown on logs are field classifications based on the Unified Soil Classification System.

Wahler Associates
PALO ALTO - WALNUT CREEK

Limited Subsurface Investigation
2504 MacArthur Blvd.
Oakland, California

EXPLORATION BORING LOG

PROJECT NO. MAR-W01H

SHEET: 2 of 2

BORING NO. SB-1

CHROMALAB, INC.

Environmental Laboratory (1094)

5 DAYS TURNAROUND

October 18, 1993 ChromaLab File No.: 9310147

WAHLER ASSOCIATES/WALNUT CREEK

Attn: Todd Murray

RE: One soil sample for TEPH analysis

Project Name: 2504 MacARTHUR BLVD.
Project Number: MAR-W01H
Date Sampled: October 12, 1993 Date Submitted: October 13,1993
Date Extracted: October 15, 1993 Date Analyzed: October 15, 1993

RESULTS:

Sample I.D.	Kerosene (mg/Kg)	Diesel (mg/Kg)	Motor Oil (mg/Kg)
SB1-5	[redacted]	31	22
BLANK	N.D.	N.D.	N.D.
SPIKE RECOVERY	----	89%	----
DUP SPIKE RECOVERY	----	86%	----
DETECTION LIMIT	1.0	1.0	10.0
METHOD OF ANALYSIS	3550/8015	3550/8015	3550/8015

ChromaLab, Inc.

Alex Tam
Analytical Chemist

Eric Tam
Laboratory Director

cc

2239 Omega Road,#1 • San Ramon, California 94583
(510) 831-1788 • Facsimile (510) 831-8798
Federal ID #68-0140157

CHROMALAB, INC.

Environmental Laboratory (1094)

5 DAYS TURNAROUND

October 20, 1993 ChromaLab File No.: 9310147

WAHLER ASSOCIATES/WALNUT CREEK

Attn: Todd Murray

RE: Two soil samples for Gasoline and BTEX analysis

Project Name: 2504 MacARTHUR BLVD.
Project Number: MAR-W01H
Date Sampled: October 12, 1993 Date Submitted: October 13, 1993
Date Analyzed: October 15, 1993

RESULTS:

Sample I.D.	Gasoline (mg/Kg)	Benzene (µg/Kg)	Toluene (µg/Kg)	Ethyl Benzene (µg/Kg)	Total Xylenes (µg/Kg)
SB1-5	[redacted]	N.D.*	N.D.*	[redacted]	N.D.*
SB1-12.5	20	N.D.	N.D.	220	190
BLANK	N.D.	N.D.	N.D.	N.D.	N.D.
SPIKE RECOVERY	103%	89%	100%	101%	102%
DUP SPIKE RECOVERY	----	88%	100%	104%	101%
DETECTION LIMIT	1.0	5.0	5.0	5.0	5.0
METHOD OF ANALYSIS	5030/8015	8020	8020	8020	8020

*Detection Limit = 200 µg/Kg due to dilution needed.

ChromaLab, Inc.

Jack Kelly
Analytical Chemist

Eric Tam
Laboratory Director

cc

2239 Omega Road,#1 • San Ramon, California 94583
(510) 831-1788 • Facsimile (510) 831-8798
Federal ID #68-0140157

CHAIN OF CUSTODY FORM

Wahler Associates
~~1023 Corporation Way~~
~~P.O. Box 10023~~
~~Palo Alto, CA 94303~~
~~FAX: (415) 968-5365~~
~~(415) 968-6250~~
Walnut Creek Office

Serial Number: [redacted]
WA Authorization:
Sheet 1 of 1

Laboratory: Chromalab #13685
Turnaround Time: Normal
Results To: Todd Murray

Samplers: Ray Kahler, Todd Murray
Recorder: Todd Murray

Project: 2504 MacArthur Blvd.
Job Number: MAR-W01H
Project Manager: Fred Serafi
Date: 10/13/1993

SUBM #: 9310147
CLIENT: WAHLER
DUE: 10/20/93
REF: 13685

ITEM NO.	SAMPLE NUMBER	DATE AND TIME SAMPLED: Date	DATE AND TIME SAMPLED: Time	MATRIX	# CONTAINERS & PRESERVATIVES: UNPRESERVED	H_2SO_4	HNO_3	HCl			ANALYSIS R: GasBTEX	Diesel	HOLD				COMMENTS
1	SB1-1.5	10/12/93	9:30	Soil								X					
2	SB1-5	↓	10:00	↓							X	X					
3	SB1-9		11:00									X					(Sample at marked end)
4	SB1-12.5		1:45								X						
5																	
6																	
7																	
8																	
9																	
10																	
11																	
12																	

MISCELLANEOUS

Number of Coolers	Type of Coolant
1	ICE

COMMENTS:
Please ~~Hold~~ all ~~Samples~~ until analysis phoned in. Run per Todd 12:40 pm 10/13/93

LABORATORY COPY WHITE PROJECT COPY YELLOW FIELD or OFFICE COPY PINK

CHAIN OF CUSTODY RECORD

Relinquished by: (signature & affiliation)	Date/Time	Received by: (signature & affiliation)	Date/Time
Relinquished by: (signature & affiliation)		Received by: (signature & affiliation)	Date/Time
Relinquished by: (signature & affiliation)		Received by: (signature & affiliation)	Date/Time
Relinquished by: (signature & affiliation) Todd B Murray WA	10/13/93 10:45	Received by: (signature & affiliation)	Date/Time
Dispatched by: (signature & affiliation)	Date/Time	Received for lab by:	Date/Time
			10/13/93 10:45

UNDERGROUND STORAGE TANK UNAUTHORIZED RELEASE (LEAK) / CONTAMINATION SITE REPORT

EMERGENCY ☐ YES ☒ NO

HAS STATE OFFICE OF EMERGENCY SERVICES REPORT BEEN FILED? ☐ YES ☒ NO

REPORT DATE (M M D D Y Y)

CASE #

FOR LOCAL AGENCY USE ONLY
I HEREBY CERTIFY THAT I AM A DESIGNATED GOVERNMENT EMPLOYEE AND THAT I HAVE REPORTED THIS INFORMATION TO LOCAL OFFICIALS PURSUANT TO SECTION 25180.7 OF THE HEALTH AND SAFTY CODE.

SIGNED DATE

REPORTED BY

NAME OF INDIVIDUAL FILING REPORT: Michael Marr

PHONE: (510) 482-1536

SIGNATURE:

REPRESENTING ☒ OWNER/OPERATOR ☐ REGIONAL BOARD ☐ LOCAL AGENCY ☐ OTHER

COMPANY OR AGENCY NAME:

ADDRESS: 27737 Fallen Leaf Ct. (STREET) Hayward (CITY) CA (STATE) 94542 (ZIP)

RESPONSIBLE PARTY

NAME: Michael Marr ☐ UNKNOWN

CONTACT PERSON: Michael Marr

PHONE: (510) 482-1536

ADDRESS: 27737 Fallen Leaf Ct. (STREET) Hayward (CITY) CA (STATE) 94542 (ZIP)

SITE LOCATION

FACILITY NAME (IF APPLICABLE): Former Service Station

OPERATOR: -

PHONE: ( ) -

ADDRESS: 2504 MacArthur Blvd. (STREET) Oakland (CITY) Alameda (COUNTY) (ZIP)

CROSS STREET: Boston Avenue

IMPLEMENTING AGENCIES

LOCAL AGENCY / AGENCY NAME:

CONTACT PERSON:

PHONE: ( )

REGIONAL BOARD:

CONTACT PERSON:

PHONE: ( )

SUBSTANCES INVOLVED

(1) NAME: Petroleum Hydrocarbon

QUANTITY LOST (GALLONS): ☐ UNKNOWN

(2) ☐ UNKNOWN

DISCOVERY/ABATEMENT

DATE DISCOVERED: 10 10 93

HOW DISCOVERED: ☐ INVENTORY CONTROL ☒ SUBSURFACE MONITORING ☐ NUISANCE CONDITIONS ☐ TANK TEST ☐ TANK REMOVAL ☐ OTHER

DATE DISCHARGE BEGAN: ☒ UNKNOWN

HAS DISCHARGE BEEN STOPPED? ☒ YES ☐ NO IF YES, DATE

METHOD USED TO STOP DISCHARGE (CHECK ALL THAT APPLY)
☒ REMOVE CONTENTS ☐ REPLACE TANK ☐ CLOSE TANK ☐ REPAIR TANK ☐ REPAIR PIPING ☐ CHANGE PROCEDURE ☐ OTHER

SOURCE/CAUSE

SOURCE OF DISCHARGE
☐ TANK LEAK ☒ UNKNOWN ☐ PIPING LEAK ☐ OTHER

CAUSE(S)
☐ OVERFILL ☐ RUPTURE/FAILURE ☐ SPILL ☐ CORROSION ☒ UNKNOWN ☐ OTHER

CASE TYPE

CHECK ONE ONLY
☒ UNDETERMINED ☐ SOIL ONLY ☐ GROUNDWATER ☐ DRINKING WATER - (CHECK ONLY IF WATER WELLS HAVE ACTUALLY BEEN AFFECTED)

CURRENT STATUS

CHECK ONE ONLY
☐ NO ACTION TAKEN ☐ PRELIMINARY SITE ASSESSMENT WORKPLAN SUBMITTED ☐ POLLUTION CHARACTERIZATION
☒ LEAK BEING CONFIRMED ☐ PRELIMINARY SITE ASSESSMENT UNDERWAY ☐ POST CLEANUP MONITORING IN PROGRESS
☐ REMEDIATION PLAN ☐ CASE CLOSED (CLEANUP COMPLETED OR UNNECESSARY) ☐ CLEANUP UNDERWAY

REMEDIAL ACTION

CHECK APPROPRIATE ACTION(S) (SEE BACK FOR DETAILS)
☐ CAP SITE (CD) ☐ EXCAVATE & DISPOSE (ED) ☐ REMOVE FREE PRODUCT (FP) ☐ ENHANCED BIO DEGRADATION (IT)
☐ CONTAINMENT BARRIER (CB) ☐ EXCAVATE & TREAT (ET) ☐ PUMP & TREAT GROUNDWATER (GT) ☐ REPLACE SUPPLY (RS)
☐ VACUUM EXTRACT (VE) ☐ NO ACTION REQUIRED (NA) ☐ TREATMENT AT HOOKUP (HU) ☐ VENT SOIL (VS)
☐ OTHER (OT)

COMMENTS

HSC 05 (11/89)