ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

7-02-02

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

June 25, 2002

Michael Marr
3577 Fruitvale Ave.
Oakland, CA 94602

Dear Mr. Marr:

Subject: Grace Auto Repair, 2504 MacArthur Blvd., Oakland, CA 94602
RO0000316

This letter transmits the enclosed underground storage tank (UST) case closure letter in accordance with Chapter 6.75 (Article 4, Section 25299.37[h]). The State Water Resources Control Board adopted this letter on February 20, 1997. As of March 1, 1997, the Alameda County Environmental Protection Division is required to use this case closure letter for all UST leak sites. We are also transmitting to you the enclosed case closure summary. These documents confirm the completion of the investigation and cleanup of the reported release at the subject site. The subject fuel leak case is closed.

SITE INVESTIGATION AND CLEANUP SUMMARY
Please be advised that the following conditions exist at the site:
up to 490 ppm Total Petroleum Hydrocarbons as gasoline (TPHg), up to 3.8 ppm TPH as diesel (TPHd), up to 0.4 ppm Benzene, up to 0.99 ppm Toluene, up to 5.3 ppm Ethyl benzene, and up to 18 ppm Xylene (BTEX), up to 0.01 ppm Lead, exists in soil beneath the site. (sampled June 1994 to June 1995)
up to 3,900 ppb Total Petroleum Hydrocarbons as gasoline (TPHg), up to 71 ppb Benzene, up to 12 ppb Toluene, up to 74 ppb Ethyl benzene, and up to 23 ppb Xylene (BTEX), up to 5.3 ppb Methyl Tertiary-Butyl Ether (MTBE), exists in groundwater beneath the site. (sampled July 1995 to December 1999)

If you have any questions, please contact me at (510) 567-6746.

Sincerely,

Don Hwang
Hazardous Materials Specialist

Enclosures: 1. Remedial Action Completion Certificate 2. Case Closure Summary

C: Frank Kliewer, City of Oakland, Planning Dept., 1330 Broadway, 2nd Floor, Oakland, CA 94612
file

ALAMEDA COUNTY
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Alameda, CA 94502-6577
(510) 567-6700
FAX (510) 337-9335

REMEDIAL ACTION COMPLETION CERTIFICATION

June 26, 2002

Michael Marr
3577 Fruitvale Ave.
Oakland, CA 94602

Dear Mr. Marr:

Subject: Grace Auto Repair, 2504 MacArthur Blvd., Oakland, CA 94602
RO0000316

This letter confirms the completion of site investigation and remedial action for the three (3) 4,000 gallon gasoline and one (1) 250 gallon waste oil underground storage tanks formerly located at the above-described location. Thank you for your cooperation throughout this investigation. Your willingness and promptness in responding to our inquiries concerning the former underground storage tank are greatly appreciated.
Based on information in the above-referenced file and with the provision that the information provided to this agency was accurate and representative of site conditions, no further action related to the underground tank release is required.

This notice is issued pursuant to a regulation contained in Title 23, Section 2721(e) of the California Code of Regulations.

Please contact Don Hwang at (510) 567-6746 if you have any questions regarding this matter.

Sincerely,

Mee Ling Tung, Director

c: Chuck Headlee, RWQCB
Dave Deaner, SWRCB
Hernan Gomez, OFD
Fred Serafin, IMFC, 1 Sansome St., Suite 1900, San Francisco, CA 94104
File

CASE CLOSURE SUMMARY
Leaking Underground Fuel Storage Tank Program

I. AGENCY INFORMATION Date: June 25, 2002
Agency name: Alameda County-HazMat Address: 1131 Harbor Bay Pkwy
City/State/Zip: Alameda, CA 94502 Phone: (510) 567-6746
Responsible staff person: Don Hwang Title: Hazardous Materials Specialist

II. CASE INFORMATION

Site facility name: Grace Auto Repair
Site facility address: 2504 MacArthur Blvd., Oakland, CA 94602
RB LUSTIS Case No: N/A Local Case No./LOP Case No.: RO0000316
URF filing date: Oct. 13, 1993 SWEEPS No: N/A

Responsible Parties: Addresses: Phone Numbers:
Michael Marr, 3577 Fruitvale Ave., Oakland, CA 94602 510/418-6430

Tank No:	Size in gal.:	Contents:	Closed in-place or removed?:	Date:
A	4,000	gasoline	removed	June 27, 1994
B	4,000	gasoline	removed	June 27, 1994
C	4,000	gasoline	removed	June 27, 1994
D	250	waste oil	removed	June 27, 1994

III. RELEASE AND SITE CHARACTERIZATION INFORMATION

Cause and type of release: unknown,undetermined
Site characterization complete? YES
Date approved by oversight agency:
Monitoring Wells installed? YES Number: 3
Proper screened interval? No, but still indicative of groundwater contaminant concentrations
Highest GW depth below ground surface: 5.00 ft. Lowest depth: 11.38
Flow direction: southerly
Most sensitive current use: commercial
Are drinking water wells affected? no Aquifer name: na
Is surface water affected? na Nearest affected SW name: na
Off-site beneficial use impacts (addresses/locations):
Report(s) on file? YES Where is report(s) filed? Alameda County, 1131 Harbor Bay Pkwy, Alameda, CA 94502 and Oakland Fire Dept, 1605 M.L. King Way, Oakland, CA 94612

RB# 01-2435

CALIFORNIA REGIONAL WATER

CTH
SEP 25 2001

QUALITY CONTROL BOARD

CASE CLOSURE SUMMARY
Leaking Underground Fuel Storage Tank Program

I. AGENCY INFORMATION Date: July 27, 2001

OCT 11 2001

Agency name: Alameda County-HazMat Address: 1131 Harbor Bay Pkwy
City/State/Zip: Alameda, CA 94502 Phone: (510) 567-6746
Responsible staff person: Don Hwang Title: Hazardous Materials Specialist

II. CASE INFORMATION

Site facility name: Grace Auto Repair
Site facility address: 2504 MacArthur Blvd., Oakland, CA 94602
RB LUSTIS Case No: N/A Local Case No./LOP Case No.: RO0000316
URF filing date: Oct. 13, 1993 SWEEPS No: N/A

Responsible Parties:	Addresses:	Phone Numbers:
Michael Marr	3577 Fruitvale Ave., Oakland, CA 94602	510/418-6430

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Off-site beneficial use impacts (addresses/locations):
Report(s) on file? YES Where is report(s) filed? Alameda County, 1131 Harbor Bay Pkwy, Alameda, CA 94502 and Oakland Fire Dept, 1605 M.L. King Way, Oakland, CA 94612

Treatment and Disposal of Affected Material:

Material	Amount (include units)	Action (Treatment or Disposal w/destination)	Date
Tank	4	Disposal, Erickson, Inc., Richmond, CA	June 27, 1994
Soil	270 tons	removed & treated, undocumented	undocumented
Groundwater	undocumented	purge water collected in barrels	undocumented
Barrels			

Maximum Documented Contaminant Concentrations - - Before and After Cleanup

Contaminant	Soil (ppm)		Water (ppb)	
	Before	After	Before	After
TPH (Gas)		490[1]		3,900[7]
TPH (Diesel)		3.8[2]		ND[8,9,10]
Benzene		0.4[3]		71[7]
Toluene		0.99[3]		12[9]
Ethylbenzene		5.3[1]		74[7]
Xylenes		18[1]		23[7,8]
Oil & Grease		ND[4,5]		NT
Lead		.01[6]		NT
Methyl Tertiary-Butyl Ether (MTBE)		NT		5.3[10]
Other				

Comments (Depth of Remediation, etc.):

See Section VII, Additional Comments, etc...

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[1] B-3-5, 6/95
[2] B-1-5, 6/95
[3] SW-6, 7/6/94
[4] DB-1, 6/27/94
[5] B-6-5, 6/95
[6] BB-2, 6/27/94
[7] SB-1, 12/13/99
[8] MW B-1, 7/7/95
[9] MW B-3, 7/7/95
[10] MW B-5, 7/7/95

IV. CLOSURE

Does completed corrective action protect existing beneficial uses per the Regional Board Basin Plan? YES
Does completed corrective action protect potential beneficial uses per the Regional Board Basin Plan? YES
Does corrective action protect public health for current land use? YES
Site management requirements: A site safety plan must be prepared for construction workers in the event excavation/trenching is proposed in the vicinity of residual soil and groundwater contamination.
Should corrective action be reviewed if land use changes? YES
Monitoring wells Decommissioned: YES
Number Decommissioned: 3 Number Retained: 3
List enforcement actions taken: none
List enforcement actions rescinded: none

V. LOCAL AGENCY REPRESENTATIVE DATA

Name: Don Hwang Title: Haz Mat Specialist

Signature: Don Hwang Date: 7/27/01

Reviewed by

Name: Eva Chu Title: Haz Mat Specialist

Signature: Eva Chu Date: 7/27/01

Name: Susan Hugo Title: Haz Mat Supervisor

Signature: Susan L. Hugo Date: 9/04/01

VI. RWQCB NOTIFICATION

Date Submitted to RB: 9/24/01 RB Response: Concur

RWQCB Staff Name: Chuck Headlee Title: EG

Signature: Chuck Headlee Date: 10/1/01

VII. ADDITIONAL COMMENTS, DATA, ETC.

On June 27, 1994, 4 steel underground tanks were removed. 3 were 4,000 gal. gasoline tanks and 1 was a 250 gal. waste oil tank. One of the gasoline tanks, Tank B, had a hole on the tank bottom, below the sticking opening. The excavation had extensive visible staining of the sidewalls and a strong fuel odor. Soil samples were collected beneath each of the tanks. The gasoline tanks samples were analyzed for total petroleum hydrocarbons as gasoline (TPH-G), benzene, toluene, ethyl benzene, xylene (BTEX), and organic lead. The soil samples beneath Tank A were nondetectable (ND) for TPH-G and BTEX. For the other gasoline tanks, TPH-G concentrations ranged from 3.4 parts per million (ppm) to 24 ppm. Benzene concentrations for the other gasoline tanks ranged from ND to 12 ug/kg. Toluene, ethyl benzene, and xylene ranged from ND to 980 ug/kg. Organic lead concentrations ranged from 5.9 ppm to 14 ppm. The tank pit was overexcavated resulting in the removal of 80 additional tons of soil. On July 6, 1994, subsequent to overexcavation, soil samples SW-1 through SW-13 were collected from the sidewalls and bottom of the excavation. The maximum TPH-G concentrations were 250 ppm and 210 ppm found in SW-7 and SW-6, respectively. The maximum BTEX concentrations were also found in SW-7 and SW-6. The maximum benzene concentration was 400 ug/kg from SW-6. The maximum toluene, ethyl benzene, and xylene concentrations were 990, 2,800, and 11,000 ug/kg, respectively, all found in SW-6. The waste oil tank sample analyzed for TPH as diesel (TPH-D), oil & grease, and volatile organic compounds (VOC's) resulted in ND concentrations for all three. Water was not present in the excavation.

On June 20, 21, and 26, 1995, five soil borings were completed. Soil samples were collected every 5 feet or other appropriate intervals and field screened for laboratory analysis. At least 1 sample from each of Borings B-1, B-3, and B-6, were analyzed for TPH-G, TPH-D, and BTEX. B-4 and B-5 were analyzed for the same constituents plus TPH-D. B-5 was additionally analyzed for oil & grease. According to the consultant's report, borings B-1 and B-3, encountered groundwater at a depth of 34 ft. Boring B-5 drilled to a depth of 20 feet below ground surface (bgs) was dry when the drilling rig broke down. Five days later, when drilling resumed, groundwater was encountered at a depth of 10 ft. Borings B-1, B-3, and B-5, were converted into monitoring wells MW B-1, MW B-3, and MW B-5, respectively. The screen intervals for the monitoring wells, MW B-1, MW B-3, and MW B-5, appear to be improper. The wells were screened as if a confined aquifer existed. We do not believe that this is the case. A review of the boring logs for these wells did not find an aquitard. MW B-1 was screened from 31 to 40 ft. (bgs). MW B-3 was screened from 25 to 35 ft. bgs. MW B-5 was screened from 15 to 25 ft. bgs. MW B-1, MW B-3, and MW B-5 were sampled July 7, 1995, December 12-13, 1996, July 22, 1997, and December 13, 1999, for analyses for TPH-G, and BTEX. Analysis for TPH-D was also included for samples collected on July 7, 1995. Analysis for Methyl Tertiary-Butyl Ether (MTBE) was included for samples collected on December 13, 1999. The initial groundwater samples collected on December 12-13, 1996, detected low levels of petroleum hydrocarbon constituents. TPH-G concentrations were 60, 200, and 380 ug/l, and benzene concentrations were 0.5, 2.7, and ND ug/l. All analytes were ND for all samples collected on December 12-13, 1996, July 22, 1997, and December 13, 1999. Additionally, on December 13, 1999, 3 borings, SB-1, SB-2, and SB-3 were drilled to depths of 18.5 to 29 ft. bgs. Grab groundwater samples were collected from each borehole. The maximum TPH-G and benzene concentrations found were 3,900 ug/l and 71 ug/l, respectively, both from SB-1.

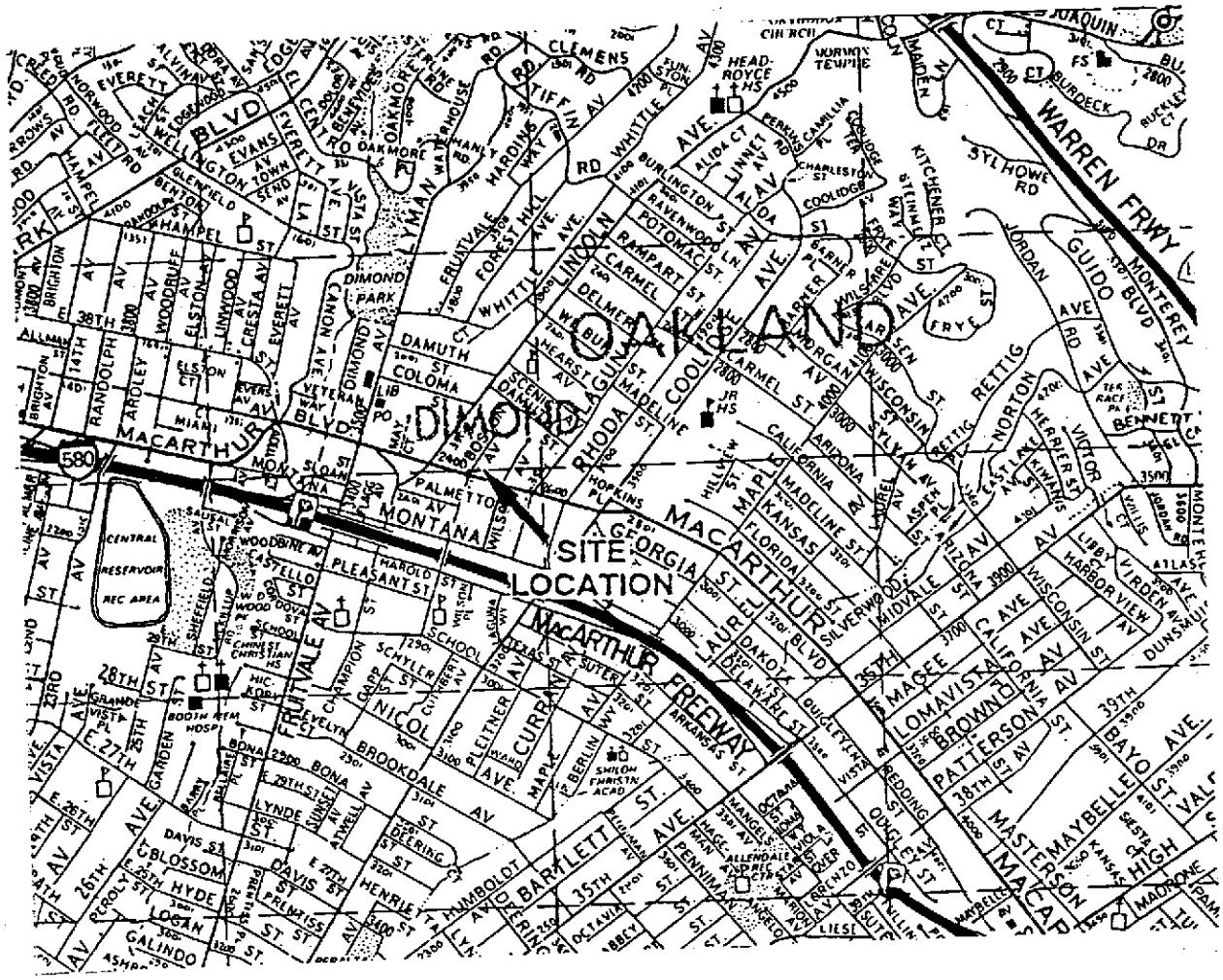
The underground tank excavations containing contaminated soil were overexcavated to remove the contaminated soil. Confirmation soil samples collected indicated that remaining soil is of nondetectable or low contaminant concentrations. Soil samples collected from onsite and nearby offsite borings also found nondetectable or low contaminant concentrations. The screen intervals for the monitoring wells, MW B-1, MW B-3, and MW B-5, appear to be improper. Nevertheless, the groundwater samples that were collected from MW B-1, MW B-3, and MW B-5, were nondetectable or low for contaminant concentrations. Additionally, the grab groundwater samples collected from borings, SB-1, SB-2, and SB-3, were nondetectable or low for contaminants.

The maximum contaminant concentrations detected in soil and groundwater samples were compared to the City of Oakland Risk-Based Corrective Action (RBCA) Tier 1 Risk-Based Screening Levels (RBSLs) followed by Tier 2 Site Specific Target Levels (SSTLs) to determine if a Deed Restriction may be required. The chemicals of concern evaluated were: BTEX. The Tier 1 RBSLs parameters used were: subsurface soil, inhalation of indoor air vapors, residential, carcinogenic; and groundwater, inhalation of indoor air vapors, residential, carcinogenic. For subsurface soil, the Tier 1 RBSLs was 0.069 mg/kg benzene. The maximum soil sample concentration for benzene was 0.4 mg/kg, exceeding its Tier 1 RBSLs. Therefore, a Tier 2 evaluation was done. The same parameters were used with sandy silts defaults. The Tier 2 SSTLs for benzene was 1.1 mg/kg which was greater than the maximum soil sample concentration. Tier 1 RBSLs for carcinogenic risk do not exist for TEX in soil or groundwater. Therefore, hazard risks were used. These Tier 1 RBSLs were: 360 mg/kg toluene, and exceeds saturated soil concentration for ethyl benzene and xylene. The maximum soil sample concentration for toluene was 18 mg/kg. Therefore, it was less than the Tier 1 RBSLs. Since the Tier 1 RBSLs for ethyl benzene and

xylene exceed the saturated soil concentration, the soil concentrations found are less than their Tier 1 RBSLs. For groundwater, the Tier 1 RBSLs for benzene was 0.13 mg/l. This exceeded the maximum benzene groundwater concentration of 0.071 mg/l. The Tier 1 RBSLs used for groundwater for TEX were: 210 mg/l, exceeds solubility in water, and exceeds solubility in water, respectively. The maximum groundwater sample concentration for toluene was 0.074 mg/l. Therefore, it was less than the Tier 1 RBSLs. Since the Tier 1 RBSLs for ethyl benzene and xylene exceed their solubility in water, their groundwater concentrations are also less than their Tier 1 RBSLs. The trace metals, cadmium, chromium, nickel, lead, and zinc, do not have viable exposure pathways. Thus, a Deed Restriction is not required.

In summary, case closure is recommended because:

- the leak and ongoing sources have been removed;
- the site has been adequately characterized;
- the dissolved plume is not migrating;
- no water wells, surface water, or other sensitive receptors are likely to be impacted; and,
- the site presents no significant risk to human health or the environment.

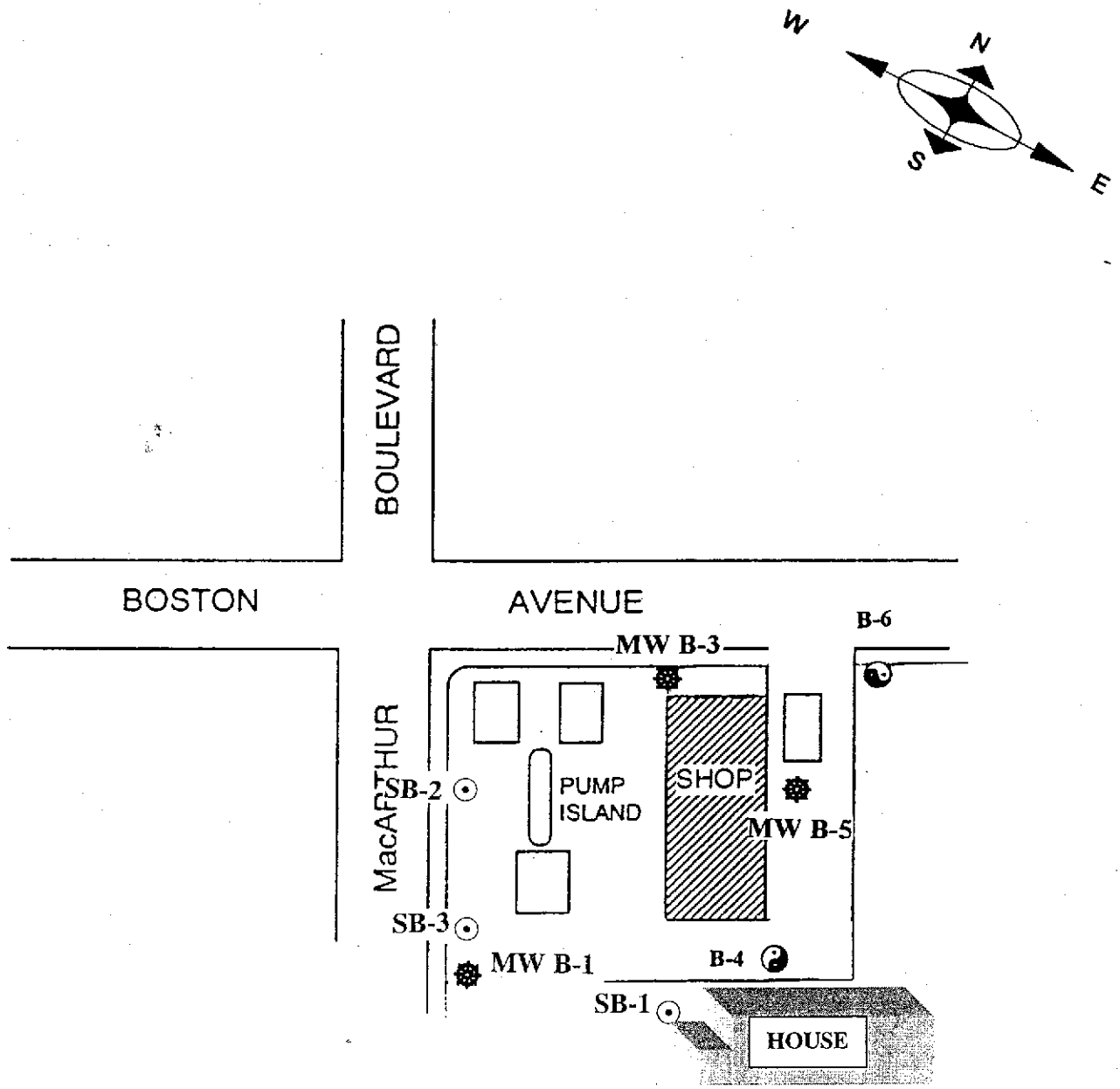


Base from Thomas Bros. Map

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 Location of Soil Borings
- Approximate Location of Monitoring Wells
- Approximate Location of Former Tanks
- Approximate Location of Proposed Borings

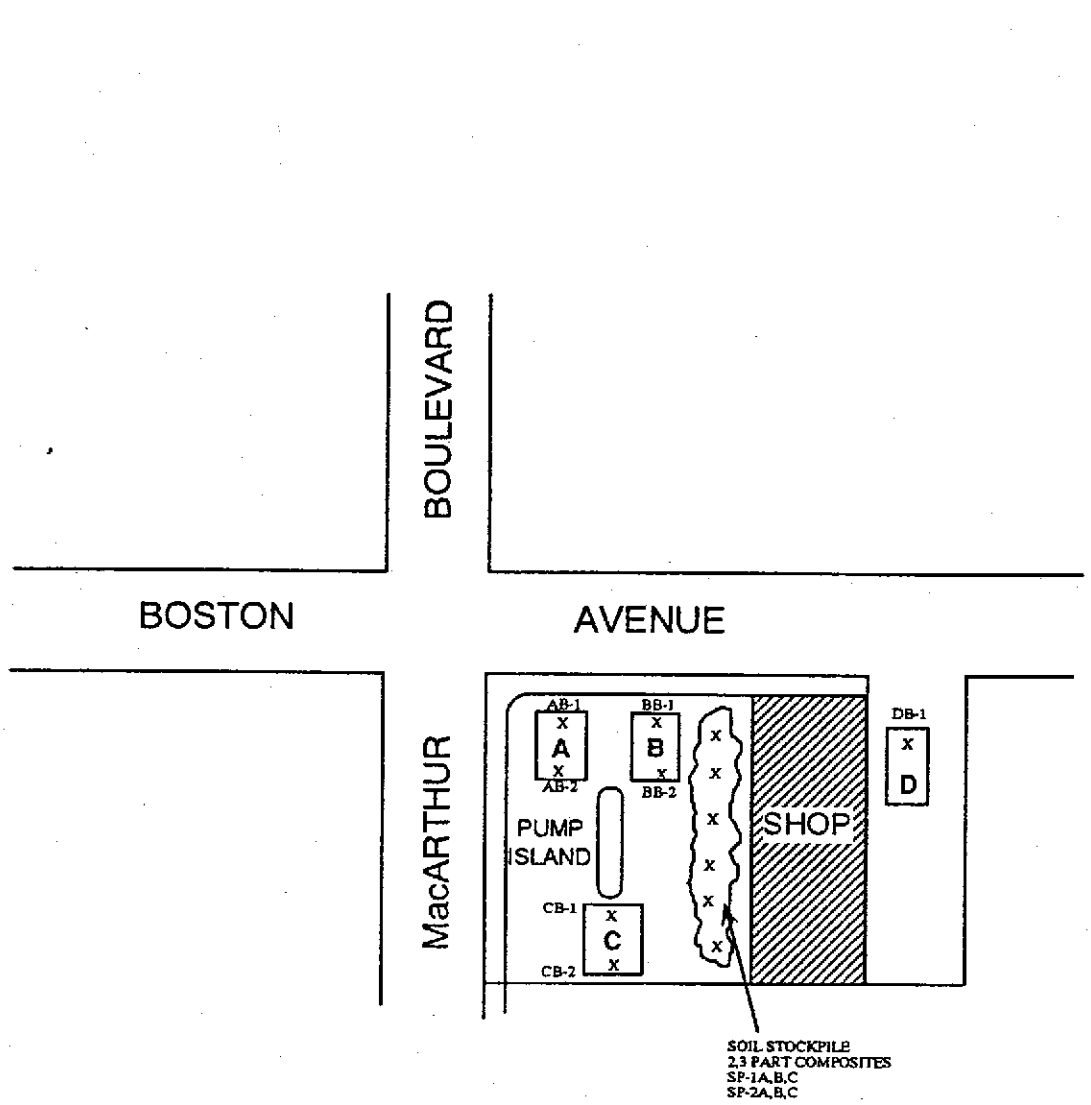
Not to Scale

IMFC

MARR AND ASSOCIATES
2504 MacArthur Blvd.
Oakland, California

SITE SKETCH
AND PROPOSED LOCATION S OF BORINGS

PROJECT NO.	DATE	FIGURE NO.
MAR-102J	*February 2000*	*2*



LEGEND

Approximate Tank Location

X Approximate Sample Location

AB-1 Sample Number

Not to Scale

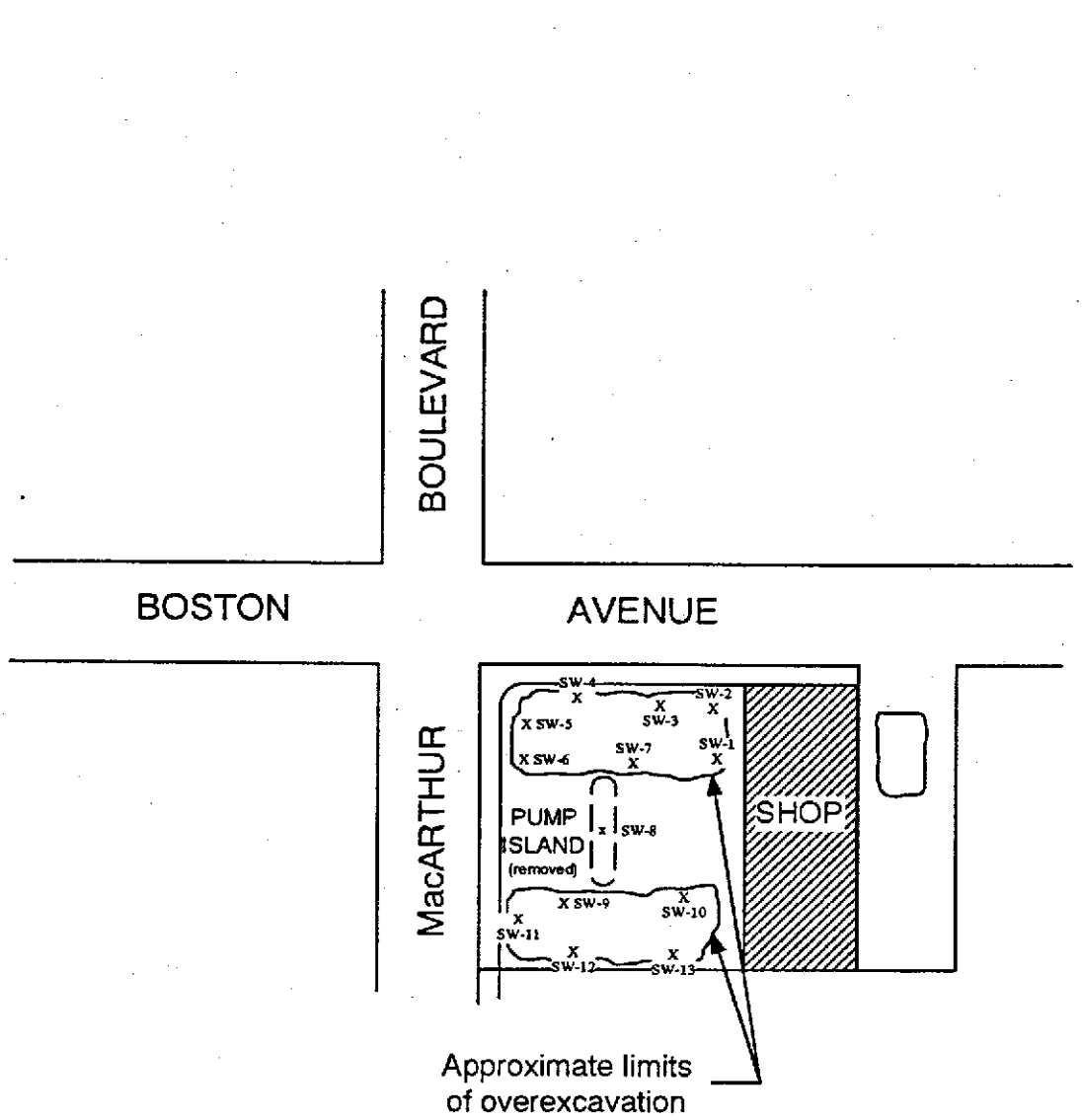
RUST ENVIRONMENT & INFRASTRUCTURE

Walnut Creek, California

2504 MacArthur Blvd.
Oakland, California

Sample Location Map - Tank Excavation

Project No.	Date	Figure No.
89477.000	September 1994	3



LEGEND

X Approximate Sample Location

SW-1 Sample Number

Not to Scale

RUST ENVIRONMENT & INFRASTRUCTURE

Walnut Creek, California

2504 MacArthur Blvd.
Oakland, California

Sample Location Map - Overexcavation

Project No.	Date	Figure No.
89477.000	September 1994	4

TABLE 1
SUMMARY OF SOIL ANALYSES DATA
FOR SAMPLES FROM TANK EXCAVATION

Sample Number	Date	Sample Matrix	TPH-G mg/Kg	Benzene ug/Kg	Toluene ug/Kg	Ethyl Benzene ug/Kg	Total Xylenes ug/Kg	Lead mg/Kg
AB-1	6/27/94	SOIL	N.D.	N.D.	N.D.	N.D.	N.D.	8.0
BB-1	6/27/94	SOIL	3.4	12	68	75	320	5.9
CB-1	6/27/94	SOIL	12	N.D.	N.D.	29	40	6.9
AB-2	6/27/94	SOIL	N.D.	N.D.	N.D.	N.D.	N.D.	8.5
BB-2	6/27/94	SOIL	15	8.8	160	170	980	10.0
SP-1A,B,C	6/27/94	SOIL	1,600	870	12,000	14,000	77,000	14
CB-2	6/27/94	SOIL	24	N.D.	N.D.	39	56	9.3
SP-2A,B,C	6/27/94	SOIL	N.D.	N.D.	N.D.	N.D.	N.D.	14
SW-1	7/6/94	SOIL	9.5	8.3	N.D.	58	81	---
SW-2	7/6/94	SOIL	N.D.	N.D.	N.D.	N.D.	N.D.	---
SW-3	7/6/94	SOIL	N.D.	N.D.	N.D.	N.D.	N.D.	---
SW-4	7/6/94	SOIL	N.D.	N.D.	N.D.	N.D.	N.D.	---
SW-5	7/6/94	SOIL	N.D.	N.D.	N.D.	N.D.	N.D.	---
SW-6	7/6/94	SOIL	210	400	990	2,800	11,000	---
SW-7	7/6/94	SOIL	250	120	120	330	480	---
SW-8	7/6/94	SOIL	N.D.	N.D.	N.D.	N.D.	N.D.	---

TABLE 1
SUMMARY OF SOIL ANALYSES DATA
FOR SAMPLES FROM TANK EXCAVATION

Sample Number	Date	Sample Matrix	TPH-G mg/Kg	Benzene ug/Kg	Toluene ug/Kg	Ethyl Benzene ug/Kg	Total Xylenes ug/Kg	Lead mg/Kg
SW-9	7/6/94	SOIL	N.D.	N.D.	N.D.	N.D.	N.D.	---
SW-10	7/6/94	SOIL	5.4	N.D.	N.D.	20	37	---
SW-11	7/6/94	SOIL	8.2	15	N.D.	16	23	---
SW-12	7/6/94	SOIL	22	N.D.	N.D.	42	34	---
SW-13	7/6/94	SOIL	1.8	N.D.	N.D.	N.D.	N.D.	---
Detection Limits			**1.0**	**5.0**	**5.0**	**5.0**	**5.0**	**0.5**

NOTES:
- mg/Kg — Milligrams per Kilogram (parts per million)
- ug/Kg — Micrograms per Kilogram (parts per billion)
- TPH-G — Total Pertroleum Hydrocarbons as Gasoline

TABLE 2
SUMMARY OF SOIL ANALYSES DATA
FOR SAMPLE NUMBER DB-1

Sample Number	Date	Sample Matrix	TPH-D mg/Kg	Oil & Grease mg/kg	EPA 8240/8260 ug/Kg
DB-1	6/27/94	SOIL	N.D.	N.D.	N.D.

NOTES:
mg/Kg Milligrams per Kilogram (parts per million)
ug/Kg Micrograms per Kilogram (parts per billion)
TPH-D Total Petroleum Hydrocarbons as Diesel

TABLE 3
SUMMARY OF SOIL RCI ANALYSES DATA

Sample Number	Date	Sample Matrix	Reactivity	Corrosivity	Ignitability
SP1 ABC	6/27/94	SOIL	No	pH 8.4	No
SP2 ABC	6/27/94	SOIL	No	pH 9.0	No

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	700	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	580	N.D.*	N.D.*	3900	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

COLLECTED 6/95

TABLE 1
SUMMARY OF SOIL ANALYSES DATA

Sample No.	TPH-G (mg/kg)	TPH-D (mg/kg)	Benzene (ug/kg)	Toluene (ug/kg)	Ethyl Benzene (ug/kg)	Total Xylenes (ug/kg)	O&G (mg/kg)
B-1-5	310	3.8	ND	ND	1300	ND	NT
B-1-10	470	NT	ND	ND	1700	1700	NT
B-1-40	ND	NT	ND	ND	ND	ND	NT
B-3-5	490	ND	ND	380	5300	18000	NT
B-3-10	ND	ND	ND	ND	ND	8.7	NT
B-3-30	ND	NT	ND	ND	ND	ND	NT
B-4-15	ND	NT	ND	ND	ND	ND	NT
B-5-15	ND	NT	ND	ND	ND	ND	ND
B-6-5	ND	ND	ND	ND	ND	ND	NT

NOTES

Sample No.	The first two characters refer to the boring number, and the last character is the depth at which the sample was obtained.
TPH-G	Total Petroleum Hydrocarbons as Gasoline
TPH-D	Total Petroleum Hydrocarbons as Diesel
O&G	Oil & Grease
mg/kg	Milligrams per kilograms (parts per million, ppm)
ug/kg	Micrograms per kilograms (part per billion, ppb)
ND	Not detected above laboratory detection limits
NT	Not tested

BORING LOCATION	See site sketch	DRILL DATE	6/20/95	GROUND EL.	
DEPTH/ELEV. WATER	34'	DRILL CONTRACTOR	Gregg Drilling	TOTAL DEPT	41.5'
DRILL RIG	B-61	BORING DIA.	8"	LOGGED BY	F.S.

Soil Class	Description	Depth	Sample No.	PR/PRD	Rec.	Mode	Remarks
		0					Advanced boring with 6 5/8" O.D. hollow-stem augers (HA). Samples obtained by driving (DR) a 2" I.D. California split-spoon sampler (CS) using 140# hammer falling 30".
	0.0 - 0.4 Asphalt pavement and subbase						
	0.4 - 41.5 Silty CLAY; dark brown - gray; slightly moist; plastic; moderately soft	2				HA	Strong odor of hydrocarbon
		4					
	5.0 Reddish brown; damp; stiff; few yellow rock pieces, some mottling	5.0	B-1 5	2 5 7	90%	DR	PID: 875 ppm
CL		6					
		6.5					
		8				HA	Odor of hydrocarbon in soil cuttings
		10	10.0				
			B-1 10	3 6 35	100%	DR	PID: 180 ppm
		11.5					
		12					
		14				HA	
		15.0					
			B-1 15	5 8 14	100%	DR	PID: 25 ppm
		16					
		16.5					
		18				HA	
		20					

BORING LOCATION	See site sketch	DRILL DATE	6/20/95	GROUND EL.	
DEPTH/ELEV. WATER	34'	DRILL CONTRACTOR	Gregg Drilling	TOTAL DEPT	41.5'
DRILL RIG	B-61	BORING DIA.	8"	LOGGED BY	F.S.

Soil Class	Description	Depth	Sample No.	PR/PRD	Rec.	Mode	Remarks
	20.0	20	20.0				
	Light brown; some sand and gravel; damp		B-1 20	7 10 24	100%	DR	PID: 11 ppm
		22	21.5				
	25.0					HA	
	Sand 5-10%	24					
			25.0				
			B-1 25	11 14 28	100%	DR	PID: 19 ppm
		26					
			26.5				
CL		28				HA	
	Slightly moist	30	30.0				
			B-1 30	4 7 20	100%	DR	PID: 12 ppm
			31.5				
		32				HA	Water @ 34.0'
			▽ 34				
			35.0				
			B-1 35	6 11 29	100%	DR	
		36	36.5				
		38				HA	
		40					

BORING LOCATION	See site sketch	DRILL DATE	6/20/95	GROUND EL.
DEPTH/ELEV. WATER	34'	DRILL CONTRACTOR	Gregg Drilling	TOTAL DEPT 41.5'
DRILL RIG	B-61	BORING DIA.	8"	LOGGED BY F.S.

Soil Class	Description	Depth	Sample No.	PR/PRD	Rec.	Mode	Remarks
		40	40.0				
			B-1 40	6 6 18	100%	DR	
			41.5				
	B.B. @ 41.5	42					

Well Construction
0.0 - 31.0
Solid 2" I.D. Sch. 40 pvc.

31.0 - 41.0
Slotted (0.010) 2" I.D. Sch. 40 pvc with end cap.

Sand and Seal
0.0 - 2.0
Surface Seal and Christy Box.

2.0 - 28.0
Grout

28.0 - 29.0
Bentonite

29.0 -41.5
#3 Sand

31-40
• slotted
• Sand

DISCLAIMER

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BORING LOCATION	See site sketch	DRILL DATE	6/26/95	GROUND EL.	
DEPTH/ELEV. WATER	34'	DRILL CONTRACTOR	Gregg Drilling	TOTAL DEPT	35.0'
DRILL RIG	Rhino	BORING DIA.	8"	LOGGED BY	F.S.

Soil Class	Description	Depth	Sample No.	PR/PRD	Rec.	Mode	Remarks
	0.0 - 0.3 Asphalt and subbase	0					Advanced boring with 6 5/8" O.D. hollow-stem augers (HA). Samples obtained by pushing (P) a 2" I.D. California split spoon sampler.
	0.3 - 10.0 Silty CLAY, dark gray; slightly moist; soft; plastic						
CL		2				HA	The boring is located about 2 feet from an old fill-pipe.
			3.5				Strong odor of Hydrocarbon
		4	B-3 5		90%	P	PID: 210 ppm
	4.0 Brown; ± 30% sand and steam-rounded gravel to 3/4"; damp; stiff		5.0				
		6					
		8					
	8.5 Rock fragments to 1.5"		8.5				Slight odor of Hydrocarbon
			B-3 10		100%	P	PID: 28 ppm
?	10.0 - 18.0 Silty CLAY; light brown with yellow, rust and gray mottlings; damp; stiff; ± 15% sand and gravel; low plasticity; more silt	10	10.0				
CL-ML		12					
			13.5				
		14	B-3 15		100%	P	PID: 12 ppm
			15.0				
		16					
?		18					
			18.5				
CL	Moderate plasticity; ± 5% sand and gravel; moist to damp; multi-color Mottlings.		B-3 20		100%	P	PID: 8 ppm
		20	20.0				

Eichleay Engineers Inc. of California	Marr & Associates 2504 MacArthur Boulevard Oakland, California	EXPLORATION BORING LOG		BORING NO.
		Project No. 4872	Sheet No. 1 of 2	B-3

25.35

BORING LOCATION	See site sketch	DRILL DATE	6/26/95	GROUND EL.	
DEPTH/ELEV. WATER	34'	DRILL CONTRACTOR	Gregg Drilling	TOTAL DEPT	35.0'
DRILL RIG	Rhino	BORING DIA.	8"	LOGGED BY	F.S.

Soil Class	Description	Depth	Sample No.	PR/PRD	Rec.	Mode	Remarks
	Silty CLAY; brown; damp; plastic; ± 5% sand	20					
		22				HA	
			23.5				
		24	B-3 25		100%	P	
			25.0				
CL		26				HA	
		28					
			28.5				
			B-3 30		100%	P	
		30	30.0				
		32				HA	
	± 33.0 Moist	V	33.5				
?	34.0	34	B-3 35		100%	P	G.W. @ 34.0, water rose to 30.5 in 30 minutes
ML	Clayey SILT; brown; 30-40% sand; wet; loose						
	B.B. @ 35.0	36					
		38					
		40					

Well Construction
0.0 - 25.0
Solid 2" I.D. Sch. 40 pvc
25.0 - 35.0
Slotted (0.010) 2" I.D. Sch. 40 pvc with end cap

Sand and Seal
0.0 - 2.0
Surface seal & christy Box
2.0 - 22.0
Grout
22.0 - 23.0
Bentonite
23.0 - 35.0
Sand

DISCLAIMER

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Eichleay Engineers Inc. of California	Marr & Associates 2504 MacArthur Boulevard Oakland, California	EXPLORATION BORING LOG		BORING NO.
		Project No. 4872	Sheet No. 2 of 2	B-3

BORING LOCATION	See site sketch	DRILL DATE	6/20/95		GROUND EL.
DEPTH/ELEV. WATER	Dry	DRILL CONTRACTOR	Gregg Drilling		TOTAL DEPT 16.5'
DRILL RIG	B-61	BORING DIA.	8"		LOGGED BY F.S.

Soil Class	Description	Depth	Sample No.	PR/PRD	Rec.	Mode	Remarks
	0.0 - 0.3 Asphalt and Subbase	0					Advanced boring with 6 5/8" O.D. hollow-stem augers (HA). Samples obtained by driving (DR) a 2" I.D. California split-spoon sampler (CS) using 140# hammer falling 30".
	0.3 - 16.5 Silty CLAY; brown; slightly damp; plastic; soft	2				HA	
		4					
			5.0				
		6	B-4 5	2 3 4		DR	PID: 2 ppm
	Some gray and black mottlings		6.5				
CL		8				HA	
		10	10.0				
			B-4 10	2 4 9		DR	PID: 1 ppm
	5-10% fine sand; damp to dry; rust, gray and green mottlings; stiff		11.5				
		12					
		14				HA	
			15.0				
		16	B-4 15	3 8 23		DR	PID: 2 ppm
			16.5				
	B.B. @ 16.5	18					
		20					

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Eichleay Engineers Inc. of California	Marr & Associates 2504 MacArthur Boulevard Oakland, California	EXPLORATION BORING LOG		BORING NO.
		Project No. 4872	Sheet No. 1 of 1	B-4

BORING LOCATION	See site sketch	DRILL DATE	6/21/95, 6/26/95	GROUND EL.
DEPTH/ELEV. WATER		DRILL CONTRACTOR	Gregg Drilling	TOTAL DEPT 30.0'
DRILL RIG	Rhino	BORING DIA.	8"	LOGGED BY F.S.

Soil Class	Description	Depth	Sample No.	PR/PRD	Rec.	Mode	Remarks
	0.0 - 0.3 Asphalt and Subbase	0					Advanced boring with 6 5/8" O.D. hollow-stem augers (HA). Samples obtained by pushing (P) a 2" I.D. California split spoon sampler.
	0.3 - 30.0 Silty CLAY; brown; soft; plastic; slightly moist; some rust mottlings	2					
		3.5					
		4	B-5 5		100%	P	PID: 28 ppm
		5.0					
CL		6				HA	
	8.0 Light brown; ± 10% sand; reddish brown and gray mottlings; damp; stiff	8					
		8.5					
			b-5 10		100%	P	PID: 10 ppm
		10					
		10.0					
		12				HA	
		13.5					
		14	B-5 15		100%	P	PID: 6 ppm
	15.0 15% sand with some silt	15.0					
		16				HA	
		18					
	18.5 Interbedded thin sand layers; light brown and rust mottlings; moist	18.5					
			B-5 20			P	Rig broke down - boring dry - 6/21/95
		20					
		20.0					

Eichleay Engineers Inc. of California	**Marr & Associates** **2504 MacArthur Boulevard** **Oakland, California**	EXPLORATION BORING LOG Project No. 4872 Sheet No. 1 of 2	BORING NO. B-5

BORING LOCATION	See site sketch	DRILL DATE	6/21/95, 6/26/95	GROUND EL.
DEPTH/ELEV. WATER		DRILL CONTRACTOR	Gregg Drilling	TOTAL DEPT 30.0'
DRILL RIG	Rhino	BORING DIA.	8"	LOGGED BY F.S.

Soil Class	Description	Depth	Sample No.	PR/PRD	Rec.	Mode	Remarks
		20					Resumed drilling on 6/26/95; Water in boring @ 10.0'
		22				HA	
			23.5				
CL		24	B-5 25		0%	P	Sample lost- could not be retrieved
			25.0				
		26				HA	
	Light brown; plastic; ± 15% sand; wet	28					
			28.5				
			B-5 30		100%	P	PID: 2 ppm
		30	30.0				
	B.B. @ 30.0	32					

Well Construction
0.0 - 15.0
Solid 2" I.D. Sch. 40 pvc
15.0 - 25.0
Slotted (0.010) 2" I.D. Sch. 40 pvc with end cap

Sand and Seal
0.0 - 2.0
Surface seal & Christy Box
2.0 - 12.0
Grout
13.0 - 13.0
Bentonite
13.0 - 30.0
Sand

15.25

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BORING LOCATION	See site sketch	DRILL DATE	6/26/95	GROUND EL.
DEPTH/ELEV. WATER	Dry	DRILL CONTRACTOR	Gregg Drilling	TOTAL DEPT 20.0'
DRILL RIG	Rhino	BORING DIA.	8"	LOGGED BY F.S.

Soil Class	Description	Depth	Sample No.	PR/PRD	Rec.	Mode	Remarks
	0.0 - 1.5 Topsoil and roots	0					Advanced boring with 6 5/8" O.D. hollow-stem augers (HA). Samples obtained by pushing (P) a 2" I.D. California split spoon sampler.
	1.5 - 20.0 Silty CLAY; brown; 25% sand and gravel; damp to dry; stiff; slightly plastic	2				HA	
CL		3.5					
		4	B-6 5		100%	P	PID: 12 ppm
		5.0					
	6.0 10% sand and gravel; slightly damp; some gray and rust mottlings; rock fragments to 1/2"	6				HA	
		8					
		8.5					
			B-6 10		100%	P	PID: 8 ppm
		10					
		10.0					
		12				HA	
		13.5					
		14	B-6 15		100%	P	PID: 2 ppm
?	Clayey SILT; light brown; gray and rust mottlings; dense; slightly damp; 35 - 40% sand and stream-rounded gravel to ± 1"	15.0					
ML		16				HA	
		18					
		18.5					
			B-6 20		100%	P	
		20					

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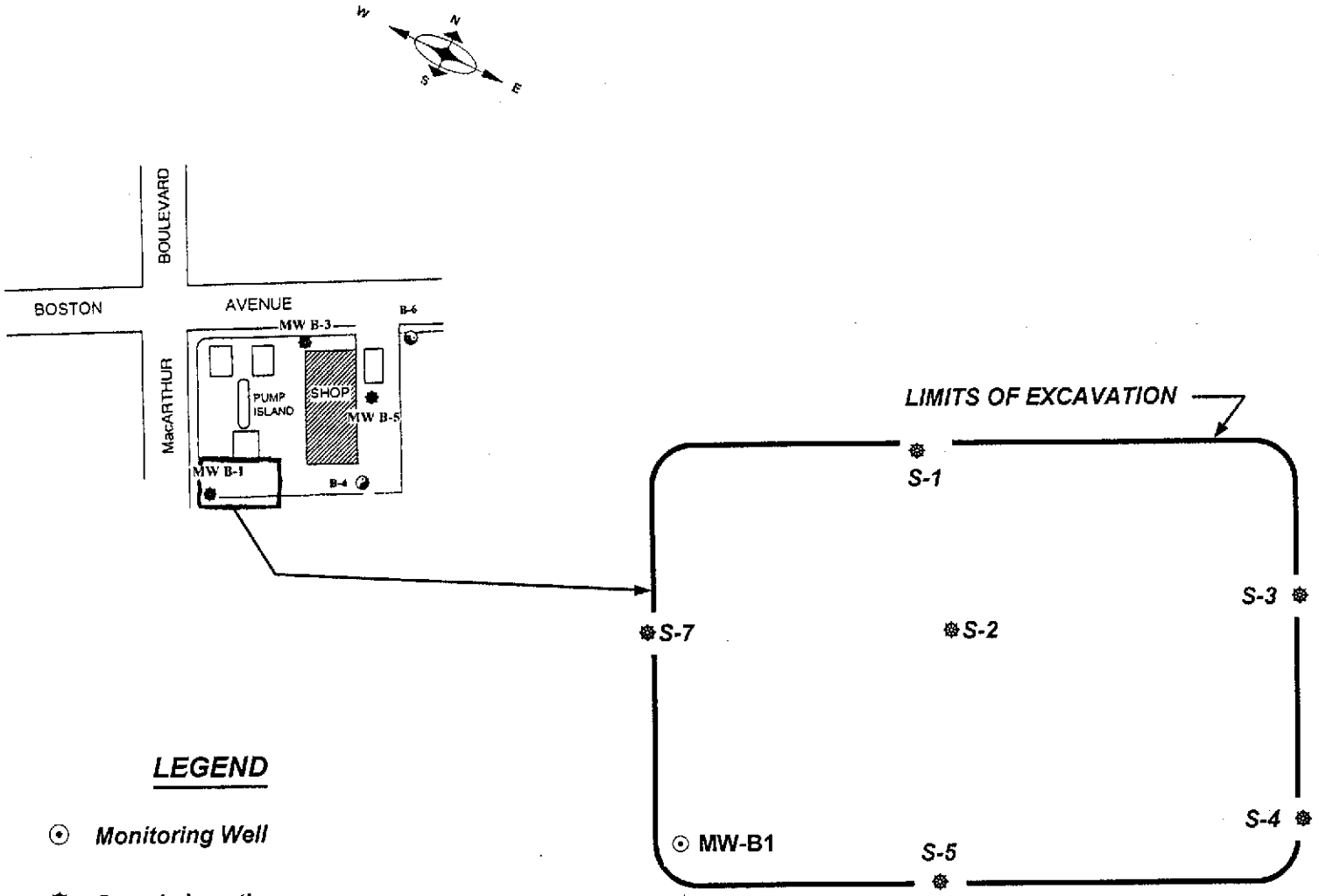
B.B @ 20.0

Eichleay Engineers Inc. of California	Marr & Associates 2504 MacArthur Boulevard Oakland, California	EXPLORATION BORING LOG Project No. 4872 Sheet No. 1 of 1	BORING NO. B-6



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2504 MacArthur Boulevard
Oakland, California

EXCAVATION LIMIT & SAMPLE LOCATION, Dec. 96

PROJECT NO.	DATE	FIGURE NO.
MAR-101J	February 97	5

SAMPLE NUMBER	DATE SAMPLED	DEPTH (in feet)	LOCATION	TPH-G	BENZENE	TOLUENE	ETHYL BENZENE	TOTAL XYLENES	LEAD	
S-1	12/13/96	10	EAST WALL	100	N.D.	0.55	0.33	0.46	5.4	
S-2	"	13	EXC. FLOOR	6.2	N.D.	N.D.	N.D.	0.016	5.0	
S-3	"	11	SOUTH WALL	N.D.	N.D.	N.D.	N.D.	N.D.	17.0	
S-4	"	12	S.W. WALL	87	N.D.	N.D.	0.14	0.36	7.9	
S-5	"	12	WEST WALL	410	N.D.	0.25	1.3	0.99	4.7	
S-6	"	COMPOSITE	STOCKPILE	N.D.	0.0075	0.033	0.011	0.046	8.3	
S-7	"	8	NORTH WALL	1,100	N.D.	N.D.	5.4	3.1	10.0	
S-8	"	COMPOSITE	STOCKPILE	13	0.018	0.021	0.032	0.043	3.9	
Detection Limit:									1.0 mg/kg	
Reporting Limit:				1.0 mg/kg	0.005 mg/kg	0.005 mg/kg	0.005 mg/kg	0.005 mg/kg		

NOTES:

TPH-G: Purgeable Hydrocarbons quantitated against a fresh gasoline standard.
COMPOSITE: (Samples S-6 & S-8) Composite of 4 representative samples from the stockpile.

mg/kg: Milligrams per Kilogram. (parts per million)
N.D.: Not detected at or above detection limit.

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Oakland, California

SUMMARY OF SOIL ANALYSIS DATA, Dec. 96

PROJECT NO.	DATE	TABLE NO.
MAR-101J	February 97	4

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 / ROD	REC.	MODE	REMARKS
	ASPHALT	0					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				AU	1.0': Bag Sample; OVM = 49 ppm
	~1.5': color change to greenish grey	2	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'
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					
ML	5.0'-7.0' SANDY SILT: greenish grey; moist; ~55% low plastic fines; ~45% fine to medium sand; hydrocarbon odor.	5	SB-1-5.0		100%	DR	5.0'-5.5': DR SB-1-5.0: 5.0'-5.5'
		6					6.0': Bag sample; OVM = 476 ppm
CL	7.0'-8.5' SANDY LEAN CLAY (CL): yellowish brown; moist; ~55% medium plastic fines; ~45% fine to medium sand.	7				AU	
	~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.	10				AU	

Wahler Associates
PALO ALTO · WALNUT CREEK

Limited Subsurface Investigation
2504 MacArthur Blvd.
Oakland, California

EXPLORATION BORING LOG

PROJECT NO. MAR-W01H

SHEET: 1 of 2

BORING NO. SB-1

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
		15					Backfilled with neat cement grout
		16					
		17					
		18					
		19					
		20					

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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

BORING LOCATION: SEE FIGURE 2	APPROVED BY:	GROUND ELEV.:
DEPTH/ELEV. WATER: 24.0 feet	DRILL CONTRACTOR: GREGG DRILLING COMPANY	TOTAL DEPTH: 29.0 feet
DRILL RIG: Geoprobe	BORING DIA.: 1.5"	DATE DRILLED: 12/13/1999	LOGGED BY: F.S.

SOIL CLASS	DESCRIPTION	DEPTH	SAMPLE NO.	PR/RD	REC.	MODE	REMARKS
	0.0-0.5 Asphalt Pavement						
CL	1.0-29.0 Silty clay, brown to reddish brow, slightly moist to damp	5 10 15 20 25					Encountered water at 24 feet. Collected groundwater sample and backfilled boring with concrete slurry.
	Bottom of Boring 29.0	30					

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2504 MacArthur Boulevard
Oakland, California

EXPLORATION BORING LOG

PROJECT NO.	BORING NO.	SHEET
MAR-102J	*SB-2*	*1 OF 1*

BORING LOCATION: SEE FIGURE 2	APPROVED BY:	GROUND ELEV.:
DEPTH/ELEV. WATER: 23.0 feet	DRILL CONTRACTOR: GREGG DRILLING COMPANY	TOTAL DEPTH: 28.0 feet
DRILL RIG: Geoprobe	BORING DIA.: 1.5" / DATE DRILLED: 12/13/1999	LOGGED BY: F.S.

SOIL CLASS	DESCRIPTION	DEPTH	SAMPLE NO.	PR/RD	REC.	MODE	REMARKS
	0.0-0.5 Asphalt Pavement						
CL	1.0-28.0 Silty clay, brown to reddish brow, slightly moist to damp	5 10 15 20 25					Encountered water at 23 feet. Collected groundwater sample and backfilled boring with concrete slurry.
	Bottom of Boring 28.0	30					

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2504 MacArthur Boulevard
Oakland, California

EXPLORATION BORING LOG

PROJECT NO.	BORING NO.	SHEET
MAR-102J	*SB-3*	*1 OF 1*

COLLECTED 7/7/95

TABLE 2

SUMMARY OF GROUNDWATER ANALYSES DATA

Well No.	TPH-G (mg/l)	TPH-D (mg/l)	Benzene (ug/l)	Toluene (ug/l)	Ethyl Benzene (ug/l)	Total Xylenes (ug/l)
MW B-1	0.06	ND	0.5	2.8	1.2	6.0
MW B-3	0.20	ND	2.7	12.0	4.4	23.0
MW B-5	0.38	ND	ND	1.7	1.5	5.1

NOTES

TPH-G Total Petroleum Hydrocarbons as Gasoline
TPH-D Total Petroleum Hydrocarbons as Diesel
mg/l Milligrams per liter (parts per million, ppm)
ug/l Micrograms per liter (parts per billion, ppb)
ND Not detected above laboratory detection limits

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Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (510) 988-9600, FAX (510) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Ingram-Mason & Fairbairn	Client Project ID:	2504 MacArthur Blvd.	Sampled: Dec.12-13, 1996
41 Sutter Street, Suite 1537	Sample Matrix:	Water	Received: Dec 16, 1996
San Francisco, CA 94104	Analysis Method:	EPA 5030/8015 Mod./8020	Reported: Dec 31, 1996
Attention: Fred Serafin	First Sample #:	6121-4754	

QC Batch Number: GC122696 GC122696 GC122696
802004A 802004A 802004A

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Analyte	Reporting Limit µg/L	Sample I.D. 6121-4754 MW-B1	Sample I.D. 6121-4755 MW-B3	Sample I.D. 6121-4756 MW-B5
Purgeable Hydrocarbons	50	N.D.	N.D.	N.D.
Benzene	0.50	N.D.	N.D.	N.D.
Toluene	0.50	N.D.	N.D.	N.D.
Ethyl Benzene	0.50	N.D.	N.D.	N.D.
Total Xylenes	0.50	N.D.	N.D.	N.D.
MTBE:	0.60	N.D.	N.D.	N.D.
Chromatogram Pattern:		--	--	--

Quality Control Data

Report Limit Multiplication Factor:	1.0	1.0	1.0
Date Analyzed:	12/26/96	12/26/96	12/26/96
Instrument Identification:	HP-4	HP-4	HP-4
Surrogate Recovery, %: (QC Limits = 70-130%)	96	94	94

Purgeable Hydrocarbons are quantitated against a fresh gasoline standard.
Analytes reported as N.D. were not detected above the stated reporting limit.

SEQUOIA ANALYTICAL, #1271

Jim Bava
Project Manager

Sequoia Analytical

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404 N. Wiget Lane, Walnut Creek, CA 94598, (510) 988-9600, FAX (510) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Ingram Mason & Fairbairn	Client Project ID:	MARR	Sampled: Jul 22, 1997
One Sansome St., Suite 1900	Sample Matrix:	Water	Received: Jul 23, 1997
San Francisco, CA 94104	Analysis Method:	EPA 5030/8015 Mod./8020	Reported: Aug 4, 1997
Attention: Fred Serafin	First Sample #:	707-1125	

QC Batch Number: GC073097 802005A | GC073097 802005A | GC073097 802005A

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Analyte	Reporting Limit µg/L	Sample I.D. 707-1125 B-1	Sample I.D. 707-1126 B-3	Sample I.D. 707-1127 B-5
Purgeable Hydrocarbons	50	N.D.	N.D.	N.D.
Benzene	0.50	N.D.	N.D.	N.D.
Toluene	0.50	N.D.	N.D.	N.D.
Ethyl Benzene	0.50	N.D.	N.D.	N.D.
Total Xylenes	0.50	N.D.	N.D.	N.D.
Chromatogram Pattern:		--	--	--

Quality Control Data

Report Limit Multiplication Factor:	1.0	1.0	1.0
Date Analyzed:	7/30/97	7/30/97	7/30/97
Instrument Identification:	HP-5	HP-5	HP-5
Surrogate Recovery, %: (QC Limits = 70-130%)	97	102	95

Purgeable Hydrocarbons are quantitated against a fresh gasoline standard.
Analytes reported as N.D. were not detected above the stated reporting limit.

SEQUOIA ANALYTICAL, #1271

Jim Bava
Project Manager

COLLECTED 12/13/99

TABLE 2

SUMMARY OF GROUNDWATER ANALYSES DATA

Well No.	TPH-G *(mg/l)*	Benzene *(ug/l)*	Toluene *(ug/l)*	Ethyl Benzene *(ug/l)*	Total Xylenes *(ug/l)*	MTBE *(ug/l)*
MW B-1	ND	ND	ND	ND	ND	ND
MW B-3	ND	ND	ND	ND	ND	ND
MW B-5*	ND	ND	ND	ND	ND	ND
SB-1	3.9	71	ND	74	23	ND
SB-2	ND	0.63	ND	ND	ND	ND
SB-3	ND	0.59	0.88	ND	1.5	5.3

* Analysis for dissolved metal for sample from MWB-5 detected the following in mg/l:

Cadmium, ND; Chromium, 0.022; Nickel, 0.078; Lead, 0.054; Zinc, 0.16

NOTES

TPH-G Total Petroleum Hydrocarbons as Gasoline
mg/l Milligrams per liter (parts per million, ppm)
ug/l Micrograms per liter (parts per billion, ppb)
ND Not detected above laboratory detection limits

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