

ALAMEDA COUNTY
HEALTH CARE SERVICES

AGENCY
DAVID J. KEARS, Agency Director



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

March 6, 2000

Mr. William Perrie
128 Dartmouth Place
Benicia, CA 94510
STID 4160

Re: MAC Auto Repair, 905 W. Grand Avenue, Oakland, CA 94607

Dear Mr. Perrie:

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

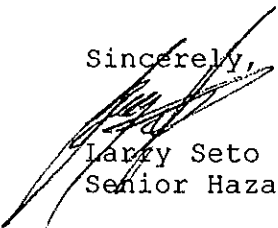
Please be advised that the following conditions exist at the site:

Groundwater samples from the most recent sampling on September 7, 1999 from boreholes B-1, B-2, B-3 and B-4 contained up to 378 ppb TPH(diesel), 720 ppb TPH(gas), 3.1 ppb benzene, 10.0 ppb toluene, 34.0 ppb ethylbenzene, 18 ppb total xylenes and 54 ppb MTBE.

Soil samples from the most recent sampling on September 7, 1999 from boreholes B-1, B-2, B-3 and B-4 contained up to 6.5 ppm of TPH(diesel).

If you have any questions, please contact me at (510)567-6774. Thank you.

Sincerely,



Larry Seto
Senior Hazardous Materials Specialist



REMEDIAL ACTION COMPLETION CERTIFICATION

ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION (LOP)
1131 Harbor Bay Parkway, Suite 250
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(510) 567-6700
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March 6, 2000

Mr. William Perrie
128 Dartmouth Place
Benicia, CA 94510
STID 4160

RE: MAC Auto Repair, 905 W. Grand Avenue, Oakland, CA 94607

Dear Mr. Perrie:

This letter confirms the completion of a site investigation and remedial action for the underground storage tanks formerly located at the above describe location. Thank you for your cooperation throughout this investigation. Your willingness and promptness in responding to our inquiries concerning the former underground storage tanks 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 Section 2721(e) of Title 23 of the California Code of Regulations.

Please contact our office if you have any questions regarding this matter.

Sincerely,

Mee Ling Tung
Director of Environmental Health Services

cc: Chief, Hazardous Materials Division - files
Larry Seto, ACDEH
Chuck Headlee, RWQCB
Dave Deaner, SWRCB (w/ Case Closure Summary)
Leroy Griffin, City of Oakland Fire Services, 1603 Martin Luther
King, Oakland, CA 94612
Files

Mr. William Perrie, 128 Dartmouth Place, Benicia, CA 94510
March 6, 2000
Page 2 of 2

Cc: Chief, Hazardous Materials Division - files
Larry Seto, Environmental Health
Captain Steve McKinley, City of Alameda Fire Department
Chuck Headlee, RWQCB
Dave Deaner, SWRCB (w/case closure summary)
Files

Enclosures:

1. Case Closure Letter
2. Case Closure Summary

CASE CLOSURE SUMMARY
Leaking Underground Fuel Storage Tank Program

I. AGENCY INFORMATION

Date: January 18, 2000

Agency name: Alameda County-HazMat
City/State/Zip: Alameda, CA 94502
Responsible staff person: Larry Seto

Address: 1131 Harbor Bay Pkwy.
Phone: (510) 567-6774
Title: Senior HMS

II. CASE INFORMATION

CALIFORNIA REGIONAL WATER
FEB 18 2000
QUALITY CONTROL BOARD

Site facility name: MAC Auto Repair

Site facility address: 905 W. Grand Avenue, Oakland, CA 94607

RB LUSTIS Case No: Local Case No./LOP 4160

URF filing date: 11-8-1999 SWEEPS No: N/A

Responsible Parties:

Addresses:

Phone Numbers:

William Perrie, Property Owner

128 Dartmouth Place
Benicia, CA 94510

707- 745-5522

<u>Tank No</u>	<u>Size in Gallons</u>	<u>Contents:</u>	<u>Closed in-place or Removed?</u>	<u>Date:</u>
1	5,000	Fuel	Removed	2-2-99
2	6,000	Fuel	Removed	2-2-99
3	8,000	Fuel	Removed	2-2-99
4	250	Waste Oil	Removed	2-2-99

Leaking Underground Fuel Storage Tank Program

III. RELEASE AND SITE CHARACTERIZATION INFORMATION

Cause and type of release: Hole in one of the tank

Monitoring Wells installed? No Number: N.A.

Site characterization complete? Yes

Date approved by oversight agency:

Proper screened interval? N.A.

Highest GW depth below ground surface: 14.3' in 9/99 Lowest depth: 18.1' in 9/99

Flow direction: assumed southeasterly based on groundwater levels measurements from temporary borings B-1, B-2 & B-3 on 9-7-99

Most sensitive current use: commercial/residential

Are drinking water wells affected? No Aquifer Name:

Is surface water affected? No Nearest affected SW name: ---

Off-site beneficial use impacts (addresses/locations): Unknown

Report(s) on file? Where is report(s) filed?

Alameda County
1131 Harbor Bay Pkwy.
Alameda, CA 94502

Oakland Fire Department
1603 Martin Luther King
Oakland, CA 94612

Leaking Underground Fuel Storage Tank Program

Treatment and Disposal of Affected Material:

<u>Material</u>	<u>Amount (include units)</u>	<u>Action (Treatment or Disposal /destination)</u>	<u>Date</u>
Underground tank	5,000 gallons	Disposed, Erickson, Richmond, CA	2-4-99
Underground tank	6,000 gallons	Disposed, Erickson, Richmond, CA	2-4-99
Underground tank	8,000 gallons	Disposed, Erickson, Richmond, CA	2-4-99
Underground tank	250 gallons	Disposed, Erickson, Richmond, CA	2-4-99

III. RELEASE AND SITE CHARACTERIZATION INFORMATION

Maximum Documented Contaminant Concentrations - - Before and After Cleanup

Contaminant	Soil (ppm)		Water (ppb)	
	Before ¹	After ³	Before ²	After ⁴
TPH(diesel)	NA	6.5	NA	378
TPH(gas)	ND	ND	46,000	720
Benzene	ND	ND	1,280	3.1
Toluene	ND	ND	3,360	10.0
Ethylbenzene	ND	ND	1,180	34.0
Total Xylenes	0.021	ND	8,470	18
MTBE	ND	ND	ND	54
Oil and Grease	ND ^{1a}	ND	NA	ND

ND - Non-Detect

NA - Not Analyzed

1 - Samples collected on the sidewalls of the excavation on 2-4-99 after tank removal

1a - Sample collected from the below the waste oil tank on 2-4-99

2 - Sample collected from below tank #2 on 2-4-99

3 - Samples collected from boreholes on 9-7-99

4 - Samples collected from boreholes on 9-7-99

Leaking Underground Fuel Storage Tank Program

Comments (Depth of Remediation, etc.): See "Additional Comments" section.

IV. CLOSURE

Does completed corrective action protect existing beneficial uses per the Regional Board Basin Plan?

Does completed corrective action protect potential beneficial uses per the Regional Board Basin Plan?

Does corrective action protect public health for current land use? Yes

Site management requirements: None

Should corrective action be reviewed if land use changes? Yes if land use changes from industrial/commercial

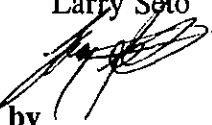
Monitoring wells decommissioned: NA

List enforcement actions taken: None

List enforcement actions rescinded: None

V. LOCAL AGENCY REPRESENTATIVE DATA

Name: Larry Seto


Signature: 

Title: Senior HMS

Date: 1/18/2000

Reviewed by

Name: Eva Chu

Signature: 

Title: Hazardous Materials Specialist

Date: 1/17/00

Name: Thomas Peacock

Signature: 

Title: Supervising HMS

Date: 2-2-00

Leaking Underground Fuel Storage Tank Program

VI. RWQCB NOTIFICATION

Date Submitted to RB:

RB Response: *concur*

RWQCB Staff Name: Chuck Headlee

Title: Engineering Geologist

Signature

Chuck Headlee

Date: 2/9/00

VII. ADDITIONAL COMMENTS, DATA, ETC.

According to the current property owner, the site was developed in the mid 1960's that included the installation of the underground storage tanks. The site has been used as a gas station, tire shop, auto repair shop/car wash. On February 2, 1999 four underground storage tanks were removed from the site. The tank removed included a 5,000 gallon fuel tank, 6,000 gallon fuel tank, 8,000 gallon fuel tank, and a 250 gallon waste oil tank. Soil samples were collected on the sidewalls of the fuel tank excavation and underneath the bottom of the waste oil tank. The laboratory report indicated all the soil samples collected from the walls of the fuel tank excavation were non-detect for TPH(g), benzene, toluene, ethylbenzene and MTBE. The north wall contained 0.021 ppm total xylenes. (See Table 1) The soil sample collected underneath the waste oil tank was non-detect for oil and grease. A groundwater sample collected from the fuel tank excavation contained 46,000 ppb TPH(g), 1,280 ppb benzene, 3,360 ppb toluene, 1,180 ppb ethylbenzene, 8,470 ppb total xylenes and ND for MTBE. (See Table 2)

To further investigate the subsurface conditions, four exploratory soil borings were advanced on September 7, 1999 near the location of the former underground tanks. (Figure 2) A ground water and soil sample was collected from each borehole. The soil samples collected at 16.5' contained up to 6.5 ppm TPH(d), and were ND for TPH(g), TPH(mo), BTEX and MTBE. (See Table 3)

The groundwater samples contained up to 378 ppb TPH(diesel), 720 ppb TPH(gas), 3.1 ppb benzene, 10.0 ppb toluene, 34.0 ppb ethylbenzene, 18 ppb total xylenes, 54 ppb MTBE and ND for oil and grease. (See Table 4) A reconnaissance groundwater elevation plot using an arbitrary datum was made. Groundwater levels may not have completely stabilized during the short time the boreholes were open, and the water level from B-4 was not used. The estimated groundwater flow direction is southeasterly.

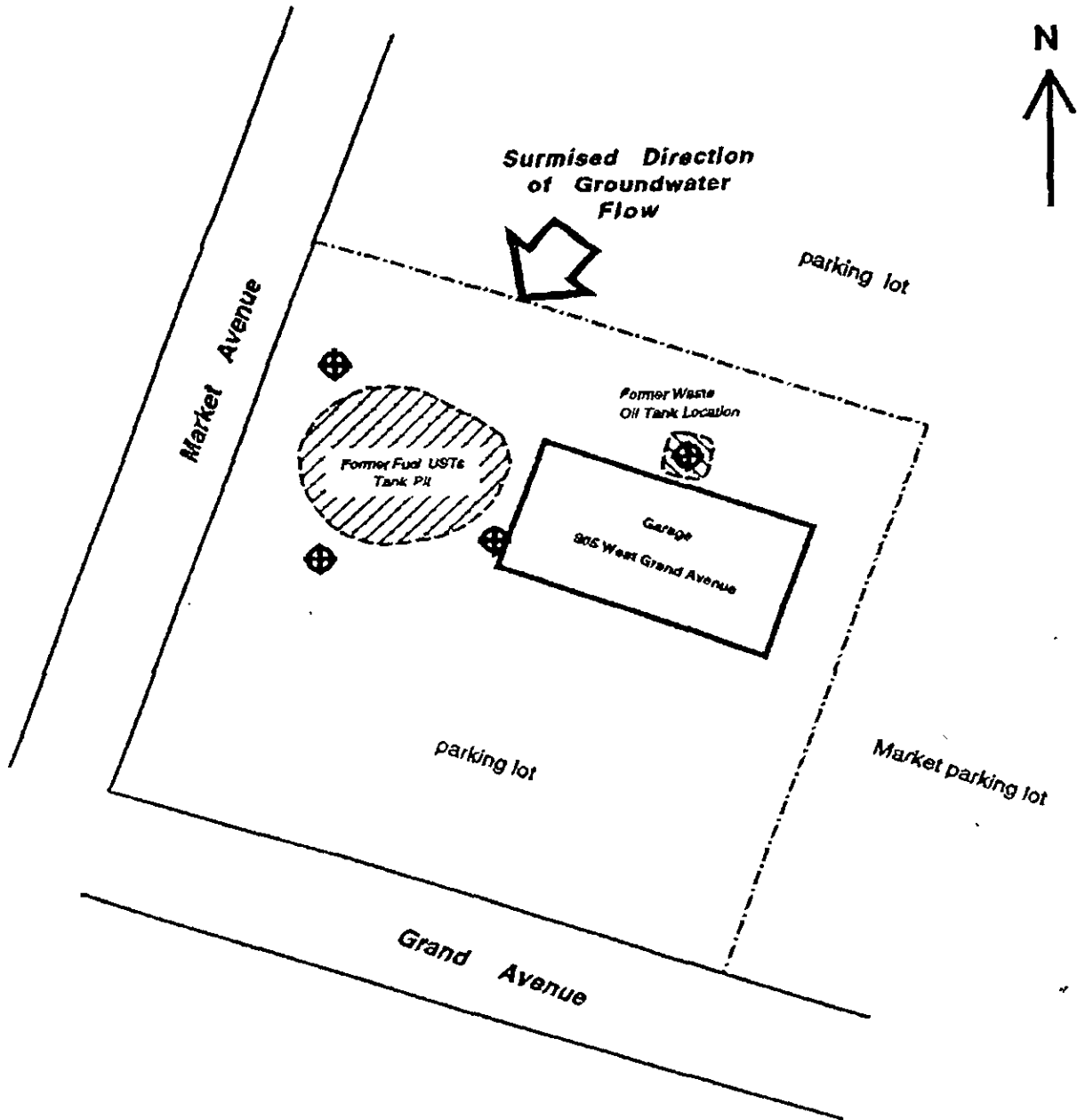
The soil sample collected below the waste oil tank and the soil and groundwater samples collected from B-4, adjacent to the waste oil tank were not tested for the presence of HVOCs and SVOC. Both the soil and groundwater samples were non-detect for TPH-mo, therefore most likely HVOC and SVOC will not be a concern.

Leaking Underground Fuel Storage Tank Program

The source of the subsurface contamination has been removed. Very low concentrations of contaminants remain in the immediate former underground tank pit. Groundwater flow is southeasterly at a relatively flat gradient. The contaminate plume appears contained within the site. While residual concentrations of contaminants remain, the concentrations are anticipated to decline through the natural biodegradation processes.

In summary, this office is recommending that this case be closed for the following reasons:

- 1) The leak has been stopped and ongoing sources removed
- 2) The site has been adequately characterized
- 3) Little groundwater impact currently exists
- 4) No water wells, deeper drinking water aquifers, surface water or other sensitive receptors are likely to be impacted
- 5) The site presents no significant risk to human health



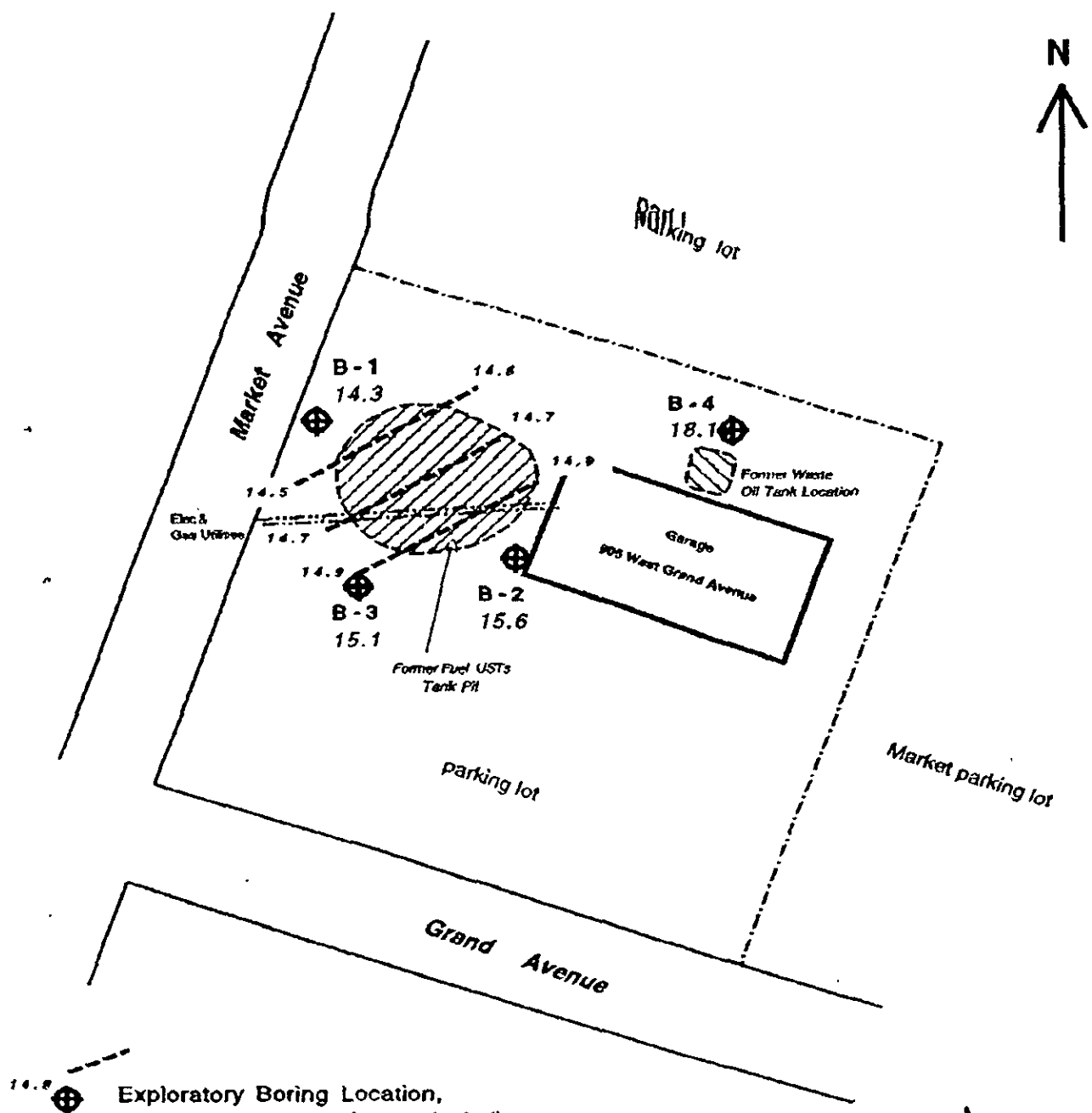
⊕ Proposed Exploratory Boring Location


Notes:

1. Exploratory borings placed for subsurface reconnaissance soil and groundwater sampling, located about 10 feet from fuel UST pit excavation edge.
2. Waste oil tank pit boring to be advanced through center of former tank pit.



Proposed Exploratory Boring Locations	
Garage Site 905 Grand Avenue Oakland, CA	Project No. Grand Scale: 1" = 50' Date: Sept., 1999
Figure 1	



 Exploratory Boring Location, with depth to groundwater *In Italics*,
B-3
 15.1 Reconnaissance water elevations, arbitrary datum, Sept. 7, 1999.



- Notes:**
1. Depth to groundwater taken in temporarily cased boreholes; groundwater levels may not have been completed stabilized, and represent reconnaissance data only. B-4 data not used in groundwater elevation plot, see report text.
 2. Field revised 9/7/99.

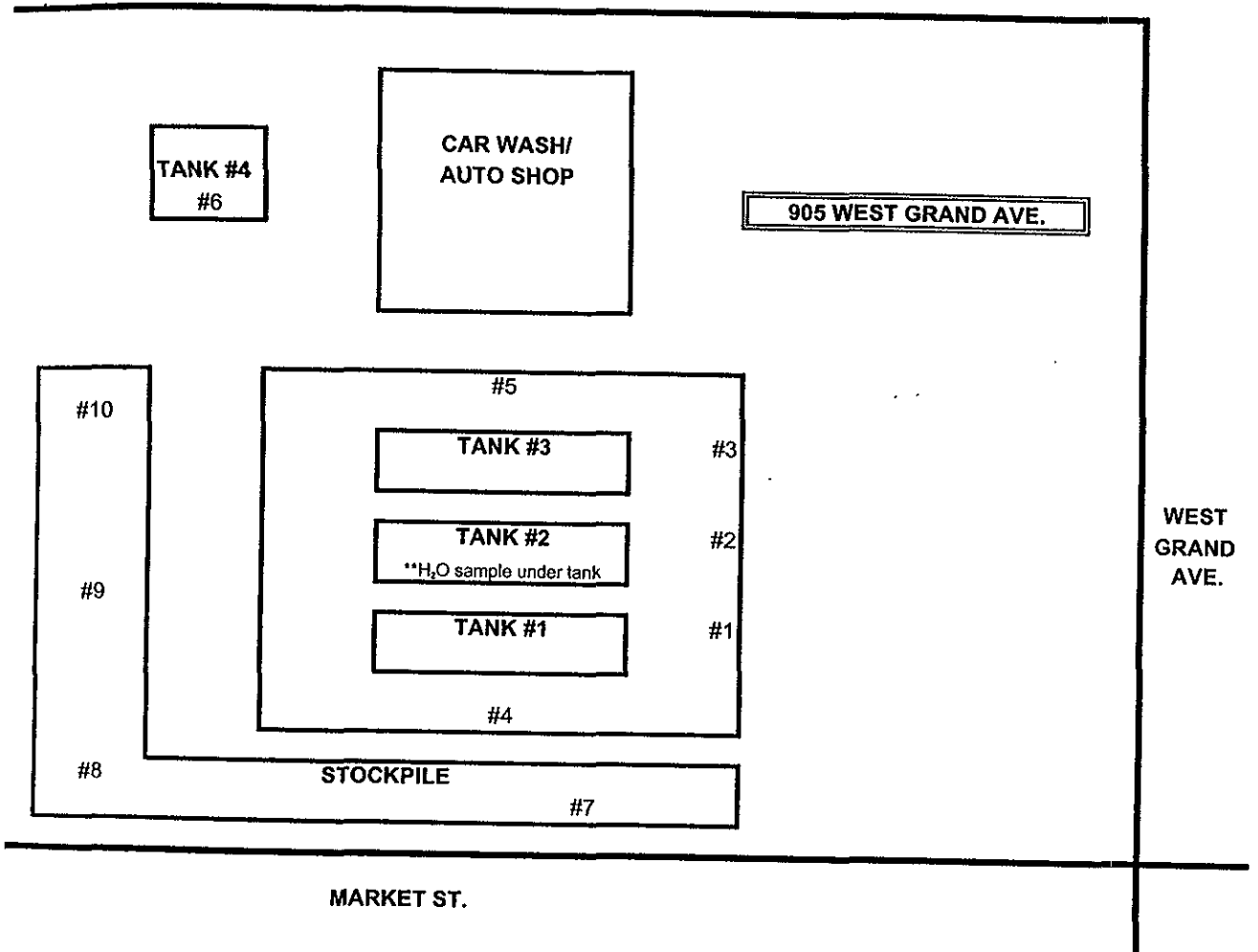
DELTA 
ENVIRONMENTAL LABORATORIES, Ltd.
 Benecia, CA

Exploratory Boring Locations
 Garage Site
 905 Grand Avenue
 Oakland, CA

Project No. Grand
 Scale: 1" = 50'
 Date: Sept., 1999

Figure 2

FIGURE NO. 3



Soil samples are listed in numerical order according to the chain of custody.
One water sample was collected under the middle of tank #2.

→ North

Table 1



ENVIRONMENTAL LABORATORIES, Ltd

WATER • WASTE WATER • HAZARDOUS WASTE • FUEL • AIR • SOIL

American Construction & Environmental Services/
905 West Grand
Oakland, CA

Client Project ID:
905 West Grand
CAR WASH

Ref.: R3946400s
Method: 5030 GCFID/
8020
Sampled: 2/4/99
Received: 2/4/99
Matrix: Soil
Analyzed: 2/5/99
Reported: 2/5/99
Units: mg/kg

Attention: Bailey Neff

4 hour Rush

Laboratory Results for BTEX , MTBE& TPH-G Analysis *from fuel tank pit*

Analyte	Detection Limit mg/kg	Results					
		Sample ID					
		North Wall Tank#1	NorthWall Tank #2	North Wall Tank #3	East Wall Tank #1	West Wall Tank #3	Method
BTEX							
Benzene	0.005	ND	ND	ND	ND	ND	8020
Toluene	0.005	ND	ND	ND	ND	ND	8020
Ethylbenzene	0.005	ND	ND	ND	ND	ND	8020
Total-Xylene	0.005	0.021	ND	ND	ND	ND	8020
MTBE	0.01	ND	ND	ND	ND	ND	8020
TPH-Gas	0.050	ND	ND	ND	ND	ND	5030/GCFID

ND:Not Detected(<MDL)

Delta Environmental Laboratories

Hossein Khosh Khoo, Ph.D.

Hossein Khoshkhoo

cont. table 1



WATER • WASTE WATER • HAZARDOUS WASTE • FUEL • AIR • SOIL

American Construction & Environmental Services/
905 West Grand
Oakland, CA

ENVIRONMENTAL LABORATORIES, Ltd

Ref.: R3946402s
Method 5030 GCFID/
8020
Sampled: 2/4/99
Received: 2/4/99
Matrix: Soil
Analyzed: 2/5/99
Reported: 2/5/99
Units: mg/kg

Client Project ID:
905 West Grand
CAR WASH

Attention: Bailey Neff

24 hour Rush

Laboratory Results for BTEX, MTBE & TPH-G Analysis *from waste oil pit*

Analyte	Detection Limit mg/kg	Results
		Sample ID
		Center Tank #4
BTEX		
Benzene	0.005	ND
Toluene	0.005	ND
Ethylbenzene	0.005	ND
Total-Xylene	0.005	ND
MTBE	0.01	ND
TPH-Gas	0.05	ND

ND: Not Detected (<MDL)

Delta Environmental Laboratories

Hossein Khosh Khoo, Ph.D.

Cont. Table 1

Client:
American Construction &
Environmental Services
905 West Grand
Oakland CA

Client Project #:
905 West Grand
Car Wash

Ref: R3946WetChem
Unit mg/Kg
Matrix Soil
Sampled: 2/4/99
Received: 2/4/99
Analyzed: 2/8/99
Reported: 2/8/99

Attention: Bailey Neff

Analytical Results

Rush

Sample ID:

Analyte	Detection Limit	Center Tank #4	Method
Oil & Grease	10 mg/Kg	ND	SM 5520 C

ND: Not Detected

H.Khosh Khoo, Ph.D.
Laboratory Director/President

Hossein Khoshkhoo

American Construction &
Environmental Services/
905 West Grand
Oakland, CA

Attention: Bailey Neff

24h

Client Project ID:
905 West Grand
CAR WASH

Ref.: R3958400w
Method 5030 GCFID/
8020
Sampled: 2/4/99
Received: 2/4/99
Matrix: Water
Analyzed: 2/5/99
Reported: 2/5/99
Units: ug/L (ppb)

Table 2

Laboratory Results for BTEX , MTBE & TPH-G Analysis

fuel tank pit

Analyte	Detection Limit ug/L (ppb)	Results
		Sample ID
		Tank #2 H2O Sample
BTEX		
Benzene	5	1280
Toluene	5	3360
Ethylbenzene	5	1180
Total-Xylene	5	8470
MTBE	10	ND
TPH-Gas	50	46,000

ND: Not Detected (<MDL)

Delta Environmental Laboratories

Hossein Khosh Khoo, Ph.D.

Hossein Khosh Khoo

William Perrie
128 Dartmouth Place
Benicia, CA 94510

Client Project ID:
905 West Grand
Oakland

ENVIRONMENTAL LABORATORIES, Ltd
Ref.: R4379400s
Method 5030 GCFID/
8020/8015M/ 8260
Sampled: 9/7/99
Received: 9/7/99
Matrix: Soil
Analyzed: 9/15-17/99
Reported: 9/20/99
Units: mg/kg

Table 3

Laboratory Results for TPH + BTEX and MTBE Analysis

Analyte	Detection Limit mg/kg					Method
		B-1-3	B-2-3	B-3-3	B-4-3	
		16.5'	16.5'	16.5'	16.5'	
BTEX						
Benzene	0.005	ND	ND	ND	ND	8020
Toluene	0.005	ND	ND	ND	ND	8020
Ethylbenzene	0.005	ND	ND	ND	ND	8020
Total-Xylene	0.005	ND	ND	ND	ND	8020
MTBE	0.010	ND	ND	ND	ND	8260
TPH-Gas	0.050	ND	ND	ND	ND	5030/GCFID
TPH-Diesel	5	6.1	5.5	ND	6.5	8015M
TPH-M.O.	5	ND	ND	ND	ND	8015M

ND:Not Detected(<MDL)

Delta Environmental Laboratories

Hossein Khosh Khoo, Ph.D.

William Perrie
128 Dartmouth Place
Benicia, CA 94510

Client Project ID:
905 West Grand
Oakland

Ref.: R4378400w
Method: 5030 GCFID/
8020/8015M/ 8260
Sampled: 9/7/99
Received: 9/7/99
Matrix: Water
Analyzed: 9/15,17/99
Reported: 9/20/99
Units: ug/L

Table 4

Laboratory Results for TPH + BTEX and MTBE Analysis

Analyte	Detection Limit ug/L	Results					
		Sample ID					Method
		B-1	B-2	B-3	B-4	TB	
BTEX							
Benzene	0.5	ND	ND	3.1	ND	ND	8020
Toluene	0.5	10	ND	6.0	ND	ND	8020
Ethylbenzene	0.5	34	27	16	ND	ND	8020
Total-Xylene	0.5	ND	ND	18	ND	ND	8020
MTBE	5	ND	ND	54	ND	ND	8260
TPH-Gas	50	380	290	720	ND	ND	5030/GCFID
TPH-Diesel	100	378	180	138	ND	-	8015M
TPH-M.O.	200	ND	ND	ND	ND	-	8015M

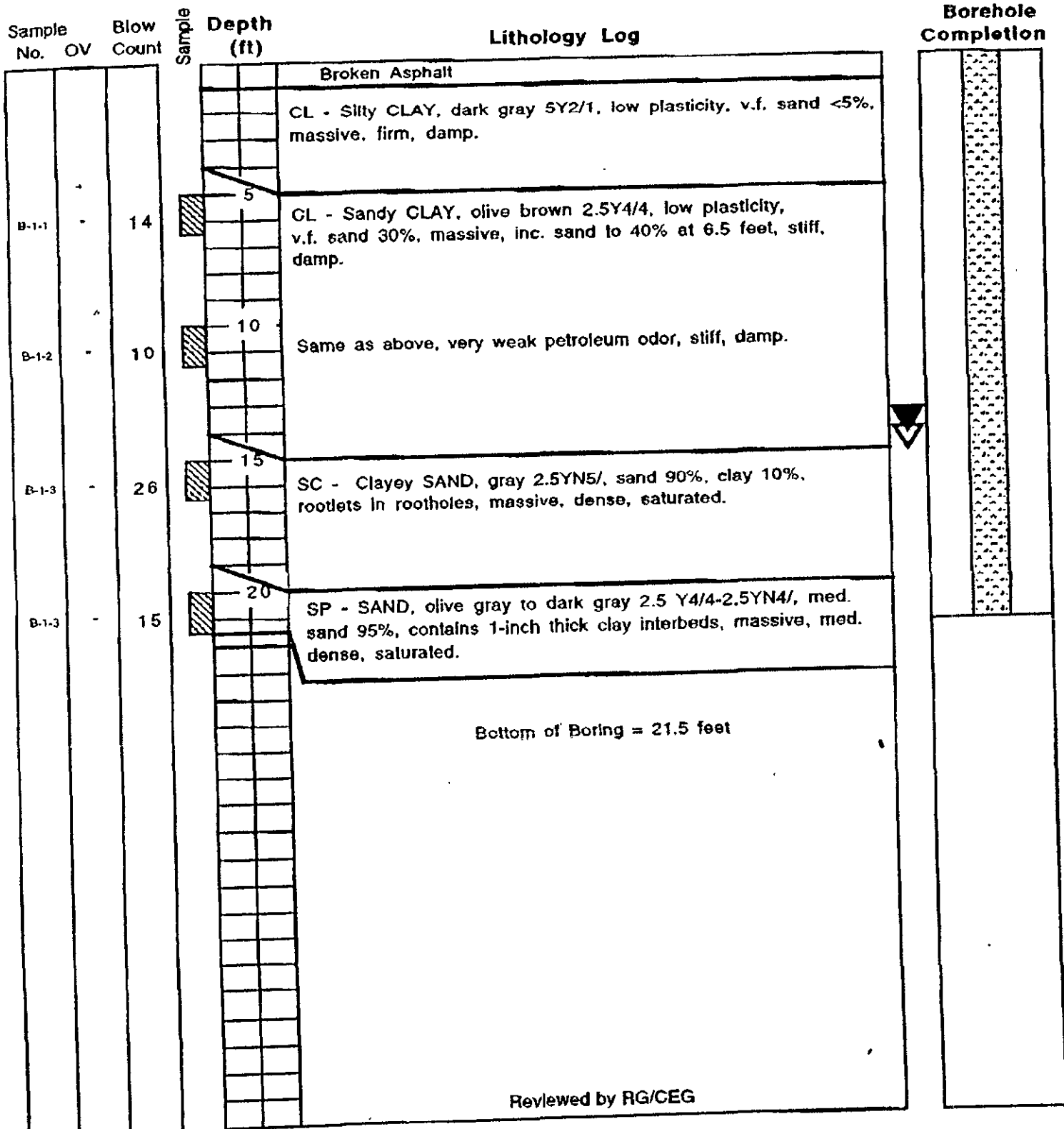
ND:Not Detected(< MDL)

Delta Environmental Laboratories

Hossein Khosh Khoo, Ph.D.

Project No. MAC Boring/Well No. B-1
 Client: MAC Auto Date Drilled: Sept. 7, 1999
 Location: 905 W. Grand Ave, Oakland, CA Logger: CMP
 Drilling Method: 8" OD Hollowstem
 Permit: Ala. County Pub. Wrks.
 Water Levels: 1st Enc: 15'± Static: 14.30' @ 10:10

Well Installed: No
 Total Depth: 21.5'
 Cement Grout Seal: 21.5' to surface



Delta Environmental Laboratories, Benecia, CA

Project No. MAC Boring/Well No. B-2
 Client: MAC Auto Date Drilled: Sept. 7, 1999
 Location: 905 W. Grand Ave, Oakland, CA Logger: CMP
 Drilling Method: 8" OD Hollowstem
 Permit: Ala. County Pub. Wrks.

Well Installed: No
 Total Depth:
 Cement Grout Seal: 21.5'

Water Levels: 1st Enc: 16'± Static: 15.65' @ 11:16

Sample No.	Blow Count	Depth (ft)	Lithology Log	Comments
			Broken Asphalt	
			CL - Silty CLAY, dark gray 5Y2/1, low plasticity, v.f. sand <5%, massive, firm, damp.	
B-2-1	22	5	CL - Sandy CLAY, olive 2.5Y6/6, low plasticity, v.f. sand 30-40%, massive, stiff, damp.	
B-2-2	13	10	Same as above, very weak petroleum odor, possible gray stain, stiff, damp.	
B-2-3	15	15	Same as above, no odor or stain, sharp contact to underlying-	
			SG - Clayey SAND, gray 2.5YN5/, sand 70%, clay 30%, rootlets in rootholes, massive, dense, saturated below 16 feet.	
B-2-3	19	20	SP - SAND, gray 2.5YN5/, 1. -med. sand 95%, massive, med. dense, saturated.	
Bottom of Boring = 21.5 feet				
Reviewed by RG/CEG				

Project No. MAC Boring/Well No. B-3
 Client: MAC Auto, Date Drilled: Sept. 7, 1999
 Location: 905 W. Grand Ave, Oakland, CA Logger: CMP
 Drilling Method: 8" OD Hollowstem
 Permit: Ala. County Pub. Wrks.
 Water Levels: 1st Enc: 16'± Static: 15.16' @ 12:08

Well Installed: No
 Total Depth: 21.5'
 Cement Grout Seal: 21.5' to surface

Sample No.	Blow Count	Depth (ft)	Lithology Log	Borehole Completion
			Broken Asphalt	
			CL - Silty CLAY, very dark gray 2.5YN3/, low plasticity, v.f. sand <5%, massive, firm, damp.	
B-3-1	26	5	CL - Sandy CLAY, olive 2.5Y6/8, low plasticity, stiff, damp.	
B-3-2	15	10	Same as above, crudely bedded, sand inc. to 45%, clay infilled rootholes stiff, damp.	
B-3-3	21	15	SP - SAND, gray 2.5YN5/, med.-crs. sand 95%, massive, fines 5%, med. dense, saturated.	
B-3-3	30	20	Same as above, becomos crs grained, dense, saturated.	
			Bottom of Boring = 21.5 feet	

Project No. MAC Boring/Well No. B-4
 Client: MAC Auto Date Drilled: Sept. 7, 1999
 Location: 905 W. Grand Ave, Oakland, CA Logger: CMP
 Drilling Method: 8" OD Hollowstem
 Permit: Ala. County Pub. Wrks.

Well Installed: No
 Total Depth: 21.5'
 Cement Grout Seal: 21.5' to surface

Water Levels: 1st Enc: 18' Static: 18.95' @ 18:26

Sample No.	OV	Blow Count	Sample	Depth (ft)	Lithology Log	Borehole Completion
				0	Surface Fill	
	1			5	CL - Sandy CLAY, yellowish brown 10YR5/6, low plasticity, roots, hint crude bedding, very stiff, damp.	
B-4-1	-	27		5	Same as above, very stiff, damp.	
	2			10		
B-4-2	-	22		10	Same as above, sand f-crs. 45%, locally up to 55%, massive, stiff, damp.	
				15		
B-4-3	-	17		15	SC-CL - Clayey SAND to Sandy CLAY, yellowish brown 10YR5/6, clay low plasticity, sand varies 40-70% and inc. with depth. Infilled rootholes, stiff-med. dense, moist.	
				20		
B-4-4	-	12		20	SP - SAND, dark gray 5Y2/1, fine sand 90%, massive, loose, saturated, lost part of sample.	
				21.5	Bottom of Boring = 21.5 feet, water entering borehole slowly	

Reviewed by RG/CEG