

ALAMEDA COUNTY
HEALTH CARE SERVICES



AGENCY
DAVID J. KEARS, Agency Director

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

September 26, 2000
StID # 4031

REMEDIAL ACTION COMPLETION CERTIFICATION

Mr. Robert Saunders
Oakland Coliseum
7000 Coliseum Way
Oakland CA 94621

RE: Oakland Coliseum, 7000 Coliseum Way, Oakland 94621

Dear Mr. Saunders:

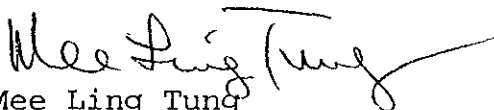
This letter confirms the completion of site investigation and remedial action for the one (1) 1000 unleaded gasoline tank formerly located at the above described location. Thank you for your cooperation throughout this investigation. Your willingness and promptness in responding to our inquiries concerning the former underground tank is greatly appreciated.

Based on information in the above-referenced file and with provision that the information provided to this agency was accurate and representative of site conditions, this agency finds that the site investigation and corrective action carried out at your underground storage tank(s) site is in compliance with the requirements of subdivisions (a) and (b) of Section 25299.37 of this Health and Safety Code and with corrective action regulations adopted pursuant to Section 25299.77 of the Health and Safety Code and that no further action related to the petroleum release(s) as the site is required.

This notice is issued pursuant to subdivision (h) of Section 25299.37 of the Health and Safety Code.

Please contact Barney Chan at (510) 567-6765 if you have any questions regarding this matter.

Sincerely,


Mee Ling Tung
Director, Environmental Health

Mr. Robert Saunders
Oakland Coliseum, 7000 Coliseum Way
September 26, 2000
StID # 4031
Page 2

c: B. Chan, Hazardous Materials Division-files
Chuck Headlee, RWQCB
Mr. Allan Patton, SWRCB Cleanup Fund
Mr. Leroy Griffin, City of Oakland OES, 1605 Martin Luther
King Dr., Oakland CA 94612
RACC7000ColiseumWay

ALAMEDA COUNTY
HEALTH CARE SERVICES

AGENCY

DAVID J. KEARS, Agency Director



50701 9-22-00

R0932

September 26, 2000
StID# 4031

Mr. Robert Saunders
Oakland Coliseum
7000 Coliseum Way
Oakland CA 94621

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

RE: Fuel Leak Site Case Closure, Oakland Coliseum, 7000 Coliseum
Way Oakland CA 94621

Dear Mr. Saunders:

This letter transmits the enclosed underground storage tank (UST) case closure letter in accordance with the Health and Safety Code, 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 Health Services, Local Oversight Program (LOP) is required to use this case closure letter. We are also enclosing the case closure summary. This document confirms the completion of the investigation and cleanup of the reported release at the subject site.

Site Investigation and Cleanup Summary:

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

- 5.8 parts per million (ppm) methyl tertiary butyl ether (MTBE) remain in the soil at the site.
- 94 parts per billion (ppb) TPH as gasoline, 0.54 ppb toluene, 8.0 ppb ethylbenzene, 5.2 ppb xylenes and 160 ppb MTBE remain in the groundwater at the site.

This site should be included in the City's permit tracking system. You may contact me at (510) 567-6765 if you have any questions.

Sincerely,

Barney M. Chan
Hazardous Materials Specialist

enclosures: Case Closure Letter, Case Closure Summary

c: Mr. L. Griffin, City of Oakland OES, 1605 MLK Jr. Way,
Oakland CA 94612

B. Chan, files (letter only)

Tr1t7000ColiseumWay

BB# 01-2500

00 SEP 19 PM 2:00
ENVIRONMENTAL
PROTECTION

CASE CLOSURE SUMMARY
Leaking Underground Fuel Storage Tank Program

I. AGENCY INFORMATION

Date: June 8, 2000

Agency name: Alameda County-HazMat Address: 1131 Harbor Bay Parkway
Rm 250, Alameda CA 94502
City/State/Zip: Alameda Phone: (510) 567-6700
Responsible staff person: Barney Chan Title: Hazardous Materials Spec.

II. CASE INFORMATION

Site facility name: Oakland Coliseum
Site facility address: 7000 Coliseum Way, Oakland CA 94621
RB LUSTIS Case No: N/A Local Case No./LOP Case No.: 4031
ULR filing date: 3/29/99 SWEEPS No: N/A

<u>Responsible Parties:</u>	<u>Addresses:</u>	<u>Phone Numbers:</u>
Mr. Robert Saunders	7000 Coliseum Way Oakland CA 94621	510-383-4854

<u>Tank No:</u>	<u>Size in gal.:</u>	<u>Contents:</u>	<u>Closed in-place or removed?:</u>	<u>Date:</u>
1	1000	UL gasoline	removed	1/22/99

III RELEASE AND SITE CHARACTERIZATION INFORMATION

Cause and type of release: possibly from overfilling
Site characterization complete? yes
Date approved by oversight agency:
Monitoring Wells installed? No Number: n/a
Proper screened interval? n/a
Highest GW depth: n/a Lowest depth: n/a

Leaking Underground Fuel Storage Program

Flow direction: n/a

Most sensitive current use: commercial-parking lot for Oakland-Alameda County Coliseum

Are drinking water wells affected? No Aquifer name: NA

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

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

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

Alameda County	and	City of Oakland OES
1131 Harbor Bay Parkway,		1605 MLK Jr. Way
Room 250, Alameda CA 94502-6577		Oakland CA 94612

Treatment and Disposal of Affected Material:

<u>Material</u>	<u>Amount (include units)</u>	<u>Action (Treatment of Disposal w/destination)</u>	<u>Date</u>
Tanks	1-1000 gallon	disposed @ Erickson, Richmond	1/22/99
Rinseate	15 gallon	disposed @ C & O, Long Beach	3/30/99
Soil	64 tons	disposed @ Altamont Landfill, Livermore	2/26/99 & 3/1/99

Maximum Documented Contaminant Concentrations - - Before and After Cleanup

<u>Contaminant</u>	<u>Soil (ppm)</u>		<u>Water (ppb)</u>	
	<u>1Before</u>	<u>After3</u>	<u>2Before</u>	<u>After 4</u>
TPH (Gas)	ND	ND	58000/52	94
Benzene	0.006	ND	1000/ND	ND
Toluene	ND	ND	2700/ND	0.54
Ethylbenzene	ND	ND	1000/ND	8.0
Xylenes	0.013	ND	2400/ND	5.2
MTBE	3.2	5.8	65000/100	210/160 (8260)

Comments (Depth of Remediation, etc.):

- 1 soil samples WE-1, EE-1 from tank removal
- 3 soil samples collected after over-excavation 2/26/99
- 2 grab groundwater samples, 1/22/99 and 3/17/99 after over-excavation
- 4 grab groundwater sample from geoprobe borings, 3/29/00

Leaking Underground Fuel Storage Tank Program

IV. CLOSURE

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

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

Site management requirements: site should be included in the City of Oakland Permit Tracking System. A site health and safety plan will be required for any subsurface work.

Should corrective action be reviewed if land use changes? Yes

Monitoring wells Decommissioned: NA

Number Decommissioned: NA Number Retained: NA

List enforcement actions taken: none

List enforcement actions rescinded: NA

V. LOCAL AGENCY REPRESENTATIVE DATA

Name: Barney M. Chan Title: Hazardous Materials Specialist

Signature: *Barney M Chan* Date: 7-28-00

Reviewed by

Name: Tom Peacock Title: Manager

Signature: *Tom Peacock* Date: 7-28-00

Name: Eva Chu Title: Hazardous Materials Specialist

Signature: *Eva Chu* Date: 12/15/00

VI. RWQCB NOTIFICATION

Date Submitted to RB: RB Response: *Concur*

RWQCB Staff Name: C. Headlee Title: AEG

Signature: *Cheryl Headlee* Date: 9/1/00

Leaking Underground Fuel Storage Tank Program

VII. ADDITIONAL COMMENTS, DATA, ETC.

See attached site summary.

Site summary for Oakland Coliseum, 7000 Coliseum Way, Oakland CA 94621
StID # 4031

The Oakland-Alameda County Coliseum operated a 1000 gallon UL gasoline tank located on the north side of the property, just north of the New Arena. The underground tank was located in a planter area. See **Figure 2**.

On **January 22, 1999**, the underground tank was removed. Contamination was observed in the overburden. A small amount of groundwater was observed in the pit, of which, a sample was collected. Soil samples were collected from the east and west ends of the tank, along the side-walls, and were labeled EE-1 and WE-1, respectively. Soil samples were also collected from an apparent "clean" stockpile and a "dirty" stockpile, labeled CSP-1 and DSP-1, respectively.

Because of the visible contamination, **over-excavation was performed on February 26, 1999 as directed by the City of Oakland**. The water which had been in the pit had absorbed into the soil and the bottom of the pit was over-excavated to 9' bgs. Two soil samples, one from the middle of the tank hole and one from the northwest corner, were taken after over-excavation. In addition, a water sample from the recharged water was collected for analysis. See **Analytical Result Table for a compilation of these results and Figure 1 for the sample locations**. As you can see, the only analyte of concern is MTBE. It remains as high as 5.8 ppm in soil and 100 ppb in the groundwater.

A sensitive receptor survey identified a former well field, the former Fitchburg well field, located approximately 900 feet east and 1450 feet west of the former UST. See **their location noted on Figure 2**. Because of the unknown status of the closure of these wells, they pose a threat as a potential conduit to the lower aquifer. The depth and construction specification of these wells is not currently known. Because of this perceived risk, an additional soil and groundwater investigation was performed.

On **3/29/00**, five soil borings were advanced to depths ranging from 20-30', within and around the former UST tank pit. See **Figure 3 for a location of the borings and their boring logs**. A slotted PVC casing was lowered into the borings and a groundwater depth taken. Although the well casings were not surveyed, the Coliseum parking lot, where the borings were located, is sufficiently flat to give an estimate of the groundwater gradient. The gradient was determined to be northeasterly and the Fitchburg well field is potentially down-gradient. Both soil and groundwater samples were collected from these borings. In general, little to no gasoline or BTEX was found in any of the soil borings other than B-1, the boring within the center of the former tank pit. The highest TPHg, BTEX and MTBE in groundwater was also found in the sample from B-1. This sample exhibited 94 ppb TPHg, ND, 0.54, 8.0, 5.2 and 210 ppb, BTEX and MTBE, respectively. The sample was also run by EPA Method 8260 to confirm the MTBE and reported 160 ppb. Among the other water samples, up to 64 ppb MTBE was found in sample B3. The soil boring samples also showed very little contamination with the exception of samples from B-1. See **the attached analytical results from McCampell Analytical**.

To estimate the potential risk of this release to the Fitchberg well field the physical parameters from boring B2 were used to estimate soil porosity and hydraulic conductivity. Using the average hydraulic conductivity of the observed clayey sand and silty sand, the calculated gradient and the porosity of boring B2, an estimated velocity of 0.008 ft/day was determined. Based on this velocity, it would take approximately 300 years to reach the supply well 900' away. This also assumes that the shallow groundwater is hydraulically connected with the lower aquifer. Alternatively, if the gradient is actually southwesterly, as it is regionally, towards the bay, the westmost wells of the Fitchberg field is approximately 1450' away and the time estimate for arrival would be expected to be even longer than 300 years.

The vertical extent of contamination was not determined, however, it was estimated by comparing the boring logs from B1 through B5 with that of a soil boring log of a geo-technical boring performed near the outdoor stadium, 250' southeast of the former UST. **This boring, OW-6B, is shown on Map Insert 2. Also included are all the relevant boring logs.** The boring log for OW-6B indicates that the clay zone below 20' is 35' thick. A second water bearing zone is encountered from 55-56 bgs. If we assume a similar stratigraphy in soils near the former UST, then there is also a 35' thick clay zone beneath the shallow groundwater. In addition, the shallow groundwater at the site is likely non-potable. Groundwater samples analyzed from the former Malibu Grand Prix site located at 8000 S. Coliseum Way, had TDS values as high as 20,000 ppm.

Site closure is recommended based upon:

- Adequate source removal has occurred. The underground tank and contaminated soil have been removed.
- Adequate site characterization has been done. The lateral extent of the release has been determined from borings and the vertical extent has been evaluated by reviewing the boring log of a nearby deep geotechnical boring. An estimate of the time necessary to travel to a potential receptor was made. Based upon these evaluations, no water wells, deeper aquifer, surface water or other sensitive receptor are likely to be impacted.
- No risk to human health or the environment is expected.

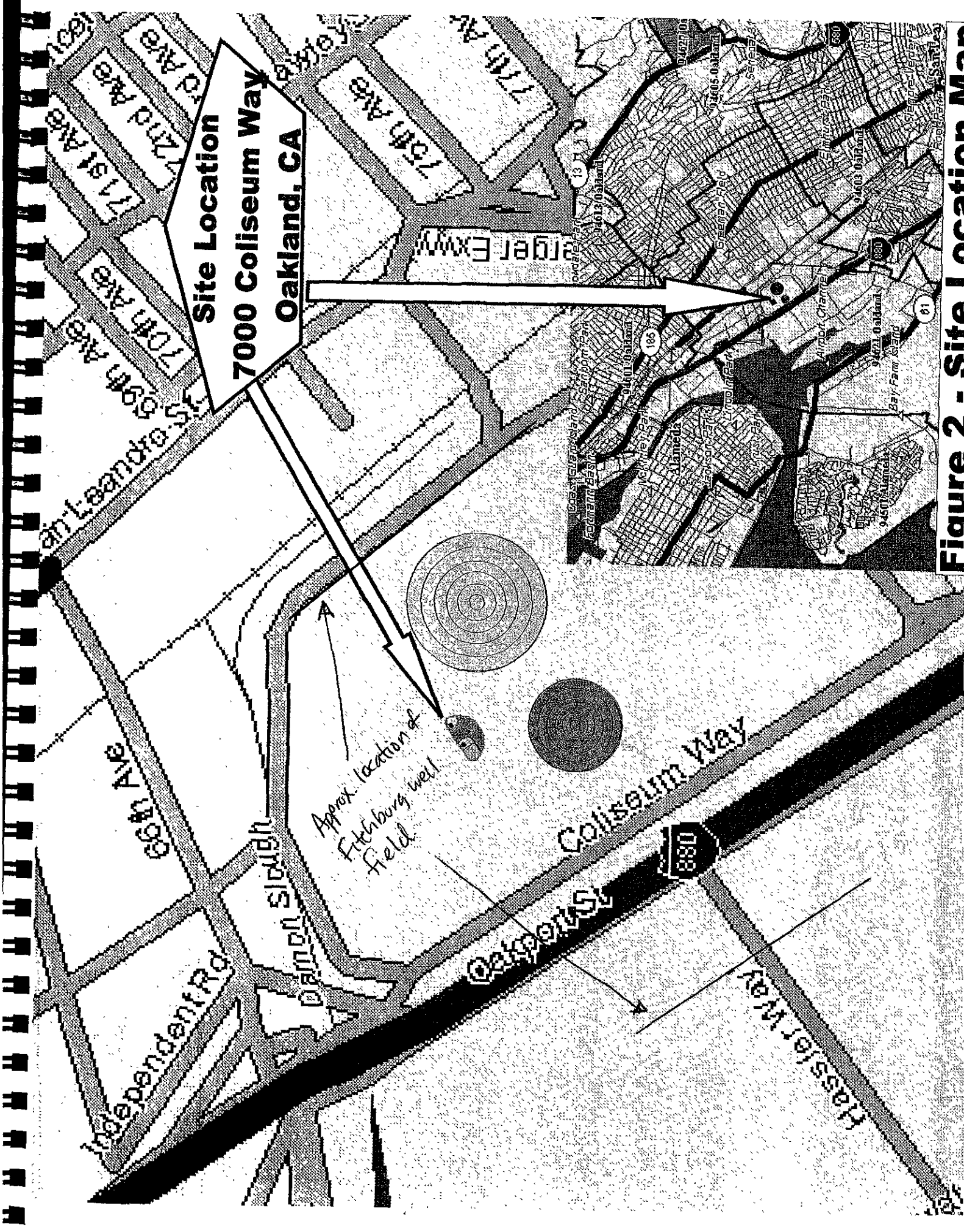
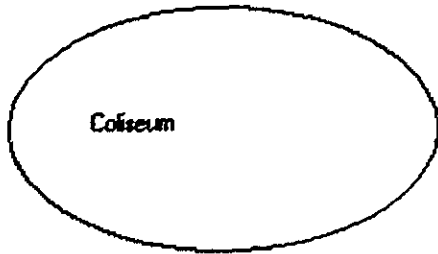


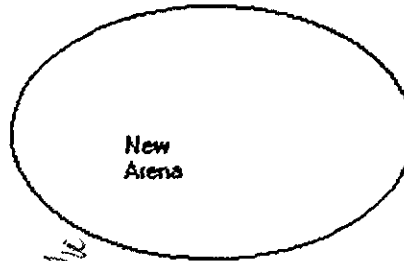
Figure 2 - Site Location Map

Oakland Alameda County Coliseum
Tank Removal Project Site Map
7000 Coliseum Way, Oakland, CA

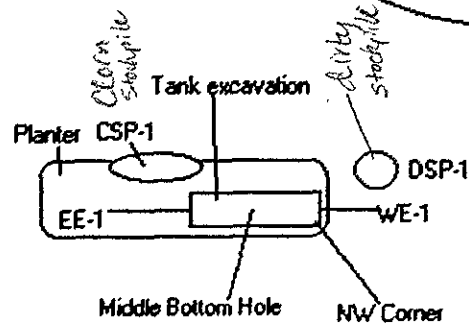
*not to scale



Coliseum



New
Arena



Parking
↓

Parking
↓

880

Figure 1

San Leandro St

**OAKLAND ALAMEDA COUNTY COLISEUM TANK REMOVAL PROJECT
#2999**

ANALYTICAL RESULT TABLE

Sample ID	gas	benzene	toluene	e-benzene	xylenes	mtbe
UNITS						
WE-1 mg/kg	ND	0.0064	ND	ND	0.013	ND
EE-1 mg/kg	ND	ND	ND	ND	ND	3.2
DSP-1 mg/kg	240	0.79	3.4	3.8	13	4.2
CSP-1 mg/kg	1.7	ND	ND	ND	0.14	.014
WATER-1 ug/l	58000	1000	2700	1000	2400	65000
Middle Tank Hole mg/kg	ND	ND	ND	ND	ND	5.8
NW Corner mg/kg	ND	ND	ND	ND	ND	4.0
2999-31799 ug/l <i>Water</i>	52	ND	ND	ND	ND	100

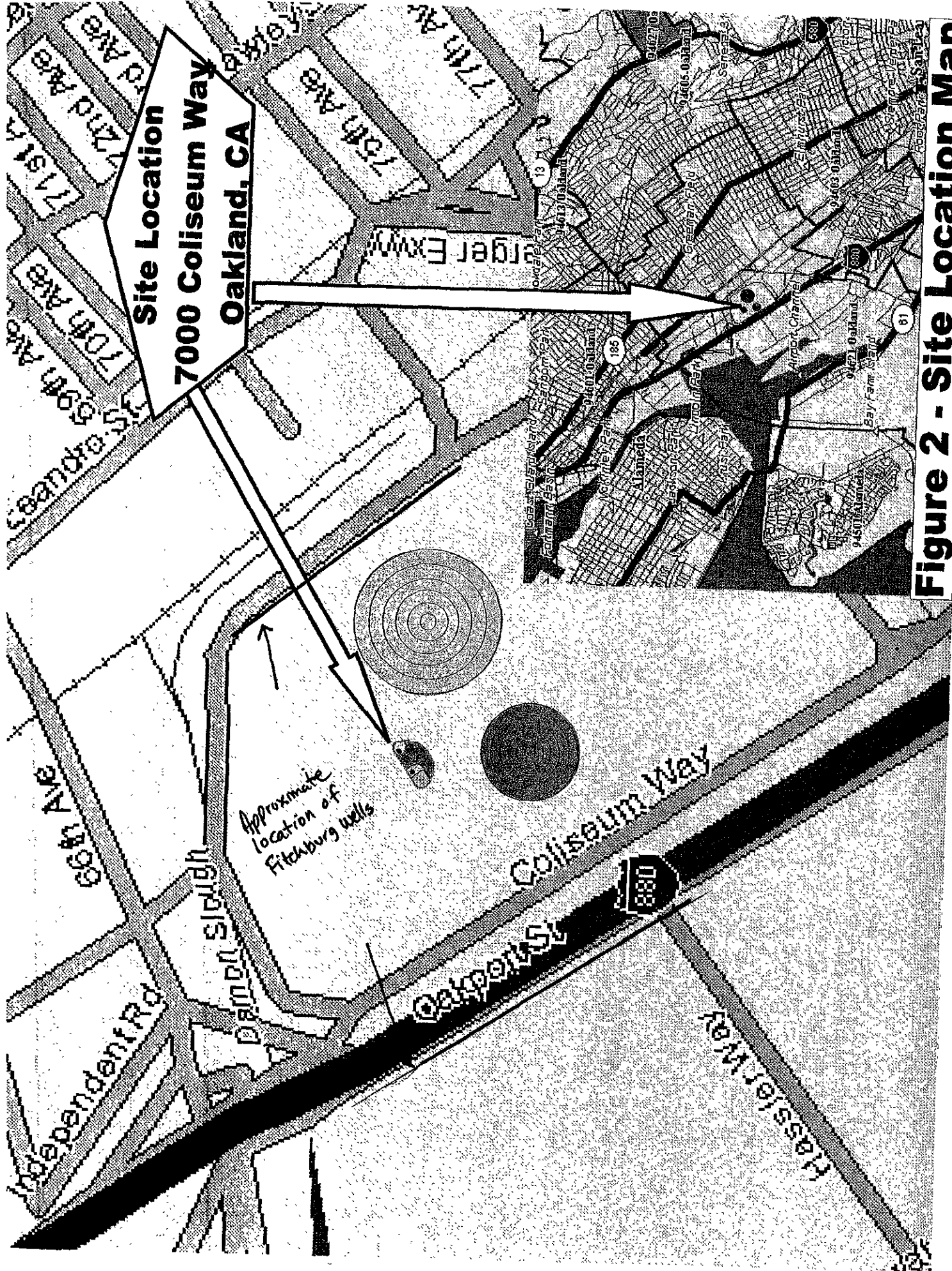
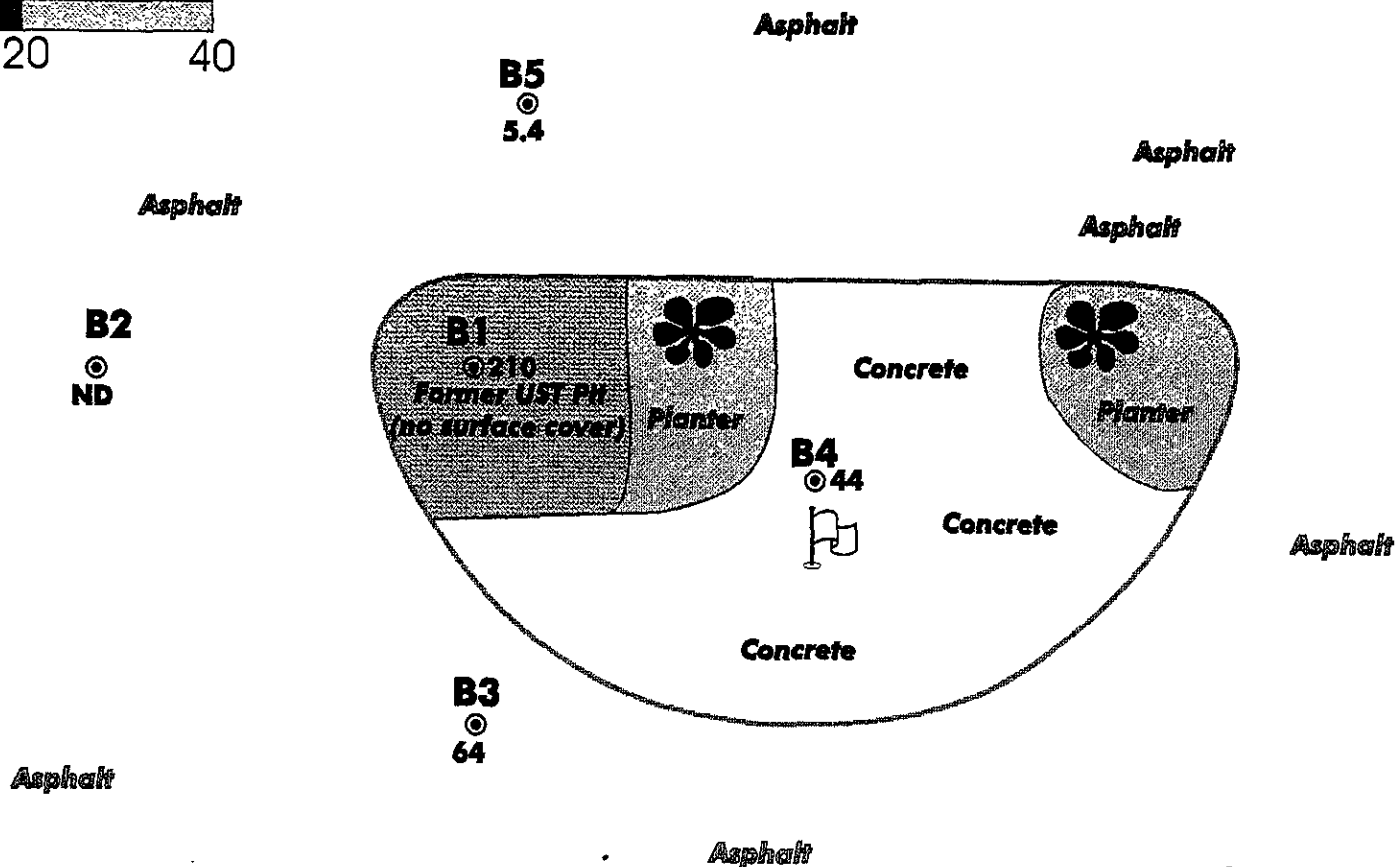


Figure 2 - Site Location Map

Approximate
Scale in Feet



LEGEND

B3

⊙ MTBE concentrations in groundwater in (ppb)
64 @ Soil boring location

FIGURE 3
MTBE CONCENTRATIONS IN
GROUNDWATER BASED
UPON MARCH 29 & 30, 2000
GROUNDWATER GRAB SAMPLING IN SHALLOW
OPEN SOIL BORINGS
FORMER UST @ 7000 COLISEUM WAY
OAKLAND, CALIFORNIA
GEOSOLV, LLC



McCAMPBELL ANALYTICAL INC.

110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
 Telephone : 925-798-1620 Fax : 925-798-1622
<http://www.mccampbell.com> E-mail: main@mccampbell.com

GEOSOLV, LLC 643 Oregon Street Sonoma, CA 95476	Client Project ID: Coliseum	Date Sampled: 03/29-03/30/00
		Date Received: 04/03/00
	Client Contact: Frank Goldman	Date Extracted: 04/06-04/10/00
	Client P.O:	Date Analyzed: 04/06-04/10/00

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline*, with Methyl tert-Butyl Ether* & BTEX*

EPA methods 5030, modified 8015, and 8020 or 602; California RWQCB (SF Bay Region) method GCFID(5030)

Lab ID	Client ID	Matrix	TPH(g) ⁺	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	% Recovery Surrogate
35512	B-14-14 ¹ / ₂	S	1.2,b	0.24	ND	ND	0.010	0.009	105
35513	B-1 19-19 ¹ / ₂	S	ND	0.12	ND	ND	ND	ND	100
35515	B-1 24-24 ¹ / ₂	S	ND	ND	ND	ND	ND	ND	98
35517	B-29 ¹ / ₂ -30	S	ND	ND	ND	ND	ND	ND	108
35520	B-2 9 ¹ / ₂ -10	S	20,j	ND	0.043	0.065	0.035	0.18	---#
35523	B-2 14 ¹ / ₂ -15	S	ND	ND	ND	ND	ND	ND	107
35524	B-20 ¹ / ₂ -21	S	ND	ND	ND	ND	ND	ND	102
35527	B-3 9 ¹ / ₂ -10	S	ND	ND	ND	ND	ND	ND	98
35529	B-3 12-12 ¹ / ₂	S	ND	ND	ND	ND	ND	ND	98
35530	B-3 13 ¹ / ₂ -14	S	ND	ND	ND	ND	ND	ND	104
35531	B-314 ¹ / ₂ -15	S	ND	ND	ND	ND	ND	ND	99
35532	B-3 20 ¹ / ₂ -21	S	ND	ND	ND	ND	ND	ND	100
35533	B-1-W	W	94,b	210	ND	0.54	8.0	5.2	99
35534	B2-W	W	ND	ND	ND	ND	ND	ND	93
35535	B3-W	W	ND	64	ND	ND	ND	ND	95
Reporting Limit unless otherwise stated; ND means not detected above the reporting limit	W		50 ug/L	5.0	0.5	0.5	0.5	0.5	
	S		1.0 mg/kg	0.05	0.005	0.005	0.005	0.005	

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

* cluttered chromatogram; sample peak coelutes with surrogate peak

*The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (?); f) one to a few isolated peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen is present; i) liquid sample that contains greater than ~5 vol. % sediment; j) no recognizable pattern.



McCAMPBELL ANALYTICAL INC.

110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
 Telephone : 925-798-1620 Fax : 925-798-1622
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GEOSOLV, LLC 643 Oregon Street Sonoma, CA 95476	Client Project ID: Coliseum	Date Sampled: 03/29-03/30/00
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		Date Analyzed: 04/06-04/10/00

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline*, with Methyl tert-Butyl Ether* & BTEX*
 EPA methods 5030, modified 8015, and 8020 or 602; California RWQCB (SF Bay Region) method GCFID(5030)

Lab ID	Client ID	Matrix	TPH(g) ⁺	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	% Recovery Surrogate
35536	B-4 9-9 ¹ / ₂	S	ND	ND	ND	0.007	ND	0.020	98
35537	B-4 12-12 ¹ / ₂	S	ND	ND	ND	ND	ND	ND	100
35538	B-4 15-15 ¹ / ₂	S	ND	ND	ND	ND	ND	ND	101
35539	B-4 19 ¹ / ₂ -20	S	ND	ND	ND	ND	ND	ND	102
35540	B-5 9-9 ¹ / ₂	S	ND	ND	ND	ND	ND	ND	113
35541	B-5 12-12 ¹ / ₂	S	ND	ND	ND	ND	ND	ND	99
35542	B-5 15-15 ¹ / ₂	S	ND	ND	ND	ND	ND	ND	101
35543	B-5 19 ¹ / ₂ -20	S	ND	ND	ND	ND	ND	ND	99
35544	B-4	W	ND	44	ND	ND	ND	ND	93
35545	B-5	W	ND	5.4	ND	ND	ND	ND	93
Reporting Limit unless otherwise stated; ND means not detected above the reporting limit		W	50 ug/L	5.0	0.5	0.5	0.5	0.5	
		S	1.0 mg/kg	0.05	0.005	0.005	0.005	0.005	

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

* cluttered chromatogram; sample peak coelutes with surrogate peak

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