

ALAMEDA COUNTY
HEALTH CARE SERVICES

AGENCY
ALEX BRISCOE, Director



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

April 29, 2011

Mr. Jeff LeBow
East Bay Regional Parks District
17930 Lake Chabot Road
Castro Valley, CA 94546
(sent via electronic mail to jlebow@ebparks.org)

Subject: Closure Transmittal; Spills, Leaks, Investigations and Cleanup (SLIC) Case No. RO0002963 and Geotracker, Global ID # T0619715536, EBRPD Lake Chabot Marine Maintenance Yard, 17930 Lake Chabot Road, Castro Valley, CA 94546

Dear Mr. LeBow:

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 Health (ACEH) 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:

- ◆ Disposal destination of soil excavated during AST product line removal was not reported, and is assumed to have been redeposited in product line excavation. Overexcavation of contaminated soil does not appear to have been performed.
- ◆ Residual soil contamination remains in place at this site.
- ◆ Groundwater sampling was not required due to the likely depth to permanent groundwater and the ephemeral nature of infiltrating water, directly beneath an elevated bedrock knoll location.
- ◆ Case closure for this fuel leak site is granted for the current commercial land use only. If a change in land use to any residential or other conservative land use scenario occurs at this site, Alameda County Environmental Health (ACEH) must be notified as required by Government Code Section 65850.2.2. ACEH will re-evaluate the case upon receipt of approved development/construction plans.
- ◆ Excavation or construction activities in areas of residual contamination require planning and implementation of appropriate health and safety procedures by the responsible party prior to and during excavation and construction activities.

If you have any questions, please call Mark Detterman at (510) 567-6876. Thank you.

Sincerely,

Donna Drogos, P.E.
Division Chief

Mr. Jeff LeBow
RO0002963
April 29, 2011, Page 2

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

cc: Ms. Cherie McCaulou (w/enc.), SF- Regional Water Quality Control Board, 1515 Clay Street, Suite
 1400, Oakland, CA 94612, (sent via electronic mail to CMacaulou@waterboards.ca.gov)

Closure Unit (w/enc), State Water Resources Control Board, UST Cleanup Fund, P. O. Box
944212, Sacramento, CA 94244-2120

Donna Drogos, (sent via electronic mail to donna.drogos@acgov.org)

Mark Detterman (sent via electronic mail to mark.detterman@acgov.org)

Case File, GeoTracker

ALAMEDA COUNTY
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April 26, 2011

Mr. Jeff LeBow
East Bay Regional Parks District
17930 Lake Chabot Road
Castro Valley, CA 94546
(sent via electronic mail to jlebow@ebparks.org)

REMEDIAL ACTION COMPLETION CERTIFICATE

Subject: Spills, Leaks, Investigations and Cleanup (SLIC) Case No. RO0002963 and Geotracker, Global ID # T0619715536, EBRPD Lake Chabot Marine Maintenance Yard, 17930 Lake Chabot Road, Castro Valley, CA 94546

Dear Mr. LeBow:

This letter confirms the completion of a site investigation and remedial action for the underground storage 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 storage tank(s) 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, 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 25296.10 of the Health and Safety Code and with corrective action regulations adopted pursuant to Section 25299.3 of the Health and Safety Code and that no further action related to the petroleum release(s) at the site is required.

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

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

Sincerely,


Ariu Levi
Director
Alameda County Environmental Health

**CASE CLOSURE SUMMARY
SITE CLEANUP PROGRAM**

I. AGENCY INFORMATION

Date: March 31, 2011

Agency Name: Alameda County Environmental Health	Address: 1131 Harbor Bay Parkway
City/State/Zip: Alameda, CA 94502-6577	Phone: (510) 567- 6876
Responsible Staff Person: Mark Detterman	Title: Hazardous Materials Specialist

II. CASE INFORMATION

Site Facility Name: EBRPD Lake Chabot Marine Maintenance Yard		
Site Facility Address: 17930 Lake Chabot Road, Castro Valley, CA 94546		
RB Case No.: ----	STID No.: ---	LOP Case No.: RO0002963
URF Filing Date: None	Geotracker ID: T0619715536	APN: 84D-1400-2-17

Responsible Parties	Addresses	Phone Numbers
Jeff LeBow	East Bay Regional Parks District 17930 Lake Chabot Road Castro Valley, CA 94546	510.544.2560
----	----	----
----	----	----

Tank I.D. No	Size in Gallons	Contents	Closed In Place/Removed?	Date
AST #1*	2,000	Diesel	Removed	June 26, 2007
----	----	----	----	----
----	----	----	----	----
----	----	----	----	----
Piping			Not Reported; Presume Removed	June 26, 2007

* = Aboveground Storage Tank

III. RELEASE AND SITE CHARACTERIZATION INFORMATION

Cause and Type of Release: Mechanical component release; AST supply line valves proximal to elevated concentration.		
Site characterization complete? Yes	Date Approved By Oversight Agency: ----	
Monitoring wells installed? No	Number: 0	Proper screened interval? NA
Highest GW Depth Below Ground Surface: NA*	Lowest Depth: NA*	Flow Direction: NA*
Most Sensitive Current Use: Potential drinking water source.		

* Site sits on bedrock hill; bedrock (with auger refusal) encountered at a depth of approximately 8 – 10 ft bgs; groundwater was not encountered.

Summary of Production Wells in Vicinity: No water supply wells were identified within a ¼-mile radius of the subject site.	
Are drinking water wells affected? No	Aquifer Name: East Bay Plain
Is surface water affected? No	Nearest SW Name: Lake Chabot; ½ mile NW
Off-Site Beneficial Use Impacts (Addresses/Locations): None identified.	
Reports on file? Yes	Where are reports filed? Alameda County Environmental Health

TREATMENT AND DISPOSAL OF AFFECTED MATERIAL			
Material	Amount (Include Units)	Action (Treatment or Disposal w/Destination)	Date
Tank	1 - 2,000 gallon	Disposal; Ecology Control Industries, Richmond, CA	June 26, 2007
Piping	Unknown	Not Reported; assumed disposed w/ AST	----
Free Product	None Reported	----	----
Soil	Not Reported	----	----
Groundwater	Not Reported	----	----

MAXIMUM DOCUMENTED CONTAMINANT CONCENTRATIONS BEFORE AND AFTER CLEANUP
 (Please see Attachments 1 through 6 for additional information on contaminant locations and concentrations)

Contaminant	Soil (ppm)		Water (ppb)*	
	Before	After	Before	After
TPH (Gas)	----	----	----	----
TPH (Diesel)	570	570	----	----
TPH (Motor Oil)	55	55	----	----
Oil and Grease	----	----	----	----
Benzene	<0.005	<0.005	----	----
Toluene	<0.005	<0.005	----	----
Ethylbenzene	<0.005	<0.005	----	----
Xylenes	<0.005	<0.005	----	----
Heavy Metals (Cd, Cr, Pb, Ni, Zn)	NA	NA	----	----
Fuel Oxygenates *	<0.005	<0.005	----	----
Other (EPA 8260)	<0.005	<0.005	----	----

- Site sits on bedrock hill; bedrock (with auger refusal) encountered at a depth of approximately 8 – 10 ft bgs; groundwater was not encountered. Groundwater sampling was not required due to the likely depth to permanent groundwater and the ephemeral nature of infiltrating water, directly beneath an elevated bedrock knoll location.

** Includes MTBE, TBA, TAME, ETBE, DIPE, EDB, and EDC.

Site History and Description of Corrective Actions:

In June 2007 DECON Environmental Services removed one 2,000-gallon aboveground storage tank (AST) and associated underground piping from the site. Three trench-line soil samples were collected and up to 570 mg/kg TPH diesel were detected in the trench underneath the product line values at the AST, while 25 and 67 mg/kg TPH diesel were detected elsewhere along the trench lines. All samples were collected at a depth of 2 to 3 feet bgs. In November 2009 six soil bores were installed until refusal; bedrock was encountered generally at depths of 6 to 10 feet bgs. Ten soil samples were collected based on PID responses (a maximum of 4.8 PID units were detected) or representativeness of the sample. Samples were collected at 4, 6, or 8 feet bgs; all were non-detectable for BTEX, MTBE, TBA, TAME, ETBE, DIPE, EDB, and EDC, and other EPA 8260 analytes. A maximum of 55 mg/kg TPH as diesel and 44 mg/kg TPH motor oil were detected in bore K-3. Groundwater was not encountered.

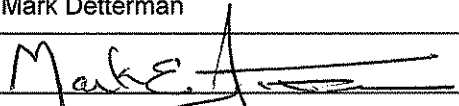
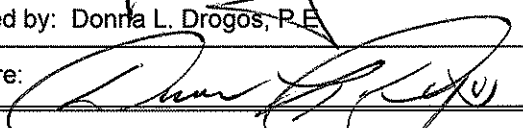
IV. CLOSURE

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? Alameda County Environmental Health staff does not make specific determinations concerning public health risk. However, based upon the information available in our files to date, it does not appear that the release would present a risk to human health based upon current land use and conditions.		
Site Management Requirements: Case closure for this fuel leak site is granted for the current commercial land use only. If a change in land use to any residential or other conservative land use scenario occurs at this site, Alameda County Environmental Health (ACEH) must be notified as required by Government Code Section 65850.2.2. ACEH will re-evaluate the case upon receipt of approved development/construction plans. Excavation or construction activities in areas of residual contamination require planning and implementation of appropriate health and safety procedures by the responsible party prior to and during excavation and construction activities.		
Should corrective action be reviewed if land use changes? Yes		
Was a deed restriction or deed notification filed? No		Date Recorded: ---
Monitoring Wells Decommissioned: NA	Number Decommissioned: 0	Number Retained: 0
List Enforcement Actions Taken: None		
List Enforcement Actions Rescinded: None		

V. ADDITIONAL COMMENTS, DATA, ETC.

<p>Considerations and/or Variances:</p> <ul style="list-style-type: none"> ◆ Disposal destination of soil excavated during AST product line removal was not reported, and is assumed to have been redeposited in product line excavation. ◆ Overexcavation of contaminated soil does not appear to have been performed. ◆ Residual soil contamination remains in place at this site. ◆ Groundwater sampling was not required due to the likely depth to permanent groundwater and the ephemeral nature of infiltrating water, directly beneath an elevated bedrock knoll location. <p>Conclusion:</p> <p>Alameda County Environmental Health staff believe that the levels of residual contamination do not pose a significant threat to water resources, public health and safety, and the environment under the current commercial land use based upon the information available in our files to date. No further investigation or cleanup for the fuel leak case is necessary unless a change in land use to any residential or other conservative land use scenario occurs at the site. ACEH staff recommend closure for this site.</p>

VI. LOCAL AGENCY REPRESENTATIVE DATA

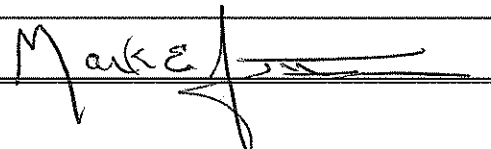
Prepared by: Mark Detterman	Title: Senior Hazardous Materials Specialist
Signature: 	Date: 4/7/11
Approved by: Donna L. Drogos, P.E.	Title: Division Chief
Signature: 	Date: 04/07/11

This closure approval is based upon the available information and with the provision that the information provided to this agency was accurate and representative of site conditions.

VII. REGIONAL BOARD NOTIFICATION

Regional Board Staff Name: Cherie McCaulou	Title: Engineering Geologist
Notification Date: 4/7/11	

VIII. MONITORING WELL DECOMMISSIONING

Date Requested by ACEH: Not Applicable	Date of Well Decommissioning Report: Not Applicable	
All Monitoring Wells Decommissioned: NA	Number Decommissioned: 0	Number Retained: 0
Reason Wells Retained: None installed.		
Additional requirements for submittal of groundwater data from retained wells: None		
ACEH Concurrence - Signature: 	Date: 4/7/11	

Attachments:

1. Site Vicinity Map (1 pp)
2. Site Plans (1 pp)
3. Soil Analytical Data (2 pp)
4. Boring Logs (6 pp)

This document and the related CASE CLOSURE LETTER & REMEDIAL ACTION COMPLETION CERTIFICATE shall be retained by the lead agency as part of the official site file.

Detterman, Mark, Env. Health

From: Cherie McCaulou [CMccaulou@waterboards.ca.gov]
Sent: Friday, April 08, 2011 10:39 AM
To: Detterman, Mark, Env. Health
Subject: Re: RO0002963; Closure Summary for EBRPD Lake Chabot Marine

Mark - the Regional Board has no objection to ACEH's recommendation for case closure of the subject site. Thank you.

Sincerely,

Cherie McCaulou
Engineering Geologist
San Francisco Bay Regional Water Quality Control Board
cmccaulou@waterboards.ca.gov
510-622-2342

>>> "Detterman, Mark, Env. Health" <Mark.Detterman@acgov.org> 4/7/2011 3:33 PM >>>
Hi Cherie,

Attached is a closure summary for RO0002963; the EBRPD Lake Chabot Marine site, located at 17930 Lake Chabot Road in Castro Valley, in order to comply with the RWQCB's 30-day review period. If no comments from the RWQCB are received within the 30-day review period, ACEH's will proceed with case closure.

This is a recent site with a limited history. No wells were installed or considered necessary.

Should you have questions, do let me know.
Best,

*Mark Detterman
Senior Hazardous Materials Specialist, PG, CEG
Alameda County Environmental Health
1131 Harbor Bay Parkway
Alameda, CA 94502
Direct: 510.567.6876
Fax: 510.337.9335
Email: mark.detterman@acgov.org*

PDF copies of case files can be downloaded at:

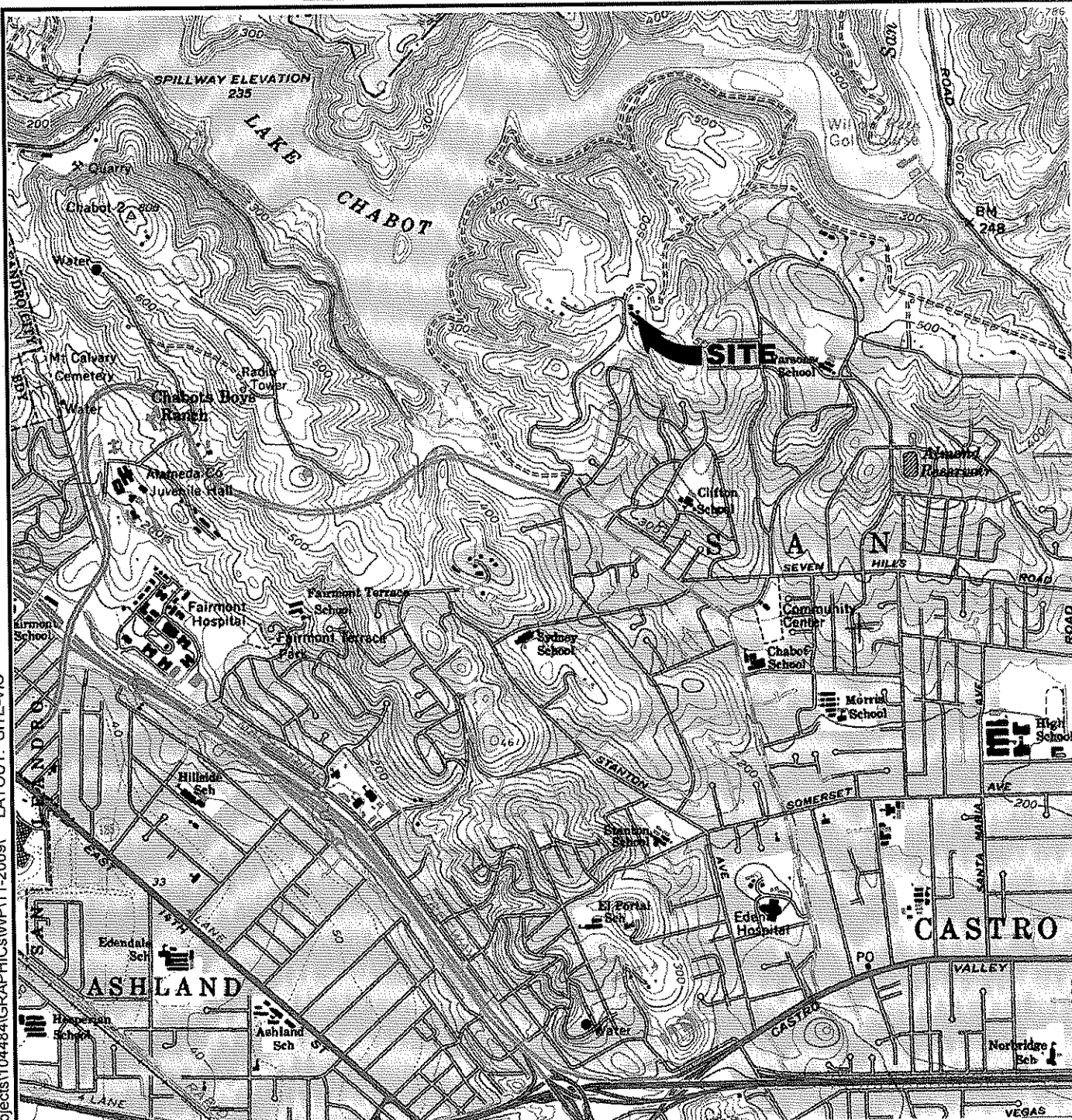
<http://www.acgov.org/aceh/lop/ust.htm>

ATTACHMENT 1

PLOTTED: 16 Nov 2009, 12:10pm, jsala


LAYOUT: SITE-VIC

ATTACHED IMAGES: SITE-VIC.jpg Images: SITEPLAN.jpg
 ATTACHED XREFS: XRef: Eng-A_8x11_P_SivleA
 CAD FILE: L:\2009\09\Projects\104484\GRAPHICS\WP11-2009\



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REFERENCE:
 USGS 7.5 Minute Series (Topographic) Hayward
 Quadrangle, dated 1959 Photorevised 1980

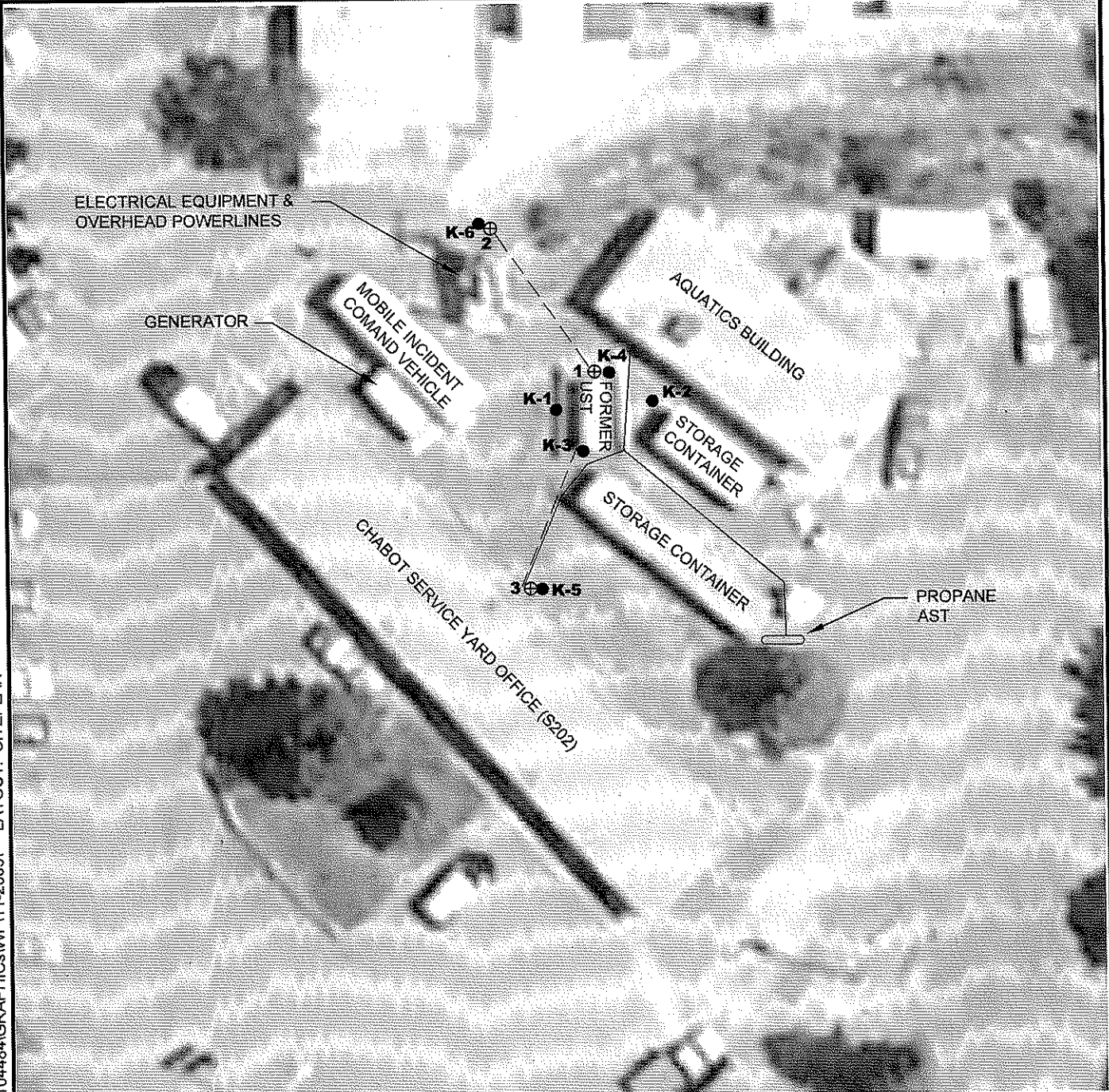
	PROJECT NO. 104484	SITE VICINITY MAP EAST BAY REGIONAL PARK DISTRICT LAKE CHABOT MARINE MAINTENANCE YARD 17930 LAKE CHABOT ROAD CASTRO VALLEY, CALIFORNIA	PLATE
	DRAWN: NOV 2009		1
	DRAWN BY: JDS		
	CHECKED BY: JG		
FILE NAME: VIC-PLAN.dwg			

ATTACHMENT 2

PLOTTED: 16 Nov 2009, 12:10pm, jsala

LAYOUT: SITEPLAN

ATTACHED IMAGES: SITE-VIC.jpg Images: SITEPLAN.jpg
 ATTACHED XREFS: XRef: Eng-A_8x11_P_SivileA
 CAD FILE: L:\2009\09\Projects\104484\GRAPHICS\WP11-2009\



REFERENCE:
 maps.google.com, 2006



LEGEND

- ⊕ SOIL SAMPLE LOCATION (By Decon, 7/07)
- SOIL BORING LOCATION
- FORMER PIPING
- _____ PROPANE PIPING

NOTE: Locations are approximate.

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PROJECT NO.	104484
DRAWN:	NOV 2009
DRAWN BY:	JDS
CHECKED BY:	JG
FILE NAME:	VIC-PLAN.dwg

SITE PLAN
EAST BAY REGIONAL PARK DISTRICT LAKE CHABOT MARINE MAINTENANCE YARD 17930 LAKE CHABOT ROAD CASTRO VALLEY, CALIFORNIA

PLATE	2
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**TABLE 1
SUMMARY OF SOIL ANALYTICAL RESULTS
LAKE CHABOT MARINE MAINTENANCE YARD
CASTRO VALLEY CALIFORNIA
NOVEMBER 24, 2009**

Analyte (mg/kg)	Method	Sample ID - Date - Depth										RWQCB ESLs ¹		
		K-1-4 11/3/2009 Depth: 4 feet	K-1-8 11/3/2008 Depth: 8 feet	K-2-4 11/3/2009 Depth: 4 feet	K-2-8 11/3/2008 Depth: 8 feet	K-3-4 11/3/2009 Depth: 4 feet	K-3-8 11/3/2008 Depth: 8 feet	K-4-4 11/3/2009 Depth: 4 feet	K-4-6 11/3/2008 Depth: 6 feet	K-5-6 11/3/2009 Depth: 6 feet	K-6-3 11/3/2008 Depth: 3 feet	Residential Land Use	Commercial / Industrial Land Use	
Volatile Organic Compounds	8260B													
Benzene		ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	0.044	0.044
Toluene		ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	2.9	2.9
Ethylbenzene		ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	3.3	3.3
Total Xylenes		ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	2.3	2.3
Tetrachloroethylene(PCE)		ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	0.34	0.70
Trichloroethylene (TCE)		ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	0.46	0.46
Petroleum Hydrocarbons	8015B													
TPH-Diesel		1.4	ND(1.0)	ND(1.0)	ND(1.0)	55	3.2	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	83	83
TPH-Motor Oil		ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	44	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	370	2500

Notes:
 Samples were analyzed by McCampbell Analytical, Inc of Pittsburg, California, a state-certified analytical laboratory.
 Laboratory data met EPA and laboratory specifications for quality assurance and quality control.
¹ California Regional Water Quality Control Board, San Francisco Bay Region. *Screening For Environmental Concerns at Sites with Contaminated Soil and Groundwater, Volume 1: Summary Tier 1 Lookup Tables, Shallow Soils, Groundwater is Current or Potential Source of Drinking Water*, Interim Final, November 2007.

Acronyms/Abbreviations:
 mg/kg - milligrams per kilogram
 TPH - Total Petroleum Hydrocarbons
 ESLs - Environmental Screening Levels
 RWQCB - Regional Water Quality Control Board (San Francisco Bay Region)
 ND - Not detected at or above laboratory reporting limit

ATTACHMENT 3

Entech Analytical Labs, Inc.

3334 Victor Court , Santa Clara, CA 95054

Phone: (408) 588-0200

Fax: (408) 588-0201

Decon Environmental Services, Inc.
 23490 Connecticut Street
 Hayward, CA 94545
 Attn: Chris Pacis

Project Number: 5199
 Project Name: EBRPD

Certificate of Analysis - Data Report

Samples Received: 06/28/2007
 Sample Collected by: Client

Lab #: 56141-001 Sample ID: 5199-01 Matrix: Solid Sample Date: 6/28/2007 10:00 AM

TPH-Extractable: EPA 3545A / EPA 8015B(M)										
Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch	
TPH as Diesel	570		10	50	mg/Kg	6/29/2007	SD070629B	7/2/2007	SD070629B	
Atypical pattern (C12-C34).										
Surrogate	Surrogate Recovery		Control Limits (%)						Analyzed by: JHsiang	
n-Hexacosane	77.9		50 - 150						Reviewed by: mtran	

Lab #: 56141-002 Sample ID: 5199-02 Matrix: Solid Sample Date: 6/28/2007 10:00 AM

TPH-Extractable: EPA 3545A / EPA 8015B(M)										
Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch	
TPH as Diesel	25		1.0	5.0	mg/Kg	6/29/2007	SD070629B	7/2/2007	SD070629B	
Atypical pattern (C12-C26); 56 mg/Kg Motor Oil.										
Surrogate	Surrogate Recovery		Control Limits (%)						Analyzed by: JHsiang	
n-Hexacosane	86.4		50 - 150						Reviewed by: mtran	

Lab #: 56141-003 Sample ID: 5199-03 Matrix: Solid Sample Date: 6/28/2007 10:00 AM

TPH-Extractable: EPA 3545A / EPA 8015B(M)										
Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch	
TPH as Diesel	67		1.0	5.0	mg/Kg	6/29/2007	SD070629B	7/2/2007	SD070629B	
Atypical pattern (C12-C26); 45 mg/Kg Motor Oil.										
Surrogate	Surrogate Recovery		Control Limits (%)						Analyzed by: JHsiang	
n-Hexacosane	92.1		50 - 150						Reviewed by: mtran	

Detection Limit = Detection Limit for Reporting.

D/P-F = Dilution and/or Prep Factor includes sample volume adjustments.

ND = Not Detected at or above the Detection Limit.

Qual = Data Qualifier

7/5/2007 12:04:08 PM - ELing

ATTACHMENT 4

Date Completed: 11/3/09	Drilling method: Direct Push/Auger
Logged By: J. Gravesen	Driller: Precision Sampling; Drill Rig 6625 CPT
Total Depth: 10.5 ft	Hammer Wt: None
North: 37.72040	Notes: Drilled on soil
East: -122.09508	Surface Elevation: Estimated feet (MSL)

Depth (feet)	Sample Number	Sample Type	Blows/Foot	Recovery (%)	OVA (ppm) PID	USCS	Description	Remarks
1					0.0	SC	SANDY CLAY (CL) - dark olive brown, moist, soft, non plastic	
2					0.0	SC		
3					0.0	SC		
4	K-1-4	X			0.0	SP-SC	SAND with CLAY (SP-SC) - light olive-brown, moist, loose, poorly graded fine sand	
5				3'	0.0	CL	CLAY (CL) - light olive-brown, moist, firm, non plastic	
6					0.0	CL	CLAY with FINE SAND (CL) - light olive-brown, moist, soft	
7					0.0	CL		
8	K-1-8	X		2'	0.5	CL		
9				0.5'	1.1	CL		Refusal at 9 feet Auger to 10 feet
10	K-1-10	X				ST	SANDSTONE - very pale brown (T/3 10YR), dry, very dense	
11						ST	Boring terminated at approx. 10.5 feet below ground surface, because of refusal. Backfilled with neat cement grout	
12						ST		
13						ST		
14						ST		
15						ST		

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PROJECT NO. **104484**

LOG OF BORING NO. K-1

CASTRO VALLEY, CALIFORNIA
 EAST BAY REGIONAL PARK DISTRICT
 LAKE CHABOT MARINE MAINTENANCE YARD
 17930 LAKE CHABOT ROAD

Appendix

B-1

11/16/2009 11:51:56 AM

Date Completed: 11/3/09 Drilling method: Direct Push/Auger
 Logged By: J. Gravesen Driller: Precision Sampling; Drill Rig 6625 CPT
 Total Depth: 10.5 ft Hammer Wt: None
 North: 37.72039 Notes: Drilled on soil
 East: -122.09501 Surface Elevation: Estimated feet (MSL)

Depth (feet)	Sample Number	Sample Type	Blows/Foot	Recovery (%)	OVA (ppm) PID	USCS	Description	Remarks
1					0.3		SANDY CLAY (CL) - dark grayish-brown, moist, soft, non plastic	
2					0.5		SAND with CLAY (SP-SC) - very pale-brown, dry, dense, poorly graded fine sand	
3								
4	K-2-4	X		3'				
5					0.3			
6								
7								Auger for 35 minutes to get to 7 feet. Left hole open, will return if time
8	K-2-8	X		3'	0.3		CLAY (CL) - yellowish-brown with very dark brown striations, dry, hard, non plastic	
9								
10					0.5		CLAY with FINE SAND (CL) - yellowish-brown, dry, hard, non plastic	
11				3'			Boring terminated at approx. 10.5 feet below ground surface, because of refusal. Backfilled with neat cement grout	
12								
13								
14								
15								

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PROJECT NO. 104484

LOG OF BORING NO. K-2

CASTRO VALLEY, CALIFORNIA
 EAST BAY REGIONAL PARK DISTRICT
 LAKE CHABOT MARINE MAINTENANCE YARD
 17930 LAKE CHABOT ROAD

Appendix

B-2

11/16/2009 11:51:58 AM

Date Completed: 11/3/09
 Logged By: J. Gravesen
 Total Depth: 10.0 ft
 North: 37.72037
 East: -122.09506

Drilling method: Direct Push/Auger
 Driller: Precision Sampling; Drill Rig 6625 CPT
 Hammer Wt: None
 Notes: Drilled on soil
 Surface Elevation: Estimated feet (MSL)

Depth (feet)	Sample Number	Sample Type	Blows/Foot	Recovery (%)	OVA (ppm) PID	USCS	Description	Remarks
1					0.1		SAND with CLAY (SP-SC) - dark brown, moist, dense, poorly graded sand	
2				0.3				
3				0.4				
4	K-3-4	X		3'				
5					0.2		SAND (SP) - yellowish-brown, moist, dense, poorly graded fine sand	
6				3.4				
7	K-3-7	X		3'				
8	K-3-8	X			1.6		SANDSTONE - very pale brown (7/6 10YR), dry, very dense Boring terminated at approx. 10 feet below ground surface, because of refusal. Backfilled with neat cement grout	
9				4.8				
10				2'				
11					1'			
12								
13								
14								
15								

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PROJECT NO. **104484**

LOG OF BORING NO. K-3

CASTRO VALLEY, CALIFORNIA
 EAST BAY REGIONAL PARK DISTRICT
 LAKE CHABOT MARINE MAINTENANCE YARD
 17930 LAKE CHABOT ROAD

Appendix

B-3

11/16/2009 11:51:58 AM

Date Completed: 11/3/09 Drilling method: Direct Push/Auger
 Logged By: J. Gravesen Driller: Precision Sampling; Drill Rig 6625 CPT
 Total Depth: 8.0 ft Hammer Wt: None
 North: 37.72041 Notes: Drilled on soil
 East: -122.09505 Surface Elevation: Estimated feet (MSL)

Depth (feet)	Sample Number	Sample Type	Blows/Foot	Recovery (%)	OVA (ppm) PID	USCS	Description	Remarks
1					0.1		SANDY CLAY (CL) - very dark brown, moist, hard, non plastic	
2					0.4		SAND with CLAY (SP-SC) - dark yellowish-brown, moist, firm, poorly graded fine sand	
3					0.3			
4	K-4-4			3'	0.4			
5					0.5		CLAY (CL) - yellowish-brown, dry, firm, non plastic	
6	K-4-6			3'	0.3			
7				6"	0.1			
8				6"	0.4		SANDSTONE - very pale brown (7/3 10YR), dry, very dense	Spin augers to 8 feet & direct push to 8 feet
9							Boring terminated at approx. 8 feet below ground surface, because of refusal. Backfilled with neat cement grout	
10								
11								
12								
13								
14								
15								



PROJECT NO. **104484**

LOG OF BORING NO. K-4

CASTRO VALLEY, CALIFORNIA
 EAST BAY REGIONAL PARK DISTRICT
 LAKE CHABOT MARINE MAINTENANCE YARD
 17930 LAKE CHABOT ROAD

Appendix

B-4

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11/16/2009 11:51:59 AM

Date Completed: 11/3/09 Drilling method: Direct Push/Auger
 Logged By: J. Gravesen Driller: Precision Sampling; Drill Rig 6625 CPT
 Total Depth: 6.5 ft Hammer Wt: None
 North: 37.72031 Notes: Drilled on soil
 East: -122.09510 Surface Elevation: Estimated feet (MSL)

Depth (feet)	Sample Number	Sample Type	Blows/Foot	Recovery (%)	OVA (ppm) PID	USCS	Description	Remarks
1					0.0		SANDY CLAY (CL) - dark yellowish-brown, moist, firm, fine grained sand, non plastic	
2					0.0		SAND with CLAY (SP-SC) - dark yellowish-brown, moist, dense	
3					0.0			
4	K-5-4	X		2'	0.1			
5					0.0			
6	K-5-6	X		6"	0.0		SANDSTONE - very pale brown (7/6 10YR), dry, very dense	
7							Boring terminated at approx. 6.5 feet below ground surface, because of refusal. Backfilled with neat cement grout	
8								
9								
10								
11								
12								
13								
14								
15								



PROJECT NO: 104484

LOG OF BORING NO. K-5

CASTRO VALLEY, CALIFORNIA
 EAST BAY REGIONAL PARK DISTRICT
 LAKE CHABOT MARINE MAINTENANCE YARD
 17930 LAKE CHABOT ROAD

Appendix

B-5

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11/16/2009 11:51:59 AM

Date Completed: 11/3/09 Drilling method: Direct Push/Auger
 Logged By: J. Gravesen Driller: Precision Sampling; Drill Rig 6625 CPT
 Total Depth: 3.5 ft Hammer Wt: None
 North: 37.72050 Notes: Drilled on soil
 East: -122.09514 Surface Elevation: Estimated feet (MSL)

Depth (feet)	Sample Number	Sample Type	Blows/Foot	Recovery (%)	OVA (ppm) PID	USCS	Description	Remarks
1							SANDY CLAY (CL) - dark yellowish-brown, moist, firm, fine grained sand, non plastic	
2								
3	K-6-3	X					SANDSTONE - very pale brown (7/3 10YR), dry, very dense	Advance augers to approximately 3 feet in 30 minutes. Remove augers & sample with direct push
4						Boring terminated at approx. 3 feet below ground surface, because of refusal. Backfilled with neat cement grout		
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6								
7								
8								
9								
10								
11								
12								
13								
14								
15								

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PROJECT NO. **104484**

LOG OF BORING NO. K-6

CASTRO VALLEY, CALIFORNIA
 EAST BAY REGIONAL PARK DISTRICT
 LAKE CHABOT MARINE MAINTENANCE YARD
 17930 LAKE CHABOT ROAD

Appendix

B-6

11/16/2009 11:51:59 AM