# ALAMEDA COUNTY HEALTH CARE SERVICES AGENCY



DEPARTMENT OF ENVIRONMENTAL HEALTH
OFFICE OF THE DIRECTOR
1131 HARBOR BAY PARKWAY
ALAMEDA, CA 94502
(510) 567-6777
FAX (510) 337-9135

ALEX BRISCOE, Agency Director

July 22, 2010

Gary Lyons
WE Lyons Construction Company
PO Box 20146
Castro Valley, CA 94545

Subject: Subject: Fuel Leak Case, RO0002447, WE Lyons Construction Company, 50 Hegenberger Loop, Oakland, CA 94621

Dear Mr. Lyons:

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:

- Residual pollution remaining in soil beneath the site includes TPH as gas at concentrations of up to 430 ppm.
- Maximum concentrations of up to 4,600 ppb TPH as gas, 560 ppb TPH as diesel and 4 ppb benzene remain in groundwater beneath the site.

If you have any questions, please call Barbara Jakub at (510) 639-1287. Thank you.

Sincerely.

Donna L. Drogos, P.E.

Division Chief

#### Enclosures:

- 1. Remedial Action Completion Certificate
- 2. Case Closure Summary

Mr. Lyons July 22, 2010 Page 2

CC:

Ms. Cherie McCaulou (w/enc) (via electronic mail: cmccaulou@waterboards.ca.gov)
SF- Regional Water Quality Control Board

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

Leroy Griffin (w/enc via electronic mail: lgriffin@oaklandnet.com)
Oakland, Fire Department

Barbara Jakub (w/ enc via e-mail), D. Drogos (w/ enc via e-mail), T. LeKhan (w/orig enc)

# ALAMEDA COUNTY HEALTH CARE SERVICES AGENCY



DEPARTMENT OF ENVIRONMENTAL HEALTH
OFFICE OF THE DIRECTOR
1131 HARBOR BAY PARKWAY
ALAMEDA, CA 94502
(510) 567-6777
FAX (510) 337-9135

ALEX BRISCOE, Agency Director

July 20, 2010

Gary Lyons
WE Lyons Construction Company
PO Box 20146
Castro Valley, CA 94545

#### REMEDIAL ACTION COMPLETION CERTIFICATE

Subject: Subject: Fuel Leak Case, RO0002447, WE Lyons Construction Company, 50 Hegenberger Loop, Oakland, CA 94621

Dear Mr. Lyons:

This letter confirms the completion of a site investigation and remedial action for the 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(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 25299.37 of the 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) 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 LEAKING UNDERGROUND FUEL STORAGE TANK - LOCAL OVERSIGHT PROGRAM

#### I. AGENCY INFORMATION

Date: June 4, 2010

Agency Name: Alameda County Environmental Health	Address: 1131 Harbor Bay Parkway
City/State/Zip: Alameda, CA 94502-6577	Phone: (510) 639-1287
Responsible Staff Person: Barbara Jakub	Title: Hazardous Materials Specialist

#### II. CASE INFORMATION

Site Facility Name: WE Lyons Co	onstruction Company		
Site Facility Address: 50 Hegenb	erger Loop, Oakland, CA 94621		
RB Case No.: NA	STID No.: 3997	LOP	Case No.: RO0002447
URF Filing Date:	Geotracker ID: T06019708237 APN: 44-50		44-5077-3-3
Responsible Parties	Addresses		Phone Numbers
Gary Lyons WE Lyons Construction Company	PO Box 20146 Castro Valley, CA 94546		510-568-4829

Tank I.D. No	Size in Gallons	Contents	Closed In Place/Removed?	Date
1	2,000	Gasoline	removed	11/14/1995
2	2 2,000 gasoline		removed	11/14/1995
	Piping		removed	11/14/1995

#### III. RELEASE AND SITE CHARACTERIZATION INFORMATION

Cause and Type of Release: Unknown. UST appeared intact upon removal.				
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:  9.75 ft bgs  Lowest Depth: 12.5  Flow Direction: fluctuates from southwest to southeast*				
Most Sensitive Current Use: Potential drinking water source.				

<sup>\*</sup> Groundwater MWs not installed, gradient from adjacent site RO0000219.

Summary of Pro	Summary of Production Wells in Vicinity:				
<ul> <li>There are two water supply wells within ½-mile of the site.</li> <li>There is one irrigation well located on the property. The property owner indicates that the well has not been used in 6 or 7 years but it has not been properly decommissioned. Well 2S/3W-28B1 is screened from 28 to 48 feet bgs. This well is a potential receptor and well decommissioning is required prior to closure.</li> <li>One irrigation well is located 1750 feet southeast of the subject site at Ratto Bros., Inc. (2S/3W-28G2) and is screened from 25 to 305 feet bgs. Given the distance from the site, it is unlikely to be a receptor.</li> </ul>					
Are drinking water wells affected? No Aquifer Name: East Bay Plain					
Is surface water affected? Yes No		Nearest SW Name: San Leandro Creek 7	50 ft SW.		
Off-Site Beneficial Use Impacts (Addresses/Locations): None identified					
Reports on file? Yes		Where are reports filed? Alameda County Environmental Health and City of Oakland Fire Department			
TREATMENT AND DISPOSAL OF AFFECTED MATERIAL					
Material	Amount (Include Units)	Action (Treatment or Disposal w/Destination) Da		Date	
Tank	2-2,000 gallon	Disposed at H&H Ship Service Co., San Francisco, Ca  11/14/1		11/14/1995	
Piping	10 feet	Disposed at H&H Ship Service Co., San Francisco, Ca  11/14/199		11/14/1995	
Free Product	Not Reported				
Soil	~30 yd³	Aerated on-site and placed back in UST pit February 1996		February 1996	
Groundwater	None reported	TO STATE TO STATE OF THE STATE			

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

0	Soil	(ppm)	Water (ppb)		
Contaminant	Before	After	Before	After	
TPH (Gas)	2,000	430	4,600	4,600	
TPH (Diesel)	•		560	560	
TPH (Motor Oil)	<50	<50	<500	<500	
Oil and Grease	NA	NA	NA	NA	
Benzene	8.5	<0.99	4	4	
Toluene	15	15	1.6	1.6	
Ethylbenzene	37	37	28	28	
Xylenes	170	170	1.8	1.8	
Heavy Metals (Cd, Cr, Pb, Ni, Zn)	NA	NA	NA	NA	
MTBE	0.0081*	0.0081*	2.7**	2.7**	
Other (8240/8270)	NA	NA NA	NA	NA	

#### NA = Not Analyzed

<sup>\* 0.0081</sup> ppm MTBE; TBA, TAME, ETBE, DIPE, EDB; and EDC all below the detection limit. EtOH not analyzed.

<sup>\*\* 2.7</sup> ppb MTBE; and TBA, TAME, ETBE; DIPE, EtOH, EDB; and EDC all not analyzed

Site History and Description of Corrective Actions:

The site is located in a commercial/industrial area and is occupied by a construction company. Buildings and storage sheds cover the majority of the property and the rest of the area is covered in asphalt.

On November 14, 1995, two 2,000-gallon gasoline USTs were removed from the site. Approximately 10 feet of piping was also removed. Soil was excavated to a maximum depth of 8.5 feet bgs. The maximum soil concentrations detected in confirmation samples were 2,000 ppm TPHg and 8.5 ppm benzene both from WL-4 from approximately 9 to 10 feet bgs. The maximum concentrations in the stockpile samples were 2,800 ppm TPHg. The stockpile was aerated on-site for 90 days and placed back in the tank pit in the top unsaturated zone.

December 6, 2005 three borings (B-1 through B-3) were advanced by drive sampling to maximum depths of 15 ft bgs. Two of the borings were advanced through the tank pit adjacent to samples WL-4 and WL-5. Soil and groundwater samples were analyzed for TPHg, BTEX and MTBE. The maximum soil concentrations were 690 mg/kg TPHg and 0.0081 mg/kg MTBE. The maximum groundwater concentrations were 350  $\mu$ g/L TPHg and 2.7  $\mu$ g/L MTBE. No benzene was detected in soil samples.

June 22, 2007 the on-site irrigation well was sampled for DRO, MORO, GRO and fuel oxygenates. None of the analyzed constituents were detected in the well.

On December 30, 2008, three borings were advanced by drive sampling. Boring B-6 was advanced at an angle to obtain samples from beneath the building adjacent to former sample WL-4. The maximum concentrations detected in soil were 430 mg/kg GRO from boring B-6 from 8 ft bgs and 130 mg/kg DRO from B-4 at 4 ft bgs. No benzene was detected in any of the soil samples and DRO samples dropped off to 1.1 mg/kg in samples below 8 ft bgs. The maximum groundwater concentrations were 4,600  $\mu$ g/L GRO in B-5, 560  $\mu$ g/L DRO in B-5 and 4  $\mu$ g/L benzene in B-4.

#### **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.

This site is to be entered into the City of Oakland Permit Tracking System due to the residual contamination on site.

Should corrective action be reviewed if land use changes? Yes

Was a deed restriction or deed notification filed? No		Date Recorded:
Monitoring Wells Decommissioned: No* Number Decommissioned: 0*		Number Retained: 1*
List Enforcement Actions Taken: None		
List Enforcement Actions Taken: None  List Enforcement Actions Rescinded: None		

<sup>\*</sup> No monitoring wells installed. However, decommissioning of onsite irrigation well required.

#### V. ADDITIONAL COMMENTS, DATA, ETC.

#### Considerations and/or Variances:

- Soil samples were not collected before the aerated soil was placed back in the tank pit as requested by ACEH.
   However, Soil borings B-4 through B-6 did not detect elevated concentrations indicating that the concentrations had declined since the initial stockpile sample was collected.
- Overexcavation of contaminated soil not performed.
- Residual petroleum hydrocarbon contamination in soil and groundwater remains in place at this site.

#### Conclusion:

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.

#### VI. LOCAL AGENCY REPRESENTATIVE DATA

Prepared by: Barbara Jakub, P.G.	Title: Hazardous Materials Specialist
Signature: Barrara Jaker	Date: 6/4/10
Approved by: Donna L. Drogos, P.E.	Title: Division Chief
Signature:	Date: 06/04/16

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: 6/4/2010	

#### **VIII. MONITORING WELL DECOMMISSIONING**

Date Requested by ACEH:	Date of Well Decommissioning Report: 7/12/10
All Monitoring Wells Decommissioned: *	Number Decommissioned: * / Number Retained:
Reason Wells Retained:	
Additional requirements for submittal of groundwa	ater data from retained wells: <i>LIA</i>
ACEH Concurrence - Signature: Balara	Date: 1/16/10

#### Attachments:

- 1. Site Vicinity Maps (pp 1)
- 2. Site Plans (pps 2-5)
- 3. Soil and Groundwater Analytical Data (pps 6-13)
- 4. Boring Logs (pps 14-19)
- 5. Cross Section (pps 20)
- 6. Well Summary Information (pp 21)

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.

<sup>\*</sup> Decommissioning of on-site irrigation well required.

#### Jakub, Barbara, Env. Health

From:

Cherie MCcaulou [CMccaulou@waterboards.ca.gov]

Sent:

Tuesday, June 08, 2010 3:29 PM Jakub, Barbara, Env. Health

To: Subject:

Re: RO503 and RO2447 Closure Summaries

Barbara - Thanks for the notification. We have no objection to ACEH's recommendation for case closure of RO0000503 and RO0002447.

Sincerely,

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

>>> "Jakub, Barbara, Env. Health" <<u>barbara.jakub@acgov.org</u>> 6/4/2010 1:23 PM >>> Cherie,

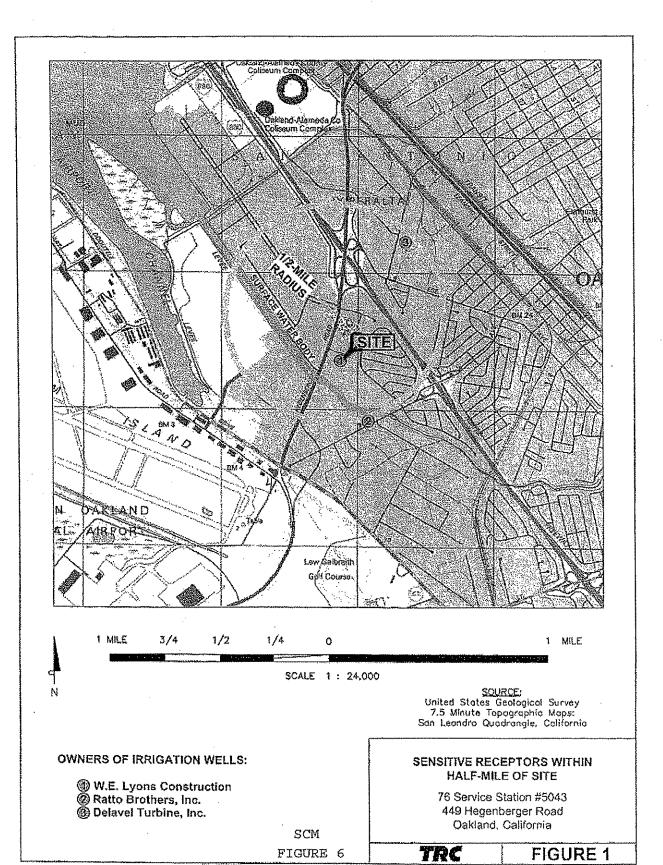
Attached are two closure summaries for RO503: Caltrans Oakland Maintenance Station located at 3465 Ettie St., Oakland and RO2447: WE Lyons Construction Company located at 50 Hegenberger Loop, Oakland, CA to comply with the RWQCB's 30-day review period. If no comments are received within the 30-day period, ACEH will proceed with case closure.

Please contact me should you have any comments or questions regarding the subject sites.

Regards,

Barbara Jakub, P.G. Alameda County Environmental Health (510) 639-1287 (direct) (510) 337-9335 (fax) barbara.jakub@acgov.org

Online case files are available at the website below http://www.acgov.org/aceh/lop/resources.htm



# ATTACHMENT 1

white -env.health yellow -facility pink -files

# RLAMEDA COUNTY, DEPARTMENT OF ENUIRONMENTAL HEALTH

1131 Harbor Bay Pkwy Alameda CA 94502 510/567-6700

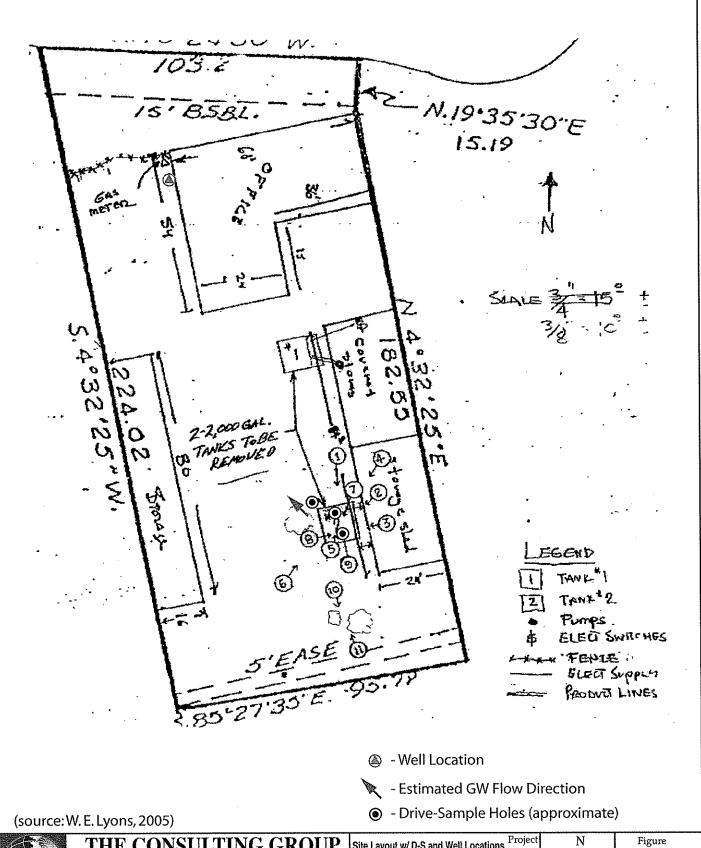
**Hazardous Materials Inspection Form** 

**II**, III

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Site Address _	50 Hegenbe	inger Loop		The standing of the standing o	·
		24624 ~			
City		7402' Phone			
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**ATTACHMENT 2** 

W.E. YONS CONSTRUCTION OT PLAN: 50 HEGENBERGER LOOP OAKLAND, CA 94621 N.70°24'30"W. 103.28 15' B.S.B.L. N.19.35'30"E 15.19 MET ETZ Ŋ. SIALE 3 = 15 + 4. 32 Oil 24 2-2,000 GAL. in O TANKS TOBE REMOVED Ç, EGEND TANK 1 TANK 2 Pumps. ELECT SWITCHES \*、中国心压; ELECT Supply .85°27'35"E. 95.78 PRODUCT LINES O Stockpile



THE CONSULTING GROUP

394 Cecilia Way, Tiburon, CA 94920

Tel: 415.381.2560 / Fax: 415.381.1741

Drawn by

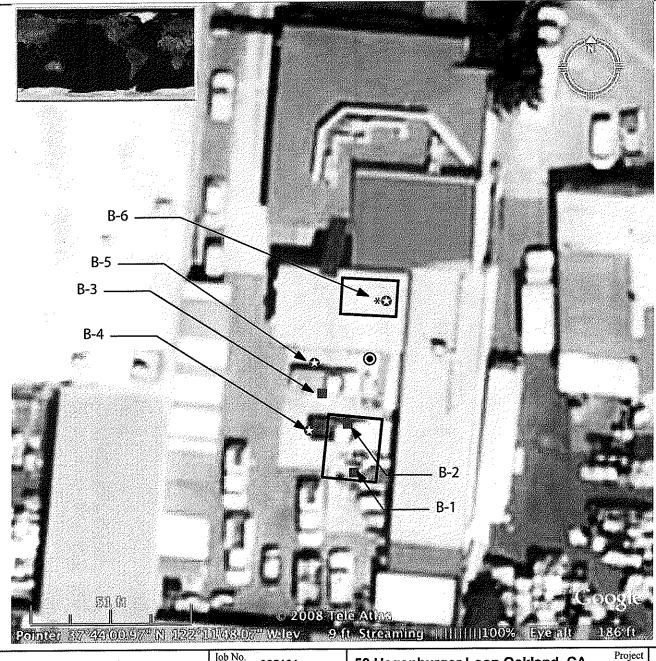
Site Layout w/ D-S and Well Locations Project

Soil Sampling & Analysis

50 Hegenberger Loop for W. E. Lyons Construction

50 Hegenberger Loop, Oakland CA

2R



- Enrty point for Borehole B-6 (dug @ 45 degree angle)
- \* = Final location for Borehole B-6 @ a depth of 19.8 feet below grade
- = Borehole dug12/30/08 and12/31/08
- = Borehole dug 12/6/05



## THE CONSULTING GROUP

394 Cecilia Way, Tiburon, CA 94920 Tel: 415.381.2560 / Fax: 415.381.1741

Job No. 0	85101
Date 15	Jan 2009
Drawn by	RC
Rev SL	Apprvd SL

50 Hegenburger Loop Oakland, CA. Site Location with Boring Locations

for: W.E. Lyons Construction 50 Hegenburger Loop, Oakland CA. N N

Figure

2

NDV-30-1995 11:40 5105683105 110 2nd Avenue South, #D7, Pacheco, CA 94505 Tele: 510-798-1620 Fax: 510-798-1622 MCCAMPBELL ANALYTICAL INC. Client Project ID; #01181; Lyons Ente Sampled: 11/14/95 Cottle Industries Construction Date Received: 11/15/95 P.O. Box 7 Date Extracted: 11/15/95 Antioch, CA 94509 Client Contact: Roy Panile Date Analyzed: 11/15/95 Client P.O: Gasoline Range (C6-C12) Volatile Hydrocarbons as Gesoline\*, with BIER\* SPA methods 5750, moderated 5015, and 5020 or 602; Ca Horpis RWOCB (SP Bay Region) method GCP1D (5030) % Rec. Ethylben-**Xylenes** TPH(g)+ Toluene Benzene Surrogate Matrix zene LabID Client ID 103 ND ND ND ND ND. .8 WLC 58694 95 57 ND< 05 24 18. 8 2800bj WL1 51675 0.016 95 ND ND ND 1.7, 3 WL2 58696 101 ND ND 0.020 ND ND S WL3 58697 95 170 37 15 2000.64 85 3 Wia 246348 129 97 26 ND < 8.05 0.056 **VI**I5 7,1*3*5,d S. 58600 • 0.5 0.5 0.5 0.5 W SO uv/L Reporting Limit unless othertwise stated; ND means not de-thered above the reporting limit 0.005 0.005 0.005 €00.0 S Lûme/kg water and vapor samples are reported in ug L, soil samples in mykg, and all TCLP extracts in my L. # chittered chromatogram; sample peak coclutes with surregate peak

+ The following descriptions of the TPH chro natogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation; a) unmodified or weakly modified gasoline is significant; b) heaver gasoline range compounds are significant (significant (signific

DHS Certification No. 1644

Edward Hamilton, Lab Director

#### TABLE 1 - PETROLEUM HYDROCARBONS ANALYTICAL RESULTS

# Site Closure Process Progran - Soil Sampling and Analysis W. E. Lyons, 50 Hegenberger Loop, Oakland, CA TCG Project #055101

Sample # B-1-5 B-1-13 B-1-15.5	B-2-2.5	B-2-8.5	B-2-12	B-3-3.5	B-3-7.5	B-3-10	B-3-13
Date 6-Dec-2005 6-Dec-2005 6-Dec-2005	6-Dec-2005						
Depth (ft) 5.00 13.00 15.60	2.50	8.50	12.00	3.50	7.50	10.00	13.00
Matrix Soil Soil Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil

Constituent

#### Petroleum Hydrocarbons (mg/kg)

- 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
TPH-0 1.3 ND(0.94) ND(1) ND(0.85) 1.2 2.6 5.3 690 3.1 2.9
TPH-0 13 ND(0:94)

#### Aromatics (mg/kg)

Barrana	ND(0.0046) ND(0.0047) ND(0.005) ND(0.0043)	ND(0.0043)	ND(0.0045)	ND(0.0044) ND(0.890) ND(0.0047) ND(0.0043)
Benzene Toluene	ND(0.0046) ND(0.0047) ND(0.005) ND(0.0043)	ND(0.0043)	ND(0.0045)	ND(0,0044) ND(0,890) ND(0,0047) ND(0,0043)
Ethyl-benzene	ND(0.0046) ND(0.0047) ND(0.005) ND(0.0043)	ND(0.0043)	ND(0.0045)	ND(0.0044) 8.3 0.038 0.014
Total Xylenes	0.017 ND(0.0094) ND(0.01) ND(0.0085)	ND(0.0086)	ND(0.0091)	0.024 ND(1.8) ND(0.0094) ND(0.0087)
Methyl tert-Butyl Ether (MTBE)	ND(0.0046) 0.0081 ND(0.005) ND(0.0043)	ND(0.0043)	ND(0.0045)	ND(0:0044) ND(0:890) ND(0:0047) ND(0:0043)

Notes:

B-1-5 = sample desgignation ND = not detected (repoting limit)

Results in milligrams per kilogram (mg/kg)

Bold = results to be resolved

## TABLE 1 - LUFT METALS AND PETROLEUM HYDROCARBONS ANALYTICAL RESULTS-Boring B4

## Soil & Grab Groundwater Sampling and Analysis Closure Program, 50 Hegenberger Loop, Oakland, California TCGProject #085101

	Sample #									
Ţ.	B4-4	B4-7	B4-10	B4-11.5	B4-15	B4-18	B4-W			
Date	30-Dec-08	30-Dec-08	30-Dec-08	30-Dec-08	30-Dec-08	30-Dec-08	12/31/08			
Depth (ft)	4.00	7.00	10.00	11.50	15.00	18.00	N/A			
Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Water			

Constituent

#### Petroleum Hydrocarbons (mg/kg - soil) (ug/L - water)

1							
GRO	0.93	270	ND(0.24)	21	9.9	ND(0.23)	1200
DRO	130	·	1.9	4.1	ND(1)	ND(1)	340
MORO	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)	ND(500)
Oil & Grease	NA		NA	NA	NA	NA	NA

#### Aromatics & Fuel Oxygenates (mg/kg - soil) (ug/L - water)

					•			
Benzene	ND(0.0049)	ND(0.96)	ND(0.0048)	ND(0.023)	ND(0.022)	ND(0.0047)		4
Toluene	ND(0.0049)	ND(0.96)	ND(0.0048)	ND(0.023)	ND(0.022)	ND(0.0047)	ND(0.5)	
Ethyl-benzene	ND(0.0049)	ND(0.96)	ND(0.0048)		0.11	0.05 ND(0.0047)		28
Total Xvienes		ND(1.9)	ND(0.0096)	ND(0.046)	ND(0.043)	ND(0.0093)		1.5
Methyl tert-Butyl Ether (MTBE)	ND(0.0049)	ND(0.96)	ND(0.0048)	ND(0.023)	ND(0.022)	ND(0.0047)	ND(0.5)	
tert-Butyl Alcohol (TBA)	ND(0.0099)	ND(1.9)	ND(0.0096)	ND(0.046)	ND(0.043)	ND(0.0093)	ND(5)	
Di-isopropyl Ether (DIPE)	ND(0.0049)	ND(0.96)	ND(0.0048)	ND(0.023)	ND(0.022)	ND(0.0047)	ND(1)	
Ethyl tert-Butyl Ether (ETBE)	ND(0.0049)	ND(0.96)	ND(0.0048)	ND(0.023)	ND(0.022)	ND(0.0047)	ND(0.5)	
tert-Amyl methyl ether (TAME)	ND(0.0049)	ND(0.96)	ND(0.0048)	ND(0.023)	ND(0.022)	ND(0.0047)	ND(0.5)	
1,2-DCA	ND(0.0049)	ND(0.96)	ND(0.0048)	ND(0.023)	NĎ(0.022)	ND(0.0047)	ND(0.5)	
EDB	ND(0.0049)	ND(0.96)	ND(0.0048)	ND(0.023)	ND(0.022)	ND(0.0047)	ND(0.5)	

#### Notes:

D-1 = sample desgignation

ND = not detected (method detection limit)

Results in milligrams per kilogram (mg/kg)
NA = not analyzed

Bold = detection

Bold Italics = >ESL

### TABLE 2 - LUFT METALS AND PETROLEUM HYDROCARBONS ANALYTICAL RESULTS-Boring B5

# Soil & Grab Groundwater Sampling and Analysis Closure Program, 50 Hegenberger Loop, Oakland, California TCGProject #085101

Sample #

		WHILE II										
	B5-4	B5-7	B5-13	B5-15	B5-19	B5-20	B5-W					
	ate 12/30/08	12/30/08	12/30/08	12/30/08	12/30/08	12/30/08	31-Dec-08					
Depth		7	13	15	19	20	N/A					
	ıtrix Soil	Soil	Soil	Soil	Soil	Soil	Water					

Constituent

#### Petroleum Hydrocarbons (mg/kg - soil) (ug/L - water)

						· · · · · · · · · · · · · · · · · · ·	
GRO	0.4	150	0.48	220	ND(0.24)	ND(0.24)	4600
DRO	ND(1)	2.7	ND(1)	3.1	1.4	1.7	560
MORO		ND(50)	ND(50)	ND(50)	ND(50)	ND(50)	ND(500)
Oil & Grease	.,5,007		NA	NA`	NA	NA	NA

#### Aromatics & Fuel Oxygenates (mg/kg - soil) (ug/L - water)

Benzene	ND(0.0047)	ND(0.99)	ND(0.0049)	ND(0.99)	ND(0.0048)	ND(0.0048)	ND(0.5)
Toluene	ND(0.0047)	ND(0.99)	ND(0.0049)	ND(0.99)	ND(0.0048)	ND(0.0048)	0.9
Ethyl-benzene	ND(0.0047)	ND(0.99)	ND(0.0049)	ND(0.99)	ND(0.0048)	ND(0.0048)	1.6
Total Xvienes	ND(0.0094)	ND(2)	ND(0.0098)	ND(2)	ND(0.0097)	ND(0.0097)	1.8
Methyl tert-Butyl Ether (MTBE)	ND(0.0047)	ND(0.99)	ND(0.0049)	ND(0.99)	ND(0.0048)	ND(0.0048)	ND(0.5)
tert-Butyl Alcohol (TBA)	ND(0.0094)	ND(2)	ND(0.0098)	ND(2)	ND(0.0097)	ND(0.0097)	ND(5)
Di-isopropyl Ether (DIPE)	ND(0.0047)	ND(0.99)	ND(0.0049)	ND(0.99)	ND(0.0048)	ND(0.0048)	ND(1)
Ethyl tert-Butyl Ether (ETBE)	ND(0.0047)	ND(0.99)	ND(0.0049)	ND(0.99)	ND(0.0048)	ND(0.0048)	ND(0.5)
tert-Amyl methyl ether (TAME)	ND(0.0047)	ND(0.99)	ND(0.0049)	ND(0.99)	ND(0.0048)	ND(0.0048)	ND(0.5)
1.2-DCA	ND(0.0047)	ND(0.99)	ND(0.0049)	ND(0.99)	ND(0.0048)	ND(0.0048)	ND(0.5)
EDB	ND(0.0047)	ND(0.99)	ND(0.0049)	ND(0.99)	ND(0.0048)	ND(0.0048)	ND(0.5)

#### Notes:

W-1 = sample desgignation

ND = not detected (method detection limit)

Results in micrograms per liter (ug/L)

NA = not analyzed

N/A = not applicable

Bold = detection

Bold Italics = >ESL

## TABLE 3 - LUFT METALS AND PETROLEUM HYDROCARBONS ANALYTICAL RESULTS-Boring B6

#### Soil & Grab Groundwater Sampling and Analysis Closure Program, 50 Hegenberger Loop, Oakland, California TCGProject #085101

· ·												
Γ	Sample #											
-	B6-1.5	B6-8	B6-12	B6-16	B6-20	B6-24	B6-28	B6-W				
Date	30-Dec-08	30-Dec-08	30-Dec-08	30-Dec-08	31-Dec-08	31-Dec-08	31-Dec-08	31-Dec-08				
Depth (ft)	1.06	5,66	8.49	11.31	14.14	16.97	19.8	N/A				
Matrix	Soil	Water										

Constituent

#### Petroleum Hydrocarbons (mg/kg - soil) (ug/L - water)

							1	
GRO	0.2	8	430	1.3 ND(0.24)	ND(0.24)	ND(0.24)	ND(0.25)	360
DRO	1.	a	12	2.3	1.1	2.2 ND(1)	ND(1)	250
MORO	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)	ND(500)
	NA NA	NA NA	NA NA	NA	NA	NA NA	NA	NA
Oil & Grease	ļīNA.	IVA	[NA	100	{147 t	11.41.1		

#### Aromatics & Fuel Oxygenates (mg/kg - soil) (ug/L - water)

ND(0.0047)	ND(0.95)	ND(0.0048)	ND(0.0048)	ND(0.0047)	ND(0.0048)	ND(0.0049)	ND(0.5)	
		ND(0.0048)	ND(0.0048)	ND(0.0047)	ND(0.0048)	ND(0.0049)	ND(0.5)	
		ND(0.0048)	ND(0.0048)	ND(0.0047)	ND(0.0048)	ND(0.0049)		0.6
······		ND(0.0095)	ND(0.0096)	ND(0.0095)	ND(0.0096)	ND(0.0099)	ND(1)	
· · · · · · · · · · · · · · · · · · ·		ND(0.0048)	ND(0.0048)	ND(0.0047)	ND(0.0048)	ND(0.0049)	ND(0.5)	
		<del></del>	ND(0.0096)	ND(0.0095)	ND(0.0096)	ND(0.0099)	ND(5)	
	·······	<del></del>	ND(0.0048)	ND(0.0047)	ND(0.0048)	ND(0,0049)	ND(1)	
			ND(0,0048)	ND(0.0047)	ND(0.0048)	ND(0.0049)	ND(0.5)	
		······································	ND(0,0048)	ND(0.0047)	ND(0.0048)	ND(0.0049)	ND(0.5)	
				ND(0,0047)	ND(0.0048)	ND(0.0049)	ND(0.5)	
				ND(0.0047)	NĎ(0.0048)	ND(0.0049)	ND(0.5)	
	ND(0.0047) ND(0.0047) ND(0.0047) ND(0.0094) ND(0.0094) ND(0.0094) ND(0.0047) ND(0.0047) ND(0.0047) ND(0.0047) ND(0.0047) ND(0.0047) ND(0.0047)	ND(0.0047)   ND(0.95)   ND(0.0047)   ND(0.95)   ND(0.0094)   ND(1.9)   ND(0.0047)   ND(0.95)   ND(0.0094)   ND(1.9)   ND(0.0047)   ND(0.95)   ND(0.0047	ND(0.0047)         ND(0.95)         ND(0.0048)           ND(0.0047)         ND(0.95)         ND(0.0048)           ND(0.0094)         ND(1.9)         ND(0.0095)           ND(0.0047)         ND(0.95)         ND(0.0048)           ND(0.0094)         ND(1.9)         ND(0.0095)           ND(0.0047)         ND(0.95)         ND(0.0048)           ND(0.0047)         ND(0.95)         ND(0.0048)	ND(0.0047)   ND(0.95)   ND(0.0048)   ND(0.0048)   ND(0.0047)   ND(0.95)   ND(0.0048)   ND(0.0048)   ND(0.0048)   ND(0.0094)   ND(0.0095)   ND(0.0096)   ND(0.0047)   ND(0.95)   ND(0.0048)   ND(0.0048)   ND(0.0094)   ND(0.0095)   ND(0.0096)   ND(0.0094)   ND(0.0095)   ND(0.0096)   ND(0.0047)   ND(0.95)   ND(0.0048)   ND(0.0048)   ND(0.0048)   ND(0.0047)   ND(0.95)   ND(0.0048)   ND(0.0048)	ND(0.0047)   ND(0.95)   ND(0.0048)   ND(0.0048)   ND(0.0047)   ND(0.0047)   ND(0.0047)   ND(0.0047)   ND(0.0048)   ND(0.0048)   ND(0.0048)   ND(0.0047)   ND(0.0094)   ND(0.0095)   ND(0.0096)   ND(0.0095)   ND(0.0096)   ND(0.0095)   ND(0.0047)   ND(0.0094)   ND(0.95)   ND(0.0048)   ND(0.0048)   ND(0.0047)   ND(0.0094)   ND(1.9)   ND(0.0095)   ND(0.0096)   ND(0.0095)   ND(0.0047)   ND(0.0047)   ND(0.0047)   ND(0.0048)   ND(0.0048)   ND(0.0047)   ND(0.0047)   ND(0.0047)   ND(0.0047)   ND(0.0048)   ND(0.0048)   ND(0.0047)   ND(0.0047)   ND(0.0047)   ND(0.0047)   ND(0.0047)   ND(0.0047)   ND(0.0048)   ND(0.0048)   ND(0.0047)   ND(0.0047)   ND(0.0047)   ND(0.0047)   ND(0.0048)   ND(0.0048)   ND(0.0047)   ND(0.0048)   ND(0.0048)   ND(0.0047)   ND(0.0048)   ND(0.0048)   ND(0.0048)   ND(0.0047)   ND(0.0048)   ND(0.0048)   ND(0.0047)   ND(0.0048)   ND(0.0048)	ND(0.0047)   ND(0.95)   ND(0.0048)   ND(0.0048)   ND(0.0047)   ND(0.0048)     ND(0.0047)   ND(0.95)   ND(0.0048)   ND(0.0048)   ND(0.0047)   ND(0.0048)     ND(0.0094)   ND(1.9)   ND(0.0095)   ND(0.0096)   ND(0.0095)   ND(0.0096)     ND(0.0047)   ND(0.95)   ND(0.0048)   ND(0.0048)   ND(0.0047)   ND(0.0048)     ND(0.0094)   ND(1.9)   ND(0.0048)   ND(0.0096)   ND(0.0096)   ND(0.0096)     ND(0.0094)   ND(1.9)   ND(0.0095)   ND(0.0096)   ND(0.0096)   ND(0.0096)     ND(0.0047)   ND(0.95)   ND(0.0048)   ND(0.0048)   ND(0.0047)   ND(0.0048)     ND(0.0047)   ND(0.0048)   ND(0.0048)   ND(0.0048)	ND(0.0047)   ND(0.95)   ND(0.0048)   ND(0.0048)   ND(0.0047)   ND(0.0048)   ND(0.0049)	ND(0.0047)   ND(0.95)   ND(0.0048)   ND(0.0048)   ND(0.0047)   ND(0.0048)   ND(0.0049)   ND(0.5)

Notes:

2EX-1 = sample desgignation

ND = not detected (method detection limit)

Results in milligrams per kilogram (mg/kg) NA = not analyzed

Bold = detection

Bold Italics = >ESL

# TABLE 2 - PETROLEUM HYDROCARBONS ANALYTICAL RESULTS Site Closure Process Progran - Grab Groundwater Sampling and Analysis W. E. Lyons, 50 Hegenberger Loop, Oakland, CA TCG Project #055101

	6-Dec-2005 Water troleum Hydrocarbons (ug	6-Dec-2005 Water
Water Pe		
Pe	troleum Hydrocarbons (ug	/ <b>1)</b>
	troleum Hydrocarbons (ug	<b>/I)</b>
zansamumakan zansamumumkan zanamumimimi		
95)		53
	Aromatics (ug/l)	
ND(0.5) ND(0.5	5)	
	<u>)</u>	ND(0.5)
	5)	
2.7		2.3 ND(0.5)
(ECC) - CONTROL CONTRO		
B1-W = sample desgignation		
	ND(0.5) ND(0.5	ND(0.5)   ND(0

Bold = results to be resolved

### **Analytical Data**

Client: TCG (The Consulting Group)

Job Number: 720-9272-1

Client Sample ID:

MW-1

Lab Sample ID:

720-9272-1

Client Matrix:

Water

Date Sampled:

05/24/2007 0000

Date Received:

05/24/2007 1610

#### 8260B Fuel Oxygenates By 8260B

Method:

8260B

Analysis Batch: 720-22103

Instrument ID:

Saturn 3900B

Preparation:

5030B

Lab File ID:

c:\saturnws\data\200705\05

Dilution: Date Analyzed: 1.0

Initial Weight/Volume:

40 mL

Date Prepared:

05/29/2007 2027 05/29/2007 2027 Final Weight/Volume:

40 mL

Analyte	Result (ug/L)	Qualifier	RL	
1,2-Dichloroethane	ND		0.50	
Benzene	ND		0.50	
Ethylbenzene	ND		0.50	
MTBE	ND		0.50	
TAME	ND		0.50	
Toluene	ND		0.50	
Xylenes, Total	ND		1.0	
TBA	ND		5.0	
DIPE	ND		1.0	
EDB	ND	*	0.50	
Gasoline Range Organics (GRO)-C5-C12	ND		50	
Ethyl tert-butyl ether	ND		0.50	
Surrogate	%Rec Acceptar		Acceptance Limits	
Toluene-d8 (Surr)	95 77 - 121		77 - 121	
1,2-Dichloroethane-d4 (Surr)	97	73 - 130		

#### **Analytical Data**

Client: TCG (The Consulting Group)

Job Number: 720-9272-1

Client Sample ID:

MW-1

Lab Sample ID:

720-9272-1

Client Matrix:

Water

Date Sampled:

05/24/2007 0000

Date Received:

05/24/2007 1610

#### 8015B Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Method:

8015B

Analysis Batch: 720-22021

Instrument ID:

HP DRO5

Preparation:

3510C SGC

05/25/2007 2212

05/24/2007 1330

Prep Batch: 720-21960

N/A

Dilution: Date Analyzed:

Date Prepared:

1.0

Lab File ID:

Initial Weight/Volume: Final Weight/Volume:

250 mL 1 mL

Injection Volume:

Column ID:

**PRIMARY** 

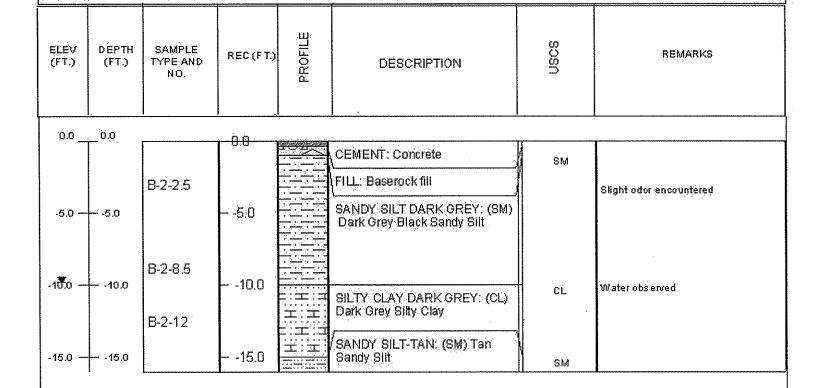
Analyte	Result (ug/L)	Qualifier	RL		
Diesel Range Organics [C10-C28]	ND		50		
Motor Oil Range Organics [C24-C36]	ND		500		
Surrogate	%Rec		Acceptance Limits		
o-Terphenyl	66	1966/1466/1965-2544 объему менений дейский философии положения положения в положения положения в положения в п	50 - 130		
Capric Acid (Surr)	0		0 - 5		

50 Hegenberger Loop Oakland Ca, B-1 BORING NO: PROJECTINO: 055101 PROJECT NAME: 50 Hegenberger FIELD GEOLOGIST: Ryan Cozart DATE BEGAN: 12/6/2005 DATE FINISHED: 12/6/2005 DRILLER: NORTH: EAST: -9.75 GROUND SURFACE ELEVATION: GWL DATE/TIME: GWL DEPTH: GWL EQUIP: Visual<sup>\*</sup> DRILLING METHOD: DRILL EQUIP: Geoprobe Drive sampling Precision Sampling CHECKED BY: WL CONTRACTOR: PROFILE USCS DEPTH **ELEV** SAMPLE REC (FT.) REMARKS (FT.) (FT.) TYPE AND DESCRIPTION NO. 0.0 0.0 0.0 CEMENT: Concrete SM FILL: Baserock fill Moderate odor encountered SANDY SILT DARK GREY: (SM) -5.0 B-1-5 Dark Grey Black Sandy Silt -10.0 -10-0 - -10.0 CL SILTY CLAY DARK GREY: (CL) Water observed **=:=** Dark Grey Sitty Clay B-1-13 士:士 SANDY SILT-TAN: (SM) Tan -15.0 Sandy Silt SM B-1-15.5 **ATTACHMENT 4** 

#### 50 Hegenberger Loop Oakland Ca, B-2 PROJECT NO: 055101 BORING NO: B-2 PROJECT NAME: 50 Hegenberger DATE BEGAN: 12/6/2005 DATE FINISHED: 12/6/2005 FIELD GEOLOGIST: Ryan Cozart DRILLER: NORTH: EAST: GROUND SURFACE ELEVATION: GWL DATE/TIME: GWL DEPTH: -9.75 DRILLING METHOD: Drive sampling DRILL EQUIP: Geoprobe GWL EQUIP: Visual

Precision Sampling

CONTRACTOR:



CHECKED BY: WL

#### 50 Hegenberger Loop Oakland Ca, B-3 PROJECTINO: 05519.1 BORING NO: 8-3 PROJECT NAME: 50 Hegenberger DATE BEGAN: 12/6/2005 DATE FINISHED: 12/6/2005 FIELD GEOLOGIST: Ryan Cozart DRILLER: NORTH: EAST: GWL DEPTH: 9.75 **GROUND SURFACE ELEVATION:** GWL DATE/TIME: DRILLING METHOD: DRILL EQUIP: Geoprobe GWL EQUIP: Visual: Drive sampling Precision Sampling CONTRACTOR: CHECKED BY: WL PROFILE ELEV DEPTH SAMPLE REC (FT.) REMARKS TYPE AND (FT) (FT.): DESCRIPTION NO. 0.0 0.0 0.0 CEMENT: Concrete SM FILL: Baserock fill Moderate odor encountered B-3-35 SANDY SILT DARK GREY: (SM) - -5.0 Dark Grey Sandy Silt SANDY SILT GREENGREY: B-3-7.5 (SM) Greenish Grey Sandy Silt -10.0 -**-** -10 0 - -10.0 Water observed CL B-3-10 SILTY CLAY DARK GREY: (CL) Ξŧ Dark Grey Silty Clay B-3-13 SANDY SILT-TAN: (SM) Tan 主:主 -15.0 Sandy Silt -15:0 -- 15.0 SM

PAGE 1 OF 1

#### 50 Hegenburger Loop Oakland, CA. PROJECTINO: 085101 BORING NO: 9-4 PROJECT NAME: W.E. Lyons DATE BEGAN: 12/30/2008 DATE FINISHED: 12/30/2008 FIELD GEOLOGIST: Ryan Cozart DRILLER: NORTH: EAST: **GROUND SURFACE ELEVATION:** GWL DATE/TIME: 10.5 GWL DEPTH: DRILL EQUIP: Geoprobe DRILLING METHOD: Drive Sampling GWL EQUIP: Visual Precision Sampling CONTRACTOR: CHECKED BY: WL PROFILE **ELEV** DEPTH SAMPLE REMARKS REC (FT.) TYPE AND (FT.) (FT.) DESCRIPTION NO. 0.0 0.0 0.0 FILL: Baserock fill CL Discolored odorous SILTY CLAY-TGB: (CL) Green and Tan Silty Clay - -4.0 B4-4 СН CLAY: (CH) Green Clay High. Plasticity B4-7 Discolored SM - -8.0 SAND-G: (SM) Green Sand СН -100 - -10.0 CLAY: (CH) Green an Black Clay B4-10 Water observed High Plasticity - -12.0 B4-11.5 SM SILTY SAND-GB: (SM) Green SM and Gray Silty Sand B4-15 SAND-TAN: (SM) Tan and -16.0 ML Green Sand CL B4-18 CLAYEY SILT-TAN: (ML) Tan and Green Clayey Sift SILTY CLAY-G: (CL) Sity Clay - PAGE 1 OF 1

#### 50 Hegenburger Loop Oakland, CA. PROJECT NO: 085101 BORING NO: PROJECT NAME: W.E. Lyons DATE BEGAN: 12/30/2008 FIELD GEOLOGIST: Ryan Cozart DATE FINISHED: 12/30/2008 DRILLER: NORTH: EAST: GROUND SURFACE ELEVATION: GWL DATE/TIME: GWL DEPTH: 10.5 DRILLING METHOD: DRILL EQUIP: Geoprobe GWL EQUIP: Drive Sampling Visual Precision Sampling CONTRACTOR: CHECKED BY: WL PROFILE DEPTH SAMPLE **ELEV** REC (FT.) REMARKS TYPE AND (FT.) (FT.) DESCRIPTION NO. 0.0 0.0 0.0 FILL: Daserock fill CL. Discolored adorous SILTY SAND-GB: (SM) Green Sitty Sand -4.0 B5-4 CH SILTY CLAY-GB: (CL) Green Black Silty Clay B5-7 SM -8.0 CLAYEY SILT-GREEN: (ML) CH Ì. Green Tan Clayey Silt Water observed SILTY CLAY - BLACK: (CL) - -12.0 $\pm : \pm$ SM Green Black Silty Clay B5-13 SM SILTY SAND-TAN: (SM) Tan -15.0 - -15.0 B5-15 Black Silty Sand - -16.0 МĹ CLAYEY SILT-TAN: (ML) Tan СL Clayey Silt B5-19 -20.0 20.0 - -20.0 SILTY CLAY-MB: (CL) Tan Silty B5-20 PAGE 1 OF 1

#### 50 Hegenburger Loop Oakland, CA. PROJECT NO: 08510.1 BORING NO: B-6 PROJECT NAME: W.E. Lyons DATE BEGAN: 12/31/2008 DATE FINISHED: 12/31/2008 FIELD GEOLOGIST: Ryan Cozart DRILLER: NORTH: EAST: GROUND SURFACE ELEVATION: GWL DATE/TIME: GWL DEPTH: 12.5 ft DRILLING METHOD: DRILL EQUIP: Geoprobe GWL EQUIP: Visual Drive Sampling Precision Sampling CONTRACTOR: CHECKED BY: WL PROFILE SCS DEPTH SAMPLE **ELEV** REC (FT.) REMARKS TYPE AND (FT.) (FT.) DESCRIPTION NO. 0,0 0.0 0.0 ### FILL: Baserock fill СН B6-1.5 SILTY CLAY-GB: (CH) Green Black Silty Clay High Plasticity - -4.0 CL Boring Drilled @ 45 Degree Angle fo SILTY CLAY-GB: (CL) Green 28 feet Black Silty Clay - -8.0 CLAY AND SILT AND GRAVEL: B6-8 ML GG: (ML) Green Clayey Silt -10.0 --- -10.0 Mixed with Gravel - -12.0 SILTY CLAY - BLACK: (CL) B6-12 Water observed Green Black Silty Clay High. - . 止 . . 士 : 立 Plasticity CL -15.0 - -16.0 CLAYEY SILT-GREEN: (ML) B6-16 ML. Green Clayey Silt SC CLAYEY SAND: (SC) Green Clayey Sand -20.0 ML B6-20 CLAYEY SILT-TAN: (ML) Tan GM Clayey Silt **X**(#):5 MI. -24.0 GRAVEL AND SAND-B6-24 GREENBLACK: (GM) Green and Black Gravel Mixed with Sand G.C $\mathbf{E}:\mathbf{E}$ -28.0 CLAYEY SILT-TAN: (ML) Tan B6-28 Clayey Silt CLAY AND SILT AND GRAVEL-TAN: (GC) Tan Clay and Silt and Gravel

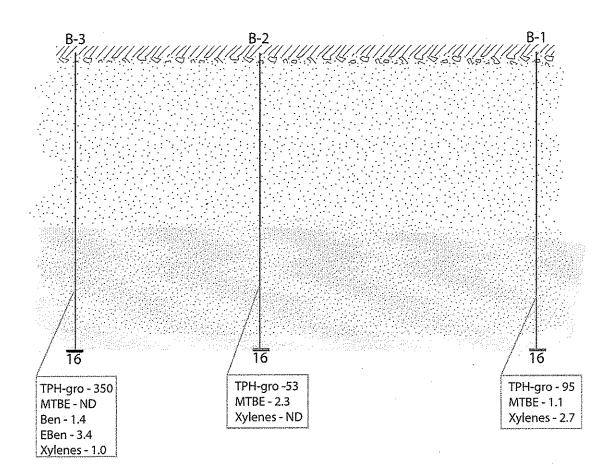
16 - End of Boring w/Depth

Silty Clays

- Sandy Silts

- Fill Material

- Concrete





THE CONSULTING GROUP 394 Cecilia Way, Tiburon, CA 94920 Tel: 415.381,2560 / Fax: 415.381.1741

1'' = 5'

Job No		055101		
Date	20 Jan 06			
Drawn by WL				
Rev	RC	Apprvd	WL	

Idealized Cross-Section A - A' Lithology Project
& Grab Groundwater Sample Results (ug/l)
Soil Sampling & Analysis

Soil Sampling & Analysis
50 Hegenberger Loop
for W. E. Lyons Construction

50 Hegenberger Loop, Oakland CA



Figure

7

## TABLE 1

## SUMMARY OF WELL INFORMATION

76 Service Station No. 5043 449 Hegenberger Road Oakland, California

Map Number	State Well ID	Owner	Well Use	Well Total Depth (ft)	Screened Interval (ft)	Depth to Water (ft)	Date Installed	Approximate Distance From Site (ft)
Figure 1, number 1	2S/3W-28B1	W.E. Lyons Construction	Irrigation	48	28 to 48	7	10/7/1977	1,080 SE
Figure 1, rumber 2	2S/3W-28G2	Ratto Bros., Inc.	Irrigation	305	25 to 305	30	6/2/1988	2,623 SE
Figure 1, number 3	2S/3W-21J2	Delavel Turbine, Inc.	Industrial	448	138 to 200, 230 to 240	59	6/16/1976	2,570 NB