

**Roya Kambin**Project Manager
Marketing Business Unit

Chevron Environmental Management Company 6101 Bollinger Canyon Road San Ramon, CA 94583 Tel (925) 790-6270 rkambin@chevron.com

Alameda County Health Care Services 1131 Harbor Bay Parkway, Suite 250 Alameda, CA 94502-6577

Re: Former Chevron Service Station 209339

5940 College Avenue Oakland, California

ACEH Case No. RO0000466

### **RECEIVED**

9:31 am, May 31, 2012

Alameda County Environmental Health

I accept the First Semi-Annual 2012 Groundwater Monitoring and Sampling Report.

I agree with the conclusions and recommendations presented in this document. The information included is accurate to the best of my knowledge, and appears to meet local agency and Regional Board guidelines. This First Semi-Annual 2012 Groundwater Monitoring and Sampling Report was prepared by Conestoga Rovers & Associates, upon whose assistance and advice I have relied.

This letter is submitted pursuant to the requirements of California Water Code Section 13267(b)(1) and the regulating implementation entitled Appendix A pertaining thereto.

I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge.

Sincerely,

Roya Kambin Project Manager

Attachment: First Semi-Annual 2012 Groundwater Monitoring and Sampling Report



5900 Hollis Street, Suite A Emeryville, California 94608

Telephone: (510) 420-0700 Fax: (510) 420-9170

http://www.craworld.com

May 24, 2012 Reference No. 311954

Mr. Mark Detterman Alameda County Environmental Health (ACEH) 1131 Harbor Bay Parkway Alameda, California 94502

Re: First Semi-Annual 2012

Groundwater Monitoring and Sampling Report

Former Chevron Service Station 209339

5940 College Avenue Oakland, California

ACEH Case No. RO0000466

Dear Mr. Mark Detterman:

Conestoga-Rovers & Associates (CRA) is submitting this First Semi-Annual 2012 Groundwater Monitoring and Sampling Report on behalf of Chevron Environmental Management Company for the site referenced above (Figure 1). Groundwater monitoring and sampling was performed by Gettler-Ryan, Inc. of Dublin, California and their First Semi-Annual Groundwater Monitoring and Sampling Data Package is included as Attachment A. Current groundwater monitoring and sampling data are presented in Table 1. Eurofins | Lancaster Laboratories' Analytical Results is included as Attachment B. Historical groundwater data are included as Attachment C. Groundwater monitoring and sampling for the former Sheaff's Garage (5930 College Avenue) was not conducted this quarter.

CRA submitted a Case Closure Request on August 25, 2011 and is awaiting a response.

Equal Employment Opportunity Employer



May 24, 2012 Reference No. 311954

Please contact Kiersten Hoey at (510) 420-3347 if you have any questions or require additional information.

Sincerely,

**CONESTOGA-ROVERS & ASSOCIATES** 

N. Scott MacLeod, PG 5747

KH/cw/10

Kiersten Hoey

Encl.

Figure 1 Vicinity Map

Figure 2 Groundwater Elevation and Hydrocarbon Concentration Map

Table 1 Groundwater Monitoring and Sampling Data

Attachment A Monitoring Data Package
Attachment B Laboratory Analytical Report

Attachment C Historical Groundwater Monitoring and Sampling Data

cc: Ms. Roya Kambin, Chevron (electronic copy)

Mr. Donald Sweet, San Francisco Property MGMT Mr. Patrick Elwood, College Square Associates

### **FIGURES**

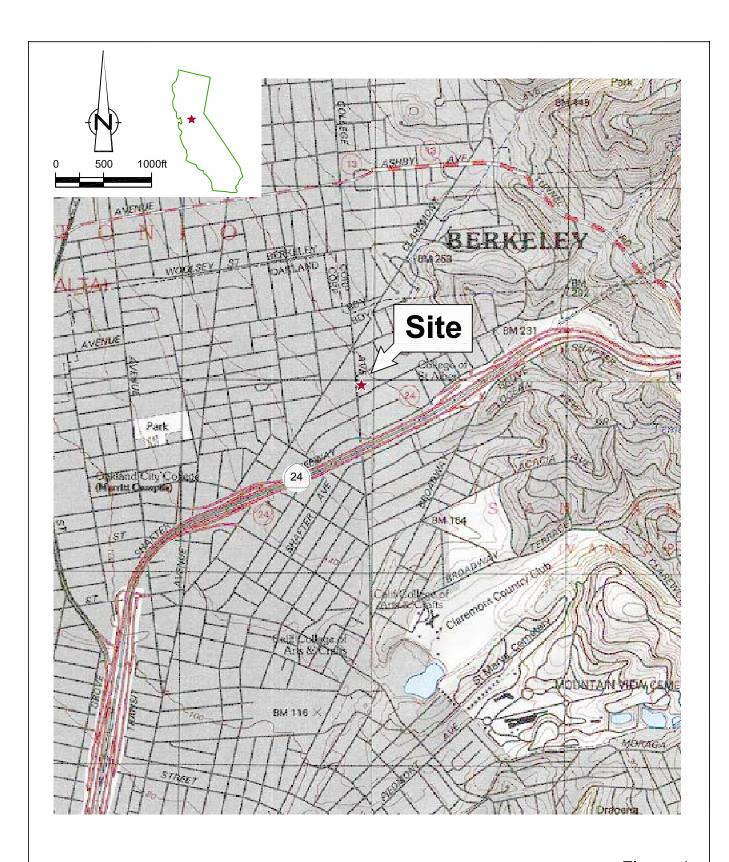


Figure 1

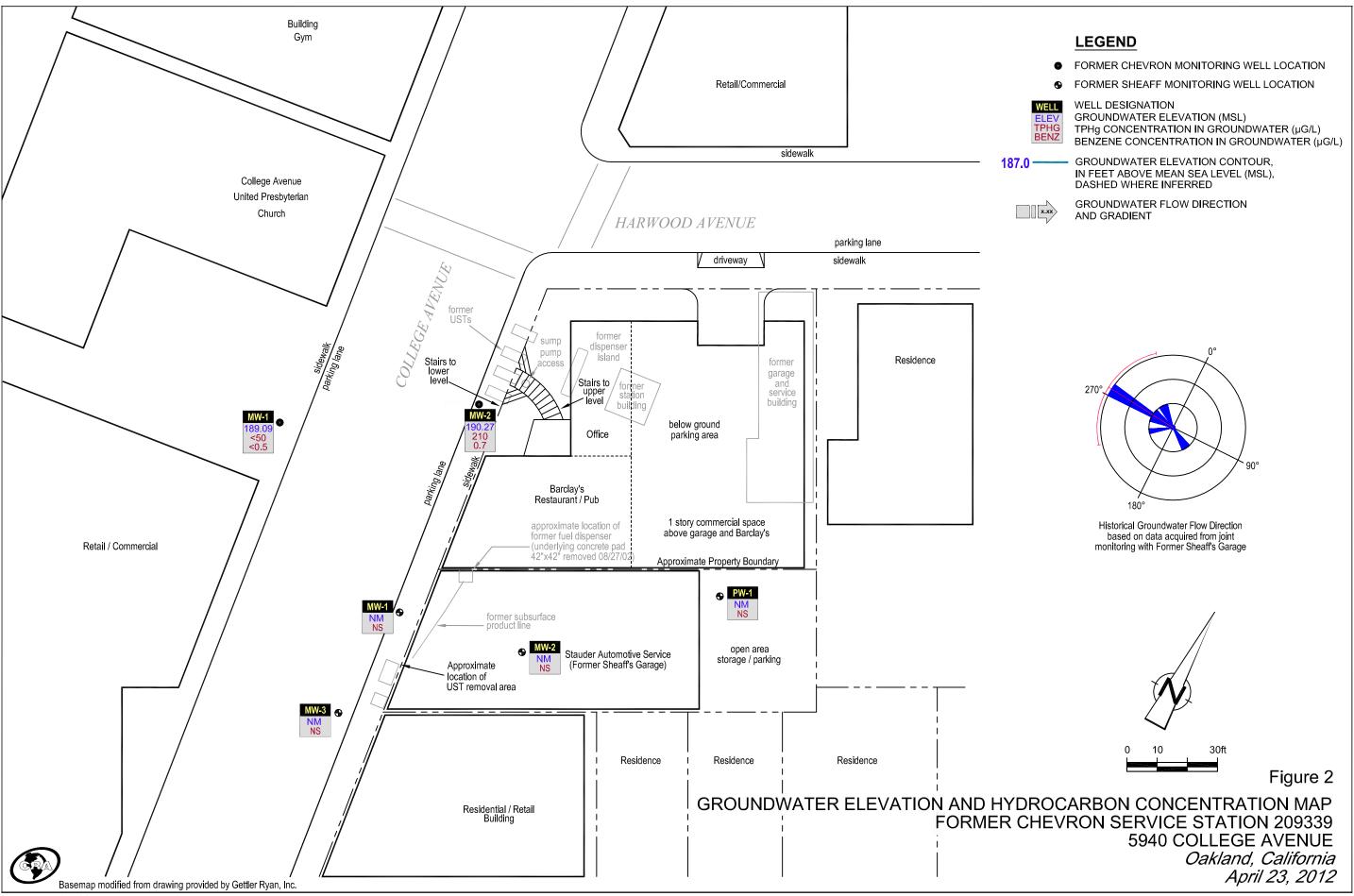
VICINITY MAP

CHEVRON SERVICE STATION 209339

5940 COLLEGE AVENUE

Oakland, California





**TABLE** 

TABLE 1 Page 1 of 1

### GROUNDWATER MONITORING AND SAMPLING DATA FORMER CHEVRON SERVICE STATION 209339 5940 COLLEGE AVENUE OAKLAND, CALIFORNIA

					HYDROCARBONS	PF	PRIMARY VOCS		
Location	Date	тос	DTW	GWE	TPH-GRO	В	T	E	X
	Units	ft	ft	ft-amsl	μg/L	µg/L	µg/L	µg/L	μg/L
MW-1	10/14/2010	196.91	13.25	183.66	<50	<0.5	<0.5	<0.5	<1.5
MW-1	04/14/2011	196.91	7.81	189.10	<50	<0.5	<0.5	<0.5	<1.5
MW-1	10/07/2011	196.91	10.66	186.25	140	<0.5	<0.5	<2.0	2.0
MW-1	04/23/2012	196.91	7.82	189.09	<50	<0.5	<0.5	<0.5	<1.5
MW-2	10/14/2010	197.35	12.15	185.20	480	1.3	<2.0	<2.0	7.1
MW-2	04/14/2011	197.35	6.92	190.43	150	<0.5	<0.5	<0.5	< 5.0
MW-2	10/07/2011	197.35	10.27	187.08	370	0.7	<0.5	0.8	5.0
MW-2	04/23/2012	197.35	7.08	190.27	210	0.7	<0.5	0.5	2.2
QA	10/14/2010	-	-	-	<50	<0.5	<0.5	<0.5	<1.5
QA	04/14/2011	-	-	-	<50	<0.5	<0.5	<0.5	<1.5
QA	10/07/2011	-	-	-	<50	<0.5	<0.5	<0.5	<1.5
QA	04/23/2012	-	-	-	<50	<0.5	<0.5	<0.5	<1.5

#### **Abbreviations and Notes:**

TOC = Top of casing

DTW = Depth to water

 $\label{eq:GWE} \textbf{GWE} = \textbf{Groundwater elevation}$ 

(ft-amsl) = Feet above mean sea level

ft = Feet

 $\mu g/L$  = Micrograms per liter

TPH-GRO = Total petroleum hydrocarbons - gasoline range organics

VOCS = Volatile organic compounds

B = Benzene

T = Toluene

E = Ethylbenzene

X = Xylenes (Total)

-- = Not available / not applicable

x = Not detected above laboratory method detection limit

TOC elevations were surveyed on December 27, 2000, by Virgil Chavez Land Surveying. The benchmark used for the survey was the City of Oakland benchmark being a cut square in the top of curb, at the curb return at the northeast corner of College Avenue and Miles Avenue (Benchmark Elev. 179.075 feet msl).

### ATTACHMENT A

MONITORING DATA PACKAGE





## TRANSMITTAL

April 27, 2012 G-R #386521

TO:

Ms. Kiersten Hoey

Conestoga-Rovers & Associates 5900 Hollis Street, Suite A Emeryville, CA 94608

FROM:

Deanna L. Harding

Project Coordinator

Gettler-Ryan Inc. 6747 Sierra Court, Suite J Dublin, California 94568 RE:

**Former Chevron Service Station** 

#209339

5940 College Avenue Oakland, California

RO 0000466

### WE HAVE ENCLOSED THE FOLLOWING:

DESCRIPTION
Groundwater Monitoring and Sampling Data Package First Semi-Annual Event of April 23, 2012

#### COMMENTS:

Pursuant to your request, we are providing you with copies of the above referenced data for your use.

Please provide us the updated historical data prior to the next monitoring and sampling event for our field use.

Please feel free to contact me if you have any comments/questions.

trans/209339

## **WELL CONDITION STATUS SHEET**

Client/Facility #: Site Address: City:		llege Avei	nue				Job # Event Date: Sampler:	386521	4/23		
WELL ID	Vauit Frame Condition	Gasket/ O-Ring (M)missing	BOLTS (M) Missing (R) Replaced	Boit Flanges B= Broken S= Stripped R=Retap	APRON Condition C=Cracked B=Broken G=Gone	Grout Seal (Deficient) inches from TOC	Casing (Condition prevents tight cap seal)	REPLACE LOCK Y/N	REPLACE CAP Y/N	WELL VAULT Manufacture/Size/ # of Bolts	Pictures Taken Yes / No
mwi	OIL						- 9	N	1	8" BL	K
MW-2	on							4	J	+	1
					-						
	<u></u>	· 									
					-						
											-
Comments									<u> </u>		

### STANDARD OPERATING PROCEDURE -GROUNDWATER SAMPLING

Gettler-Ryan Inc. (GR) field personnel adhere to the following procedures for the collection and handling of groundwater samples prior to analysis by the analytical laboratory. All work is performed in accordance with the GR Health & Safety Plan and all client-specific programs. The scope of work and type of analysis to be performed is determined prior to commencing field work.

Prior to sampling, the presence or absence of free-phase hydrocarbons is determined using an interface probe. Product thickness, if present, is measured to the nearest 0.01 foot and is noted in the field notes. In addition, all depth to water level measurements are collected with a static water level indicator and are also recorded in the field notes, prior to purging and sampling any wells.

After water levels are collected and prior to sampling, if purging is to occur, each well is purged a minimum of three well casing volumes of water using pre-cleaned pumps (stack, peristaltic or Grundfos), or disposable bailers. Temperature, pH and electrical conductivity are measured a minimum of three times during the purging (additional parameters such as dissolved oxygen, oxidation reduction potential, turbidity may also be measured, depending on specific scope of work.). Purging continues until these parameters stabilize.

Groundwater samples are collected using disposable bailers. The water samples are transferred from the bailer into appropriate containers. Pre-preserved containers, supplied by analytical laboratories, are used. When pre-preserved containers are not available, the laboratory is instructed to preserve the sample as appropriate. Duplicate samples are collected for the laboratory to use in maintaining quality assurance/quality control standards, as directed by the scope of work. The samples are labeled to include the job number, sample identification, collection date and time, analysis, preservation (if any), and the sample collector's initials. The water samples are placed in a cooler, maintained at 4°C for transport to the laboratory. Once collected in the field, all samples are maintained under chain of custody until delivered to the laboratory.

The chain of custody document includes the job number, type of preservation, if any, analysis requested, sample identification, date and time collected, and the sample collector's name. The chain of custody is signed and dated (including time of transfer) by each person who receives or surrenders the samples, beginning with the field personnel and ending with the laboratory personnel.

A laboratory supplied trip blank accompanies each sampling set. The trip blank is analyzed for some or all of the same compounds as the groundwater samples.

As requested by Chevron Environmental Management Company, the purge water and decontamination water generated during sampling activities is transported by Clean Harbors Environmental Services to Evergreen Oil located in Newark, California.



# WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#:	<b>Chevron #20933</b>	9	Job Number:	386521	
Site Address:	5940 College Av	enue	Event Date:	4/23/12	(inclusive)
City:	Oakland, CA		Sampler:	34	
Well ID	MW-		Date Monitored:	4/23/n	
Well Diameter	<b>2</b> in.	Vo	iume 3/4"= 0.0	02 1"= 0.04 2"= 0.17	3"= 0.38
Total Depth	20.15 ft.	1	ctor (VF) 4"= 0.6		12"= 5.80
Depth to Water	7.82 ft.	Check if water col	umn is less then 0.50		
	12-33 xVF	- 17 = 2.69	x3 case volume =	Estimated Purge Volume:	6.28 <sub>gal.</sub>
Depth to Water v	w/ 80% Recharge [(Hei	ght of Water Column x 0.2			
				Time Started:	(2400 hrs)
Purge Equipment:		Sampling Equipme	nt:	Time Completed: Depth to Product:	
Disposable Bailer		Disposable Bailer	<u> </u>	Depth to Water:	
Stainless Steel Bailer	·	Pressure Bailer		Hydrocarbon Thickne	
Stack Pump		Discrete Bailer		Visual Confirmation/D	
Suction Pump		Peristaltic Pump		Skimmer / Absorbant	Cook (circle as 1)
Grundfos		QED Bladder Pump		Amt Removed from S	Sock (circle one) kimmer: gal
Peristaltic Pump		Other:		Amt Removed from V	Vell:gal
QED Bladder Pump				Water Removed:	
Other:				Product Transferred t	0:
Start Time (purge Sample Time/Da Approx. Flow Rat Did well de-water Time (2400 hr.) 0705 0710	te: 0740 / 4/23 te:gpm	Water Col Sediment Time:	Temperature ( C) / F )  17.1  17.1	gal. DTW @ Sampling	: <b>9-42</b> DRP mV)
SAMPLE ID	(#) CONTAINER   REF	RIG. PRESERV. TYP	INFORMATION PE LABORATORY	ANALY	656
MW-		ES HCL	LANCASTER	TPH-GRO(8015)/BTEX(802	
<del>                                     </del>					
<del>                                     </del>					
COMMENTS:					
Add/Replaced L	ock:	Add/Replaced Plug:		Add/Replaced Bolt:	



## WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#:	Chevron #20	9339		Job Number:	386521	
Site Address:	5940 College	e Avenu	е	Event Date:	4/25/12	(inclusive)
City:	Oakland, CA			— Sampler:	31	()
				<del>-</del>		
Well ID	MW- 2	<u>_</u>		Date Monitored:	y/23/n	
Well Diameter	<b>2</b> in	<u>.</u>	Tv <sub>o</sub>	olume 3/4"= 0.0	02 1"= 0.04 2"= 0.17	3"= 0.38
Total Depth	20.10 ft.	- 10- A:	Fa	actor (VF) 4"= 0.6		12"= 5.80
Depth to Water	7.08 ft.		Check if water col	umn is less then 0.5	0 ft.	
	13.62	xVF	17 = 2-21	x3 case volume =	Estimated Purge Volume:	<b>9-64</b> gal.
Depth to Water	w/ 80% Recharge			20) + DTW]: <u>9.68</u>		
B 5. 1					Time Started:	(2400 hrs) (2400 hrs)
Purge Equipment:			Sampling Equipme	ent:	Depth to Product:	(2400 firs)
Disposable Bailer Stainless Steel Baile			Disposable Bailer		Depth to Water:	ft
Stack Pump			Pressure Bailer Discrete Bailer	<del></del>	Hydrocarbon Thickne	ess:ft
Suction Pump			Peristaltic Pump		Visual Confirmation/I	Description:
Grundfos			QED Bladder Pump		Skimmer / Absorbant	Sock (circle one)
Peristaltic Pump			Other:	<del></del>	Amt Removed from S	Skimmer: gal
QED Bladder Pump					Water Removed:	Vell:gal
Other:						to:
Start Time (purge	): 0810		Weather (	Conditions:	Clarky	
Sample Time/Da	te: 0850 / 9	1/23/12	Water Co	lor: clear	Odor: Y / N	
Approx. Flow Rat		gpm.		Description:	LIJHO	
Did well de-water				· —	gal. DTW @ Sampling	8.75
		, ,			gai. Divi @ Camping	. <u> </u>
Time (2400 hr.)	Volume (gal.)	рН	Conductivity (µmhos/cm - (3)			ORP
	•	7		. – ,	(mg/L)	(mV)
0820		7.59	642	<u> </u>		
0827	7	7.43	656	18.0		·
	<u> </u>	7.10	671	10.0		<del></del> -
	<del></del>				<del></del>	
				INFORMATION		
SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYP		ANALY	
MW- Z		YES	HCL	LANCASTER	TPH-GRO(8015)/BTEX(80	21)
		27.11	<del> </del>			
ļ		<del></del>	<u> </u>			
			<del> </del>		-	
					<u> </u>	
COMMENTS:				-	*	
	W. C.		<del></del>	<del></del>		
	1					
Add/Replaced L	ock:	Add	/Replaced Plug:		Add/Replaced Bolt: _	

# Chevron California Region Analysis Request/Chain of Custody

For Lancaster Laboratories use only



. Laboratories						Acct.	#:				Sam	ple :	#				_		_	Group #:_	020	622
• Laboratories								Г			Aı	naly	/ses	Re	que	stec	d l					
Facility #: SS#209339-OML G-R#38652	1 Global ID#	T0601975	2694		Matı	rix					Р	res	erva	tior	n Co	des				Preserv	ative Cod	des
Site Address: 5940 COLLEGE AVENUE, OA Chevron PM: EF Lead Consultant/Office: G-R, Inc., 6747 Sierra Cou	KLAND. CA							H	H	g.				1		-				H = HCI N = HNO <sub>3</sub>	T = Thic B = NaC	
Chevron PM: EF Lead	Consultant:	RAHK	Hoe	у		T	S			Silica Gel Cleanup										S = H <sub>2</sub> SO <sub>4</sub>		
			9456	8	Potable	DES	Containers	80217		a Gel										☐ J value repo		
Consultant Prj. Mgr.: (de					8		Sonta	802		Silic			Ш	_						Must meet to possible for		
Consultant Phone #925-551-7555 Fax #:925-551-7899 Sampler:					-	4	4	8260	2	윤			Method	Method						8021 MTBE Co	nfirmation	
Sampler:							nber		00 G	000	5	enates	Ž							☐ Confirm high		
				Composite	"	Air	Total Number	喜	TPH 8015 MOD GRO	015 M	88	Oxygenates	ead	/ed Le						☐ Confirm all h		
Sample Identification	Date Collected	Time Collected	Grab		Water	□ jio	Tota	BTEX +4MIBE	TPH 8	TPH 8015 MOD DRO	8260 full scan		Total Lead	Dissolved Lead						Run ox		
- GA	Mrshi		×		>		5	Ъe	٨											Comments /	Remarks	
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mW-2 (850 )				-	-	-	3	×	>	-	+	$\dashv$	$\dashv$		_							
				+	-	+	-			$\dashv$	_	$\dashv$	$\dashv$						Н	Please forwa directly to the		
																				and	cc: G-R.	
				1	-																	
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		Relinqui	ished h	IV.							ate	   Ti	me		occi	ved b	214:		Ш		Deta	Time
Turnaround Time Requested (TAT) (please cir SFD:TAT 72 hour 48 hour				1	A STATE OF THE STA	20	-	malandran			27/12	1	1110	4	6-1	7/6	sy. EK	-F	4/1	NEIDLE,	Date	Time
24 hour 4 day 5 day		Relingui	ished b	y:		-7		-	181	D	ate	147.00	me			yed b		lana.	gande Fr	,	Date	Time
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Data Package Options (please circle if required)  CC Summary  Type I - Full  EDF/EDD  Relinquished by  UPS  F																						
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WIP (RWQCB) Disk	P (RWQCB)			Temperature Upon Receipt C° Custody Seals				eals I	ntact	2	Yes No											
															20100	., UC	OUIO	. naol	٠	103 140	A	

## ATTACHMENT B

LABORATORY ANALYTICAL REPORT



2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

#### ANALYTICAL RESULTS

Prepared by:

Prepared for:

Lancaster Laboratories 2425 New Holland Pike Lancaster, PA 17605-2425 Chevron 6001 Bollinger Canyon Rd L4310 San Ramon CA 94583

April 30, 2012

Project: 209339

Submittal Date: 04/24/2012 Group Number: 1304313 PO Number: 0015075227 Release Number: FROHNAPPLE State of Sample Origin: CA

Client Sample Description Lancaster Labs (LLI) #

 QA-T-120423 NA Water
 6627202

 MW-1-W-120423 Grab Water
 6627203

 MW-2-W-120423 Grab Water
 6627204

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC CRA c/o Gettler-Ryan Attn: Rachelle Munoz

COPY TO

ELECTRONIC Chevron c/o CRA Attn: Report Contact

COPY TO

ELECTRONIC Chevron Attn: Anna Avina

COPY TO

ELECTRONIC CRA Attn: Kiersten Hoey

COPY TO



2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 •717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Respectfully Submitted,

fill M. Parker
Senior Specialist

(717) 556-7262



2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 •717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 1

Sample Description: QA-T-120423 NA Water

Facility# 209339 Job# 386521 GRD

5940 College Ave-Oakland T06019752694 QA

LLI Sample # WW 6627202 LLI Group # 1304313

Account # 10904

Project Name: 209339

Collected: 04/23/2012

Chevron

6001 Bollinger Canyon Rd L4310

San Ramon CA 94583

Submitted: 04/24/2012 15:30 Reported: 04/30/2012 07:44

#### 9339T

CAT No.	Analysis Name		CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Vol	latiles	SW-846	8015B	ug/l	ug/l	
01729	TPH-GRO N. CA water	C6-C12	n.a.	N.D.	50	1
GC Vol	latiles	SW-846	8021B	ug/l	ug/l	
02102	Benzene		71-43-2	N.D.	0.5	1
02102	Ethylbenzene		100-41-4	N.D.	0.5	1
02102	Toluene		108-88-3	N.D.	0.5	1
02102	Total Xylenes		1330-20-7	N.D.	1.5	1

#### General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

#### Laboratory Sample Analysis Record

CAT	Analysis Name	Method	Trial#	Batch#	Analysis		Analyst	Dilution
No.					Date and Tim	ne		Factor
01729	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	12116B94A	04/27/2012	16:27	Laura M Krieger	1
02102	Method 8021 Water Master	SW-846 8021B	1	12116B94A	04/27/2012	16:27	Laura M Krieger	1
01146	GC VOA Water Prep	SW-846 5030B	1	12116B94A	04/27/2012	16:27	Laura M Krieger	1



2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 •717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 1

Sample Description: MW-1-W-120423 Grab Water

Facility# 209339 Job# 386521 GRD

5940 College Ave-Oakland T06019752694 MW-1

LLI Sample # WW 6627203 LLI Group # 1304313

Account # 10904

Project Name: 209339

Collected: 04/23/2012 07:40

by JH

Chevron

6001 Bollinger Canyon Rd L4310

San Ramon CA 94583

Submitted: 04/24/2012 15:30 Reported: 04/30/2012 07:44

#### 93391

CAT No.	Analysis Name		CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Vol	latiles	SW-846	8015B	ug/l	ug/l	
01729	TPH-GRO N. CA water	C6-C12	n.a.	N.D.	50	1
GC Vol	latiles	SW-846	8021B	ug/l	ug/l	
02102	Benzene		71-43-2	N.D.	0.5	1
02102	Ethylbenzene		100-41-4	N.D.	0.5	1
02102	Toluene		108-88-3	N.D.	0.5	1
02102	Total Xylenes		1330-20-7	N.D.	1.5	1

#### General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

#### Laboratory Sample Analysis Record

CAT	Analysis Name	Method	Trial#	Batch#	Analysis	Analyst	Dilution
No.					Date and Time		Factor
01729	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	12116B94A	04/27/2012 17:18	Laura M Krieger	1
02102	Method 8021 Water Master	SW-846 8021B	1	12116B94A	04/27/2012 17:18	Laura M Krieger	1
01146	GC VOA Water Prep	SW-846 5030B	1	12116B94A	04/27/2012 17:18	Laura M Krieger	1



2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 •717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 1

Sample Description: MW-2-W-120423 Grab Water

Facility# 209339 Job# 386521 GRD

5940 College Ave-Oakland T06019752694 MW-2

LLI Sample # WW 6627204

LLI Group # 1304313 Account # 10904

Project Name: 209339

Collected: 04/23/2012 08:50

by JH

Chevron

6001 Bollinger Canyon Rd L4310

San Ramon CA 94583

Submitted: 04/24/2012 15:30 Reported: 04/30/2012 07:44

93392

CAT No. Analysis Name		CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor	
GC Volatiles S	SW-846	8015B	ug/l	ug/l		
01729 TPH-GRO N. CA water Co	6-C12	n.a.	210	50	1	
GC Volatiles S	W-846	8021B	ug/l	ug/l		
02102 Benzene		71-43-2	0.7	0.5	1	
02102 Ethylbenzene		100-41-4	0.5	0.5	1	
02102 Toluene		108-88-3	N.D.	0.5	1	
02102 Total Xylenes		1330-20-7	2.2	1.5	1	

#### General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

#### Laboratory Sample Analysis Record

CAT	Analysis Name	Method	Trial#	Batch#	Analysis	Analyst	Dilution
No.					Date and Time		Factor
01729	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	12116B94A	04/27/2012 1	7:43 Laura M Kriege	1
02102	Method 8021 Water Master	SW-846 8021B	1	12116B94A	04/27/2012 1	7:43 Laura M Krieger	1
01146	GC VOA Water Prep	SW-846 5030B	1	12116B94A	04/27/2012 1	7:43 Laura M Kriege	1



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Page 1 of 1

### Quality Control Summary

Client Name: Chevron Group Number: 1304313

Reported: 04/30/12 at 07:44 AM

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

### Laboratory Compliance Quality Control

Analysis Name	Blank <u>Result</u>	Blank <u>MDL</u>	Report <u>Units</u>	LCS <u>%REC</u>	LCSD <u>%REC</u>	LCS/LCSD <u>Limits</u>	RPD	RPD Max
Batch number: 12116B94A	Sample nu	mber(s): 66	27202-6627	204				
Benzene	N.D.	0.5	ug/l	95	100	80-120	5	30
Ethylbenzene	N.D.	0.5	ug/l	100	100	80-120	0	30
Toluene	N.D.	0.5	ug/l	95	95	80-120	0	30
TPH-GRO N. CA water C6-C12	N.D.	50.	ug/l	109	100	75-135	9	30
Total Xylenes	N.D.	1.5	ug/l	100	102	80-120	2	30

#### Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: Method 8021 Water Master

Batch number: 12116B94A

	Trifluorotoluene-F	Trifluorotoluene-P	
6627202	76	85	
6627203	95	85	
6627204	84	86	
Blank	103	85	
LCS	90	85	
LCSD	92	84	
Limits:	63-135	51-120	

#### \*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

# Chevron California Region Analysis Request/Chain of Custody

For Lancaster Laboratories use only



Laboratories 042	1312-07					Acct.	#:	109	104		Sam	ple #	<u>ام</u>	62	72	02	-6	94	G	roup #:_	<u> 020</u>	1622	
4: Laboratores											A	naly	ses	Rec	uest	ed			ገ <i>13</i>	304	3/3		
Facility #: SS#209339-OML G-R#3865 Site Address: 940 COLLEGE AVENUE, O			2694	-	Matri	ix		И	Ŧ		Р	rese	ervat	tion	Cod	es			]н=н	CI		osulfate	
Chevron PM: EF Lea  Consultant/Office: G-R, Inc., 6747 Sierra Co	d Canaultanti	CRAHK	Hoey 4 94568		<u>a</u> 0		⊕ S ⊕		ı Der	- I Classing	Gel Cleanup		:							N = H S = H <sub>2</sub> □ J val	₂SO₄	B = Na O = Otl	ner
Consultant Prj. Mgr.: Deanna L. Harding (o	deanna@grind	c.com)		_	□ Potable		Containers	8021		Silica			þ	  g					☐ Mus poss	t meet lo	owest dete 8260 com	ection limits pounds	
Sample Identification	Fax #: 925	Time Collected	Grab	Composite	Soil	Oil 🗆 Air	Total Number of	BTEX + 11 8260	TPH 8015 MOD GRO		8260 full scan	Oxygenates	Total Lead Method	Dissolved Lead Method					☐ Con	firm high firm all h ox	onfirmation nest hit by nits by 826 xy's on hig xy's on all	8260 0 hest hit	
0A MW-1 MW-2	4/23/12	0740 0850	× × ×		*		7 5	X	7	-									Comn	ients /	Remark	s ,	
				+																lly to the	rd the lab Lead Cor cc: G-R.		
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		15.										<u> </u>		<u> </u>		1			<u> </u>			T	
Turnaround Time Requested (TAT) (please \$10. TA) 72 hour 48 hour 4 day 5 day	our	Relinqui	sheet			2	Z	_	- 194-	41.	ate 23   r Oate	Jo Tit	me me /5	R	ceive	d by	R	RY.	AN FRI	DGE g	Date <b>7-23-12</b> Date 4 23/12		
Data Package Options (please circle if required QC Summary Type I - Full Type VI (Raw Data) ☐ Coelt Deliverable not new PIP (RWQCB)	EDF/EDD	Relinqui Relinqui UPS	ished t	y Co Fedi	Ξx	(	Other	Dt-	13 <sub>4</sub> 1L		)ate		me A	Re	ceivre	DF d by	1				Date Date	Time	
Disk		Temper	ature (	Jpon .	Heceipl	t	'   ' (	, , <u>U</u>					_C°	Cu	istody	Sea	ils ini	tact?	(es	/ No	1	1 .	



## **Explanation of Symbols and Abbreviations**

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	BMQL	Below Minimum Quantitation Level
N.D.	none detected	MPN	Most Probable Number
TNTC	Too Numerous To Count	CP Units	cobalt-chloroplatinate units
IU	International Units	NTU	nephelometric turbidity units
umhos/cm	micromhos/cm	ng	nanogram(s)
С	degrees Celsius	F	degrees Fahrenheit
meq	milliequivalents	lb.	pound(s)
g	gram(s)	kg	kilogram(s)
μg	microgram(s)	mg	milligram(s)
mL	milliliter(s)	L	liter(s)
m3	cubic meter(s)	μL	microliter(s)
		pg/L	picogram/liter

- < less than The number following the sign is the <u>limit of quantitation</u>, the smallest amount of analyte which can be reliably determined using this specific test.
- > greater than

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.

ppb parts per billion

**Dry weight**basis

Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Data Qualifiers:

C - result confirmed by reanalysis.

**J** - estimated value – The result is ≥ the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).

U.S. EPA CLP Data Qualifiers:

	Organic Qualifiers		Inorganic Qualifiers
Α	TIC is a possible aldol-condensation product	В	Value is <crdl, but="" th="" ≥idl<=""></crdl,>
В	Analyte was also detected in the blank	Ε	Estimated due to interference
С	Pesticide result confirmed by GC/MS	M	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	N	Spike sample not within control limits
Ε	Concentration exceeds the calibration range of	S	Method of standard additions (MSA) used
	the instrument		for calculation
N	Presumptive evidence of a compound (TICs only)	U	Compound was not detected
Р	Concentration difference between primary and	W	Post digestion spike out of control limits
	confirmation columns >25%	*	Duplicate analysis not within control limits
U	Compound was not detected	+	Correlation coefficient for MSA < 0.995
X,Y,Z	Defined in case narrative		

#### Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR part 136 Table II as "analyze immediately" are not performed within 15 minutes.

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## ATTACHMENT C

HISTORICAL GROUNDWATER MONITORING AND SAMPLING DATA

Table 1
Groundwater Monitoring Data and Analytical Results

Former Chevron Service Station #209339 5940 College Avenue Oakland, California

					, California				
WELL ID/	TOC*	DTW	GWE	TPH-GRO	В	Т	E	X	MTBE
DATE	(ft.)	(ft.)	(msl)	(μg/L)	(μg/L)	(μg/L)	(μg/L)	(μg/L)	(µg/L)
MW-1									
01/03/01	196.91	12.75	184.16	$930^{1}$	2.9	6.9	2.7	7.6	$14/<2.0^3$
04/25/01	196.91	9.23	187.68	$210^{4}$	2.0	1.5	2.0	3.3	$5.3 < 2.0^3$
07/09/01	196.91	11.86	185.05	$290^{5}$	1.8	2.0	2.5	0.96	<2.5
06/08/00	196.91	13.49	183.42	200	< 0.50	< 0.50	< 0.50	<1.5	<2.5
01/13/02	196.91	7.33	189.58	< 50	< 0.50	< 0.50	< 0.50	< 0.50	<2.5
04/08/02	196.91	7.45	189.46	670	< 0.50	< 2.0	<1.0	5.6	<2.5
10/15/02	196.91	13.68	183.23	260	0.62	0.82	< 0.50	<1.5	
04/15/03	196.91	6.82	190.09	1,700	1.3	< 5.0	< 2.0	< 5.0	
10/31/03	196.91	13.72	183.19	150	<2.0	0.7	< 2.0	< 5.0	
04/23/04	196.91	9.02	187.89	< 50	< 0.5	< 0.5	< 0.5	<1.5	
10/22/04	196.91	11.50	185.41	63	< 0.5	< 0.5	< 0.5	<1.5	
04/14/05	196.91	7.11	189.80	< 50	< 0.5	< 0.5	< 0.5	<1.5	
10/14/05	196.91	11.90	185.01	160	< 0.5	< 0.5	0.6	< 5.0	
04/14/06	196.91	6.95	189.96	< 50	< 0.5	< 0.5	< 0.5	<1.5	
10/26/06	196.91	11.68	185.23	< 50	< 0.5	< 0.5	< 0.5	<1.5	
04/13/07 <sup>6</sup>	196.91	10.71	186.20	1,200	3.4	< 5.0	2.1	<20	
10/22/07	196.91	13.75	183.16	< 50	< 0.5	< 0.5	< 0.5	<1.5	
04/21/08	196.91	9.95	186.96	120	< 0.5	< 0.5	< 0.5	<1.5	
10/15/08	196.91	14.30	182.61	< 50	< 0.5	< 0.5	< 0.5	<1.5	
04/15/09	196.91	9.20	187.71	< 50	< 0.5	< 0.5	< 0.5	<1.5	
10/01/09	196.91	14.26	182.65	< 50	< 0.5	< 0.5	< 0.5	<1.5	
04/12/10	196.91	7.04	189.87	<50	<0.5	<0.5	<0.5	<1.5	
MW-2									
01/03/01	197.35	12.48	184.87	$2,100^2$	110	11	63	25	83/2.2 <sup>3</sup>
04/25/01	197.35	8.90	188.45	$1,700^4$	150	12	30	15	$150/<2.0^3$
07/09/01	197.35	11.44	185.91	$2,500^5$	200	21	55	26	<50
04/08/02	197.35	13.37	183.98	4,200	87	2.8	29	9.8	<2.5
01/13/02	197.35	6.55	190.80	410	20	2.9	<2.5	4.4	$27/<2.0^3$
04/08/02	197.35	8.37	188.98	4,000	70	1.7	17	17	<2.5
10/15/02	197.35	13.00	184.35	3,100	41	2.2	16	<6.0	~2.3
04/15/03	197.35	7.58	189.77	2,400	37	<2.5	12	<7.5	
10/31/03	197.35	13.02	184.33	2,300	12	3.4	4.8	<7.5	
10/31/03	171.33	13.02	107.33	2,300	12	J. <del>T</del>	7.0	1.5	

Table 1
Groundwater Monitoring Data and Analytical Results

Former Chevron Service Station #209339 5940 College Avenue Oakland, California

					California				
WELL ID/	TOC*	DTW	GWE	TPH-GRO	В	Т	E	X	MTBE
DATE	(ft.)	(ft.)	(msl)	$(\mu g/L)$	(μg/L)	(μg/L)	(μg/L)	(μg/L)	(μg/L)
MW-2 (cont)									
04/23/04	197.35	8.38	188.97	960	8.9	1.0	2.4	<1.5	
10/22/04	197.35	11.41	185.94	2,200	24	<2.5	4.1	<10	
04/14/05	197.35	6.69	190.66	640	2.1	< 2.0	< 2.0	7.5	
10/14/05	197.35	11.14	186.21	1,200	6.9	<2.5	<2.5	<7.5	
04/14/06	197.35	6.54	190.81	180	< 0.5	< 0.5	< 0.5	< 5.0	
10/26/06	197.35	11.02	186.33	550	<2.0	0.5	< 2.0	<10	
$04/13/07^6$	197.35	9.95	187.40	< 50	< 0.5	< 0.5	< 0.5	<1.5	
10/22/07	197.35	12.63	184.72	3,200	12	< 5.0	4.7	<20	
04/21/08	197.35	9.31	188.04	860	1.0	< 2.07	< 2.07	<10 <sup>7</sup>	
10/15/08	197.35	13.71	183.64	480	1.3	0.8	1.1	< 5.0 <sup>8</sup>	
04/15/09	197.35	8.79	188.56	370	0.7	1.3	0.9	6.5	
10/01/09	197.35	13.67	183.68	< 50	< 0.5	< 0.5	< 0.5	<1.5	
04/12/10	197.35	6.62	190.73	310	1.0	<0.5	0.5	<1.5	
TRIP BLANK									
TB-LB				~0	0.50		0.70	0.70	
01/03/01				<50	<0.50	<0.50	<0.50	<0.50	<2.5
04/25/01				<50	<0.50	<0.50	<0.50	< 0.50	<2.5
07/09/01			<del></del>	<50	< 0.50	< 0.50	< 0.50	< 0.50	<2.5
QA				70	0.50	0.50	0.50	1.5	2.5
10/08/01				<50	<0.50	<0.50	<0.50	<1.5	<2.5
01/13/02				<50	<0.50	<0.50	<0.50	< 0.50	<2.5
04/08/02				<50	<0.50	<0.50	<0.50	<1.5	<2.5
10/15/02				<50	<0.50	<0.50	<0.50	<1.5	
04/15/03				<50	<0.5	<0.5	<0.5	<1.5	
10/31/03				<50	<0.5	<0.5	<0.5	<1.5	
04/23/04				<50	<0.5	<0.5	<0.5	<1.5	
10/22/04				<50	<0.5	<0.5	<0.5	<1.5	
04/14/05				<50	<0.5	<0.5	<0.5	<1.5	
10/14/05				<50	<0.5	<0.5	<0.5	<1.5	
04/14/06				<50	<0.5	<0.5	<0.5	<1.5	
10/26/06				<50	<0.5	<0.5	<0.5	<1.5	
04/13/07				< 50	< 0.5	< 0.5	< 0.5	<1.5	

# Table 1 Groundwater Monitoring Data and Analytical Results

Former Chevron Service Station #209339 5940 College Avenue Oakland, California

WELL ID/	TOC*	DTW	GWE	TPH-GRO	В	T	E	X	MTBE
DATE	(ft.)	(ft.)	(msl)	(μg/L)	(μg/L)	(μg/L)	(μg/L)	(μg/L)	(µg/L)
QA (cont)									
10/22/07				< 50	< 0.5	< 0.5	< 0.5	<1.5	
04/21/08				< 50	< 0.5	< 0.5	< 0.5	<1.5	
10/15/08				< 50	< 0.5	< 0.5	< 0.5	<1.5	
04/15/09				< 50	< 0.5	< 0.5	< 0.5	<1.5	
10/01/09				< 50	< 0.5	< 0.5	< 0.5	<1.5	
04/12/10				< 50	< 0.5	< 0.5	< 0.5	<1.5	

#### Table 1

### **Groundwater Monitoring Data and Analytical Results**

Former Chevron Service Station #209339 5940 College Avenue Oakland, California

#### **EXPLANATIONS:**

TOC = Top of Casing TPH = Total Petroleum Hydrocarbons X = Xylenes

 $(ft.) = Feet \qquad \qquad GRO = Gasoline \ Range \ Organics \qquad \qquad MTBE = Methyl \ Tertiary \ Butyl \ Ether$ 

DTW = Depth to Water B = Benzene  $(\mu g/L) = Micrograms per liter$  GWE = Groundwater Elevation T = Toluene --= Not Measured/Not Analyzed (msl) = Mean sea level E = Ethylbenzene QA = Quality Assurance/Trip Blank

- <sup>3</sup> MTBE by EPA Method 8260.
- Laboratory report indicates gasoline C6-C12 + unidentified hydrocarbons <C6.</p>
- Laboratory report indicates gasoline C6-C12 + unidentified hydrocarbons C6-C12.
- Current laboratory analytical results do not coincide with historical data, although the laboratory results were confirmed.
- Laboratory report indicates that due to the presence of interferent near their retention time, normal reporting limits were not attained for toluene, ethylbenzene, and total xylenes. The presence or concentration of these compounds cannot be determined below the reporting limits due to the presence of these interferents.
- Laboratory report indicates that due to the presence of an interferent near its retention time, the normal reporting limit was not attained for total xylenes. The presence or concentration of this compound cannot be determined due to the presence of this interferent.

<sup>\*</sup> TOC elevations were surveyed on December 27, 2000, by Virgil Chavez Land Surveying. The benchmark used for the survey was a City of Oakland benchmark being a cut square in the top of curb, at the curb return at the northeast corner of College Avenue and Miles Avenue, (Benchmark Elev. = 179.075 feet, msl).

Laboratory report indicates unidentified hydrocarbons C6-C12.

<sup>&</sup>lt;sup>2</sup> Laboratory report indicates gasoline C6-C12.

Table 2
Groundwater Analytical Results - Oxygenate Compounds

Former Chevron Service Station #209339 5940 College Avenue Oakland, California

WELL ID	DATE	ETHANOL (μg/L)	TBA (μg/L)	MTBE (μg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	1,2-DCA (μg/L)
MW-1	01/03/01	<500	<50	<2.0	<2.0	<2.0	<2.0	<2.0
	04/25/01		<20	<2.0	<2.0	<2.0	<2.0	
MW-2	01/03/01	<500	<50	2.2	<2.0	<2.0	<2.0	<2.0
	04/25/01		<20	<2.0	<2.0	<2.0	<2.0	
	01/13/02		<20	<2.0	<2.0	<2.0	<2.0	

### **EXPLANATIONS:**

TBA = t-Butyl alcohol

 $MTBE = Methyl \ Tertiary \ Butyl \ Ether$ 

DIPE = di-Isopropyl ether

 $ETBE = Ethyl \ t\text{-butyl ether}$ 

TAME = t-Amyl methyl ether

1,2-DCA = 1,2-Dichloroethane

 $(\mu g/L) = Micrograms \ per \ liter$ 

-- = Not Analyzed

### **ANALYTICAL METHOD:**

EPA Method 8260 for Oxygenate Compounds

# Table 3 Groundwater Analytical Results

Former Chevron Service Station #209339 5940 College Avenue Oakland, California

	DATE	FERROUS IRON	TOTAL ALKALINITY	SULFATE AS SO <sub>4</sub>
		(mg/L)	(mg/L)	(mg/L)
MW-1	04/25/01	0.15	380	11
	07/09/01	< 0.050	410	6.8
	10/08/01	1	414	5.4
	01/13/02	$<0.10^2$	390	10
MW-2	04/25/01	0.093	680	21
	07/09/01	0.44	600	9.3
	10/08/01	1	683	3.8
	01/13/02	$<0.10^{2}$	630	7.0

### **EXPLANATIONS:**

(mg/L) = milligrams per liter

-- = Not Analyzed

### **ANALYTICAL METHODS:**

EPA Method SM 3500 Fe for Ferrous Iron EPA Method 310.1 for Total Alkalinity EPA Method 300.0 for Sulfate as  $\mathrm{SO}_4$ 

Analysis was not performed by the laboratory as requested on the Chain of Custody.

Due to sample transfer by the lab from one laboratory to another, the sample was received beyond the EPA recommended holding time.

# **Table 4** Field Measurements

Former Chevron Service Station #209339 5940 College Avenue Oakland, California

WELL ID			
MW-1	07/09/01	1.25	111
	10/08/01	1.20	64
	01/13/02 <sup>1</sup>		
MW-2	07/09/01	1.89	16
	10/08/01	1.04	58
	$01/13/02^1$		

### **EXPLANATIONS:**

D.O. = Dissolved Oxygen Concentration

(mg/L) = Milligrams per liter

ORP = Oxygen Reduction Potential

(mV) = Millivolt

-- = Not Measured

 $<sup>^{1}\,</sup>$  D.O. and ORP meter erratic; measurements not taken.