

### **RECEIVED**

11:03 am, Oct 17, 2011

Alameda County Environmental Health Olivia Skance Team Lead Marketing Business Unit Chevron Environmental Management Company 6101 Bollinger Canyon Road San Ramon, CA 94583 Tel (925) 790-6521

October 11, 2011

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

Re:

Chevron Facility # 9-4612

Address: 3616 San Leandro Street, Oakland, California

I have reviewed the attached report titled <u>2011 Annual Groundwater Monitoring Report</u> and dated October 11, 2011.

I agree with the conclusions and recommendations presented in the referenced report. The information in this report is accurate to the best of my knowledge and all local Agency/Regional Board guidelines have been followed. This 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.

Sincerely,

Olivia Skance Project Manager

Enclosure: Report



10969 Trade Center Drive Rancho Cordova, California 95670

Telephone: (916) 889-8900 Fax: (916) 889-8999

http://www.craworld.com

October 11, 2011

Reference No. 611996

Mr. Mark Detterman, PG, CEG Alameda County Environmental Health (ACEH) 1131 Harbor Bay Parkway, Suite 250 Alameda, California 94502-6577

Re: 2011 Annual Groundwater Monitoring Report Former Chevron Service Station 9-4612

3616 San Leandro Street Oakland, California LOP Case #RO0000233

Dear Mr. Detterman:

Conestoga-Rovers & Associates (CRA) has prepared this 2011 Annual Groundwater Monitoring Report (report) for the site referenced above (Figure 1) on behalf of Chevron Environmental Management Company (Chevron). The report presents the results of the sampling of wells VH-1 and MW-2 through MW-4 during third quarter 2011. In a letter dated June 30, 2011 (Technical Comments 2 and 3) (Attachment A), ACEH requested the resumption of groundwater monitoring at the site, which had been temporarily suspended while the case was reviewed for possible closure. Groundwater monitoring and sampling was performed by Gettler-Ryan Inc. (G-R) of Dublin, California. A copy of G-R's September 21, 2011 Groundwater Monitoring and Sampling Report is included as Attachment B. Current and historical groundwater monitoring data are presented in Tables 1 through 5 of Attachment B. The attached Figure 2 (Concentration Map) presents the analytical results along with a rose diagram. The monitoring results from the current event are discussed below. Please note that in the June 30, 2011 letter, ACEH requested submission of this report by September 16, 2011; however, in an e-mail to CRA on September 12, 2011, ACEH granted an extension of this due date to October 15, 2011.

### 2011 ANNUAL GROUNDWATER MONITORING RESULTS

Petroleum hydrocarbon concentrations in the site wells during the current event were similar to or less than those observed during 2010. Total petroleum hydrocarbons as gasoline (TPHg) were detected in VH-1, MW-2, and MW-3 at concentrations ranging from 2,500 to 3,700 micrograms per liter [ $\mu$ g/L]. The TPHg concentrations in these wells have remained relatively stable over the last several years, but have decreased since the start of monitoring. TPHg was not detected in MW-4 during the current event and generally has not

Equal Employment Opportunity Employer



October 11, 2011 Reference No. 611996

- 2 -

been detected in this well since 2002. Benzene was only detected in VH-1 ( $12 \mu g/L$ ) and MW-2 ( $1 \mu g/L$ ). The benzene concentrations in these wells have also remained relatively stable over the last several years; but have significantly decreased since the start of monitoring. Benzene was not detected in MW-3 or MW-4, and has not been detected in these wells since at least 2006. Methyl tertiary butyl ether (MTBE) (up to  $7 \mu g/L$ ) was detected in VH-1, MW-2, and MW-3. The MTBE concentrations in VH-1 and MW-2 continue to steadily decrease, while those in MW-3 have remained relatively stable over the last several years. MTBE was not detected in MW-4 and generally has not been detected in this well. The MTBE appears to be due to an offsite source as the station at the site was demolished in 1976, prior to the use of MTBE in California.

Historically, TPH as diesel (TPHd) has consistently been detected in MW-3 (generally less than 1,000  $\mu g/L$ ). However, weathered diesel, weathered gasoline, and natural organic matter are known to generate false positive results for diesel in the TPHd range due to polar interference. To evaluate how much of that reported as TPHd may actually be diesel fuel, the sample from MW-3 during the current event was analyzed for TPHd both with and without the use of a silica gel cleanup prior to analysis. A more stringent silica gel cleanup procedure (10 gram mass column cleanup with a capric acid reverse surrogate) was used as it has been shown to be more effective in removing polar non-hydrocarbon interferences. A lower result (250  $\mu g/L$ ) was reported using the silica gel cleanup procedure compared to that without (500  $\mu g/L$ ), indicating there is some outside interference. We plan to include this method during any future events. Based on a station as-built site plan, diesel does not appear to have been dispensed at the site; therefore, the TPHd also may be due to an offsite source. Regardless, only a low TPHd concentration remains.



October 11, 2011 Reference No. 611996

The analytical results of the current sampling event are presented below in Table A:

	TABLE	E A: GROU	JNDWATER	ANALYTIC	CAL DATA - 8/22/	11	
Well ID	TPHd (µg/L)	TPHg (μg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	MTBE (μg/L)
VH-1	NA	3,400	12	2	0.8	3	7
MW-2	NA	3,700	1	0.6	1	0.9	3
MW-3	500/250*	2,500	<0.5	<0.5	<0.5	<1	2
MW-4	NA	<50	<0.5	<0.5	<0.5	<0.5	<0.5

μg/L micrograms per Liter

NA Not analyzed

Indicates constituent was not detected at or above stated laboratory reporting limit

\* Analysis following silica gel cleanup (10g mass column; capric acid used as reverse surrogate)

In Technical Comment 2 of the June 30, 2011 letter, ACEH requested that the sample from MW-3 located near the former used-oil underground storage tank (UST) be analyzed for the standard list of waste oil constituents. Therefore, the sample collected from this well during the current event was also analyzed for TPH as motor oil (TPHmo) (with and without the silica gel cleanup), volatile organic compounds (VOCs), semi-VOCs, polychlorinated biphenyls (PCBs), and the five LUFT metals. TPHmo, semi-VOCs, and PCBs were not detected. VOCs (other than MTBE) generally were not detected with the exception of n-Butylbenzene (3  $\mu$ g/L), sec-Butylbenzene (3  $\mu$ g/L), tert-Butylbenzene (4  $\mu$ g/L), and naphthalene (2  $\mu$ g/L). The detected metals concentrations were as follows: cadmium (2.6  $\mu$ g/L), chromium (173  $\mu$ g/L), lead (8.3  $\mu$ g/L), nickel (308  $\mu$ g/L), and zinc (123  $\mu$ g/L).

### CONCLUSIONS AND RECOMMENDATIONS

Based on the analytical results, impacted groundwater (primarily TPHg) remains beneath the site in the area of the former USTs and dispensers. However, as mentioned above, an offsite source appears to be contributing to site impacts. Concentrations in the onsite wells are stable to decreasing. Several gasoline-related VOCs and metals were detected in the sample collected from MW-3; however, the concentrations were not elevated and thus do not appear to be a significant concern. The former used-oil UST does not appear to have significantly impacted groundwater and we recommend no further analysis for waste oil constituents.

As requested by ACEH, CRA submitted the September 8, 2011 Work Plan for Additional Investigation to further evaluate the downgradient extent of impacted groundwater as well as



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any upgradient contributions, and we are currently awaiting a response to this document. In the meantime, as requested by ACEH, groundwater monitoring will continue on an annual basis (second quarter) to further evaluate groundwater quality and concentration trends.

We appreciate your assistance on this project and look forward to your reply. Please contact Mr. James Kiernan at (916) 889-8917 if you have any questions or require additional information.

Sincerely,

**CONESTOGA-ROVERS & ASSOCIATES** 

PROFESSIONAL
RED PROFES

James P. Kiernan, P.E.

JK/aa/9 Encl.

Figure 1 Vicinity Map

Figure 2 Concentration Map

Attachment A ACEH Letter Dated June 30, 2011

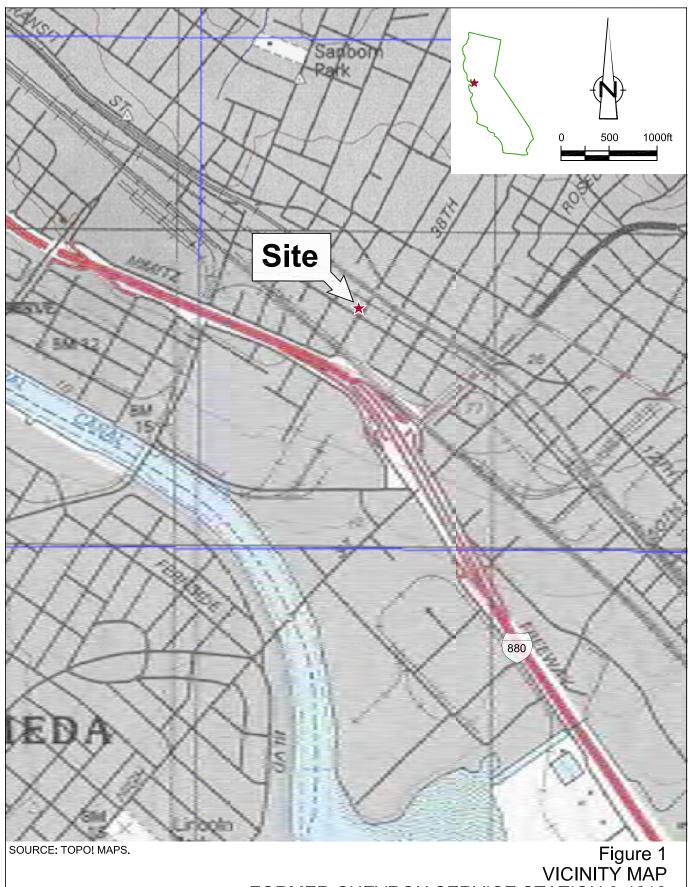
Attachment B Groundwater Monitoring and Sampling Report

cc: Ms. Olivia Skance, Chevron (electronic copy)

Mr. Leonard B. Ratto, Ratto Land Company

Mr. Terry McIlraith

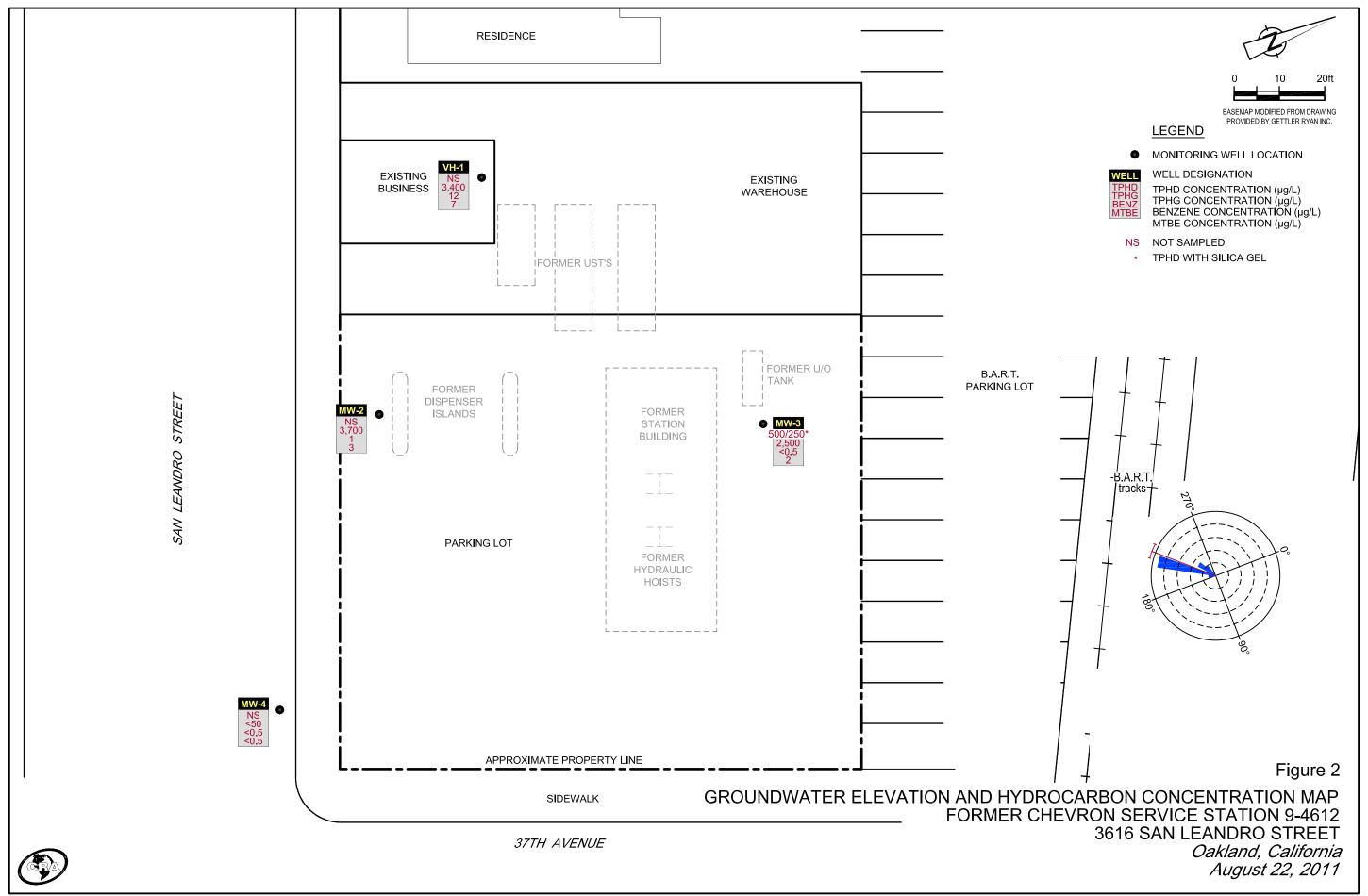
**FIGURES** 



FORMER CHEVRON SERVICE STATION 9-4612

3616 SAN LEANDRO STREET Oakland, California





### ATTACHMENT A

ACEH LETTER DATED JUNE 30, 2011

### **HEALTH CARE SERVICES**

### AGENCY



ALEX BRISCOE, Director

June 30, 2011

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

Ms. Stacie H. Frerichs Chevron Environmental Management 6001 Bollinger Canyon Rd K2256 PO Box 6012

Mr. John Ratto Ratto Land Company P.O. Box 6104 Oakland, CA 94603-0104 Ms. Vivian McIlraith Vivian L. McIlraith Trust 407 Castello Road Lafayette, CA 94549

San Ramon, CA 94583-2324 (sent via electronic mail to staciehf@chevron.com)

Subject: Request for Data Gap Work Plan, Fuel Leak Case No. RO0000233 (Global ID #

T0600100333), Chevron #9-4612, 3616 San Leandro Street, Oakland, 94601

Dear Ms. Frerichs, Mr. Ratto, and Ms McIlraith:

Alameda County Environmental Health (ACEH) staff has reviewed the case file for the above referenced site including the report entitled, *Case Closure Request*, dated February 2, 2009. The report was submitted on your behalf by Conestoga-Rovers & Associates (CRA). Case review has identified a number of data gaps that indicate that this case cannot proceed to closure at this time.

As discussed further in the technical comments below, this fuel leak case cannot be closed at this time. This decision is subject to appeal to the State Water Resources Control Board (SWRCB), pursuant to Section 25299.39(b) of the Health and Safety Code (Thompson-Richter Underground Storage Tank Reform Act - Senate Bill 562). Please contact Mr. George Lockwood in the SWRCB Underground Storage Tank Program at (916) 341-5752 or <a href="mailto:GLockwood@waterboards.ca.gov">GLockwood@waterboards.ca.gov</a> for information regarding the appeal process.

Based on the review of the case file and the referenced report ACEH requests that you address the following technical comments and send us the documents requested below.

#### **TECHNICAL COMMENTS**

- Contaminant Underflow Migration or the Depth of Residual Soil & Groundwater Contamination

   ACEH is concerned that contaminant migration beneath and downgradient of the site is utilizing deeper water-bearing granular zones not adequately characterized to allow an understanding of any associated downgradient health risks. This is based on the following observations:
  - a. The depth to groundwater as encountered at the time of drilling in February 1988 in geotechnical bore holes B-1 to B-3 and the depth noted for "strong gasoline odor" (14 feet and 20 feet below grade surface [bgs], respectively).
  - b. The depth of groundwater as encountered at the time of drilling in August 1988 in monitoring well VH-1 (22.5 feet bgs). Two soil samples collected from this well bore at 20.5 and 25.5 feet bgs appear to help define "at depth" soil concentrations at this location.
  - c. The depth of groundwater as encountered at the time of drilling in August 1995 in soil bore SB-1 (approximately 15 to 19 feet bgs), the near lack of PID detections above that depth, the low PID detections (40 PID units) at 21 feet bgs, the low concentrations in soil (16 mg/kg TPHg <0.005 mg/kg benzene) at 21 feet bgs, and the elevated concentration in the grab</p>

Ms. Frerichs, Mr. Ratto, and Ms McIlraith RO0000233 June 30, 2011, Page 2

groundwater collected thereafter  $(21,000\mu g/l\ TPHg,\ 240\ \mu g/l\ benzene)$ . Groundwater was specifically not encountered in SB-1 in the silty sand at a depth between approximately 10 and 12 feet bgs, comparable to the depth of groundwater sampling in bore SB-2 installed in May 2008 and stated to define the lateral extent of groundwater impacts at SB-1.

- d. The depth of groundwater as encountered at the time of drilling in February 1993 in well bore MW-2 (approximately 8.5 feet bgs), the lack of detectable soil concentrations at the depths of 5 and 10 feet bgs, and the elevated PID detections at depths of 15 and 19 feet bgs (2,800 and 1,050 PID units respectively) without analysis of soil samples.
- e. The depth of (ground) water as encountered at the time of drilling in March 2002 of soil bores HA-1 to HA-3 (7 to 8 feet bgs) used to investigate potential utility conduits, and the non-detectable concentrations in the grab groundwater samples. The shallowness of these grab groundwater samples renders the elevated PID detections in well MW-2 (and grab groundwater in SB-1) undefined.

These lines of evidence can be interpreted at least two ways. CRA has suggested that both MTBE and TPHd (the later at MW-3) appear to be from offsite sources, in part pointing to either a gasoline release site approximately 700 feet upgradient with elevated MTBE concentrations in downgradient wells (Tony's express Auto Service, T0600101680 or RO0000265) or the adjacent BART parking lot with apparently low hydrocarbon concentrations (Fruitvale Transit Village, SL0600154423), while also acknowledging an onsite contribution. An alternate interpretation, while not discounting potential upgradient sources in part, also accounts for drought induced drawdown of groundwater at the time of a release, consistent with deeper groundwater apparently encountered previously at the site and indications of contamination below groundwater. Onsite, groundwater concentrations increase downgradient and suggest that an evaluation of the offsite downgradient contaminant load beneath the depth explored by HA-1 to HA-3 is warranted. While not discussed in the sensitive receptor survey, the downgradient neighborhood appears to consist of a mixed commercial and residential community (Site Conceptual Model, December 14, 2000, Delta Environmental Consultants). It may also be appropriate as a part of this characterization, to quantify the upgradient contribution to the site contaminant load, currently limited to well MW-3 in the vicinity of the former used oil UST, contaminants that could potentially be confused with an onsite source. ACEH requests submittal of a work plan to address these data gaps by the date identified below.

- 2. **Motor Oil Constituents** Well MW-3 was installed adjacent to the former used oil UST, but both soil and groundwater do not appear to have been analyzed for typical used oil constituents as defined by existing guidelines. A range of footnotes contained in groundwater monitoring reports for well MW-3, including the most recent, indicate unidentified hydrocarbons, unidentified hydrocarbons <C16, unidentified hydrocarbons C9 C17, atypical #2 fuel / diesel eluting before and later than typical #2 fuel, and etc. These footnotes can indicate both non-fuel compounds as well as hydrocarbons heavier than diesel range, as could be expected adjacent to a former used oil UST. Please collect and submit groundwater samples for the standard used oil constituents (TPHmo, halogenated solvents, the five metals, and PCBs, by standard analytical methods) during the next scheduled groundwater monitoring event, and submit the results in the associated groundwater monitoring report. Please additionally provide an interpretation of any non-fuel related compounds detected.
- 3. **Groundwater Monitoring** Please place the subject site on an annual groundwater monitoring basis utilizing the second quarter of the year for the initial resumed groundwater monitoring event. Please continue with the same analytical suite previously utilized, except for well MW-3 as noted above. Please submit the report by the date identified below.

Ms. Frerichs, Mr. Ratto, and Ms McIlraith RO0000233 June 30, 2011, Page 3

#### **TECHNICAL REPORT REQUEST**

Please submit the following deliverables and technical reports to ACEH (Attention: Mark Detterman), according to the following schedule:

- September 9, 2011 Data Gap Work Plan
- September 16, 2011 Annual Groundwater Monitoring Report

These reports are being requested pursuant to California Health and Safety Code Section 25296.10. 23 CCR Sections 2652 through 2654, and 2721 through 2728 outline the responsibilities of a responsible party in response to an unauthorized release from a petroleum UST system, and require your compliance with this request.

Should you have any questions, please contact me at (510) 567--6876 or send me an electronic mail message at mark.detterman@acgov.org.

Sincerely,

Digitally signed by Mark E. Detterman

DN: cn=Mark E. Detterman, o, ou, email, c=US Date: 2011.06.30 15:55:06 -07'00'

Mark E. Detterman, PG, CEG

Senior Hazardous Materials Specialist

**Enclosures:** Attachment 1 – Responsible Party (ies) Legal Requirements / Obligations

Electronic Report Upload (ftp) Instructions

James Kiernan, 10969 Trade Center Drive, Suite 106, Rancho Cordova, CA 95670 CC:

(sent via electronic mail to jkiernan@craworld.com)

Donna Drogos, ACEH, (sent via electronic mail to <a href="mailto:donna.drogos@acgov.org">donna.drogos@acgov.org</a>) Mark Detterman, ACEH, (sent via electronic mail to mark.detterman@acgov.org)

Geotracker, e-File

#### Attachment 1

### Responsible Party(ies) Legal Requirements / Obligations

#### REPORT REQUESTS

These reports are being requested pursuant to California Health and Safety Code Section 25296.10. 23 CCR Sections 2652 through 2654, and 2721 through 2728 outline the responsibilities of a responsible party in response to an unauthorized release from a petroleum UST system, and require your compliance with this request.

#### **ELECTRONIC SUBMITTAL OF REPORTS**

ACEH's Environmental Cleanup Oversight Programs (LOP and SLIC) require submission of reports in electronic form. The electronic copy replaces paper copies and is expected to be used for all public information requests, regulatory review, and compliance/enforcement activities. Instructions for submission of electronic documents to the Alameda County Environmental Cleanup Oversight Program FTP site are provided on the attached "Electronic Report Upload Instructions." Submission of reports to the Alameda County FTP site is an addition to existing requirements for electronic submittal of information to the State Water Resources Control Board (SWRCB) GeoTracker website. In September 2004, the SWRCB adopted regulations that require electronic submittal of information for all groundwater cleanup programs. For several years, responsible parties for cleanup of leaks from underground storage tanks (USTs) have been required to submit groundwater analytical data, surveyed locations of monitoring wells, and other data to the GeoTracker database over the Internet. Beginning July 1, 2005, these same reporting requirements were added to Spills, Leaks, Investigations, and Cleanup (SLIC) sites. Beginning July 1, 2005, electronic submittal of a complete copy of all reports for all sites is required in GeoTracker (in PDF format). Please **SWRCB** website information on these requirements visit the for more (http://www.waterboards.ca.gov/water issues/programs/ust/electronic submittal/).

#### **PERJURY STATEMENT**

All work plans, technical reports, or technical documents submitted to ACEH must be accompanied by a cover letter from the responsible party that states, at a minimum, the following: "I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge." This letter must be signed by an officer or legally authorized representative of your company. Please include a cover letter satisfying these requirements with all future reports and technical documents submitted for this fuel leak case.

### PROFESSIONAL CERTIFICATION & CONCLUSIONS/RECOMMENDATIONS

The California Business and Professions Code (Sections 6735, 6835, and 7835.1) requires that work plans and technical or implementation reports containing geologic or engineering evaluations and/or judgments be performed under the direction of an appropriately registered or certified professional. For your submittal to be considered a valid technical report, you are to present site specific data, data interpretations, and recommendations prepared by an appropriately licensed professional and include the professional registration stamp, signature, and statement of professional certification. Please ensure all that all technical reports submitted for this fuel leak case meet this requirement.

#### UNDERGROUND STORAGE TANK CLEANUP FUND

Please note that delays in investigation, later reports, or enforcement actions may result in your becoming ineligible to receive grant money from the state's Underground Storage Tank Cleanup Fund (Senate Bill 2004) to reimburse you for the cost of cleanup.

### **AGENCY OVERSIGHT**

If it appears as though significant delays are occurring or reports are not submitted as requested, we will consider referring your case to the Regional Board or other appropriate agency, including the County District Attorney, for possible enforcement actions. California Health and Safety Code, Section 25299.76 authorizes enforcement including administrative action or monetary penalties of up to \$10,000 per day for each day of violation.

# Alameda County Environmental Cleanup Oversight Programs (LOP and SLIC)

**REVISION DATE:** July 20, 2010

ISSUE DATE: July 5, 2005

**PREVIOUS REVISIONS:** October 31, 2005; December 16, 2005; March 27, 2009; July 8, 2010

**SECTION:** Miscellaneous Administrative Topics & Procedures

SUBJECT: Electronic Report Upload (ftp) Instructions

The Alameda County Environmental Cleanup Oversight Programs (LOP and SLIC) require submission of all reports in electronic form to the county's ftp site. Paper copies of reports will no longer be accepted. The electronic copy replaces the paper copy and will be used for all public information requests, regulatory review, and compliance/enforcement activities.

#### REQUIREMENTS

- Please do not submit reports as attachments to electronic mail.
- Entire report including cover letter must be submitted to the ftp site as a single portable document format (PDF) with no password protection.
- It is preferable that reports be converted to PDF format from their original format, (e.g., Microsoft Word) rather than scanned.
- Signature pages and perjury statements must be included and have either original or electronic signature.
- <u>Do not</u> password protect the document. Once indexed and inserted into the correct electronic case file, the
  document will be secured in compliance with the County's current security standards and a password. <u>Documents</u>
  with password protection <u>will not</u> be accepted.
- Each page in the PDF document should be rotated in the direction that will make it easiest to read on a computer monitor.
- Reports must be named and saved using the following naming convention:

RO#\_Report Name\_Year-Month-Date (e.g., RO#5555\_WorkPlan\_2005-06-14)

#### **Submission Instructions**

- 1) Obtain User Name and Password
  - a) Contact the Alameda County Environmental Health Department to obtain a User Name and Password to upload files to the ftp site.
    - i) Send an e-mail to deh.loptoxic@acgov.org
  - b) In the subject line of your request, be sure to include "ftp PASSWORD REQUEST" and in the body of your request, include the Contact Information, Site Addresses, and the Case Numbers (RO# available in Geotracker) you will be posting for.
- 2) Upload Files to the ftp Site
  - a) Using Internet Explorer (IE4+), go to ftp://alcoftp1.acgov.org
    - (i) Note: Netscape, Safari, and Firefox browsers will not open the FTP site as they are NOT being supported at this time.
  - b) Click on Page located on the Command bar on upper right side of window, and then scroll down to Open FTP Site in Windows Explorer.
  - c) Enter your User Name and Password. (Note: Both are Case Sensitive.)
  - d) Open "My Computer" on your computer and navigate to the file(s) you wish to upload to the ftp site.
  - e) With both "My Computer" and the ftp site open in separate windows, drag and drop the file(s) from "My Computer" to the ftp window.
- 3) Send E-mail Notifications to the Environmental Cleanup Oversight Programs
  - a) Send email to <a href="mailto:deh.loptoxic@acgov.org">deh.loptoxic@acgov.org</a> notify us that you have placed a report on our ftp site.
  - b) Copy your Caseworker on the e-mail. Your Caseworker's e-mail address is the entire first name then a period and entire last name @acgov.org. (e.g., firstname.lastname@acgov.org)
  - c) The subject line of the e-mail must start with the RO# followed by **Report Upload**. (e.g., Subject: RO1234 Report Upload) If site is a new case without an RO#, use the street address instead.
  - d) If your document meets the above requirements and you follow the submission instructions, you will receive a notification by email indicating that your document was successfully uploaded to the ftp site.

### ATTACHMENT B

GROUNDWATER MONITORING AND SAMPLING REPORT



September 21, 2011 G-R Job #386473

Ms. Stacie H. Frerichs Chevron Environmental Management Company 6111 Bollinger Canyon Road, Room 3596 San Ramon, CA 94583

RE: Special Event of August 22, 2011

Groundwater Monitoring & Sampling Report Former Chevron Service Station #9-4612 3616 San Leandro Street Oakland, California

#### Dear Ms. Frerichs:

This report documents the most recent groundwater monitoring and sampling event performed by Gettler-Ryan Inc. (G-R) at the referenced site. All field work was conducted in accordance with G-R Standard Operating Procedure - Groundwater Sampling (attached).

Static groundwater levels were measured and the wells were checked for the presence of separate-phase hydrocarbons. Static water level data, groundwater elevations, and separate-phase hydrocarbon thickness (if any) are presented in the attached Table 1. A Potentiometric Map is included as Figure 1.

Groundwater samples were collected from the monitoring wells and submitted to a state certified laboratory for analyses. The field data sheets for this event are attached. Analytical results are presented in the table(s) listed below. The chain of custody document and laboratory analytical report are also attached. All groundwater and decontamination water generated during sampling activities was removed from the site, per the Standard Operating Procedure.

Please call if you have any questions or comments regarding this report. Thank you.

Sincerely,

Deanna L. Harding Project Coordinator

Douglas J. Lee

Senior Geologist, P.G. No. 6882

Figure 1: Potentiometric Map

Table 1: Groundwater Monitoring Data and Analytical Results

Table 2: Dissolved Oxygen Concentrations

Table 3: Groundwater Analytical Results - Oxygenate Compounds

Table 4: Groundwater Analytical Results

Table 5: Groundwater Analytical Results - PCBs

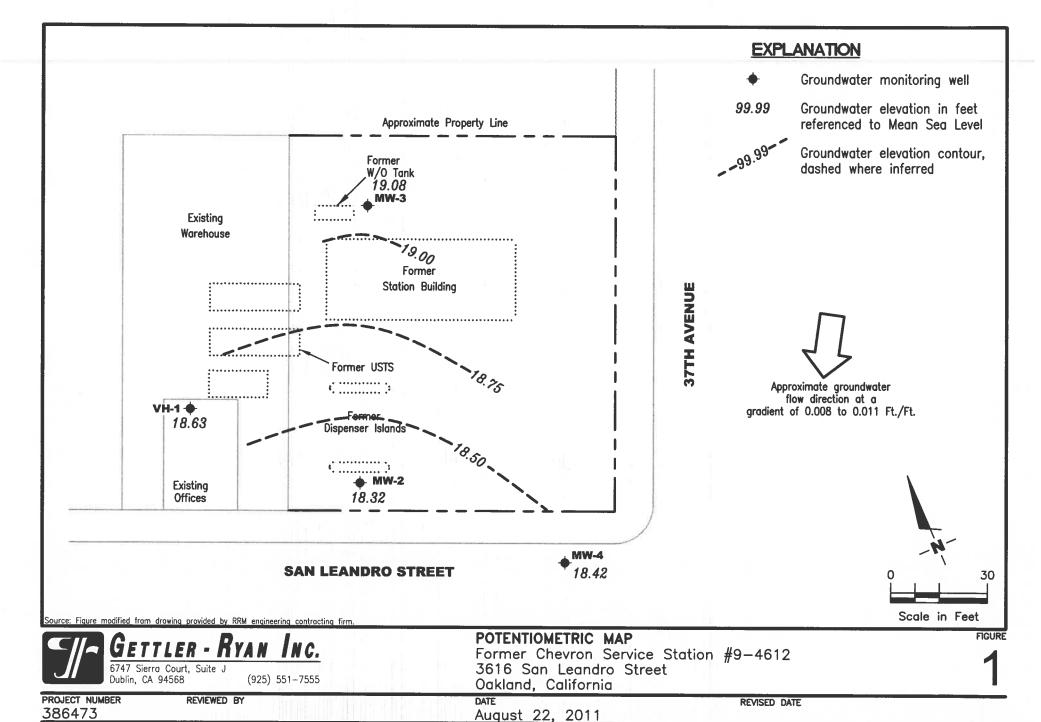
Attachments: Standard Operating Procedure - Groundwater Sampling

Field Data Sheets

Chain of Custody Document and Laboratory Analytical Reports

No. 6882

OF CALLY



FILE NAME: P:\Enviro\Chevron\9-4612\Q11-9-4612.dwg | Layout Tab: Pot3

					Oakland	l, California						
WELL ID/	TOC*	GWE	DTW	трн-мо	TPH-DRO	TPH-GRO	В	T	E	X	MTBE	TOG
DATE	(fi.)	(mst)	(fl.)	(µg/L)	(μg/L)	(μg/ <b>L</b> )	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
VH-1												1. AF G. 1. 7
08/10/88			13.00			11,000	3,300	200	520	540		
06/01/89			10.32			15,000	2,200	120	520	540		
09/15/89			15.69			5,600	1,900	90	540	310		
12/08/89		••	14.77			11,000	1,900	90 69	350	160		
03/07/91			11.26			4,500	820	39	270	99		
09/24/91			12.98			3,300	520	39 19	120 39	77		
01/08/92		••	13.77			5,000	600	34		27		
04/20/92			8.18			7,400	670	60	81	76		
03/26/93	27.85	21.14	6.71			4,900	600	40	110	140		
05/27/93	27.85	19.27	8.58			13,000	1,600	120	72	94		
08/18/93	27.85	17.39	10.46			2,700	210	10	230	220		
11/03/93	27.85	15.28	12.57			4,600	680	42	8.1	18		
02/10/94	27.85	18.77	9.08			1,900	260	19	35	68		
05/12/94	27.85	19.76	8.09			2,000	390	28	22	29		
08/26/94	27.85	17.10	10.75			4,900	500	<5.0	3.9	29		
11/14/94	27.85	18.40	9.45			760	69	<2.0	23	31		
02/01/95	27.85	21.88	5.97			1,300	120	5.9	<2.0 <0.5	2.2		
05/12/95	27.85	20.14	7.71			4,400	460	3.9		13		
08/22/95	27.85	18.59	9.26			2,900	310	15	45	49		••
12/19/95	27.85	19.05	8.80			930	53	<2.5	28	32	20	
01/31/96	27.85	22.35	5.50			3,700	320	<10	<2.5	<2.5	39	
04/30/96	27.85	19.81	8.04			3,900	270	<20	41	40	180	
08/01/96	27.85	18.67	9.18			2,700	140	11	<20 18	<20	120	
10/30/96	27.85	18.67	10.76			2,700	140	<12		28	200	
02/07/97	27.85	19.75	8.10			220	13	0.6	<12 <0.5	<12	280	
05/07/97	27.85	18.33	9.52	••		5,200	33	12	21	1.6	15	
07/22/97	27.85	17.43	10.42			4,200	80	<10	16	26	330	
11/03/97	27.85	16.85	11.00	••		2,400	150	6.8	6.5	24	400	
01/28/98	27.85	20.75	7.10			850	69	4.8		9.5	510 38/48 <sup>12</sup>	
05/08/98	27.85	20.14	7.71			4,200	200	30	5.0 40	11	38/48 <sup>-2</sup> 310/200 <sup>12</sup>	
07/29/98	27.85	18.40	9.45			3,800	54	10	27	42	310/200 35/290 <sup>12</sup>	
11/06/98	27.85	17.15	10.70	-		4,800	100	20		30		
02/09/99 <sup>5</sup>	27.85	21.87	5.98			2,950	79.5	<10	12	23	360/210 <sup>12</sup>	
05/13/99	27.85	19.71	8.14			4,180	79.5 147		<10	<10	435/312 <sup>12</sup>	
09/07/99	27.85	17.94	9.91			2,750		12.8	16.5	20.3	433245 <sup>12</sup>	
11/24/99	27.85	17.36	10.49			2,750	57.6	<5.0	6.53	<5.0	297/233 <sup>12</sup>	
11/2	27.03	17.50	10.47			2,330	38	3.18	2.54	5.21	216 <sup>1,12</sup>	••

						Oakland	l, California						
WELL ID/		TOC*	GWE	DTW	ТРН-МО	TPH-DRO	TPH-GRO	В	1	E	X	MTBE	TOG
DATE		(ft.)	(msl)	(fl.)	(µg/L)	(µg/L)	(µg/L)	(μg/L)	(µg/L)	(µg/L)	(μg/L)	(µg/L)	(µg/L)
VH-1 (cont)				-									
02/25/00		27.85	21.20	6.65			120	2.7	< 0.5	< 0.5	<0.5	20.5/11.912	
05/10/00		27.85	19.76	8.09			1,4008	63	3.3	3.1	<0.5 4.9	20.5/11.9 230/110 <sup>12</sup>	
7/31/00 <sup>11</sup>		27.85	18.30	9.55			360 <sup>8</sup>	22	3.3 2.7	1.6	3.1	100/88 <sup>12</sup>	
10/30/0011		27.85	17.91	9.94			987 <sup>10</sup>	47.0	1.00	< 0.500	1.80	153/130 <sup>12</sup>	
02/05/01		27.91	19.23	8.68			2,670	42.7	< 5.00	<5.00	< 5.00	225/160 <sup>12</sup>	
05/07/0111		27.91	19.61	8.30			1,800 <sup>6</sup>	100	8.2	10	7.9	440/110 <sup>12</sup>	
08/06/0111		27.91	18.09	9.82			1,000 <sup>6</sup>	67	6.1	2.1	7.1	270/140 <sup>12</sup>	
11/12/01 <sup>11</sup>		27.91	17.29	10.62			220	1.2	< 0.50	< 0.50	<1.5	63/61 <sup>12</sup>	
02/11/02 <sup>11</sup>		27.91	19.83	8.08			1,700	33	<5.0	6.3	3.8	64/52 <sup>12</sup>	
05/13/0211		27.91	19.21	8.70			2,700	54	4.1	5.6	6.2	100/80 <sup>12</sup>	
08/09/0211		27.91	18.50	9.41			2,400	37	2.4	1.2	3.4	86/89 <sup>12</sup>	
11/07/02 <sup>11</sup>		27.91	17.34	10.57			150	1.3	< 0.50	<0.50	<1.5	56/50 <sup>12</sup>	
02/04/03 11		27.91	19.63	8.28			1,700	40	3.1	7.8	5.0	100/53 <sup>12</sup>	
05/05/03 <sup>11</sup>		27.91	20.41	7.50			2,100	44	3.4	3.7	5.2	96/62 <sup>12</sup>	
09/06/03 <sup>11,14</sup>		27.91	18.31	9.60			690	7	0.6	<0.5	0.6	59	
11/14/03 11,14		27.91	17.99	9.92			1,000	3	0.6	2	0.7	47	
02/13/04 14,15		27.91	19.98	7.93			2,400	30	2	4	3	47	
05/13/0414		27.91	19.24	8.67			1,900	49	4	3	5	74	
08/17/0414		27.91	18.26	9.65			1,800	11	1	0.9	2	58	
11/10/04		27.91	INACCESSIBLE										
02/08/0514		27.91	20.08	7.83			2,700	26	3	4	5	48	
06/03/0514		27.91	19.71	8.20			3,100	40	5	6	9	45	
08/05/05 <sup>14</sup>		27.91	17.81	10.10			2,500	34	4	0.6	6	46	
12/02/05 <sup>14</sup>		27.91	18.93	8.98			3,500	69	7	2	8	57	
03/03/0614	$NP^{18}$	27.91	20.66	7.25			4,100	37	6	6	8	40	
05/31/06 <sup>14</sup>	$NP^{18}$	27.91	19.74	8.17			4,100	33	5	3	8	34	
08/18/06 <sup>14</sup>		27.91	18.79	9.12			3,300	23	4	1	5	33	
11/17/06 <sup>14</sup>		27.91	18.64	9.27			3,200	18	3	0.6	3	33	
02/09/07 <sup>14</sup>	$NP^{18}$	27.91	19.53	8.38			3,600	23	4	2	5	28	
05/11/07 <sup>14</sup>	$NP^{18}$	27.91	19.53	8.38			3,200	14	3	1	5	26	
08/10/07 <sup>14</sup>	$NP^{18}$	27.91	18.41	9.50			2,400	10	2	0.6	3	21	
11/08/07 <sup>14</sup>	$NP^{18}$	27.91	18.25	9.66			3,000	10	2	0.5	2	18	
02/07/08 <sup>14</sup>	$NP^{18}$	27.91	20.76	7.15			4,000	14	3	5	5	14	
05/02/08 <sup>14</sup>	$NP^{18}$	27.91	18.96	8.95			3,000	14	3	2	4	17	
07/31/08 <sup>14</sup>	$NP^{18}$	27.91	18.23	9.68			2,700	13	2	0.8	3	14	
11/13/08 <sup>14</sup>	$NP^{18}$	27.91	17.73	10.18			2,500	6	1	<0.5	1	12	
							-,	•	•	.0.0		12	

Former Chevron Service Station #9-4612 3616 San Leandro Street

Oakland.	California

WELL ID/		TOC*	GWE	DTW	ТРН-МО	TPH-DRO	d, California TPH-GRO	В	in in the second	E	X	MATTER	TOG
DATE		(91)	(msl)	(ft.)	(µg/L)	ιFH-DKU (μg/L)	1FH-GRO (μg/L)	Β (μg/L)	(μg/L)		X (μg/L)	MTBE	
	12121212121212121	U9		<u></u>		μg/L)	(μg/L)	(μg/L)	(µg/L)	(µg/L)	(μg/L)	(µg/L)	(µg/L)
VH-1 (cont)	18		1000000	73.60									
02/02/0914	NP <sup>18</sup>	27.91	18.00	9.91		+	4,000	7	1	< 0.5	1	12	
05/01/0914	NP <sup>18</sup>	27.91	18.75	9.16		100	3,900	20	3	3	6	15	-
08/10/0914	NP <sup>18</sup>	27.91	18.24	9.67			1,400	6	1	< 0.5	1	11	
01/29/1014	NP <sup>18</sup>	27.91	20.68	7.23	-	144	3,700	24	4	5	5	13	
08/23/1014	NP <sup>18</sup>	27.91	18.63	9.28		-	3,600	18	3	2	4	9	-
08/22/1114		27,91	18.63	9.28	-	-	3,400	12	2	0.8	3	7	-
MW-2													
02/16/93		27.51					2.200						
03/26/93		27.51	10.00	7.60		-	9,200	720	110	250	170		
05/27/93			19.89	7.62	***	-						**	-
08/18/93		27.51	18.04	9.47			360	5.3	2.1	1.8	2.5		
11/03/93		27.51	16.46	11.05	- <del>- 1</del>		9,400	1,100	76	110	100	-	
		27.51	14.56	12.95	-	144	8,600	390	20	2.7	120	-	
02/10/94		27.51	17.72	9.79		-	2,700	370	38	44	41	-	
05/12/94		27.51	18.59	8.92		-	3,800	650	76	15	62		
08/26/94		27.51	16.14	11.37		•••	16,000	1,300	270	28	120	***	**
11/14/94		27.51	17.48	10.03			5,100	390	10	43	27		
02/01/95		27.51	20.47	7.04			6,900	520	82	170	110	••	
05/12/95		27.51	18.76	8.75	-	77	7,700	510	83	110	100	44	
08/22/95		27.51	17.35	10.16		-	4,500	220	16	61	47		**
12/19/95		27.51	18.05	9.46		1,44,71	2,900	240	<10	19	18	220	
01/31/96		27.51	21.91	5.60		-	3,900	320	18	72	39	<25	
04/30/96		27.51	18.68	8.83		-	5,600	200	36	55	47	170	
08/01/96		27.51	17.25	10.26	-		6,200	190	15	62	59	220	164
10/30/96		27.51	17.25	11.48	-	-	5,700	190	<25	67	36	260	++
02/07/97		27.51	18.11	9.40	-		8,300	210	34	70	59	330	
05/07/97		27.51	17.57	9.94	5 <del>5</del> 0		6,900	190	12	38	37	530	
07/22/97		27.51	16.36	11.15		4	10,000	18	25	62	41	630	
11/03/97		27.51	15.93	11.58	164		6,500	260	8.5	26	14	590/9.6 <sup>4,12</sup>	
01/28/98		27.51	19.38	8.13			6,700	65	13	67	54	280/9412	
05/08/98		27.51	18.89	8.62	199		5,500	91	38	43	61	220/6212	-
07/29/98		27.51	17.06	10.45			3,600	41	8.9	3.6	14	16/94 <sup>12</sup>	144
11/06/98		27.51	15.89	11.62	160	44	6,900	77	<5.0	14	17	290/110 <sup>12</sup>	
02/09/99 <sup>5</sup>		27.51	20.61	6.90			8,070	75.6	<10	<10	<10	397/144 <sup>12</sup>	2
05/13/99		27.51	18.21	9.30	124		5,890	120	<5.0	12.5	26.6	401/69.4 <sup>12</sup>	-

Table 1
Groundwater Monitoring Data and Analytical Results
Former Chevron Service Station #9-4612

	·				Oakland	l, California						
WELL ID/	TOC*	GWE	DTW	TPH-MO	TPH-DRO	TPH-GRO	В	T	E	X	MTBE	TOG
DATE	(ft.)	(mst)	(fl.)	(µg/L)	(µg/L)	(μg/L)	(µg/L)	(µg/L)	(µg/L)	(μg/L)	(µg/L)	(µg/L)
MW-2 (cont)									<u> </u>			
09/07/99	27.51	16.57	10.94			5,820	41.2	<5.0	14.6	<5.0	260/145 <sup>12</sup>	
11/24/99	27.51	15.98	11.53			5,940	40.9	<10	10.8	<10	120 <sup>1,12</sup>	
02/25/00	27.51	21.00	6.51			6,370	101	9.37	39.8	33.2	321/121 <sup>12</sup>	
05/10/00	27.51	18.49	9.02			$6,100^8$	110	13	27	33.2	560/120 <sup>12</sup>	
07/31/0011	27.51	17.18	10.33			3,0008	75	14	28	28	200/120 200/130 <sup>12</sup>	
10/30/0011	27.51	16.95	10.56			6,810 <sup>10</sup>	162	< 5.00	8.05	<15.0	372/140 <sup>12</sup>	
02/05/0111	28.05	18.47	9.58			5,860	28.4	6.86	16.2	11.8	285/140 <sup>12</sup>	
05/07/0111	28.05	18.85	9.20			4,700 <sup>6</sup>	120	15	30	42	540/88 <sup>12</sup>	
08/06/0111	28.05	17.31	10.74			$3,700^6$	120	<20	28	33	490/110 <sup>12</sup>	
11/12/01 <sup>11</sup>	28.05	16.60	11.45			7,000	29	<10	27	22	93/98 <sup>12</sup>	
02/11/0211	28.05	18.99	9.06			5,900	43	15	24	27	93/98 90/86 <sup>12</sup>	
05/13/0211	28.05	18.41	9.64			5,500	26	5.2	23	26	120/47 <sup>12</sup>	
08/09/0211	28.05	17.76	10.29			5,700	26	3.7	26	50	120/47 100/69 <sup>12</sup>	
11/07/0211	28.05	16.78	11.27			5,900	33	4.4			<100/69 <sup>12</sup>	
02/04/03 <sup>11</sup>	28.05	18.92	9.13			5,400	22	4.7	23	21	<50/55 <sup>12</sup>	
05/05/0311	28.05	19.67	8.38			4,500	23	4.7	13	14	<50/31 <sup>12</sup>	
09/06/03 11,14	28.05	17.65	10.40			3,200	13	2	12	15		
11/14/03 11,14	28.05	17.43	10.62	••		4,000	11		7	7	54	
02/13/04 <sup>14,15</sup>	28.05	19.26	8.79			6,200	6	2 2	7	6	55	
05/13/04 <sup>14</sup>	28.05	18.49	9.56			3,200	-6	3	8	8	31	
08/17/04 <sup>14</sup>	28.05	17.57	10.48			4,300	7	3	13	11	34	
11/10/04 <sup>14</sup>	28.05	18.52	9.53			3,000	5	1	6	5	46	
02/08/05 <sup>14</sup>	28.05	19.34	8.71			4,700	3	1	6	7	37	
06/03/05 <sup>14</sup>	28.05	19.04	9.01			4,700	_	2	10	8	22	
08/05/05 <sup>14</sup>	28.05	18.29	9.76			3,500	4	3	15	11	23	
12/02/05 <sup>14</sup>	28.05	18.41	9.64			2,900	4	1	< 0.5	8	23	
03/03/06 <sup>14</sup>	28.05	20.01	8.04			3,800	5	2 6	3	3	24	
05/31/06 <sup>14</sup>	28.05	19.04	9.01	e		4,600	2	1	-	5	9	
08/18/06 <sup>14</sup>	28.05	18.14	9.91			4,300	2	1	3	3	8	
11/17/06 <sup>14</sup>	28.05	18.10	9.95			4,600	2	0.7	11	7	14	
02/09/07 <sup>14</sup>	28.05	18.95	9.10			3,600	1		7	4	14	
05/11/07 <sup>14</sup>	28.05	18.93	9.12				-	0.6	3	3	9	
08/10/07 <sup>14</sup>	28.05	17.85	10.20			3,600	2	1	5	5	8	
11/08/07 <sup>14</sup>	28.05	17.70	10.20			3,600 3,600	1	1	7	4	9	
02/07/08 <sup>14</sup>	28.05	20.13	7.92				2	0.7	5	2	7	
05/02/08 <sup>14</sup>	28.05	18.56	9.49			5,000	1	1	5	3	5	
0 <i>010210</i> 0	20.03	10.30	7.47			3,300	1	0.9	3	2	4	

Table 1
Groundwater Monitoring Data and Analytical Results

Former Chevron Service Station #9-4612

3616 San Leandro Street Oakland, California

CONTRACTOR STATES						d, California						
WELL HO	TOC*	GWE	DTW	ТРН-МО	TPH-DRO	TPH-GRO	В		E	X	MTBE	TOG
DATE	(fi.)	(mst)	(fi.)	(µg/L)	(µg/L)	(μg/L)	(µg/L)	(μg/L)	(µg/L)	(μg/L)	(µg/L)	(µg/L)
MW-2 (cont)												
07/31/0814	28.05	17.70	10.35		-	3,000	2	0.6	2	1	5	
11/13/0814	28.05	17.24	10.81	1,44		3,800	2	0.5	2	0.8	4	
02/02/0914	28.05	18.08	9.97			3,500	2	0.6	2	1	5	
05/01/0914	28.05	18.35	9.70	194	-	3,900	2	1	4	3	4	
08/10/0914	28.05	17.67	10.38		1	3,100	2	0.8	2	1	4	
01/29/1014	28.05	20.07	7.98			3,200	1	0.8	2	1	5	-
08/23/1014	28.05	18.02	10.03	-		3,500	1	0.6	1	0.7	3	**
08/22/1114	28.05	18.32	9.73	-	-	3,700	1	0.6	1	0.9	3	**
										0.5		Y
MW-3												
02/16/93	28.50			4		3,500	<0.5	8.1	4.6	7.7		
03/26/93	28.50	21.32	7.18		45						-	
05/27/93	28.50	19.17	9.33			4,200	580	84	150	100	-	
08/18/93	28.50	16.50	12.00		1,400	910	12	3.7	6.2	3.8		<5,000
11/03/93	28.50	15.21	13.29			5,300	29	1.9	0.6	27	-	~5,000 
02/10/94	28.50	18.87	9.63		<50	63	< 0.5	0.7	<0.5	<0.5	-	
05/12/94	28.50	19.73	8.77		84	<50	<0.5	0.5	<0.5	<0.5	_	
08/26/94	28.50	17.08	11.42	144		2,100	12	<0.5	5.0	0.5	-	
11/14/94	28.50	18.43	10.07			140	0.78	<0.5	<0.5	<0.5	-	
02/01/95	28.50	22.21	6.29		< 50	<50	<0.5	<0.5	<0.5	<0.5	-	22
05/12/95	28.50	20.43	8.07		540 <sup>2</sup>	330	13	1.1	1.9	0.69		
08/22/95	28.50	18.55	9.95	-	550 <sup>2</sup>	980	32	<1.0	<1.0	<1.0		_
12/19/95	28.50	19.10	9.40	-	<50	<50	< 0.5	<0.5	< 0.5	<0.5	<2.5	-
01/31/96	28.50	23.45	5.05	188	<50	<50	< 0.5	<0.5	<0.5	<0.5	<2.5	2
04/30/96	28.50	20.10	8.40	/**	$240^{2}$	320	2.4	<0.5	0.75	<0.5	7.8	
08/01/96	28.50	18.70	9.80		470 <sup>2</sup>	980	9.6	<0.5	0.98	2.2	54	-
10/30/96	28.50	18.70	11.48		$760^{2}$	2,000	14	<10	<10	<10	140	
02/07/97	28.50	19.90	8.60		61 <sup>2</sup>	200 <sup>2</sup>	<0.5	<0.5	< 0.5	< 0.5	8.9	(
05/07/97	28.50	19.49	9.01	77	550 <sup>2</sup>	3,500	14	3.9	3.6	8.0	160	
07/22/97	28.50	17.38	11.12		$800^{2}$	3,500	55	<10	<10	<10	150	
11/03/97	28.50	16.99	11.51	-	910 <sup>2</sup>	4,100	140	<5.0	<5.0	<5.0	380	
01/28/98	28.50	21.16	7.34			1,100	24	<1.2	<1.2	2.8	33/6.1 <sup>12</sup>	
05/08/98	28.50	20.44	8.06		250 <sup>2</sup>	990	3.6	7.7	0.7	2.2	$37/7.5^{12}$	
07/29/98	28.50	18.25	10.25	121	290 <sup>2</sup>	1,200	13	<0.5	<0.5	1.4	11/28 <sup>12</sup>	
11/06/98	28.50	17.11	11.39		390 <sup>2</sup>	2,600	5.3	<2.5	<2.5	3.0	91/41 <sup>12</sup>	

					Oakland	l, California						
WELL ID/	TOC*	GWE	DTW	ТРН-МО	TPH-DRO	TPH-GRO	В	T	E	X	MTBE	TOG
DATE	(ft.)	(msl)	(fL)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(μg/L)	(µg/L)	(μg/L)	(µg/L)	(µg/L)
MW-3 (cont)												1. Alt Qt . V
02/09/99 <sup>5</sup>	28.50	22.40	6.10		184 <sup>2</sup>	406	<1.0	4.03	<1.0	<1.0	17.7/1.9712	
05/13/99	28.50	19.38	9.12			615	13.8	1.05	<0.5		43.5/21.2 <sup>12</sup>	
09/07/99	28.50	17.77	10.73		528 <sup>2</sup>	2,710	< 5.0	< 5.0	<0.5 <5.0	<0.5 <5.0	43.3/21.2 96.3/57.9 <sup>12</sup>	
11/24/99	28.50	17.77	11.13		$1,070^2$	5,530	<5.0	<5.0			96.3/3 /.9 66 <sup>1,12</sup>	
02/25/00	28.50	22.22	6.28		1,070	189	4.68	<0.5	5.59	<5.0	11.9/<2.0 <sup>12</sup>	
03/01/00	28.50	21.80	6.70		380 <sup>2</sup>	107			< 0.5	< 0.5		
05/10/00	28.50	19.90	8.60		830 <sup>7</sup>	1,600 <sup>6</sup>	22	 <10		-10	100/51 <sup>12</sup>	
07/31/00 <sup>11</sup>	28.50	18.43	10.07		490 <sup>7</sup>	2,200 <sup>6</sup>	76		<10	<10		
10/30/00 <sup>11</sup>	28.50	17.97	10.53		580°	3,320 <sup>10</sup>		10	<5.0	13	230/52 <sup>12</sup>	
02/05/01 <sup>11</sup>	29.04	19.78	9.26				<5.00	<5.00	<5.00	<15.0	147/64 <sup>12</sup>	
05/07/01 <sup>11</sup>	29.04	20.29	8.75			3,960	<5.00	6.02	<5.00	<5.00	159/70 <sup>12</sup>	
05/10/01	29.04	20.29	8.73		390 <sup>13</sup>	2,800 <sup>6</sup>	61	12	<10	20	230/4912	
08/06/01 <sup>11</sup>	29.04	18.59			870 <sup>7</sup>						12	
11/12/01 <sup>11</sup>	29.04		10.45			1,600 <sup>6</sup>	39	14	1.3	5.6	130/43 <sup>12</sup>	
02/11/02 <sup>11</sup>		17.82	11.22		1,400	3,100	3.6	23	2.3	5.6	40/46 <sup>12</sup>	
05/13/02 <sup>11</sup>	29.04	20.66	8.38		700	4,000	10	< 5.0	4.2	5.5	44/42 <sup>12</sup>	
08/09/02 <sup>11</sup>	29.04	19.84	9.20		730	2,500	18	< 5.0	<5.0	5.2	44/32 <sup>12</sup>	
11/07/02 <sup>11</sup>	29.04	18.87	10.17		560	2,700	17	<5.0	< 5.0	<10	45/33 <sup>12</sup>	
02/04/03 <sup>11</sup>	29.04	17.91	11.13		660	2,600	24	<5.0	2.0	4.8	51/37 <sup>12</sup>	
05/05/03 <sup>11</sup>	29.04	20.44	8.60		370	2,200	13	1.5	2.7	5.0	<50/24 <sup>12</sup>	
	29.04	21.22	7.82		580	2,100	14	1.8	2.0	3.9	<20/19 <sup>12</sup>	
09/06/03 <sup>11,14</sup>	29.04	18.79	10.25		780	1,800	2	0.6	0.6	1	28	
11/14/03 <sup>11,14</sup>	29.04	18.52	10.52		860	2,000	1	0.6	0.6	0.9	30	
02/13/04 <sup>14,15</sup>	29.04	20.76	8.28		590	3,600	1	0.6	1	2	21	
05/13/04 <sup>14</sup>	29.04	19.87	9.17		670	1,600	1	< 0.5	0.5	1	20	
08/17/04 <sup>14</sup>	29.04	18.79	10.25		900	2,500	1	< 0.5	< 0.5	0.7	25	
11/10/04 <sup>14</sup>	29.04	19.81	9.23		780	1,500	1	0.6	0.5	1	27	
02/08/05 <sup>14</sup>	29.04	20.92	8.12		530	2,500	1	0.6	2	3	11	
06/03/05 <sup>14</sup>	29.04	20.47	8.57		600	1,700	1	< 0.5	0.7	1	9	
08/05/05 <sup>14</sup>	29.04	18.44	10.60		530 <sup>16</sup>	980	0.6	< 0.5	< 0.5	0.8	9	
12/02/05 <sup>14</sup>	29.04	19.46	9.58		$1,400^{17}$	2,400	1	2	0.8	1	7	
03/03/06 <sup>14</sup>	29.04	21.46	7.58		530	2,300	0.8	1	< 0.5	1	4	
05/31/06 <sup>14</sup>	29.04	20.51	8.53		480	2,700	0.6	< 0.5	< 0.5	0.8	4	
08/18/06 <sup>14</sup>	29.04	19.33	9.71		410	2,700	< 0.5	< 0.5	< 0.5	0.6	6	
11/17/06 <sup>14</sup>	29.04	19.23	9.81		390	2,600	< 0.5	< 0.5	< 0.5	1	4	
02/09/07 <sup>14</sup>	29.04	20.16	8.88		640	2,100	< 0.5	< 0.5	< 0.5	1	3	
05/11/07 <sup>14</sup>	29.04	20.33	8.71		350	1,400	< 0.5	< 0.5	< 0.5	2	2	
						•				_	_	

Former Chevron Service Station #9-4612 3616 San Leandro Street

Oak	land.	Cal	lifornia
Van	uanu,	La	monna

WELL ID/	TOC*	GWE	DTW	ТРН-МО	TPH-DRO	TPH-GRO	В	T	E	X	MTBE	TOG
DATE	(ft.)	(mst)	(fi.)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(μg/L)	μg/L)	Λ (μg/L)	(µg/L)	(µg/L)
MW-3 (cont)					W 8: -7.	(78-)		(68 -)	1,48,29	(#8/L)	······································	
08/10/07 <sup>14</sup>	29.04	19.06	9.98		240	1 200	-0.5	-0.5				
11/08/0714	29.04	18.93	10.11	-	340	1,300	<0.5	<0.5	<0.5	1	2	
02/07/08 <sup>14</sup>	29.04	21.76	7.28		440	1,400	<0.5	<0.5	<0.5	< 0.5	< 0.5	
05/02/08 <sup>14</sup>	29.04	19.86	9.18	-	320	2,100	<0.5	0.7	1	2	0.7	
07/31/08 <sup>14</sup>	29.04				260	1,300	< 0.5	< 0.5	< 0.5	< 0.5	2	
11/13/08 <sup>14</sup>	29.04	18.91	10.13		500	2,900	< 0.5	< 0.5	< 0.5	< 0.5	1	-
02/02/09 <sup>14</sup>		18.46	10.58		880	1,800	< 0.5	< 0.5	< 0.5	< 0.5	2	-
05/01/09 <sup>14</sup>	29.04	19.46	9.58	. **	310 <sup>19</sup>	2,000	< 0.5	< 0.5	< 0.5	< 0.5	2	·-
08/10/09 <sup>14</sup>	29.04	19.64	9.40	-	51 <sup>20</sup>	1,500	< 0.5	<0.5	< 0.5	< 0.5	2	
01/29/10 <sup>14</sup>	29.04	18.83	10.21	-	470	1,300	< 0.5	< 0.5	< 0.5	< 0.5	3	
	29.04	21.65	7.39	•	420	2,600	< 0.5	< 0.5	2	1	1	(44)
08/23/10 <sup>14</sup>	29.04	19.34	9.70		410	2,000	< 0.5	< 0.5	< 0.5	< 0.5	2	**
08/22/1114	29.04	19.08	9.96	<41/<40 <sup>21</sup>	500/250 <sup>21</sup>	2,500	<0.5	<0.5	<0.5	<1	2	-
MW-4												
08/22/95	27.27	18.16	9.11		44	9,600	100	<10	<10	<10		
12/19/95	27.27	18.97	8.30		2	<50	< 0.5	<0.5	<0.5	<10		
01/31/96	27.27	21.67	5.60			<50	<0.5	<0.5		< 0.5	<2.5	
04/30/96	27.27	20.27	7.00		-	<50	<0.5	<0.5	< 0.5	<0.5	<2.5	-
08/01/96	27.27	18.12	9.15			<50 <50			< 0.5	<0.5	<2.5	-
10/30/96	27.27	18.12	10.74		-		<0.5	< 0.5	< 0.5	<0.5		
02/07/97	27.27	19.47	7.80		-	110	<0.5	<0.5	< 0.5	<0.5	<2.5	
05/07/97	27.27	21.42	5.85			80	<0.5	<0.5	< 0.5	<0.5	4.1	1-2
07/22/97	27.27	17.22				<50	<0.5	< 0.5	< 0.5	< 0.5	<2.5	••
11/03/97	27.27		10.05		-	150	<0.5	< 0.5	< 0.5	< 0.5	<2.5	
01/28/98		16.55	10.72		••	52	0.9	< 0.5	< 0.5	< 0.5	3	
05/08/98	27.27	20.76	6.51		-	<50	<0.5	< 0.5	< 0.5	< 0.5	<2.5/<2.0 <sup>12</sup>	44
	27.27	20.25	7.02			56	< 0.5	< 0.5	< 0.5	< 0.5	<2.5/<2.0 <sup>12</sup>	
07/29/98	27.27	18.32	8.95			<50	0.9	< 0.5	< 0.5	< 0.5	<2.5/<2.0 <sup>12</sup>	44
11/06/98	27.27	16.68	10.59			72	< 0.5	< 0.5	< 0.5	< 0.5	<2.5/<2.0 <sup>12</sup>	**
02/09/99	27.27	21.41	5.86			<50	< 0.5	< 0.5	< 0.5	< 0.5	<2.0/<1.1 <sup>12</sup>	977
05/13/99	27.27	19.32	7.95			< 50	< 0.5	< 0.5	< 0.5	< 0.5	<5.0/<2.0 <sup>12</sup>	
09/07/99	27.27	17.79	9.48		-	70.2	< 0.5	< 0.5	< 0.5	< 0.5	<2.0/<1.0 <sup>12</sup>	-4
11/24/99	27.27	17.22	10.05			227	< 0.5	< 0.5	< 0.5	< 0.5	< 0.512	
02/25/00	27.27	INACCESSIBLE										199
03/01/00	27.27	21.10	6.17			<50	< 0.5	< 0.5	< 0.5	< 0.5	<2.5/<2.012	-
05/10/00	27.27	INACCESSIBLE	E - CAR PARI	KED OVER WEL	L							-

### Table 1

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

Former Chevron Service Station #9-4612 3616 San Leandro Street

Oakland, California

						l, California						
WELL ID/	TOC*	GWE	DTW	трн-мо	TPH-DRO	TPH-GRO	В	Ť	E	X	MTBE	TOG
DATE	(ft.)	(msl)	(ft.)	(µg/L)	(µg/L)	(μg/L)	(µg/L)	(μg/L)	(µg/L)	(μg/L)	(µg/L)	(µg/L)
MW-4 (cont)												
07/31/00	27.27	17.90	9.37			<50	< 0.50	< 0.50	< 0.50	< 0.50	<2.5/<2.012	
10/30/00	27.27	17.80	9.47			54.0 <sup>10</sup>	< 0.500	< 0.500	< 0.500	<1.50	<2.50/<2.0 <sup>12</sup>	
02/05/01	27.27	INACCESSIBI	E - CAR PARI	KED OVER WELI	L							
05/07/01	27.27	19.46	7.81			< 50	< 0.50	< 0.50	< 0.50	< 0.50	<2.5/<2.012	
08/06/01	27.27	17.49	9.78			< 50	1.1	0.52	< 0.50	1.1	$6.0 < 2.0^{12}$	
11/12/01	27.27	16.86	10.41			93	< 0.50	< 0.50	< 0.50	<1.5	<2.5/<2 <sup>12</sup>	
02/11/02	27.27	19.63	7.64			<50	< 0.50	< 0.50	< 0.50	<1.5	<2.5/<212	
05/13/02	27.27	18.95	8.32			54	< 0.50	0.84	< 0.50	<1.5	<2.5/<212	
08/09/02	27.27	18.02	9.25			54	< 0.50	< 0.50	< 0.50	<1.5	<2.5/<212	
11/07/02	27.27	16.85	10.42			<50	< 0.50	< 0.50	< 0.50	<1.5	<2.5/<212	
02/04/03	27.27	19.52	7.75			< 50	< 0.50	< 0.50	< 0.50	<1.5	<2.5/<0.5 <sup>12</sup>	
05/05/03	27.27	20.37	6.90			<50	< 0.5	< 0.5	< 0.5	<1.5	<2.5/<0.5 <sup>12</sup>	
09/06/03 <sup>14</sup>	27.27	17.77	9.50			<50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	
11/14/03 14	27.27	17.47	9.80			< 50	< 0.5	< 0.5	< 0.5	< 0.5	<0.5	
02/13/04 <sup>14</sup>	27.27	19.91	7.36			<50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	
05/13/04 <sup>14</sup>	27.27	18.99	8.28			<50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	
08/17/04 <sup>14</sup>	27.27	17.64	9.63			< 50	< 0.5	< 0.5	< 0.5	< 0.5	<0.5	
11/10/04 <sup>14</sup>	27.27	18.81	8.46			52	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	
02/08/05 <sup>14</sup>	27.27	20.07	7.20			< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	
06/03/05 <sup>14</sup>	27.27	19.66	7.61			< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	
08/05/05 <sup>14</sup>	27.27	17.83	9.44			<50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	
12/02/05 <sup>14</sup>	27.27	18.92	8.35			< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	
03/03/06 <sup>14</sup>	27.27	20.82	6.45			< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	
$05/31/06^{14}$	27.27	19.76	7.51			<50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	
08/18/06 <sup>14</sup>	27.27	18.85	8.42			< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	
11/17/06 <sup>14</sup>	27.27	18.31	8.96			<50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	
02/09/07 <sup>14</sup>	27.27	19.54	7.73			< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	
05/11/07 <sup>14</sup>	27.27	19.67	7.60			<50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	
08/10/07 <sup>14</sup>	27.27	18.26	9.01			< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	
11/08/07 <sup>14</sup>	27.27	18.01	9.26			< 50	< 0.5	< 0.5	< 0.5	1	1	
02/07/08 <sup>14</sup>	27.27	20.89	6.38			< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	
$05/02/08^{14}$	27.27	19.15	8.12			< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	
07/31/08 <sup>14</sup>	27.27	17.99	9.28			75	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	
11/13/08 <sup>14</sup>	27.27	17.34	9.93			< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	
02/02/09 <sup>14</sup>	27.27	18.25	9.02			< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	
05/01/09 <sup>14</sup>	27.27	18.98	8.29			< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	

Former Chevron Service Station #9-4612 3616 San Leandro Street

					Oaklan	d, California						
WELL ID/	TOC*	GWE	DTW	ТРН-МО	TPH-DRO	TPH-GRO	В	1	E	X	MTBE	TOG
DATE	(ft.)	(msl)	(fl.)	(µg/L)	(µg/L)	(μg/ <b>L</b> )	(µg/L)	(µg/L)	(µg/L)	(μg/L)	(µg/L)	(µg/L)
MW-4 (cont)												
08/10/0914	27.27	17.77	9.50			<50	< 0.5	< 0.5	<0.5	-O.E	-0.5	
01/29/1014	27.27	20.70	6.57			<50	<0.5	<0.5	<0.5	<0.5 <0.5	< 0.5	
08/23/1014	27.27	18.31	8.96	-	0.00	<50	<0.5	<0.5	<0.5		<0.5	
08/22/1114	27.27	18.42	8.85	32	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5	
		7712	o,oe			-50	-0.5	~0.5	<0.5	<0.5	<0.5	
TRIP BLANK												
05/27/93		AP		- 2		<50	<0.5	<0.5	-0.5	.1 .0		
08/18/93		44			1,400	<50	<0.5	< 0.5	< 0.5	<1.5	1.5	
11/03/93		-			1,400	<50	<0.5 <0.5	< 0.5	< 0.5	<1.5	-	<5,000
02/10/94		100		-	<50	<50		<0.5	< 0.5	<0.5	•-	
05/12/94			4	- 2	84	<50	<0.5	<0.5	< 0.5	<0.5		
08/26/94			2			<50	<0.5	<0.5	< 0.5	<0.5	••	•
11/14/94		144		144	1	<50 <50	<0.5	<0.5	< 0.5	<0.5		
02/01/95		-	-			<50 <50	< 0.5	<0.5	<0.5	<0.5		-
05/12/95		-	-	-	-	<50	<0.5 <0.5	<0.5	< 0.5	<0.5	-	-
08/22/95		- 2				<50	<0.5	<0.5	< 0.5	<0.5	-	
12/19/95		**	-	_		<50 <50		<0.5	<0.5	<0.5		
01/31/96		-	-		-		<0.5	<0.5	<0.5	< 0.5	<2.5	
04/30/96		-		100		<50	<0.5	<0.5	< 0.5	<0.5	<2.5	
08/01/96		_			(a)	<50	<0.5	<0.5	<0.5	<0.5	<2.5	-
10/30/96				-		<50	<0.5	<0.5	<0.5	<0.5	<2.5	
02/07/97		-		35		<50	<0.5	<0.5	<0.5	<0.5	<2.5	-
05/07/97			_	C++		<50	<0.5	<0.5	<0.5	<0.5	<2.5	-
07/22/97		12				<50	<0.5	<0.5	<0.5	<0.5	<2.5	
01/28/98		-				<50	<0.5	<0.5	<0.5	<0.5	<2.5	-
05/08/98					-4	<50	<0.5	< 0.5	< 0.5	< 0.5	< 2.012	-
07/29/98		32	2								< 2.012	-
11/06/98		144			-	<50	<0.5	<0.5	<0.5	< 0.5	<2.012	
02/09/99			-	***		<50	< 0.5	<0.5	<0.5	<0.5	<2.5	
05/13/99		-		-		<50	<0.5	<0.5	<0.5	< 0.5	<2.0	
09/07/99						<50	<0.5	<0.5	<0.5	< 0.5	<5.0/<2.0 <sup>12</sup>	-
11/24/99			-			<50	<0.5	<0.5	<0.5	< 0.5	<2.0	
02/25/00		-	100		-	<50	<0.5	<0.5	<0.5	< 0.5	<2.5	
03/01/00		-	-	4-1	1	<50	<0.5	<0.5	<0.5	< 0.5	<5.0	
05/10/00			**			<50	< 0.5	<0.5	< 0.5	< 0.5	<2.5	**
02/10/00		3.5			•	<50	< 0.50	< 0.50	< 0.50	< 0.50	<2.5	**

Former Chevron Service Station #9-4612 3616 San Leandro Street

Oakland, California

TRIP BLANK (cont)	WELL ID/	TOC*	GWE	DTW	TRUENO		a, California						
THE BLANK (cont		. * . * . * . * . * * * * * * * * * *		``````````````````````````````````````						*******************	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
0751090		· · · · · · · · · · · · · · · · · · ·	(sredty	······································	(hg/L)	lhg/r)	(µg/L)	(µg/L)	(μg/L)	(μg/L)	(µg/L)	(µg/L)	(µg/L)
1001000													
							< 50	< 0.50	< 0.50	< 0.50	< 0.50	<2.5	
0205601							<50.0	< 0.500	< 0.500	< 0.500	<1.50	< 2.50	
							< 50.0	< 0.500	< 0.500	< 0.500	< 0.500		
0806/01							<50	< 0.50	< 0.50	< 0.50	< 0.50	<2.5	
OAT   11/12/01							<50	< 0.50	< 0.50	< 0.50	< 0.50	<2.5	
Time							< 50	< 0.50	< 0.50	< 0.50	< 0.50	<2.5	
02/11/02													
02/11/02							< 50	< 0.50	< 0.50	< 0.50	<1.5	<2.5	
05/13/062							< 50	< 0.50	< 0.50	< 0.50	<1.5		
08/09/02							< 50	< 0.50	< 0.50	< 0.50			
11/07/02 11/07/02 11/07/02 11/07/02 11/07/03 11/07/07/03 11/07/07/03 11/07/07/03 11/07/07/03 11/07/07/03 11/07/07/07 11/07/07/07 11/07/07/07 11/07/07/07 11/07/07/07 11/07/07/07 11/07/07/07 11/07/07/07 11/07/07/07 11/07/07/07 11/07/07/07 11/07/07/07 11/07/							< 50	< 0.50	< 0.50	< 0.50			
02040/03							< 50	< 0.50	< 0.50	< 0.50			
05/05/03							< 50	< 0.50	< 0.50	< 0.50			
09/06/03**							< 50	< 0.5	< 0.5	< 0.5			
11/14/03 <sup>14</sup>							< 50	< 0.5					
02/13/04 <sup>14</sup>							< 50	< 0.5	< 0.5				
05/13/04 4							< 50						
08/17/04 <sup>14</sup>							< 50	< 0.5	< 0.5				
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$							< 50	< 0.5					
02/08/05 <sup>14</sup>							< 50						
$\begin{array}{cccccccccccccccccccccccccccccccccccc$							<50	< 0.5	< 0.5				
$\begin{array}{cccccccccccccccccccccccccccccccccccc$							< 50	< 0.5					
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$							< 50	< 0.5					
$\begin{array}{cccccccccccccccccccccccccccccccccccc$							< 50						
$\begin{array}{cccccccccccccccccccccccccccccccccccc$							< 50	< 0.5					
$\begin{array}{cccccccccccccccccccccccccccccccccccc$							< 50						
$\frac{11/17/06^{14}}{02/09/07^{14}} = -$ $\frac{11}{17/06^{14}} = -$ $\frac{11}{17/06^{1$													
$\begin{array}{cccccccccccccccccccccccccccccccccccc$							<50						
$\begin{array}{cccccccccccccccccccccccccccccccccccc$							<50						
$\begin{array}{cccccccccccccccccccccccccccccccccccc$													
$\frac{11/08/07^{14}}{02/07/08^{14}}  \begin{array}{ccccccccccccccccccccccccccccccccccc$													
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$													
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$													
07/31/08 <sup>14</sup> <- <- <- <- <- <- <- <- <- <- <-													
11/12/09 <sup>14</sup>					••								
	11/13/08 <sup>14</sup>						<50	<0.5	<0.5	<0.5	<0.5	<0.5	

Former Chevron Service Station #9-4612

3616 San Leandro Street

Oakland, California

DATE	(ft.)	(msl)	(ft.)	(µg/L)	(µg/L)	(μg/L)	(μg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	$(\mu g/L)$
QA (cont)												
02/02/0914		124	-	C (==	1247	<50	< 0.5	< 0.5	< 0.5	< 0.5	<0.5	14
05/01/0914						<50	< 0.5	< 0.5	<0.5	< 0.5	< 0.5	-
08/10/09 <sup>14</sup> DISCONTINUED		1	**	See.	+	<50	<0.5	<0.5	<0.5	<0.5	<0.5	-

#### Table 1

### Groundwater Monitoring Data and Analytical Results

Former Chevron Service Station #9-4612 3616 San Leandro Street Oakland, California

#### **EXPLANATIONS:**

Groundwater monitoring data and laboratory analytical results prior to May 10, 2000, were compiled from reports prepared by Blaine Tech Services, Inc.

TOC = Top of CasingDRO = Diesel Range Organics TOG = Total Oil and Grease (ft.) = FeetGRO = Gasoline Range Organics  $(\mu g/L)$  = Micrograms per liter GWE = Groundwater Elevation B = BenzeneNP = No purge(msl) = Mean sea level T = Toluene-- = Not Measured/Not Analyzed DTW = Depth to Water E = EthylbenzeneQA = Quality Assurance/Trip Blank TPH = Total Petroleum Hydrocarbons X = Xylenes

MTBE = Methyl Tertiary Butyl Ether

- TOC elevations were re-surveyed on March 8, 2001, by Virgil Chavez Land Surveying. The benchmark for the survey was a City of Oakland benchmark, being a cut square top of curb at the centerline return at the northwest corner of East 14th and 37th Avenue, (Benchmark Elevation = 38.21 feet, NGVD 29).
- Lab could not get a good ion chromatogram match for MTBE. See laboratory report.
- Chromatogram pattern indicates an unidentified hydrocarbon.
- No value for MTBE could be determined; see lab report for analyses.
- Confirmation run.

MO = Motor Oil

- ORC was installed.
- Laboratory report indicates gasoline C6-C12.
- Laboratory report indicates unidentified hydrocarbons <C16.
- 8 Laboratory report indicates gasoline C6-C12 + unidentified hydrocarbons < C6.
- Laboratory report indicates unidentified hydrocarbons >C16.
- 10 Laboratory report indicates hydrocarbon pattern present in the requested fuel quantization range but does not resemble the pattern of the requested fuel.
- 11 ORC in well.
- 12 MTBE by EPA Method 8260.
- 13 Laboratory report indicates unidentified hydrocarbons C9-C17.
- 14 BTEX and MTBE by EPA Method 8260.
- 15 ORC removed from well.
- 16 Laboratory report indicates the observed sample pattern is not typical of #2 fuel/diesel. It elutes in the DRO range earlier and later than #2 fuel.
- 17 Laboratory report indicates the observed sample pattern is not typical of #2 fuel/diesel. It elutes in the DRO range earlier than #2 fuel.
- 18 No Purge, unable to access well with truck.
- 19 Laboratory report indicates the LCS/LCSD recovery for the DRO analysis is outside the QC limits. Results from the reextraction are within the limits. The hold time had expired prior to the reextraction so all results are reported from the original extract. Similar results were obtained in both extracts.
- Laboratory report indicates the surrogate data is outside the QC limits. Results from the reextraction are within the limits. The hold time had expired prior to the reextraction. therefore, all results are reported from the original extract. The DRO result for the reextraction is 190 ug/l.
- Analyzed with silica gel column.

### Table 2

### Dissolved Oxygen Concentrations

Former Chevron Service Station #9-4612

3616 San Leandro Street Oakland, California

WELL ID	DATE	Before Purging (mg/L)	After Purging (mg/L)
VH-1	05/10/00	0.90	-
	07/31/00	1.25	
	10/30/00	1.97	
	05/07/01	1.10	
	08/06/01	1.40	
	11/12/01	0.90	
	02/11/02	1,10	
	05/13/02	0.70	· ·
MW-2	05/10/00	0.57	7.5
	07/31/00	1.26	2
	10/30/00	1.25	-
	05/07/01	0.90	2
	08/06/01	1.10	
	11/12/01	0.80	
	02/11/02	0.60	22
	05/13/02	0.80	( <del>-</del>
MW-3	05/10/00	1.56	
	07/31/00	1.46	
	10/30/00	1.18	1,22
	05/07/01	0.70	
	08/06/01	0.90	••
	11/12/01	0.50	
	02/11/02	0.80	
	05/13/02	1.80	-
MW-4	05/10/00	INACCESSIBLE - CAR PARKED OVER WELL	
	07/31/00	0.64	
	10/30/00	0.97	
	02/05/01	INACCESSIBLE - CAR PARKED OVER WELL	
	05/07/01	0.50	-
	08/06/01	0.70	100
	11/12/01	1.00	
	02/11/02	1.00	-
	05/13/02	2.90	

### **EXPLANATIONS:**

(mg/L) = Milligrams per liter

-- = Not Measured

WELL ID	DATE	ETHANOL	TBA	MTBE	DIPE	ETBE	TAME
		(µg/L)	(μg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
VH-1	02/05/01	<500	<50	160	<2.0	<2.0	<2.0
	05/07/01		1,20	110	<del></del>		
	08/06/01	1.59	- <del>22</del> ,	140			
	11/12/01			61	-	1.2	-
	02/11/02	192	-	52		4	
	05/13/02	1.2	-	80			4
	08/09/02			89	( · · · ·		X.
	11/07/02	ų <del> č</del> r	2.0	50		-	1.22
	02/04/03	C+	4	53		- <del></del> -	-
	05/05/03	44	-	62		(44)	-
	09/06/03	**		59			4
	11/14/03	1.0	- <del></del> -	47	-	-	
	02/13/04		44	47		-	12
	05/13/04	T +-	lee-i	74		12	
	08/17/04			58		-	-
	11/10/04	INACCESSIBLE			-	-	144
	02/08/05	*		48	17.44		
	06/03/05	-		45	(m)	344	4
	08/05/05	1.44		46	441	1.00	
	12/02/05	961		57	-9		
	03/03/06		C.997	40			2
	05/31/06		1 c <u>a</u> - 1	34	4	-	194
	08/18/06	F-0	44	33	l <del>e</del> a	40	
	11/17/06	-		33			-
	02/09/07	-	-	28		C-4	
	05/11/07			26	44	**	-
	08/10/07	-		21		\-e	
	11/08/07			18		75	**
	02/07/08			14	-	92	-
	05/02/08	-	**	17	-	14	
	07/31/08			14			44
	11/13/08	-	4	12			
	02/02/09	· ·		12	24		
	05/01/09	-	949	15	4		641
	08/10/09	-		11	-	ww.	

WELL ID	DATE	ETHANOL (µg/L)	TBA (µg/L)	MTBE (µg/L)	DIPE	ETBE	TAME
		(Hg/L)	(µg/L)		(µg/L)	(µg/L)	(µg/L)
VH-I (cont)	01/29/10		-	13	144		
	08/23/10	4	-	9	**		•
	08/22/11		-	7	-	4	-
MW-2	02/05/01	<500	<50	140	<2.0	<2.0	<2.0
	05/07/01			88			-2.0
	08/06/01	324		110	1922	-	4.224
	11/12/01	-		98	-		4
	02/11/02	**		86			2
	05/13/02	T		47	1,00		-
	08/09/02			69	1.2		2
	11/07/02		-	69		(5)	
	02/04/03	442	2-1	55		4-6	
	05/05/03	11-4		31		-	
	09/06/03	144	-	54		-	4.0
	11/14/03	-		55	44	-	
	02/13/04	**	44	31		n <del>ia</del> i	
	05/13/04		-	34	10.40		-
	08/17/04			46			7.2
	11/10/04			37	42		
	02/08/05	G-2	0.42	22	-		144
	06/03/05	Fig.	W-1	23	death and the second		
	08/05/05		25)	23		-	-
	12/02/05	(44)		24		-	42
	03/03/06		3+4	9	-		1
	05/31/06	CAR	17.44	8		See .	2
	08/18/06			14	447	-	-
	11/17/06	44	**	14		744	-
	02/09/07	1. <del>7.</del> 1	0.00	9		-	(24)
	05/11/07	24		8	-4	-	7-47
	08/10/07	C 144		9	44	(144)	-
	11/08/07			7	22		-
	02/07/08	4-		5	C+3		-
	05/02/08			4	W 445	- 24.	
	07/31/08	4		5		144	44

WELL ID	DATE	ETHANOL	TBA	MTBE	DIPE	W Car The Car	
		(µg/L)	IBA (μg/L)	(µg/L)		ETBE	TAME
<u></u>		(ptg/L9	(µg/L)		(μg/L)	(µg/L)	(µg/L)
MW-2 (cont)	11/13/08	-		4		-	
	02/02/09	188		5		4	22
	05/01/09	1,550		4			-
	08/10/09	<del></del>	1110	4			
	01/29/10	4	÷	5	44	-	
	08/23/10	-		3	-		
	08/22/11	-	-	3	-	+	-
MW-3	02/05/01	<500	4F0	<b>5</b> 0			
MI 44-2	05/07/01		<50	70	<2.0	<2.0	<2.0
	08/06/01			49			
	11/12/01	1.63	***	43			
	02/11/02			46	<del>90</del> 1		
	05/13/02		175	42		-	
	08/09/02	(==		32	H-		
	11/07/02		9.55	33		22	
	02/04/03	O-77		37	(8)	***	9
	05/05/03	-		24	(64)	*	-
	09/06/03			19	1	**	
	11/14/03			28	-	**	
	02/13/04	-	***	30	**	**	
	05/13/04		-	21			
	08/17/04			20		1-4	6 <del>-6-</del>
	11/10/04			25	·-		
	02/08/05	**		27	-		
	06/03/05	1.50		11	**		
	08/05/05	-		9	032		11.99
	12/02/05	( Omg 6		9	1,14	<del></del>	10 <del>40</del> 0
	03/03/06	•	14 <del>17</del> 1	7			
	05/31/06	-	**	4	-	-	-
	08/18/06			4	-		(77)
	11/17/06	( )	-	6	-	**	
	02/09/07		**	4			
	05/11/07			3	44		
			- <del></del> -	2	-		
	08/10/07		(8-1)	2			**

WELL ID	DATE	ETHANOL (µg/L)	TBA (µg/L)	MTBE (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)
MW-3 (cont)	11/08/07			<0.5			
May 5 (cont)	02/07/08			0.7	177	(**)	÷
	05/02/08	-	-	2	***	-	**
	07/31/08	-		1		57	
	11/13/08			2	(tee)		-
	02/02/09	**	-	2			-
	05/01/09	**		2			15
	08/10/09			3			
	01/29/10	-	-	1	<b>34</b>		
	08/23/10		-				1.44
	08/22/11	<50		2			.0. #
	08/22/11	<50	<5	2	<0.5	<0.5	<0.5
MW-4	05/07/01	_		<2.0	200		
	08/06/01	**		<2.0			12
	11/12/01	-	0	<2	0++	-	- 22
	02/11/02		10.22	<2	**	- 1	4.4
	05/13/02	(44)	-	<2		245	-
	08/09/02			<2	32	2	-
	11/07/02			<2	-	-	22
	02/04/03			<0.5	-	(D)	
	05/05/03	104		<0.5	_	in the second	44
	09/06/03	**	**	<0.5		+	
	11/14/03	-		<0.5	C#	C+	-
	02/13/04			<0.5		1.4	V
	05/13/04		4	< 0.5		**	-
	08/17/04			<0.5			
	11/10/04			< 0.5	-	0.00	4-3
	02/08/05		2	< 0.5			42
	06/03/05	-	44	<0.5	20	2	12
	08/05/05			<0.5			621
	12/02/05			<0.5			
	03/03/06		4	<0.5			H-1
	05/31/06	-		<0.5		-	-4.
	08/18/06			< 0.5	22	-	
	11/17/06	44		<0.5			

# Table 3 Groundwater Analytical Results - Oxygenate Compounds Former Chevron Service Station #9-4612

WELL ID	DATE	ETHANOL	TBA	MTBE	DIPE	ETBE	TAME
		(μg/L)	(μg/L)	(μg/L)	(µg/L)	(µg/L)	(µg/L)
MW-4 (cont)	02/09/07			< 0.5	Cer.		
	05/11/07	77	-	< 0.5	1.00		(44)
	08/10/07	-		< 0.5		-	(+-
	11/08/07	-		1	r <del>ya</del> h		
	02/07/08		( each	< 0.5		44	
	05/02/08	<del></del>		< 0.5		-	-
	07/31/08		10.00	< 0.5	44		4.4
	11/13/08		-	< 0.5	100	-	144
	02/02/09	· ·		< 0.5			
	05/01/09	-	9	< 0.5		**	
	08/10/09	-		< 0.5		24	2
	01/29/10	0.00	44	< 0.5		( <del></del> -	
	08/23/10		( e. )	< 0.5	-	-	199
	08/22/11	42)	(ma)	<0.5	-	-	-

### Table 3

### Groundwater Analytical Results - Oxygenate Compounds

Former Chevron Service Station #9-4612 3616 San Leandro Street Oakland, California

### **EXPLANATIONS:**

TBA = t-Butyl alcohol

MTBE = Methyl Tertiary Butyl Ether

DIPE = di-Isopropyl ether

ETBE = Ethyl t-butyl ether

TAME = t-Amyl methyl ether

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

-- = Not Analyzed

### **ANALYTICAL METHOD:**

EPA Method 8260 for Oxygenate Compounds

### Table 4

### Groundwater Analytical Results

Former Chevron Service Station #9-4612 3616 San Leandro Street Oakland, California

							sec-	tert-	
WELL ID/	Cadmium	Chromium	Lead	Nickel	Zinc	n-Butylbenzene	Butylbenzene	Butylbenzene	Naphthalene
DATE	(μg/L)	(µg/L)	(µg/L)	(µg/L)	(μg/L)	(µg/L)	(µg/L)	(μg/L)	(μg/L)
MW-3									
08/22/11	2.6	173	8.3	308	123	3	3	4	2

### **EXPLANATIONS**

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

VOC = Volatile Organic Compounds

All other VOCs by EPA Method 8260B were less than the reporting limit unless noted.

### **ANALYTICAL METHODS:**

VOCs by EPA Method 8260B Cadmium, Chromium, Lead, Nickel, Zinc by Method 6010B

9-4612.xls/#386473 **20** As of 08/22/11

### Table 5

### **Groundwater Analytical Results - PCBs**

Former Chevron Service Station #9-4612 3616 San Leandro Street Oakland, California

WELL ID/ DATE	PCB- 1016 (μg/L)	PCB- 1221 (µg/L)		PCB- 1242 (µg/L)	PCB- 1248 (µg/L)	PCB- 1254 (µg/L)	PCB- 1260 (μg/L)
MW-3							
08/22/11	< 0.099	< 0.099	< 0.099	< 0.099	< 0.099	< 0.099	< 0.15

**EXPLANATIONS** 

9-4612.xls/#386473

**ANALYTICAL METHODS:** 

 $(\mu g/L)$  = Micrograms per liter PCB = Polychlorinated Biphenyl PCB by EPA Method 8082

As of 08/22/11

21

### 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.

As requested by Chevron Environmental Management Company, the purge water and decontamination water generated during sampling activities is transported by IWM to Chemical Waste Management located in Kettleman Hills, California.



Client/Facility#:	Chevron #9	4612		Job Number:	386473	
Site Address:	3616 San Le	andro S	treet	Event Date:	8:22-11	(inclusive)
City:	Oakland, CA	1		Sampler:	10.EC (	(
Well ID	VH-1	_	[	Date Monitored:	8-22-11	
Well Diameter	2 1/4)		Volum			2"-0.00
Total Depth	28,45 ft	<del>-</del> :.	Factor			3"= 0.38 2"= 5.80
Depth to Water			Check if water colum	in is less then 0.5	50 ft.	
	1917				= Estimated Purge Volume: 5	7-8 nal
Depth to Water	w/ 80% Recharge		Water Column x 0.20)			
				7.000	Time Started:	
Purge Equipment:		8	Sampling Equipment:		Time Completed: Depth to Product:	
Disposable Bailer			Disposable Bailer		Depth to Water:	
Stainless Steel Baile	er	F	Pressure Bailer		Hydrocarbon Thickness:	
Stack Pump		N	/letal Filters		Visual Confirmation/Des	
Suction Pump			Peristaltic Pump		Visual Collinnation/Des	coption.
Grundfos		C	QED Bladder Pump		Skimmer / Absorbant So	ock (circle one)
Peristaltic Pump		C	Other:		Amt Removed from Skin	
QED Bladder Pump					Amt Removed from Well	l:gal
Other:					Water Removed:	
Start Time (purge	e): <u>100</u>		Weather Cor	nditions:	ClOUDY	
Sample Time/Da	ite: 1200 / 8	3-22-11	Water Color:	Clant	Odor: Y / (N)	
Approx. Flow Ra		gpm.	Sediment De		- Mag	
Did well de-water			: Volur	· —	gal. DTW @ Sampling:	9.43
		, ,			gan bitt @ camping.	
Time (2400 hr.)	Volume (gal.)	pН	Conductivity (µmhos/cm -	Temperature	D.O. OR (mg/L) (m\)	
1115	12-75	1.95	777-	21.1	(111)	<b>v</b> )
1120	055	1 90	274	700		
11 4/2	28	7.04	7 50	307		<del></del>
<del>11 7 Ce</del> -	30	7,04	080	60.		
			LABORATORY IN			
SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY		
VH-L	x voa vial	YES	HCL	LANCASTER	TPH-GRO(8015)/BTEX+MTBI	E(8260)
	x 1 liter ambers x 1 liter ambers	YES YES	NP NP	LANCASTER	TPH-DRO/TPH-MO (8015)	
	x 1 liter ambers	YES	NP NP	LANCASTER	TPH-MO w/sgc COLUMN TPH-DRO w/sgc COLUMN	
	x i iller ambers x voa vial	YES	HCL	LANCASTER		
	x 1 liter ambers	YES	Na2S2O3	LANCASTER LANCASTER	FULL SCAN VOC's (8260) SVOC's (8270	
	x 1 liter ambers	YES	NAZSZO3 NP	LANCASTER	PCB's	
	x 500ml poly	YES	HNO3	LANCASTER	CAM 5 METALS	
			1.1100	D ITOAUTER	O/MI O MILI ALO	
COMMENTS:					•	
Add/Replaced L	_ock:	Add/	Replaced Plug:		Add/Replaced Bolt:	



Client/Facility#:	Chevron #9-4612			Job Number:	386473		
Site Address:	3616 San Le	andro Si	treet	Event Date:	8-22-11		(inclusive)
City:	Oakland, CA	\		Sampler:	ML		(moldono)
				Campier.	1000		
Well ID	M61-2			ate Monitored:	8.22-11	1	
Well Diameter	(2)/4	_	<del> </del>				
Total Depth	19.33 ft.	_	Volume Factor			= 0.17 3"= 0.38 = 1.50 12"= 5.80	
Depth to Water	9,73 ft.		Check if water column			1.00 12 - 0.00	
Depth to Water	9/2	_	= / (e			. 40	
Depth to Water	w/ 80% Recharge		Water Column x 0.20) +			olume: 7 / 6	gal.
		- [(o.g, o. ·	, , , , , , , , , , , , , , , , , , ,	D1001.	Time Started:		
Purge Equipment:		S	ampling Equipment:			ted:	
Disposable Bailer	X	D	isposable Bailer	X		luct:	
Stainless Steel Baile	Pressure Bailer				В	er:	
Stack Pump		M	letal Filters		1	Thickness:	ft
Suction Pump		P	eristaltic Pump		Visual Confirm	nation/Description:	
Grundfos		Q	ED Bladder Pump		Skimmer / Ah	sorbant Sock (circle	one)
Peristaltic Pump		0	ther:			from Skimmer:	
QED Bladder Pump						from Well:	
Other:					Water Remove	ed:	
Start Time (purge	): <u>0915</u>		Weather Con	ditions:	Cloudy		
Sample Time/Da	te: 09451	8-22-11	Water Color:	Claus-	Odor: Y / 🗘		
Approx. Flow Ra	te:				1200-		
Approx. Flow Ra Did well de-wate	4.4	gpm.	Sediment De	scription:	vone	mplina: 9.8	<u></u>
Did well de-water	4.4	gpm.		scription:	gal. DTW @ Sa	mpling: 9.8	Ō
Did well de-water	4.4	gpm.	Sediment De  Volun  Conductivity	scription: ne: Temperature	gal. DTW @ Sa	ORP	TO
Did well de-water	r?	gpm. yes, Time:	Sediment De	scription:	gal. DTW @ Sa	-	TO
Did well de-water	r? <b>1/0</b> If	gpm. yes, Time:	Sediment De  Volun  Conductivity	scription: ne: Temperature	gal. DTW @ Sa	ORP	0
Did well de-water	r?	gpm. yes, Time:	Sediment De  Volun  Conductivity	scription: ne: Temperature	gal. DTW @ Sa	ORP	TO .
Did well de-water	r?	gpm. yes, Time:	Sediment De  Volun  Conductivity	scription: ne: Temperature	gal. DTW @ Sa	ORP	10 10
Did well de-water	r?	gpm. yes, Time:	Sediment De  Volun  Conductivity	scription: ne: Temperature	gal. DTW @ Sa	ORP	50
Time (2400 hr.)	r?	gpm. yes, Time: pH 7, [] 2.14 2-15	Sediment De Volun  Conductivity (µmhos/cm - (µS))  / 5 7  / 5 7	Temperature (C/F) /9.5	gal. DTW @ Sa	ORP	10 <u> </u>
Time (2400 hr.)  O11.0  O97.5  O9.30  SAMPLE ID	Volume (gal.)  // \$  3  (#) CONTAINER	gpm. yes, Time: pH 7, [] 2.14 2-15	Sediment De  Volun  Conductivity	Temperature (C/F) /9.5 /9.3 /9.3 FORMATION LABORATORY	gal. DTW @ Sa  D.O. (mg/L)	ORP (mV)	10 To
Time (2400 hr.)	Volume (gal.)  /. \$  3  (#) CONTAINER  x voa viail	gpm. yes, Time: pH 7,     7,     7-15 REFRIG. YES	Conductivity (µmhos/cm - (15))  / 5 7  / 5 7  ABORATORY IN  PRESERV. TYPE  HCL	Temperature (C/F) /9, S /9, 3 /9, 3 /9, 3 LABORATION LABORATORY LANCASTER	gal. DTW @ Sa D.O. (mg/L)	ORP (mV)	50
Time (2400 hr.)  O11.0  O97.5  O9.30  SAMPLE ID	Volume (gal.)  // \$  // \$  // CONTAINER    x voa vial   x 1 liter ambers	gpm. yes, Time: pH 7,     2, /4 7-15 REFRIG. YES YES	Sediment De Volun  Conductivity (µmhos/cm - (\S))  / 5 7  / 5 7  / 5 7  ABORATORY IN PRESERV. TYPE  HCL NP	Temperature (C/F) /9.5 /9.3 /9.3 /9.3 LABORATION LABORATORY LANCASTER LANCASTER	gal. DTW @ Sa  D.O. (mg/L)  TPH-GRO(8015)/B1  TPH-DRO/TPH-MO	ORP (mV)	50
Time (2400 hr.)  O11.0  O97.5  O9.30  SAMPLE ID	Volume (gal.)  /. \$ 3 5  (#) CONTAINER  • x voa vial  x 1 liter ambers  x 1 liter ambers	gpm. yes, Time: pH 7,     2, 14 7-15 REFRIG. YES YES YES	Sediment De Volun  Conductivity (µmhos/cm - µS)  / 5 7  / 5 7  / 5 7  ABORATORY IN PRESERV. TYPE  HCL NP NP	Temperature (C/F) /9.5 /9.3 /9.3 /9.3 LABORATION LABORATORY LANCASTER LANCASTER LANCASTER	gal. DTW @ Sa  D.O. (mg/L)  TPH-GRO(8015)/BT TPH-DRO/TPH-MO TPH-MO w/sgc COI	ORP (mV)  ANALYSES TEX+MTBE(8260) (8015) LUMN	50
Time (2400 hr.)  O11.0  O97.5  O9.30  SAMPLE ID	Volume (gal.)  /. \$  3  (#) CONTAINER  • x voa vial  x 1 liter ambers  x 1 liter ambers  x 1 liter ambers	gpm. yes, Time: pH 7, 11 7, 14 7, 15 REFRIG. YES YES YES YES YES	Sediment De Volun  Conductivity (µmhos/cm - US)  / 5 7  / 5 7  / 5 7  ABORATORY IN PRESERV. TYPE  HCL NP NP NP NP	Temperature (C/F) /9.5 /9.3 /9.3 /9.3 LABORATORY LABORATORY LANCASTER LANCASTER LANCASTER LANCASTER	gal. DTW @ Sa  D.O. (mg/L)  TPH-GRO(8015)/BT TPH-DRO/TPH-MO TPH-MO w/sgc COI TPH-DRO w/sgc COI	ORP (mV)  ANALYSES TEX+MTBE(8260) (8015) LUMN DLUMN	50
Time (2400 hr.)  O11.0  O97.5  O9.30  SAMPLE ID	Volume (gal.)  /. \$ 3 5  (#) CONTAINER  • x voa vial  x 1 liter ambers  x 1 liter ambers	gpm. yes, Time: pH 7, 11 2, 14 2-15 REFRIG. YES YES YES YES YES YES	Sediment De Volun  Conductivity (µmhos/cm - µS)  / 5 7  /	Temperature (C/F) /9.5 /9.3 /9.3 /9.3  FORMATION LABORATORY LANCASTER LANCASTER LANCASTER LANCASTER LANCASTER LANCASTER LANCASTER LANCASTER	gal. DTW @ Sa  D.O. (mg/L)  TPH-GRO(8015)/BT  TPH-DRO/TPH-MO TPH-MO w/sgc COI TPH-DRO w/sgc COI FULL SCAN VOC's	ORP (mV)  ANALYSES TEX+MTBE(8260) (8015) LUMN DLUMN	50
Time (2400 hr.)  O11.0  O97.5  O9.30  SAMPLE ID	Volume (gal.)  /. \$  /. \$  (#) CONTAINER  x voa vial  x 1 liter ambers  x 1 liter ambers  x 1 liter ambers  x voa vial	gpm. yes, Time: pH 7, 11 7, 14 7, 15 REFRIG. YES YES YES YES YES	Sediment De Volun  Conductivity (µmhos/cm - US)  / 5 7  / 5 7  / 5 7  ABORATORY IN PRESERV. TYPE  HCL NP NP NP NP	Temperature (C/F) /9.3 /9.3 /9.3 /9.3 LANCASTER	gal. DTW @ Sa  D.O. (mg/L)  TPH-GRO(8015)/BT TPH-DRO/TPH-MO TPH-MO w/sgc COI TPH-DRO w/sgc COI	ORP (mV)  ANALYSES TEX+MTBE(8260) (8015) LUMN DLUMN	
Time (2400 hr.)  O11.0  O97.5  O9.30  SAMPLE ID	// CONTAINER  (#) CONTAINER  (*) X Voa vial  X 1 liter ambers  X 1 liter ambers  X 1 liter ambers  X 1 liter ambers	gpm. yes, Time: pH 7, 11 2, 14 2-15 REFRIG. YES YES YES YES YES YES YES	Sediment De Volun  Conductivity (µmhos/cm - µS)  / 5 7  /	Temperature (C/F) /9.5 /9.3 /9.3 /9.3  FORMATION LABORATORY LANCASTER LANCASTER LANCASTER LANCASTER LANCASTER LANCASTER LANCASTER LANCASTER	gal. DTW @ Sa  D.O. (mg/L)  TPH-GRO(8015)/BT TPH-DRO/TPH-MO TPH-MO w/sgc COI TPH-DRO w/sgc CO FULL SCAN VOC's SVOC's (8270	ORP (mV)  ANALYSES TEX+MTBE(8260) (8015) LUMN DLUMN	
Time (2400 hr.)  O11.0  O97.5  O9.30  SAMPLE ID	// CONTAINER  (#) CONTAINER  (*) X voa vial  X 1 liter ambers  X 1 liter ambers  X voa vial  X 1 liter ambers  X 1 liter ambers  X 1 liter ambers  X 1 liter ambers	gpm. yes, Time: pH 7, 11 2	Sediment De Volun  Conductivity (µmhos/cm - (\overline{1}\overline{5}))  S 7  S 7  S 7  S 7  S 7  S 7  S 7  S	Temperature (C/F) /9.5 /9.3 /9.3 /9.3 /9.3 /9.3  FORMATION LABORATORY LANCASTER	gal. DTW @ Sal D.O. (mg/L)  TPH-GRO(8015)/BT TPH-DRO/TPH-MO TPH-MO w/sgc COI TPH-DRO w/sgc COI FULL SCAN VOC's SVOC's (8270 PCB's	ORP (mV)  ANALYSES TEX+MTBE(8260) (8015) LUMN DLUMN	
Time (2400 hr.)  OTLO  O975  O	// CONTAINER  (#) CONTAINER  (*) X voa vial  X 1 liter ambers  X 1 liter ambers  X voa vial  X 1 liter ambers  X 1 liter ambers  X 1 liter ambers  X 1 liter ambers	gpm. yes, Time: pH 7, 11 2	Sediment De Volun  Conductivity (µmhos/cm - (\overline{1}\overline{5}))  S 7  S 7  S 7  S 7  S 7  S 7  S 7  S	Temperature (C/F) /9.5 /9.3 /9.3 /9.3 /9.3 /9.3  FORMATION LABORATORY LANCASTER	gal. DTW @ Sal D.O. (mg/L)  TPH-GRO(8015)/BT TPH-DRO/TPH-MO TPH-MO w/sgc COI TPH-DRO w/sgc COI FULL SCAN VOC's SVOC's (8270 PCB's	ORP (mV)  ANALYSES TEX+MTBE(8260) (8015) LUMN DLUMN	
Time (2400 hr.)  O11.0  O97.5  O9.30  SAMPLE ID	// CONTAINER  (#) CONTAINER  (*) X voa vial  X 1 liter ambers  X 1 liter ambers  X voa vial  X 1 liter ambers  X 1 liter ambers  X 1 liter ambers  X 1 liter ambers	gpm. yes, Time: pH 7, 11 2	Sediment De Volun  Conductivity (µmhos/cm - (\overline{1}\overline{5}))  S 7  S 7  S 7  S 7  S 7  S 7  S 7  S	Temperature (C/F) /9.5 /9.3 /9.3 /9.3 /9.3 /9.3  FORMATION LABORATORY LANCASTER	gal. DTW @ Sal D.O. (mg/L)  TPH-GRO(8015)/BT TPH-DRO/TPH-MO TPH-MO w/sgc COI TPH-DRO w/sgc COI FULL SCAN VOC's SVOC's (8270 PCB's	ORP (mV)  ANALYSES TEX+MTBE(8260) (8015) LUMN DLUMN	
Time (2400 hr.)  OTLO  O975  O	// CONTAINER  (#) CONTAINER  (*) X voa vial  X 1 liter ambers  X 1 liter ambers  X voa vial  X 1 liter ambers  X 1 liter ambers  X 1 liter ambers  X 1 liter ambers	gpm. yes, Time: pH 7, 11 2	Sediment De Volun  Conductivity (µmhos/cm - (\overline{1}\overline{5}))  S 7  S 7  S 7  S 7  S 7  S 7  S 7  S	Temperature (C/F) /9.5 /9.3 /9.3 /9.3 /9.3 /9.3  FORMATION LABORATORY LANCASTER	gal. DTW @ Sal D.O. (mg/L)  TPH-GRO(8015)/BT TPH-DRO/TPH-MO TPH-MO w/sgc COI TPH-DRO w/sgc COI FULL SCAN VOC's SVOC's (8270 PCB's	ORP (mV)  ANALYSES TEX+MTBE(8260) (8015) LUMN DLUMN	
Time (2400 hr.)  OTLO  O975  O	Volume (gal.)  // S  (#) CONTAINER  (p x voa vial  x 1 liter ambers  x 1 liter ambers  x voa vial  x 1 liter ambers	gpm. yes, Time: pH 7, 11 2	Sediment De Volun  Conductivity (µmhos/cm - (\overline{1}\overline{5}))  S 7  S 7  S 7  S 7  S 7  S 7  S 7  S	Temperature (C/F) /9.5 /9.3 /9.3 /9.3 /9.3 /9.3  FORMATION LABORATORY LANCASTER	gal. DTW @ Sal D.O. (mg/L)  TPH-GRO(8015)/BT TPH-DRO/TPH-MO TPH-MO w/sgc COI TPH-DRO w/sgc COI FULL SCAN VOC's SVOC's (8270 PCB's	ORP (mV)  ANALYSES TEX+MTBE(8260) (8015) LUMN DLUMN	



Client/Facility#: Site Address: City:	Chevron #9- 3616 San Le Oakland, CA	andro S	treet	Job Number: Event Date: Sampler:	386473 8.22-11 ML	(inclusive)
Well ID Well Diameter Total Depth Depth to Water  Depth to Water  Purge Equipment: Disposable Bailer Stainless Steel Baile Stack Pump Suction Pump Grundfos Peristaltic Pump QED Bladder Pump Other:	w/ 80% Recharge	xVF C xVF S E ((Height of \)	Volumi Factor Check if water column	e 3/4"= 0.0 (VF) 4"= 0.6 n is less then 0.5 x3 case volume =	66 5"= 1.02 6"= 1.50 12"=	(2400 hrs)(2400 hrs)ftftftft otion:(circle one) er:galgal
	10-7	gpm.	Weather Cor Water Color: Sediment De Volun Conductivity (µmhos/cm (µS) 307	CLOUDY scription:	Odor: OIN Light  gal. DTW @ Sampling:  D.O. ORP  (mg/L) (mV)	10.10
SAMPLE ID MW-3  COMMENTS:	(#) CONTAINER  x voa vial  x 1 liter ambers  x 1 liter ambers  x 1 liter ambers  x voa vial  x 1 liter ambers  x 1 liter ambers  x 1 liter ambers  x 500ml poly	REFRIG. YES	ABORATORY IN PRESERV. TYPE HCL NP NP NP HCL Na2S2O3 NP HNO3	FORMATION LABORATORY LANCASTER	ANALYSES TPH-GRO(8015)/BTEX+MTBE(8 TPH-DRO/TPH-MO (8015) TPH-MO w/sgc COLUMN TPH-DRO w/sgc COLUMN FULL SCAN VOC's (8260) / 11/ SVOC's (8270 PCB's CAM 5 METALS	260)
Add/Replaced	Lock:	Add/	Replaced Plug:		Add/Replaced Bolt:	



Client/Facility#:	Chevron #9-	4612		Job Number:	386473	
Site Address:	3616 San Le	andro S	treet	Event Date:	8-22-11	— (inclusive)
City:	Oakland, CA				33.6	(IIICIUSIVE)
City.	Oakiailu, CA			Sampler:	mL_	
Well ID	MW-4				6 00 11	<del></del>
	mw - 7	-		ate Monitored:	8.22-11	<del></del>
Well Diameter	(2)14	_	Volume	3/4"= 0.0	2 1"= 0.04 2"= 0.17 3"= 0	.38
Total Depth	17.86 ft.		Factor	(VF) 4"= 0.6	6 5"= 1.02 6"= 1.50 12"= 5	.80
Depth to Water	8,85 ft.		check if water column	n is less then 0.50	Oft.	
	9101	xVF_	7 = 1,5	x3 case volume =	Estimated Purge Volume:	S gal.
Depth to Water	w/ 80% Recharge		Vater Column x 0.20) +			
·	•		,		Time Started:	
Purge Equipment:		S	ampling Equipment:		Time Completed:	
Disposable Bailer	X	D	isposable Bailer	X	Depth to Product:	
Stainless Steel Baile					Depth to Water:	
Stack Pump	<del></del>	N	letal Filters		Hydrocarbon Thickness:	
Suction Pump		Р	eristaltic Pump		Visual Confirmation/Descripti	on:
Grundfos		C	ED Bladder Pump		Skimmer / Absorbant Sock (c	irele ene)
Peristaltic Pump		0	ther:		Amt Removed from Skimmer	
QED Bladder Pump					Amt Removed from Well:	
Other:					Water Removed:	
Start Time (purge	e): 1005		Weather Con	ditions:	CIOUDY	
	-	-27-11		_		
	ate: <u>/035 / 8</u>		Water Color:		Odor: Y / N	
Approx. Flow Ra		gpm.	Sediment Des			
Did well de-wate	er?	yes, Time	Volun	ne:	gal. DTW @ Sampling:	
Time	Volume (gal.)	pН	Conductivity	Temperature	D.O. ORP	
(2400 hr.)	volume (gai.)	pri	(µmhos/cm -	( <b>②</b> /F)	(mg/L) (mV)	
1010	1,5	7.16	216	18.9		
1015	3	7,10	222	18-9		_
1020	4.5	2/11	224	18-8		_
						_
						<del></del>
			LABORATORY IN			
SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES	
MW-4	x voa vial	YES	HCL	LANCASTER	TPH-GRO(8015)/BTEX+MTBE(826	60)
	x 1 liter ambers	YES	NP	LANCASTER	TPH-DRO/TPH-MO (8015)	
	x 1 liter ambers	YES	NP NP	LANCASTER	TPH-MO w/sgc COLUMN	
	x 1 liter ambers x voa vial	YES YES	NP HCL	LANCASTER	TPH-DRO w/sgc COLUMN FULL SCAN VOC's (8260)	
	x 1 liter ambers	YES	Na2S2O3	LANCASTER LANCASTER	SVOC's (8270	
	x 1 liter ambers	YES	NP	LANCASTER	PCB's	
	x 500ml poly	YES	HNO3	LANCASTER	CAM 5 METALS	
	, -7					
COMMENTS						
COMMENTS:						·

Add/Replaced Lock: \_\_\_\_\_ Add/Replaced Plug: \_\_\_\_ Add/Replaced Bolt: \_\_\_\_\_

# Chevron California Region Analysis Request/Chain of Custody



Ø82511-86

Acct. #: 12099

For Lancaster Laboratories use only Sample # 6388961-64

Group #: 007940

		ect #: 61H-1996	Analy	ses Requested	G# 1263738
Facility #: 3616 SAN LEANDRO STREET, OAKLAND,		Matrix	Prese	ervation Codes	Preservative Codes
Chevron PM:  G-R, Inc., 6747 Sierra Count, Suite J, Do Consultant/Office:  Deanna L. Harding (deanna@grinc.)  Consultant Prj. Mgr.:  Consultant Phone #:  Sampler:  Date	AKJ Kiernan ublin, CA 94568 com) 51-7899	er Dotabl	BTEX + MTBE 8260 SS 8021 ☐  TPH 8015 MOD GRO  TPH 8015 MOD DRO ☐ Silica Gel Clearup  8260 full scan / TPH - G100 (80 fs) =  Oxygenatiss	Lead Method ————————————————————————————————————	H = HCl T = Thiosulfate N = HNO <sub>3</sub> B = NaOH S = H <sub>2</sub> SO <sub>4</sub> O = Other   J value reporting needed Must meet lowest detection limits possible for 8260 compounds  8021 MTBE Confirmation Confirm highest hit by 8260 Confirm all hits by 8260 Run oxy's on highest hit
		Soll Wate		SS TE SS O	☐ Run oxy's on all hits
MW-2 1 0 MW-3 1 0	1200 X 1945 X 1900 X 135 X		X X X X X X X X X X X X X X X X X X X		TPH-DRO & TPH-MO WITH SILICA GEL REQUESTING 10 GRAM COLUMN CLEAN-UP WITH CAPRIC ACID REVERSE SURROGATE
Turparound Time Requested (TAT) (please circle) 6TD. TAT 72 hour 48 hour 24 hour 4 day 5 day	Relinquished by: Helinquished by: Relinquished by:	i I	8-23-11 //a Date Ti	me Received by:	FRIDGE 08-23-11/G00  Date Time  Date Time  15 AUG   1246
Data Package Options (please circle if required) EDF/EDD QC Summary Type ! - Full Type V! (Raw Data) □ Coelt Deliverable not needed WIP (RWQCB) Disk-	Relinquished by	Germmercial Carrier: edEx Other	25 AUGILL	Received by:  FED EX  Received by:  C° Custody Seals Intack	Date Time Date Time Planty 8-261 905 Yes No



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:

Lancaster Laboratories 2425 New Holland Pike Lancaster, PA 17605-2425 Prepared for:

Chevron c/o CRA Suite 107 10969 Trade Center Dr Rancho Cordova CA 95670

September 14, 2011

Project: 94612

Submittal Date: 08/26/2011 Group Number: 1263738 PO Number: 94612 Release Number: MTI State of Sample Origin: CA RECEIVED

SEP 1 5 20:

GETTLEK-RYAN INC. GENERAL CONTRACTORS

Client Sample Description

VH-1-W-110822 Grab Water MW-2-W-110822 Grab Water MW-3-W-110822 Grab Water MW-4-W-110822 Grab Water

Lancaster Labs (LLI) #

6388961 6388962 6388963 6388964

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

**ELECTRONIC** 

Gettler-Ryan, Inc.

Attn: Rachelle Munoz

COPY TO

**ELECTRONIC** 

COPY TO

Chevron c/o CRA

Attn: Report Contact

**ELECTRONIC COPY TO** 

Chevron

Attn: Anna Avina



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Questions? Contact your Client Services Representative Jill M Parker at (717) 656-2300 Ext. 1241

Respectfully Submitted,

Maria S. Lord

Senior Specialist

Ukulas Lond



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Page 1 of 1

Sample Description: VH-1-W-110822 Grab Water

Facility# 94612 Job# 386473 MTI# 61H-1996 GRD

3616 San Leandro-Oakland T0600100333 VH-1

LLI Sample # WW 6388961

LLI Group # 1263738

Account # 12099

Project Name: 94612

Collected: 08/22/2011 12:00 by ML

Chevron c/o CRA

Suite 107

Submitted: 08/26/2011 09:05 Reported: 09/14/2011 12:16 10969 Trade Center Dr Rancho Cordova CA 95670

SLO01

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS	Volatiles SW-8	16 8260B	ug/l	ug/l	
10943	Benzene	71-43-2	12	0.5	1
10943	Ethylbenzene	100-41-4	0.8	0.5	1
10943	Methyl Tertiary Butyl Ethe	r 1634-04-4	7	0.5	1
10943	Toluene	108-88-3	2	0.5	1
10943	Xylene (Total)	1330-20-7	3	0.5	1
GC Vol	atiles SW-84	6 8015B	ug/l	ug/l	
01728	TPH-GRO N. CA water C6-C12	n.a.	3,400	250	5

#### General Sample Comments

State of California Lab Certification No. 2501 Trip blank vials were not received by the laboratory for this sample group.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX/MTBE 8260 Water	SW-846 8260B	1	D112432AA	08/31/2011 19:20	Daniel H Heller	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D112432AA	08/31/2011 19:20		1
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	11241A20A	08/30/2011 23:41	Catherine J	5
						Schwarz	
01146	GC VOA Water Prep	SW-846 5030B	1	11241A20A	08/30/2011 23:41	Catherine J	5
						Schwarz	



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Sample Description: MW-2-W-110822 Grab Water

Facility# 94612 Job# 386473 MTI# 61H-1996 GRD

3616 San Leandro-Oakland T0600100333 MW-2

LLI Sample # WW 6388962

LLI Group # 1263738 Account # 12099

Project Name: 94612

Collected: 08/22/2011 09:45 by ML

Chevron c/o CRA

Suite 107

Submitted: 08/26/2011 09:05 Reported: 09/14/2011 12:16

10969 Trade Center Dr Rancho Cordova CA 95670

#### SLO02

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor	
GC/MS	Volatiles SW-8	46 8260B	ug/l	ug/l		
10943	Benzene	71-43-2	1	0.5	1	
10943	Ethylbenzene	100-41-4	1	0.5	1	
10943	Methyl Tertiary Butyl Eth	er 1634-04-4	3	0.5	1	
10943	Toluene	108-88-3	0.6	0.5	1	
10943	Xylene (Total)	1330-20-7	0.9	0.5	1	
GC Vol	latiles SW-8	46 8015B	ug/l	ug/l		
01728	TPH-GRO N. CA water C6-C1	2 n.a.	3,700	250	5	

#### General Sample Comments

State of California Lab Certification No. 2501 Trip blank vials were not received by the laboratory for this sample group.

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
10943	BTEX/MTBE 8260 Water	SW-846 8260B	1	D112431AA	08/31/2011 16:05	Daniel H Heller	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D112431AA	08/31/2011 16:05		1
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	11241A20A	08/31/2011 00:03		5
						Schwarz	
01146	GC VOA Water Prep	SW-846 5030B	1	11241A20A	08/31/2011 00:03	Catherine J	5
						Schwarz	



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Sample Description: MW-3-W-110822 Grab Water

Facility# 94612 Job# 386473 MTI# 61H-1996 GRD 3616 San Leandro-Oakland T0600100333 MW-3

LLI Group # 1263738 # 12099

LLI Sample # WW 6388963

Account

Project Name: 94612

Collected: 08/22/2011 09:00 by ML

Chevron c/o CRA

Suite 107

Submitted: 08/26/2011 09:05 Reported: 09/14/2011 12:16

10969 Trade Center Dr Rancho Cordova CA 95670

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS	Volatiles SW-846 8	260B	ug/l	ug/l	
10905	Acetone	67-64-1	N.D.	6	1
10905	t-Amyl methyl ether	994-05-8	N.D.	0.5	1
10905	Benzene	71-43-2	N.D.	0.5	1
10905	Bromobenzene	108-86-1	N.D.	1	1
10905	Bromochloromethane	74-97-5	N.D.	1	1
10905	Bromodichloromethane	75-27-4	N.D.	1	1
10905	Bromoform	75-25-2	N.D.	1	1
10905	Bromomethane	74-83-9	N.D.	1	1
10905	2-Butanone	78-93-3	N.D.	3	1
10905	t-Butyl alcohol	75-65-0	N.D.	5	1
10905	n-Butylbenzene	104-51-8	3	1	1
10905	sec-Butylbenzene	135-98-8	3	1	1
10905	tert-Butylbenzene	98-06-6	4	1	1
10905	Carbon Disulfide	75-15-0	N.D.	1	1
10905	Carbon Tetrachloride	56-23-5	N.D.	1	1
10905	Chlorobenzene	108-90-7	N.D.	0.8	1
10905	Chloroethane	75-00-3	N.D.	1	1
10905	2-Chloroethyl Vinyl Ether	110-75-8	N.D.	2	1
	2-Chloroethyl vinyl ether may n			2	1
	preserve this sample.		40 1140 40-4 60		
10905	Chloroform	67-66-3	N.D.	0.8	1
10905	Chloromethane	74-87-3	N.D.	1	1
10905	2-Chlorotoluene	95-49-8	N.D.	1	1
10905	4-Chlorotoluene	106-43-4	N.D.	1	1
10905	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	2	1
10905	Dibromochloromethane	124-48-1	N.D.	1	1
10905	1,2-Dibromoethane	106-93-4	N.D.	0.5	1
10905	Dibromomethane	74-95-3	N.D.	1	1
10905	1,2-Dichlorobenzene	95-50-1	N.D.	1	1
10905	1,3-Dichlorobenzene	541-73-1	N.D.	1	1
10905	1,4-Dichlorobenzene	106-46-7	N.D.	1	1
10905	Dichlorodifluoromethane	75-71-8	N.D.	2	1
10905	1,1-Dichloroethane	75-34-3	N.D.	1	1
10905	1,2-Dichloroethane	107-06-2	N.D.	0.5	1
10905	1,1-Dichloroethene	75-35-4	N.D.	0.8	1
10905	cis-1,2-Dichloroethene	156-59-2	N.D.	0.8	1
10905	trans-1,2-Dichloroethene	156-60-5	N.D.	0.8	1
10905	1,2-Dichloropropane	78-87-5	N.D.	1	1
10905	1,3-Dichloropropane	142-28-9	N.D.	1	1
10905	2,2-Dichloropropane	594-20-7	N.D.	1	1
10905	1,1-Dichloropropene	563-58-6	N.D.	1	1
10905	cis-1,3-Dichloropropene	10061-01-5	N.D.	1	1
10905	trans-1,3-Dichloropropene	10061-02-6	N.D.	1	1
10905	Ethanol	64-17-5	N.D.	50	1
10905	Ethyl t-butyl ether	637-92-3	N.D.	0.5	1
10905	Ethylbenzene	100-41-4	N.D.	0.5	1
10905	Freon 113	76-13-1	N.D.	2	1
	Hexachlorobutadiene	87-68-3	N.D.	2	1
10905	2-Hexanone	591-78-6	N.D.	3	1
10905	di-Isopropyl ether	108-20-3	N.D.	0.5	1
				0.5	1



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Sample Description: MW-3-W-110822 Grab Water

Facility# 94612 Job# 386473 MTI# 61H-1996 GRD

3616 San Leandro-Oakland T0600100333 MW-3

LLI Sample # WW 6388963 LLI Group # 1263738 Account # 12099

Project Name: 94612

Collected: 08/22/2011 09:00 by ML

Chevron c/o CRA

Suite 107

Submitted: 08/26/2011 09:05 Reported: 09/14/2011 12:16

10969 Trade Center Dr Rancho Cordova CA 95670

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS	Volatiles SW-846	8260B	ug/l	ug/l	
10905	Isopropylbenzene	98-82-8	N.D.	1	1
10905	p-Isopropyltoluene	99-87-6	N.D.	ī	1
10905	Methyl Tertiary Butyl Ether	1634-04-4	2	0.5	1
10905	4-Methyl-2-pentanone	108-10-1	N.D.	3	1
10905	Methylene Chloride	75-09-2	N.D.	2	1
10905	Naphthalene	91-20-3	2	1	
10905	n-Propylbenzene	103-65-1	N.D.	1	1
10905	Styrene	100-42-5	N.D.	1	1
10905	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	1	_
10905	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	1	1
10905	Tetrachloroethene	127-18-4	N.D.	0.8	1
10905	Toluene	108-88-3	N.D.	0.8	1
10905	1,2,3-Trichlorobenzene	87-61-6	N.D.		1
10905	1,2,4-Trichlorobenzene	120-82-1	N.D.	1	1
10905	1,1,1-Trichloroethane	71-55-6	N.D.	1	1
10905	1,1,2-Trichloroethane	79-00-5	N.D.	0.8	1
10905	Trichloroethene	79-01-6	N.D.	0.8	1
10905	Trichlorofluoromethane	75-69-4		1	1
10905	1,2,3-Trichloropropane	96-18-4	N.D.	2	1
10905	1,2,4-Trimethylbenzene		N.D.	1	1
10905	1,3,5-Trimethylbenzene	95-63-6	N.D.	1	1
10905	Vinyl Chloride	108-67-8	N.D.	1	1
10905	-	75-01-4	N.D.	1	1
10905	m+p-Xylene	n.a.	N.D.	0.5	1
10905	o-Xylene	95-47-6	N.D.	0.5	1
•	Semivolatiles SW-846	8270C	ug/l	ug/l	
04678	Acenaphthene	83-32-9	N.D.	0.1	1
04678	Acenaphthylene	208-96-8	N.D.	0.1	1
04678	Anthracene	120-12-7	N.D.	0.1	1
04678	Benzo(a)anthracene	56-55-3	N.D.	0.1	1
04678	Benzo(a)pyrene	50-32-8	N.D.	0.1	1
04678	Benzo(b) fluoranthene	205-99-2	N.D.	0.1	1
04678	Benzo(g,h,i)perylene	191-24-2	N.D.	0.1	1
04678	Benzo(k)fluoranthene	207-08-9	N.D.	0.1	1
04678	4-Bromophenyl-phenylether	101-55-3	N.D.	0.5	1
04678	Butylbenzylphthalate	85-68-7	N.D.	2	1
04678	Di-n-butylphthalate	84-74-2	N.D.	2	1
04678	Carbazole	86-74-8	N.D.	0.5	1
04678	4-Chloro-3-methylphenol	59-50-7	N.D.	0.5	1
04678	4-Chloroaniline	106-47-8	N.D.	0.5	1
04678	bis(2-Chloroethoxy)methane	111-91-1	N.D.	0.5	1
04678	bis(2-Chloroethyl)ether	111-44-4	N.D.	0.5	1
	2-Chloronaphthalene	91-58-7	N.D.	0.4	1
	2-Chlorophenol	95-57-8	N.D.	0.5	1
	4-Chlorophenyl-phenylether	7005-72-3	N.D.	0.5	1
	2,2'-oxybis(1-Chloropropane)	108-60-1	N.D.	0.5	1
	Chrysene	218-01-9	N.D.	0.5	1
	Dibenz(a,h)anthracene	53-70-3	N.D.	0.1	1
	Dibenzofuran	132-64-9	N.D.	0.5	
	1,2-Dichlorobenzene	95-50-1	N.D.	0.5	1
	-,	JJ JO 1	ΔT. ω,	0.5	1



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Sample Description: MW-3-W-110822 Grab Water

Facility# 94612 Job# 386473 MTI# 61H-1996 GRD

3616 San Leandro-Oakland T0600100333 MW-3

LLI Sample # WW 6388963

LLI Group # 1263738 Account # 12099

Project Name: 94612

Collected: 08/22/2011 09:00 by ML

Chevron c/o CRA

Suite 107

Submitted: 08/26/2011 09:05 Reported: 09/14/2011 12:16

10969 Trade Center Dr Rancho Cordova CA 95670

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS	Semivolatiles SW-846 82	70C	ug/l	ug/l	
04678	1,3-Dichlorobenzene	541-73-1	N.D.	0.5	1
04678	1,4-Dichlorobenzene	106-46-7	N.D.	0.5	1
04678	3,3'-Dichlorobenzidine	91-94-1	N.D.	2	1
04678	2,4-Dichlorophenol	120-83-2	N.D.	0.5	1
04678	Diethylphthalate	84-66-2	N.D.	2	1
04678	2,4-Dimethylphenol	105-67-9	N.D.	0.5	î
04678	Dimethylphthalate	131-11-3	N.D.	2	1
04678	4,6-Dinitro-2-methylphenol	534-52-1	N.D.	5	1
04678	2,4-Dinitrophenol	51-28-5	N.D.	10	1
04678	2,4-Dinitrotoluene	121-14-2	N.D.	1	1
04678	2,6-Dinitrotoluene	606-20-2	N.D.	0.5	1
04678	bis(2-Ethylhexyl)phthalate	117-81-7	N.D.	2	1
04678	Fluoranthene	206-44-0	N.D.	0.1	1
04678	Fluorene	86-73-7	N.D.	0.1	1
04678	Hexachlorobenzene	118-74-1	N.D.	0.1	1
04678	Hexachlorobutadiene	87-68-3	N.D.	0.5	1
04678	Hexachlorocyclopentadiene	77-47-4	N.D.	5	1
04678	Hexachloroethane	67-72-1	N.D.	1	1
04678	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.1	1
04678	Isophorone	78-59-1	N.D.	0.5	1
04678	2-Methylnaphthalene	91-57-6	N.D.	0.1	1
04678	2-Methylphenol	95-48-7	N.D.	0.5	1
04678	4-Methylphenol	106-44-5	N.D.	0.5	1
	3-Methylphenol and 4-methylpheno	l cannot be reso	olved under the		
	chromatographic conditions used	for sample analy	sis. The result reported		
	for 4-methylphenol represents the	e combined total	l of both compounds.		
04678	Naphthalene	91-20-3	N.D.	0.1	1
04678	2-Nitroaniline	88-74-4	N.D.	0.5	1
04678	3-Nitroaniline	99-09-2	N.D.	0.5	1
04678	4-Nitroaniline	100-01-6	N.D.	0.5	1
04678	Nitrobenzene		N.D.	0.5	1
04678	2-Nitrophenol	88-75-5	N.D.	0.5	1
04678	4-Nitrophenol		N.D.	10	1
04678	N-Nitroso-di-n-propylamine		N.D.	0.5	1
04678	N-Nitrosodiphenylamine		N.D.	0.5	1
	N-nitrosodiphenylamine decomposes				
	diphenylamine. The result report				
	represents the combined total of	_			
04678	Di-n-octylphthalate		N.D.	2	1
04678	Pentachlorophenol		N.D.	1	1
04678	Phenanthrene		N.D.	0.1	1
04678	Phenol		N.D.	0.5	1
04678	Pyrene		N.D.	0.1	1
04678	1,2,4-Trichlorobenzene		N.D.		1
04678	2,4,5-Trichlorophenol				1
04678	2,4,6-Trichlorophenol	88-06-2	N.D.	0.5	1
aa	-1.13	=-	/-		
GC Vol		5B	ug/l	ug/l	
01728	TPH-GRO N. CA water C6-C12	n.a.	2,500	50	1



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Sample Description: MW-3-W-110822 Grab Water

Facility# 94612 Job# 386473 MTI# 61H-1996 GRD

3616 San Leandro-Oakland T0600100333 MW-3

LLI Sample # WW 6388963 LLI Group # 1263738

Account # 12099

Project Name: 94612

Collected: 08/22/2011 09:00 by ML Chevron c/o CRA

Suite 107

Submitted: 08/26/2011 09:05 10969 Trade Center Dr Reported: 09/14/2011 12:16

Rancho Cordova CA 95670

#### SLO03

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Pesti	cides/PCBs SW-846	8082	ug/l	ug/l	
10227	PCB-1016	12674-11-2	N.D.	0.099	1
10227	PCB-1221	11104-28-2	N.D.	0.099	1
10227	PCB-1232	11141-16-5	N.D.	0.20	1
10227	PCB-1242	53469-21-9	N.D.	0.099	1
10227		12672-29-6	N.D.	0.099	1
10227	PCB-1254	11097-69-1	N.D.	0.099	1
10227	PCB-1260	11096-82-5	N.D.	0.15	1
reex the	surrogate data is outside the ( traction are within the limits. reextraction therefore, all res act. Similar results were obta	The hold time houlds are reported	ad expired prior to		
GC Pe	troleum SW-846	3015B	ug/l	ug/l	
Hydro	carbons				
08269		n.a.	500	50	3
02216			250	32	1
	The reverse surrogate, capric			32	1
		-			
GC Pet	troleum SW-846 8	015B modified	ug/l	ug/l	
Hydro	carbons				
10006	Motor Oil C16-C36 w/Si Gel	n.a.	N.D.	40	1
02500	Total TPH	n.a.	N.D.	41	1
	TPH Motor Oil C16-C36	n.a.	N.D.	41	1
10006	Total TPH w/Si Gel	n.a.	N.D.	40	1
that C8 (1 The 1	quantitation is based on peak a of a hydrocarbon component mix n-octane) through C40 (n-tetrac surrogate data is outside the Q ix problems evident in the samp	calibration in a ontane) normal hy C limits due to u	range that includes drocarbons.		
Metals	SW-846 6	010B	ug/l	ug/1	
07049	Cadmium	7440-43-9	2.6		
07051	Chromium	7440-43-9	173	0.27	1
07051	Lead	7439-92-1	8.3	1.1	1
07053		7440-02-0	308	2.2	1
07072	Zinc	7440-02-0	123	0.95 3.2	1
3,0.2		,440-00-0	143	3,2	1

#### General Sample Comments

State of California Lab Certification No. 2501

Trip blank vials were not received by the laboratory for this sample group.

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



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Sample Description: MW-3-W-110822 Grab Water

Facility# 94612 Job# 386473 MTI# 61H-1996 GRD

3616 San Leandro-Oakland T0600100333 MW-3

LLI Sample # WW 6388963 LLI Group # 1263738

Account # 12099

Project Name: 94612

Collected: 08/22/2011 09:00 by ML

Chevron c/o CRA

Suite 107

Submitted: 08/26/2011 09:05

10969 Trade Center Dr Rancho Cordova CA 95670

Reported: 09/14/2011 12:16

			Laborat	ory Sa	ample Analysi	s Record			
CAT No.	Analysis Name	Method		Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Pactor
10905	8260 Full List w/ Sep. Xylenes	SW-846	8260B	1	W112451AA	09/02/2011	19:45	Emily R Styer	1
01163	GC/MS VOA Water Prep	SW-846	5030B	1	W112451AA	09/02/2011	19:45	Emily R Styer	1
04678	TCL SVOC 8270C Water	SW-846	8270C	1	11239WAA026	09/06/2011	00:17	Jennifer R Riggs	1
00813	BNA Water Extraction	SW-846	3510C	1	11239WAA026	08/28/2011		Nicholas W Shroyer	
01728	TPH-GRO N. CA water C6-C12	SW-846	8015B	1	11241A20A	08/30/2011	22:36	Catherine J Schwarz	1
01146	GC VOA Water Prep	SW-846	5030B	1	11241A20A	08/30/2011	22:36	Catherine J Schwarz	1
10227	PCBs in Water 8082	SW-846	8082	1	112390009A	08/29/2011	20:59	Sarah M Snyder	1
11117	PCB Waters Extraction	SW-846	3510C	1	112390009A	08/29/2011	05:40	Roman Kuropatkin	1
08269	TPH-DRO water C10-C28	SW-846	8015B	1	112390002A	08/30/2011	23:34	Dustin A Underkoffler	1
02216	TPH-DRO water C10-C28 w/Si Gel	SW-846	8015B	1	112390020A	09/09/2011	01:00	Dustin A Underkoffler	1
02500	TPH Fuels by GC (Waters)	SW-846 modifie		1	112390003A	08/30/2011	09:18	Heather E Williams	1
10006	TPH Fuels water w/Si Gel	SW-846 modifie		1	112390021A	09/07/2011	17:11	Heather E Williams	1
11172	DRO by 8015 w/ Silica Gel Ext	SW-846	3510C	1	112390020A	08/29/2011	09:22	Cynthia J Salvatori	1
07003	Extraction - DRO (Waters)	SW-846	3510C	1	112390002A	08/28/2011	18:30	Elaine F Stoltzfus	1
11191	TPH Fuels Waters Extraction	SW-846	3510C	1	112390003A	08/28/2011	18:30	Elaine F Stoltzfus	1
11195	Ext.	SW-846	3510C	1	112390021A	08/29/2011	09:22	Cynthia J Salvatori	1
07049	Cadmium	SW-846	6010B	1	112411848001	08/30/2011	23:01	John W Yanzuk II	1
07051	Chromium	SW-846	<del>-</del>	1	112411848001	08/30/2011	23:01	John W Yanzuk II	1
07055	Lead	SW-846		_	112411848001	08/30/2011	23:01	John W Yanzuk II	1
	Nickel	SW-846	6010B	1	112411848001	08/30/2011	23:01	John W Yanzuk II	1
07072	Zinc	SW-846	6010B	1	112411848001	08/30/2011	23:01	John W Yanzuk II	1
01848	WW SW846 ICP Digest (tot rec)	SW-846	3005A	1	112411848001	08/29/2011	13:30	James L Mertz	1



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Sample Description: MW-4-W-110822 Grab Water

Facility# 94612 Job# 386473 MTI# 61H-1996 GRD 3616 San Leandro-Oakland T0600100333 MW-4

LLI Group # 1263738

LLI Sample # WW 6388964

Account # 12099

Project Name: 94612

Collected: 08/22/2011 10:35 by ML

Chevron c/o CRA

Suite 107

Submitted: 08/26/2011 09:05 Reported: 09/14/2011 12:16

10969 Trade Center Dr Rancho Cordova CA 95670

#### SLO04

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS	Volatiles SW-846	8260B	ug/l	ug/l	
10943	Benzene	71-43-2	N.D.	0.5	1
10943	Ethylbenzene	100-41-4	N.D.	0.5	1
10943	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Vol	latiles SW-846	8015B	ug/l	ug/l	
01728	TPH-GRO N. CA water C6-C12	n.a.	N.D.	50	1

#### General Sample Comments

State of California Lab Certification No. 2501 Trip blank vials were not received by the laboratory for this sample group.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX/MTBE 8260 Water	SW-846 8260B	1	D112431AA	08/31/2011 14:57	Daniel H Heller	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D112431AA	08/31/2011 14:57		1
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	11241A20A	08/30/2011 22:58		1
01146	CC 110% Makes Pro-	5W 046 50000				Schwarz	
01146	GC VOA Water Prep	SW-846 5030B	1	11241A20A	08/30/2011 22:58		1
						Schwarz	



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### Quality Control Summary

Client Name: Chevron c/o CRA Group Number: 1263738 Reported: 09/14/11 at 12:16 PM

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.

### Laboratory Compliance Quality Control

Analysis Name	Blank Result	Blank MDL	Report <u>Units</u>	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: D112431AA	Sample nu	mber(s): 63	88962 6286	2061				
Benzene	N.D.	0.5	uq/1	93		79-120		
Ethylbenzene	N.D.	0.5	ug/l	94		79-120		
Methyl Tertiary Butyl Ether	N.D.	0.5	ug/1	94		76-120		
Toluene	N.D.	0.5	ug/1	93		79-120		
Xylene (Total)	N.D.	0.5	ug/1	95		80-120		
, 200 (100)	14.2.	0.5	ug/1	33		80-120		
Batch number: D112432AA	Sample nu	mber(s): 63	88961					
Benzene	N.D.	0.5	uq/l	92		79-120		
Ethylbenzene	N.D.	0.5	ug/l	91		79-120		
Methyl Tertiary Butyl Ether	N.D.	0.5	ug/l	92		76-120		
Toluene	N.D.	0.5	ug/l	90		79-120		
Xylene (Total)	N.D.	0.5	uq/l	91		80-120		
			43/ -	71		00-120		
Batch number: W112451AA	Sample nu	mber(s): 63	88963					
Acetone	N.D.	6.	ug/l	164	159	49-234	3	30
t-Amyl methyl ether	N.D.	0.5	uq/l	104	101	77-120	2	30
Benzene	N.D.	0.5	ug/l	115	112	79-120	3	30
Bromobenzene	N.D.	1.	ug/l	112	105	80-120	6	30
Bromochloromethane	N.D.	1.	ug/l	102	98	80-120	4	30
Bromodichloromethane	N.D.	1.	ug/l	103	97	80-120	6	30
Bromoform	N.D.	1.	ug/l	79	78	61-120	2	30
Bromomethane	N.D.	1.	ug/l	95	92	44-120	4	30
2-Butanone	N.D.	3.	ug/l	125	122	66-151	2	30
t-Butyl alcohol	N.D.	5.	ug/l	120	123	62-129	2	30
n-Butylbenzene	N.D.	1.	ug/l	117	115	74-120	2	30
sec-Butylbenzene	N.D.	1.	ug/l	118	114	78-120	4	30
tert-Butylbenzene	N.D.	1.	ug/l	113	107	80-120	6	30
Carbon Disulfide	N.D.	1.	ug/l	101	97	62-120	4	30
Carbon Tetrachloride	N.D.	1.	ug/1	96	92	75-123	5	30
Chlorobenzene	N.D.	0.8	ug/l	111	106	80-120	4	30
Chloroethane	N.D.	1.	uq/l	95	95	49-129	ō	30
2-Chloroethyl Vinyl Ether	N.D.	2.	ug/1	128	123	56-129	4	30
Chloroform	N.D.	0.8	uq/l	108	103	77-122	5	30
Chloromethane	N.D.	1.	ug/l	102	99	60-129	3	30
2-Chlorotoluene	N.D.	1.	ug/l	116	112	80-120	3	30
4-Chlorotoluene	N.D.	1.	ug/l	117	116	80-120	i	30
1,2-Dibromo-3-chloropropane	N.D.	2.	ug/l	85	86	56-126	ī	30
Dibromochloromethane	N.D.	1.	ug/l	93	92	80-120	ī	30
1,2-Dibromoethane	N.D.	0.5	ug/l	107	103	80-120	4	30
Dibromomethane	N.D.	1.	uq/l	102	101	80-120	ō	30
1,2-Dichlorobenzene	N.D.	1.	ug/l	108	105	80-120	3	30
1,3-Dichlorobenzene	N.D.	1.	uq/l	109	104	80-120	4	30
1,4-Dichlorobenzene	N.D.	1.	ug/l	109	105	80-120	4	30
Dichlorodifluoromethane	N.D.	2.	ug/l	94	91	47-120	4	30
1,1-Dichloroethane	N.D.	1.	ug/l	109	107	79-120	2	30

- (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.



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## Quality Control Summary

Client Name: Chevron c/o CRA Reported: 09/14/11 at 12:16 PM Group Number: 1263738

	Blank	Blan	k Report	LCS	LCSD	LCS/LCSD		
Analysis Name	Result	MDL	Units	%REC	%REC			
1,2-Dichloroethane	N.D.	0.5	ug/l	106	102	<u>Limits</u>	RPD	RPD Max
1,1-Dichloroethene	N.D.	0.8	J.,	113		70-130	4	30
cis-1,2-Dichloroethene	N.D.	0.8	ug/l		108	74-123	5	30
trans-1,2-Dichloroethene	N.D.		ug/l	109	107	80-120	2	30
1,2-Dichloropropane		0.8	ug/l	111	105	80-120	6	30
	N.D.	1.	ug/l	107	105	78-120	2	30
1,3-Dichloropropane	N.D.	1.	ug/l	111	108	80-120	2	30
2,2-Dichloropropane	N.D.	1.	ug/l	101	100	77-124	2	30
1,1-Dichloropropene	N.D.	1.	ug/l	111	107	80-120	3	30
cis-1,3-Dichloropropene	N.D.	1.	ug/l	105	102	80-120	3	30
trans-1,3-Dichloropropene	N.D.	1.	ug/l	102	98	79-120	4	30
Ethanol	N.D.	50.	ug/l	111	107	54-149	3	30
Ethyl t-butyl ether	N.D.	0.5	ug/l	104	103	76-120	1	30
Ethylbenzene	N.D.	0.5	ug/l	114	111	79-120	3	30
Freon 113	N.D.	2.	ug/l	112	108	69-128	4	30
Hexachlorobutadiene	N.D.	2.	ug/l	80	77	58-120	3	30
2-Hexanone	N.D.	3.	uq/l	109	109	65-136	ī	30
di-Isopropyl ether	N.D.	0.5	uq/l	103	102	71-124	1	30
Isopropylbenzene	N.D.	1.	ug/l	114	111	77-120	3	
p-Isopropyltoluene	N.D.	1.	ug/l	116	109	80-120	5	30
Methyl Tertiary Butyl Ether	N.D.	0.5	ug/1	105	103			30
4-Methyl-2-pentanone	N.D.	3.	ug/l	104		76-120	2	30
Methylene Chloride	N.D.	2.			104	70-121	0	30
Naphthalene	N.D.	1.	ug/l	111	108	80-120	3	30
n-Propylbenzene	N.D.		ug/l	77	77	62-120	0	30
Styrene		1.	ug/l	121*	119	80-120	2	30
1,1,1,2-Tetrachloroethane	N.D.	1.	ug/l	113	109	80-120	3	30
	N.D.	1.	ug/l	100	96	80-120	5	30
1,1,2,2-Tetrachloroethane	N.D.	1.	ug/l	110	107	71-120	3	30
Tetrachloroethene	N.D.	0.8	ug/l	100	97	80-121	4	30
Toluene	N.D.	0.5	ug/l	115	110	79-120	5	30
1,2,3-Trichlorobenzene	N.D.	1.	ug/l	81	82	65-120	1	30
1,2,4-Trichlorobenzene	N.D.	1.	ug/l	87	85	67-120	2	30
1,1,1-Trichloroethane	N.D.	0.8	ug/l	99	97	75-127	2	30
1,1,2-Trichloroethane	N.D.	0.8	ug/l	106	106	80-120	0	30
Trichloroethene	N.D.	1.	ug/l	108	106	80-120	2	30
Trichlorofluoromethane	N.D.	2.	ug/1	87	82	64-129	6	30
1,2,3-Trichloropropane	N.D.	1.	ug/l	103	104	80-120	í	30
1,2,4-Trimethylbenzene	N.D.	1.	uq/l	116	112	74-120	4	30
1,3,5-Trimethylbenzene	N.D.	1.	ug/l	120	116	75-120	3	30
Vinyl Chloride	N.D.	1.	ug/l	103	100	65-125	3	30
m+p-Xylene	N.D.	0.5	ug/l	116	112	80-120	4	30
o-Xylene	N.D.	0.5	ug/l	111	111	80-120	0	30
•		* * * *	-5/-			00-120	U	30
Batch number: 11239WAA026	Sample	number(s):	6388963					
Acenaphthene	N.D.	0.1	uq/1	96	95	75-114	1	30
Acenaphthylene	N.D.	0.1	ug/1	101	103	80-122	1	
Anthracene	N.D.	0.1	ug/l	102	99		_	30
Benzo(a) anthracene	N.D.	0.1	ug/l	95		76-115	3	30
Benzo(a) pyrene	N.D.	0.1			98	75-116	3	30
Benzo(b) fluoranthene	N.D.		ug/l	101	98	64-126	2	30
		0.1	ug/l	94	94	66-125	0	30
Benzo(g,h,i)perylene	N.D.	0.1	ug/l	98	95	66-132	3	30
Benzo(k)fluoranthene	N.D.	0.1	ug/l	96	98	66-131	2	30
4-Bromophenyl-phenylether	N.D.	0.5	ug/l	93	88	75-115	5	30
Butylbenzylphthalate	N.D.	2.	ug/l	93	97	77-115	4	30
Di-n-butylphthalate	N.D.	2.	ug/l	97	94	76-115	3	30
Carbazole	N.D.	0.5	ug/l	98	94	75-120	5	30
4-Chloro-3-methylphenol	N.D.	0.5	ug/l	88	83	70-123	6	30
4-Chloroaniline	N.D.	0.5	ug/l	80	76	24-128	5	30
bis(2-Chloroethoxy)methane	N.D.	0.5	ug/l	93	95	74-124	2	30
			٠.				_	- •

<sup>\*-</sup> Outside of specification

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<sup>(1)</sup> The result for one or both determinations was less than five times the LOQ.

<sup>(2)</sup> The unspiked result was more than four times the spike added.



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### Quality Control Summary

Client Name: Chevron c/o CRA Group Number: 1263738
Reported: 09/14/11 at 12:16 PM

Blank Blank Report LCS LCSD LCSD LCS/16

	Blank	Blank	Report	LCS	LCSD	LCS/LCSD		
Analysis Name	Result	MDL	Units	%REC	%REC	Limits	RPD	RPD Max
bis(2-Chloroethyl)ether	N.D.	0.5	ug/l	92	88	77-108	4	30
2-Chloronaphthalene	N.D.	0.4	ug/l	79	79	54-132	0	30
2-Chlorophenol	N.D.	0.5	ug/l	84	79	71-114	6	30
4-Chlorophenyl-phenylether	N.D.	0.5	ug/l	93	92	77-114	0	
2,2'-oxybis(1-Chloropropane)	N.D.	0.5	ug/l	89	86	65-113	4	30
Chrysene	N.D.	0.1	ug/1	92	89		3	30
Dibenz (a, h) anthracene	N.D.	0.1	ug/1	100	101	76-116		30
Dibenzofuran	N.D.	0.5	ug/l	92	93	67-131	1	30
1,2-Dichlorobenzene	N.D.	0.5	ug/1	74	93 75	75-117	1	30
1,3-Dichlorobenzene	N.D.	0.5	ug/1	73	73	55-118	1	30
1,4-Dichlorobenzene	N.D.	0.5	ug/l	75 75	73 72	61-111	1	30
3,3'-Dichlorobenzidine	N.D.	2.	ug/l	73 72	. —	53-119	4	30
2,4-Dichlorophenol	N.D.	0.5		93	76	37-117	5	30
Diethylphthalate	N.D.	2.	ug/1		89	77-117	4	30
2,4-Dimethylphenol	N.D.	0.5	ug/l	90	90	66-116	0	30
Dimethylphthalate	N.D.	2.	ug/l	92	89	72-110	3	30
4,6-Dinitro-2-methylphenol	N.D.		ug/l	75	79	39-126	5	30
2,4-Dinitrophenol		5.	ug/l	93	90	65-126	3	30
2,4-Dinitrophenol	N.D.	10.	ug/l	90	94	52-131	5	30
2,6-Dinitrotoluene	N.D.	1.	ug/l	94	92	76-119	2	30
	N.D.	0.5	ug/l	99	98	76-118	1	30
bis(2-Ethylhexyl)phthalate Fluoranthene	N.D.	2.	ug/l	91	94	78-117	3	30
	N.D.	0.1	ug/l	102	98	76-119	4	30
Fluorene	N.D.	0.1	ug/l	98	97	76-116	1	30
Hexachlorobenzene	N.D.	0.1	ug/l	93	89	75-119	4	30
Hexachlorobutadiene	N.D.	0.5	ug/l	82	81	57-124	2	30
Hexachlorocyclopentadiene	N.D.	5.	ug/l	78	82	36-118	5	30
Hexachloroethane	N.D.	1.	ug/l	75	70	52-113	6	30
Indeno(1,2,3-cd)pyrene	N.D.	0.1	ug/l	100	100	69-121	0	30
Isophorone	N.D.	0.5	ug/l	97	95	74-117	2	30
2-Methylnaphthalene	N.D.	0.1	ug/l	93	89	69-108	5	30
2-Methylphenol	N.D.	0.5	ug/l	70	63	58-110	10	30
4-Methylphenol	N.D.	0.5	ug/l	60	56	49-108	7	30
Naphthalene	N.D.	0.1	ug/l	88	86	70-111	2	30
2-Nitroaniline	N.D.	0.5	ug/l	95	95	75-120	0	30
3-Nitroaniline	N.D.	0.5	ug/l	92	95	74-113	4	30
4-Nitroaniline	N.D.	0.5	ug/l	78	80	59-100	2	30
Nitrobenzene	N.D.	0.5	ug/l	95	93	75-109	2	30
2-Nitrophenol	N.D.	0.5	ug/l	97	93	76-118	4	30
4-Nitrophenol	N.D.	10.	ug/l	27	24	16-78	12	30
N-Nitroso-di-n-propylamine	N.D.	0.5	ug/l	87	85	69-110	3	30
N-Nitrosodiphenylamine	N.D.	0.5	ug/l	92	92	67-136	1	30
Di-n-octylphthalate	N.D.	2.	ug/l	99	101	68-128	1	30
Pentachlorophenol	N.D.	1.	ug/l	93	89	53-110	4	30
Phenanthrene	N.D.	0.1	uq/1	94	93	76-113	î	30
Phenol	N.D.	0.5	ug/l	31	29	21-67	6	30
Pyrene	N.D.	0.1	ug/l	93	96	75-119	3	30
1,2,4-Trichlorobenzene	N.D.	0.5	ug/l	83	83	71-112	0	30
2,4,5-Trichlorophenol	N.D.	0.5	ug/l	97	96	79-107	1	30
2,4,6-Trichlorophenol	N.D.	0.5	ug/l	94	97	76-120	2	30
* *			49/2	24	31	76-120	4	30
Batch number: 11241A20A	Sample r	umber(s): 638	8961-6388	964				
TPH-GRO N. CA water C6-C12	N.D.	50.	uq/1	86	87	75 125	1	3.0
310 011 011 03000 00 022		20.	u9/1	00	0 /	75-135	1	30
Batch number: 112390009A	Sample r	umber(s): 638	8963					
PCB-1016	N.D.	0.10	uq/l	110	110	F1 100		
PCB-1221	N.D.	0.10		110	112	51-128	2	30
PCB-1232	N.D.	0.10	ug/1					
PCB-1242	N.D.	0.10	ug/l					
		0.10	ug/l					

- (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.



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### Quality Control Summary

Client Name: Chevron c/o CRA Group Number: 1263738

Reported: 09/14/11 at 1:	2:16 PM			-				
Analysis Name PCB-1248 PCB-1254	Blank <u>Result</u> N.D. N.D.	Blank <u>MDL</u> 0.10 0.10	Report Units ug/l ug/l	LCS %REC	LCSD %REC	LCS/LCSD <u>Limits</u>	RPD	RPD Max
PCB-1260	N.D.	0.15	ug/l	108	110	56-135	2	30
Batch number: 112390002A TPH-DRO water C10-C28	Sample numl	per(s): 63 32.	88963 ug/l	90	90	56-122	0	20
Batch number: 112390003A Total TPH TPH Motor Oil C16-C36	Sample numb N.D. N.D.	per(s): 63 40. 40.	88963 ug/l ug/l	103	100	60-120	2	20
Batch number: 112390020A TPH-DRO water C10-C28 w/Si Gel	Sample numk l N.D.	per(s): 63: 32.	88963 ug/l	104	89	56-122	16	20
Batch number: 112390021A Motor Oil C16-C36 w/Si Gel Total TPH w/Si Gel	Sample numk N.D. N.D.	er(s): 638 40. 40.	88963 ug/l ug/l	90	89	50-129	1	20
Batch number: 112411848001 Cadmium Chromium Lead Nickel Zinc	Sample numb N.D. N.D. N.D. N.D. N.D.	0.27 1.1 2.2 0.95 3.2	38963 ug/l ug/l ug/l ug/l ug/l	104 100 105 106 99		90-112 90-110 88-110 90-111		

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: D112431AA	Sample	number(s	): 6388962	,638896	4 UNSPE	C: 6388964			
Benzene	92	96	80-126	4	30				
Ethylbenzene	91	96	71-134	5	30				
Methyl Tertiary Butyl Ether	87	93	72-126	7	30				
Toluene	93	96	80-125	4	30				
Xylene (Total)	93	97	79-125	5	30				
Batch number: D112432AA	Sample	number(s)	: 6388961	UNSPK:	P38867	'6			
Benzene	93	98	80-126	6	30				
Ethylbenzene	92	97	71-134	6	30				
Methyl Tertiary Butyl Ether	91	97	72-126	6	30				
Toluene	92	98	80-125	7	30				
Xylene (Total)	90	96	79-125	6	30				
Batch number: 11239WAA026	Sample	number(s)	: 6388963	UNSPK:	P38509	8			
Acenaphthene	94	95	78-107	1	30	•			
Acenaphthylene	104	102	75-124	2	30				
Anthracene	98	98	78-114	0	30				
Benzo(a)anthracene	99	96	76-114	3	30				
Benzo(a)pyrene	100	99	58-128	1	30				
Benzo(b) fluoranthene	93	91	65-125	2	30				
Benzo(g,h,i)perylene	94	97	72-122	4	30				

- (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.



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### Quality Control Summary

Client Name: Chevron c/o CRA Group Number: 1263738

Reported: 09/14/11 at 12:16 PM

### Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike Background (BKG) = the sample used in conjunction with the duplicate

	MS	MSD	MS/MSD		RPD	BKG	DUP	DUP	D
Analysis Name	%REC	%REC	Limits	RPD	MAX	Conc	Conc	RPD	Dup RPD Max
Benzo(k)fluoranthene	95	97	71-121	1	30	22.110		M. D	Max
4-Bromophenyl-phenylether	87	88	79-118	2	30				
Butylbenzylphthalate	98	98	68-122	0	30				
Di-n-butylphthalate	94	94	79-118	1	30				
Carbazole	96	95	82-112	1	30				
4-Chloro-3-methylphenol	73	71	19-155	3	30				
4-Chloroaniline	83	82	23-118	2	30				
bis(2-Chloroethoxy)methane	93	95	65-119	2	30				
bis(2-Chloroethyl)ether	89	95	41-143	6	30				
2-Chloronaphthalene	83	82	49-141	2	30				
2-Chlorophenol	73	68	27-146	7	30				
4-Chlorophenyl-phenylether	93	90	73-117	4	30				
2,2'-oxybis(1-Chloropropane)	88	91	54-125	4	30				
Chrysene	95	92	78-116	3	30				
Dibenz (a,h) anthracene	98	100	73-133	1	30				
Dibenzofuran	92	91	71-116	2	30				
3,3'-Dichlorobenzidine	79	69	16-128	13	30				
2,4-Dichlorophenol	80	80	30-154	0	30				
Diethylphthalate	95	91	74-118	4	30				
2,4-Dimethylphenol	38	39	20-145	3	30				
Dimethylphthalate	86	81	38-126	6	30				
4,6-Dinitro-2-methylphenol	89	89	26-149	0	30				
2,4-Dinitrophenol	98	94	20-168	4	30				
2,4-Dinitrotoluene	100	99	70-124	1	30				
2,6-Dinitrotoluene	105	100	47-140	5	30				
bis(2-Ethylhexyl)phthalate	97	95	72-122	2	30				
Fluoranthene	100	100	73-110	0	30				
Fluorene	97	97	71-123	0	30				
Hexachlorobenzene	87	91	77-122	5	30				
Hexachlorobutadiene	86	89	68-123	3	30				
Hexachlorocyclopentadiene	94	97	15-143	3	30				
Hexachloroethane	82	80	54-119	2	30				
Indeno(1,2,3-cd)pyrene	97	100	69-120	2	30				
Isophorone	95	96	73-114	2	30				
2-Methylnaphthalene	92	93	80-111	1	30				
2-Methylphenol	53	52	10-146	2	30				
4-Methylphenol	47	47	10~147	0	30				
Naphthalene	88	91	73-113	3	30				
2-Nitroaniline	99	99	49-141	1	30				
3-Nitroaniline	97	95	44-133	3	30				
4-Nitroaniline	84	80	46-117	6	30				
Nitrobenzene	94	96	48-136	2	30				
2-Nitrophenol	101	99	34-146	2	30				
4-Nitrophenol	28	28	10-109	0	30				
N-Nitroso-di-n-propylamine	89	92	72-119	3	30				
N-Nitrosodiphenylamine	92	93	74-122	0					
Di-n-octylphthalate	99	102	58-137	3	30 30				
Pentachlorophenol	78	80							
Phenanthrene	92	92	23-133 72-121	2 0	30				
Phenol	27	28		-	30				
Pyrene	97	28 95	10-83	3	30				
2,4,5-Trichlorophenol	88	95 86	77-117	2	30				
2,4,6-Trichlorophenol	90	84	32-144	2	30				
2,4,0-1110Horophenor	90	04	27-147	6	30				

- (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.



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### Quality Control Summary

Client Name: Chevron c/o CRA

Group Number: 1263738

Reported: 09/14/11 at 12:16 PM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %RBC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 112411848001	Sample	number(s)	: 6388963	UNSPK:	P3881	753 BKG:	P388753		
Cadmium	97	98	83-116	1	20	2.6	2.5	5 (1)	20
Chromium	97	99	81-120	2	20	5.9	5.6	5 (1)	20
Lead	88	89	75-125	2	20	N.D.	N.D.	0 (1)	20
Nickel	99	99	86-115	1	20	4.1	3.9	4 (1)	20
Zinc	100	100	85-117	1	20	41 5	40 0	2 (1)	20

### 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: UST VOCs by 8260B - Water Batch number: D112431AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene	
6388962	99	96	99	101	
6388964	104	97	96	94	
Blank	102	100	98	97	
LCS	101	103	98	98	
MS	102	100	98	100	
MSD	101	101	99	99	
Limits:	80-116	77-113	80-113	70_112	

Analysis Name: UST VOCs by 8260B - Water

Batch number: D112432AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene	
6388961	101	98	99	100	
Blank	104	103	97	96	
LCS	104	105	96	98	
MS	103	103	96	98	
MSD	104	103	97	99	
Limits:	80-116	77-113	80-113	78-113	

Analysis Name: VOCs by 8260B(Extended) -Water Batch number: W112451AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene	
6388963	93	99	102	99	
Blank	91	102	102	93	
LCS	94	104	103	102	
LCSD	93	103	102	100	
Limits:	80-116	77-113	80-113	78-113	

Analysis Name: TCL SVOC 8270C Water

- (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.



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### Quality Control Summary

Client Name: Chevron c/o CRA Reported: 09/14/11 at 12:16 PM

Group Number: 1263738

## Surrogate Quality Control

	2-Fluorophenol	Phenof-d6	2,4,6-Tribromophenol	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
6388963	3*	8*	5*	80	80	65
Blank	36	21	98	89	94	89
LCS	43	26	95	90	89	79
LCSD	39	24	95	89	90	83
vis	36	23	87	87	89	80
MSD	34	21	82	91	89	77
Limits:	10-98	10-74	22-150	52-120	63-114	34-119

Analysis Name: TPH-GRO N. CA water C6-C12

Batch number: 11241A20A

Trifluorotoluene-F

6388961	128
6388962	126
6388963	190*
6388964	91
Blank	90
LCS	110
LCSD	112

Limits: 63-135

Analysis Name: PCBs in Water 8082 Batch number: 112390009A

Tetrachloro-m-xylene

77	28*
106	100
110	117
109	113
	106 110

Limits: 30-150 30-150

Analysis Name: TPH-DRO water C10-C28

Batch number: 112390002A Orthoterphenyl

6388963	85
Blank	89
LCS	98
LCSD	98

Limits: 54-127

Analysis Name: TPH Fuels by GC (Waters)

Batch number: 112390003A Chlorobenzene

	Chlorobenzene	Orthoterphenyl	
6388963	198*	100	
Blank	92	103	
LCS	92	116	
LCSD	94	112	

### \*- Outside of specification

Decachlorobiphenyl

(2) The unspiked result was more than four times the spike added.

<sup>(1)</sup> The result for one or both determinations was less than five times the LOQ.



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### Quality Control Summary

Client Name: Chevron c/o CRA

Group Number: 1263738

Reported: 09/14/11 at 12:16 PM

Surrogate Quality Control

Limits: 28-152

52-131

Orthoterphenyl

Analysis Name: TPH-DRO water C10-C28 w/Si Gel

Batch number: 112390020A

Orthoterphenyl

6388963 82 Blank 97 LCS 100 LCSD 90

Limits: 54-127

Analysis Name: TPH Fuels water w/Si Gel Batch number: 112390021A

Chlorobenzene

6388963 133\* 74
Blank 79 84
LCS 79 94
LCSD 81 91
Limits: 59-128 70-122

- (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.



# **Explanation of Symbols and Abbreviations**

**Inorganic Qualifiers** 

Post digestion spike out of control limits

Correlation coefficient for MSA < 0.995

Duplicate analysis not within control limits

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

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

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

### U.S. EPA CLP Data 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	E	Estimated due to interference
C	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

P Concentration difference between primary and confirmation columns >25%

**Organic Qualifiers** 

U Compound was not detected

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.

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