

By Alameda County Environmental Health at 4:11 pm, Oct 11, 2013

**Catalina Espino Devine** Project Manager Marketing Business Unit

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

Re: Chevron Service Station No. 93600 2200 Telegraph Avenue Oakland, CA

I have reviewed the attached report titled Addendum to Subsurface Investigation Report and Case Closure Request.

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 to the best of my knowledge.

Sincerely,

Catalina Espino Devine Project Manager

Attachment: Report





5900 Hollis Street, Suite A, Emeryville, California 94608 Telephone: (510) 420-0700 Fax: (510) 420-9170 www.CRAworld.com

October 8, 2013

Reference No. 311965

Mr. Mark Detterman Alameda County Environmental Health Services 1131 Harbor Bay Parkway, Suite 250 Alameda, CA 94502

Re: Addendum to Subsurface Investigation Report and Case Closure Request Former Chevron Service Station 93600 2200 Telegraph Avenue Oakland, California <u>Fuel Leak Case No. RO00002435</u>

Dear Mr. Detterman:

Conestoga-Rovers & Associates (CRA) is submitting this Addendum to Subsurface Investigation Report and Case Closure Request on behalf of Chevron Environmental Management Company (EMC) for former Chevron Service Station No. 93600, located at 2200 Telegraph Avenue in Oakland, California (Figures 1 and 2). CRA submitted the Subsurface Investigation Report and Case Closure Request to Alameda County Environmental Health Services (ACEH) on June 8, 2012 (Attachment A) and a response from ACEH is pending.

The purpose of this addendum is to present the results of our evaluation of current site conditions to closure criteria stated in the Low-Threat Underground Storage Tank Case Closure Policy (LTCP). A summary of the current site conditions is included in Attachment A. Since the site meets the stated closure criteria, we are requesting ACEH's concurrence that the site meets low-threat case closure criteria and grant case closure.

## DOWNGRADIENT GROUNDWATER ASSESSMENT

On August 12, 2013, Catalina Espino Devine of Chevron met with Dilan Roe of ACEH on the phone to discuss site closure. ACEH is concerned about the downgradient delineation of dissolved petroleum hydrocarbons detected in boring B-9. CRA presents additional information below, to demonstrate that dissolved concentrations in boring B-9 are delineated and residual petroleum hydrocarbons do not pose a risk to human health or the environment.

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CRA calculated dissolved total petroleum hydrocarbons as gasoline (TPHg) and methyl tertiary-butyl ether (MTBE) concentration trends for well MW-1 to meet the RWQCB's water quality goals (WQGs). These WQGs are 100  $\mu$ g/L TPHg and 5  $\mu$ g/L MTBE. CRA used the following first order exponential decay rate calculation<sup>1</sup> to estimate the time to meet the applicable WQGs:

$$y = be^{(ax)}$$

Where "a" is a decay constant, "b" is a concentration at time (x), y is concentration (WQG) and "x" is time. A summary of historical maximum concentrations and current concentrations for all active wells and projections to meet the WQGs are presented in Table A. Trend graphs and degradation calculations are presented as Attachment B.

|              | Table A - Summary of Degradation Rate Calculations |                                 |                                 |                      |                                     |                                      |  |  |  |  |  |  |  |
|--------------|--|---------------------------------|---------------------------------|----------------------|-------------------------------------|--------------------------------------|--|--|--|--|--|--|--|
|              | Former C   | hevron Service Station          | 93600, 2200 Telegraph           | Avenue, Oak          | land, California                    |                                      |  |  |  |  |  |  |  |
| Well         | Analyte  | Maximum Concentration<br>(ug/L) | Current Concentration<br>(ug/L) | Half-Life<br>(years) | Approximate<br>Date to Reach<br>WQO | Approximate<br>Years to Reach<br>WQO |  |  |  |  |  |  |  |
| MW-1         | TPHg   | 4,200                           | 1,500                           | 2.01                 | Sep 2020                            | 7.0                                  |  |  |  |  |  |  |  |
| MW-1         | MTBE   | 9,800                           | 38                              | 3.42                 | Nov 2019                            | 6.2                                  |  |  |  |  |  |  |  |
| Notes and Al | obreviations:                                      |                                 |                                 |                      |                                     |                                      |  |  |  |  |  |  |  |
| TPHg =       | <ul> <li>Total Petroleum</li> </ul>                | n Hydrocarbons as Gasoline      |                                 |                      |                                     |                                      |  |  |  |  |  |  |  |
| MTBE =       | <ul> <li>Methyl Tertiary</li> </ul>                | Butyl Ether                     |                                 |                      |                                     |                                      |  |  |  |  |  |  |  |
| μg/L =       | <ul> <li>Micrograms per</li> </ul>                 | r liter                         |                                 |                      |                                     |                                      |  |  |  |  |  |  |  |
| WQO =        | = Water Quality (                                  | Objective.                      |                                 |                      |                                     |                                      |  |  |  |  |  |  |  |

As shown in Table A, TPHg and MTBE concentrations will reach the WQOs within 7 years in onsite source area well MW-1. The trend graphs presented as Attachment B show that dissolved petroleum hydrocarbon constituent concentrations are decreasing. The presence of tertiary butyl alcohol (TBA), a biotransformation byproduct of MTBE degradation, demonstrates that the MTBE is degrading and not just migrating away from the source. In

<sup>&</sup>lt;sup>1</sup> EPA-Groundwater Issue; Calculation and Use of First-Order Rate Constants for Monitored Natural Attenuation Studies; Charles J. Newell, et al., 2002.



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addition, the MTBE concentrations detected downgradient of MW-1 are at or below the WQO. Therefore, the plume has reached its maximum extent and degrading back toward the source.

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Furthermore grab groundwater samples are often biased high due to disturbance of the soil matrix during boring advancement, which may have caused desorption of petroleum hydrocarbons from the soil into the groundwater and because grab groundwater samples often contain excessive amounts of sediments containing non-dissolved petroleum hydrocarbons that desorb while in the sample container. The dissolved TPHg concentrations in offsite boring B-9 were equal or greater than the concentrations detected in onsite source area well MW-1. Based on the fate and transport of TPHg, you would not expect to detect higher dissolved hydrocarbon concentrations approximately 50 feet downgradient of the source area well. Therefore, the grab groundwater samples collected downgradient of the site are likely biased high and not representative of only the dissolved phase.

Boring B-12 is located approximately 50 feet downgradient of B-9 and adjacent to the BART tunnel that transects the site. No petroleum hydrocarbons were detected in soil or groundwater in B-12. Groundwater was first encountered in B-12 at 23 fbg and the shallower groundwater sampling interval was dry, which indicates that groundwater could be flowing toward B-12 from B-9. Additionally, the site is located in downtown Oakland in the first encountered water-bearing zone, which is unlikely to be used as drinking water. The adjacent downgradient properties from the site are parking lots or commercial businesses.

No dissolved benzene has been detected in any monitoring wells or borings B-9 through B-12, since January 2005. The highest remaining dissolved MTBE concentration is  $38 \mu g/L$  in MW-1. As described below, the site meets the LTCP Groundwater Class 2 criteria.

Based on the data presented, dissolved petroleum hydrocarbons detected in B-9 are adequately delineated and residual petroleum hydrocarbons do not pose a threat to human health or the environment.



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## COMPARISON TO LOW THREAT UNDERGROUND STORAGE TANK (UST) CASE CLOSURE POLICY

On August 17, 2012, the State Water Resources Control Board adopted Resolution No. 2012-0016, the Low-Threat Underground Storage Tank Case Closure Policy (LTCP). The intent of this policy is to increase cleanup process efficiency at petroleum release sites. A benefit of improved efficiency is the preservation of limited resources for mitigation of releases posing the greatest threat to human and environmental health. Per the policy, sites that meet the general and media-specific criteria described in the policy do not pose a threat to human health, safety, or the environment and appropriate for case closure pursuant to Health and Safety Code section 25296.10. The policy further states that sites meeting the stated criteria for low-threat closure should be issued a closure letter if the site is determined to be low-threat based upon a site-specific analysis.

Based on the information presented herein, the site meets all of the general criteria and media-specific criteria (as applicable) presented in the LTCP. Discussion of the site conditions with respect to each criterion is provided below and in the checklist provided in Attachment C.

## **GENERAL CRITERIA**

*The Unauthorized Release is Located within the Service Area of a Public Water System* Satisfied: The site is located in the City of Oakland, and Oakland obtains most of its water supply from the East Bay Municipal Utility District, of which 90 percent is sourced from reservoirs in the Eastern Sierra Nevada, and the remaining water supply is sourced from protected local watersheds.<sup>2</sup>

## The Unauthorized Release Consists only of Petroleum

Satisfied: All unauthorized releases consisted of petroleum hydrocarbons generated from retail operations between 1951 and 1983, and 1984 and 2001.

## The Unauthorized ('Primary') Release from the UST System Has Stopped

Satisfied: All facilities and improvements from retail service operations from 1951 were removed in 1984. In 1994, product piping from the USTs to the dispenser islands were removed

<sup>&</sup>lt;sup>2</sup> Water supply information for the City of Oakland is from EBMUD's 2011 Annual Water Quality Report.



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and replaced. Current site conditions do not indicate that additional petroleum leaks have occurred.

## Free Product Has Been Removed to the Maximum Extent Practicable

Satisfied: No free product has been observed at the site. As discussed above, the previous UST backfill was excavated and removed prior to installation of the current USTs. In 1994, during product piping removal, approximately 100 cubic yards of soil was removed from the site.

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# Soil and Groundwater Have Been Tested for MTBE and Results Reported in Accordance with Health and Safety Code 25296.15

Satisfied: Soil and groundwater have been tested for MTBE and are summarized in Table 1 (soil data) and Table 2 (grab-groundwater analytical data) of Attachment A. Historical groundwater monitoring data is presented in Table 1. Table A below presents the most recent MTBE concentrations in groundwater.

| TABLE A: MTBE CONCENTRATIONS IN GROUNDWATER                              |  |                             |  |  |  |  |  |  |  |  |
|--|--|-----------------------------|--|--|--|--|--|--|--|--|
| Sample ID  | Date                                   | MTBE                        |  |  |  |  |  |  |  |  |
| WQO (ESLs Tabl   | WQO (ESLs Table F-1a Drinking Water) 5 |                             |  |  |  |  |  |  |  |  |
| MW-1 5/1/13 38   |  |                             |  |  |  |  |  |  |  |  |
| MW-2 5/1/13 <0.5   |  |                             |  |  |  |  |  |  |  |  |
| MW-3   | 5/1/13                                 | <0.5                        |  |  |  |  |  |  |  |  |
| WQO = Water quality  | objectives                             |                             |  |  |  |  |  |  |  |  |
| ESLs = Environmenta  | l screening levels - RWQCB -           | - San Francisco Bay Region, |  |  |  |  |  |  |  |  |
| Screening for Environmental Concerns at Sites with Contaminated Soil and |  |                             |  |  |  |  |  |  |  |  |
| Groundwater: November 2007 (Revised February 2013).                      |  |                             |  |  |  |  |  |  |  |  |
| NA = Not analyzed  |  |                             |  |  |  |  |  |  |  |  |

## Nuisance as Defined by Water Code Section 13050 Does Not Exist at the Site

Nuisance is defined as follows per Water Code Section 130580. All three of the following requirements must be met to cause nuisance:

- Injurious to health, offensive to senses, or an obstruction of free property use
- Affects at the same time an entire community or neighborhood
- Occurs during or as the result of treatment or disposal of wastes (i.e., petroleum release)

Satisfied: Nuisance conditions do not exist at the site. No community nuisance complaints have been filed to date.



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## MEDIA-SPECIFIC CRITERIA

Media-specific criteria are related to the most common exposure scenarios, which in the policy have been combined into three-media specific criteria related to:

- Groundwater
- Vapor Intrusion to Indoor Air
- Direct Contact and Outdoor Air Exposure

## Groundwater-Specific Criteria

It is a fundamental tenet of the low-threat policy that if the closure criteria described in the policy are satisfied at a release site, applicable water quality objectives (WQOs) will be attained through natural attenuation within a reasonable amount of time, prior to the need for use of any affected groundwater. If a site has groundwater with a designated beneficial use that is affected by an unauthorized release, to satisfy the media-specific criteria for groundwater stated in the low-threat policy, the contaminant plume that exceeds WQOs must be stable or decreasing in aerial extent, and meet all of the additional characteristics of one of the five classes that define a stable plume as "low threat" listed in the policy.

Satisfied: Long-term groundwater monitoring data show that the plume above WQO is stable or decreasing in aerial extent, as required by the LTCP. The site meets the LTCP Groundwater Class 2 criteria as discussed below:

• The Contaminant Plume that Exceeds Water Quality Objectives is less than 250 feet in Length

The only constituents detected in groundwater at concentrations above WQOs are total petroleum hydrocarbons as gasoline (TPHg) and MTBE. The dissolved-phase TPHg and MTBE plumes above WQOs are not greater than 250 feet. This distance is estimated from onsite dispenser islands and USTs to boring B-12 to the southeast that defines the dissolved TPHg and MTBE plumes downgradient (Figure 8 of Attachment A).

• There is No Free Product

No free product has been observed at the site. Historical soil and groundwater hydrocarbon concentrations do not indicate that free product is present.

• The Nearest Existing Water Supply Well or Surface Water Body is Greater Than 1,000 feet from the Defined Plume Boundary

In 2008, CRA compiled well data provided by California Department of Water Resources (DWR) (Table 3 of Attachment A). The nearest municipal and irrigation wells are



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approximately 3,800 and 2,500 feet from the site, respectively. Wells in DWR records with undefined uses are approximately 3,000 feet from the site. The nearest surface water is Lake Merritt, which is located approximately 1,850 feet east of the site.

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• The Dissolved Concentration of Benzene is Less Than 3,000  $\mu$ g/L, and the Dissolved Concentration of MTBE is less than 1,000  $\mu$ g/L

No dissolved benzene has been detected in any monitoring wells or borings B-9 through B-12, since January 2005. The highest remaining dissolved MTBE concentration is  $38 \mu g/L$  in MW-1 and is attenuating.

## Petroleum Vapor Intrusion to Indoor Air

The site is an active service station and soil vapor evaluation is not required in this case by the LTCP. Per the LTCP, exposures to petroleum vapors associated with historical fuel system release are comparatively insignificant relative to exposures from small surface spills and fugitive vapor releases that typically occur at active fueling facilities. In addition, the downgradient property is a pavement covered parking lot. Therefore, no vapor assessment is needed to meet LTCP criteria, since site conditions do not pose unreasonable health risks.

## Direct Contact and Outdoor Air Exposure

The LTCP contains concentration criteria for benzene, ethylbenzene, naphthalene, and Poly-aromatic Hydrocarbons (PAHs) in soil between 0 and 5 fbg and 5 to 10 fbg that are defined as "low threat" for the direct contact and outdoor air pathway for various receptors. The LTCP criteria and maximum concentrations for the depth ranges are listed below in Table B.

| TABLE B: POLIC  | TABLE B: POLICY CRITERIA AND MAXIMUM SITE SOIL CONCENTRATIONS FOR |                   |         |              |             |      |  |  |  |  |  |  |
|-----------------|---|-------------------|---------|--------------|-------------|------|--|--|--|--|--|--|
|                 | DIRECT CONTACT/OUTDOOR AIR EXPOSURE                               |                   |         |              |             |      |  |  |  |  |  |  |
|                 |   | Depth             |         |              |             |      |  |  |  |  |  |  |
| Location ID     | Date  | (fbg)             | Benzene | Ethylbenzene | Naphthalene | PAHs |  |  |  |  |  |  |
| Commercial/     | 0 to 5 fb   | g                 | 8.2     | 89           | 45          | 0.68 |  |  |  |  |  |  |
| Industrial*     | Volatilizati<br>outdoor air 5 t                                   | on to<br>o 10 fbg | 12      | 134          | 45          | NA   |  |  |  |  |  |  |
| Utility Worker* | 0 to 10 fl  | bg                | 14      | 314          | 219         | 4.5  |  |  |  |  |  |  |
| B-9             | 4/12/12   | 10                | 0.002   | 0.39         | NS          | NS   |  |  |  |  |  |  |



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All concentrations displayed in milligrams per kilogram (mg/kg) \* = Concentrations of Petroleum Constituents in Soil That Will Have No Significant Risk of Adversely Affecting Human Health – California State Water Resources Control Board *Low-Threat Underground Storage Tank Case Closure Policy,* Section 3: Direct Contact and Outdoor Air Exposure (August 2012) NA = Not Applicable NS = Not Sampled PAHs = Poly-aromatic hydrocarbons as benzo(a)pyrene toxicity equivalent

The maximum concentration of benzene and ethylbenzene detected in soil do not exceed screening levels for direct contact and outdoor air exposure for all scenarios. No naphthalene or PAHs were collected for the site. Using SWRBC staff precedent from recent case closure reviews, the lack of naphthalene data is not a data gap and site conditions can be assessed by using benzene concentrations (SWRCB 2013): "However, the relative concentration of naphthalene in soil can be conservatively estimated using the published relative concentrations of naphthalene and benzene in gasoline. Gasoline mixtures contain approximately 3 percent benzene and 0.25 percent naphthalene."<sup>3</sup> Therefore, benzene concentrations from the site are below the naphthalene thresholds in Table 1 of the LTCP. Therefore, the estimated naphthalene concentrations meet the thresholds in Table 1 and the LTCP criteria for direct contact by a factor of ten. It is highly unlikely that naphthalene concentrations in soil exceed the threshold. No used-oil UST has been onsite; therefore PAHs are not a concern. Therefore, the site meets the LTCP criteria for direct contact and outdoor air exposure for all scenarios.

## CONCLUSIONS AND RECOMMENDATIONS

Based on our review, the site conditions meet all the general and media-specific criteria established by the LTCP, and therefore poses a low threat to human health, safety, and the environment, and satisfy the case-closure requirements of the Health and Safety Code section 25296.10, and case closure is consistent with Resolution 92-49 that requires that cleanup goals be met within a reasonable time frame.

Because the groundwater criteria show that the plume is low-threat, on behalf of EMC, CRA requests ACEH grant case closure.

<sup>&</sup>lt;sup>3</sup> Potter and Simmons, Composition of Petroleum Mixtures, Total Petroleum Hydrocarbon Working Group Series, Volume 2, May 1998



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Please contact the project manager, Nathan Lee, at (925) 849-1003 if you have any questions or require additional information.

Sincerely,

CONESTOGA-ROVERS & ASSOCIATES



Branch A Wilk

Brandon S. Wilken, PG 7564

OY/mws/13 Encl.

| Figure 1     | Vicinity Map   |
|--------------|--|
| Figure 2     | Site Plan  |
| Table 1      | Groundwater Monitoring and Sampling Data   |
| Attachment A | CRA's June 8, 2012 <i>Subsurface Investigation Report and Case Closure Request</i> |
| Attachment B | Degradation Rate Calculations  |
| Attachment C | SWRCB Low-Threat UST Case Closure Policy Evaluation                                |

cc: Catalina Espino Devine, EMC (*electronic copy*) George Kim, Property Owner FIGURES



VICINITY MAP CHEVRON SERVICE STATION 93600 2200 TELEGRAPH AVENUE *Oakland, California* 





<sup>311965-2012(011)</sup>GN-EM003 MAY 15/2012

|          |                |       |       |         | HYDROCARBONS |       |       | PRIN  | IARY V | OCS            |         | ADDITIC | ONAL VO | DCS   |       |
|----------|----------------|-------|-------|---------|--------------|-------|-------|-------|--------|----------------|---------|---------|---------|-------|-------|
| Location | Date           | тос   | DTW   | GWE     | TPH-GRO      | B     | T     | E     | X      | MTBE by SW8260 | ETHANOL | TBA     | DIPE    | ETBE  | TAME  |
|          | Units          | ft    | ft    | ft-amsl | μgl          | μgl   | μgl   | μgl   | μgl    | μgl            | μgl     | μgl     | μgl     | μgL   | μgl   |
| MW-1     | $04/05/2002^1$ | 17.07 | 11.68 | 5.39    | 2,000        | 5.0   | <1.0  | 14    | 8.4    | 310/370        | -       | 200     | <2      | <2    | 10    |
| MW-1     | 07/01/2002     | 17.07 | 12.01 | 5.06    | 2,000        | 8.9   | <1.0  | 97    | 31     | 420/370        | -       | 190     | <2      | <2    | 9     |
| MW-1     | 10/08/2002     | 17.07 | 12.20 | 4.87    | 1,400        | 9.2   | <10   | 75    | 20     | 360/440        | -       | 110     | <2      | <2    | 8     |
| MW-1     | 01/11/2003     | 17.07 | 11.13 | 5.94    | 1,600        | 7.1   | 0.51  | 53    | 13     | 280/270        | -       | <100    | <2      | <2    | 7     |
| MW-1     | 04/01/2003     | 17.07 | 11.53 | 5.54    | 1,800        | 5.2   | 0.6   | 25    | 9.1    | 210/210        | -       | 22      | < 0.5   | < 0.5 | 5     |
| MW-1     | $07/01/2003^3$ | 17.07 | 11.95 | 5.12    | 2,000        | 4     | < 0.5 | 31    | 12     | 170            | <50     | 26      | < 0.5   | < 0.5 | 5     |
| MW-1     | $10/02/2003^3$ | 17.07 | 12.25 | 4.82    | 480          | <5    | <5    | <5    | <5     | 9,800          | <500    | 2,600   | <5      | <5    | 6     |
| MW-1     | $01/05/2004^3$ | 17.07 | 11.05 | 6.02    | 1,700        | 3     | < 0.5 | 27    | 4      | 140            | <50     | 21      | < 0.5   | <0.5  | 3     |
| MW-1     | $04/05/2004^3$ | 17.07 | 11.63 | 5.44    | 1,500        | 2     | < 0.5 | 21    | 0.6    | 120            | <50     | 17      | < 0.5   | < 0.5 | 3     |
| MW-1     | $07/01/2004^3$ | 17.07 | 12.08 | 4.99    | 1,500        | 1     | < 0.5 | 3     | < 0.5  | 130            | <50     | 13      | < 0.5   | < 0.5 | 2     |
| MW-1     | $10/05/2004^3$ | 17.07 | 12.21 | 4.86    | 1,400        | < 0.5 | < 0.5 | 1     | 0.5    | 130            | <50     | 14      | < 0.5   | < 0.5 | 2     |
| MW-1     | $01/04/2005^3$ | 17.07 | 11.15 | 5.92    | 1,500        | < 0.5 | < 0.5 | < 0.5 | < 0.5  | <0.5           | <50     | <5      | < 0.5   | < 0.5 | < 0.5 |
| MW-1     | $04/14/2005^3$ | 17.07 | 11.20 | 5.87    | 2,100        | < 0.5 | < 0.5 | 4     | 0.5    | 61             | <50     | 15      | < 0.5   | < 0.5 | 1     |
| MW-1     | $07/08/2005^3$ | 17.07 | 11.38 | 5.69    | 1,800        | < 0.5 | < 0.5 | 0.8   | < 0.5  | 71             | <50     | 15      | < 0.5   | < 0.5 | 1     |
| MW-1     | $10/27/2005^3$ | 17.07 | 12.24 | 4.83    | 800          | < 0.5 | < 0.5 | < 0.5 | < 0.5  | 76             | <50     | 10      | < 0.5   | < 0.5 | 1     |
| MW-1     | $01/12/2006^3$ | 17.07 | 11.10 | 5.97    | 1,600        | < 0.5 | < 0.5 | 4     | < 0.5  | 47             | <50     | 12      | < 0.5   | < 0.5 | < 0.5 |
| MW-1     | $04/13/2006^3$ | 17.07 | 10.81 | 6.26    | 1,500        | < 0.5 | < 0.5 | 1     | < 0.5  | 36             | <50     | 8       | < 0.5   | < 0.5 | 0.6   |
| MW-1     | $07/13/2006^3$ | 17.07 | 11.18 | 5.89    | 990          | < 0.5 | < 0.5 | < 0.5 | < 0.5  | 44             | <50     | 7       | < 0.5   | < 0.5 | 0.7   |
| MW-1     | $10/16/2006^3$ | 17.07 | 12.18 | 4.89    | 780          | < 0.5 | < 0.5 | < 0.5 | < 0.5  | 59             | <50     | 6       | < 0.5   | < 0.5 | 1     |
| MW-1     | $01/20/2007^3$ | 17.07 | 11.91 | 5.16    | 890          | < 0.5 | < 0.5 | < 0.5 | < 0.5  | 47             | <50     | 8       | < 0.5   | < 0.5 | 0.8   |
| MW-1     | $04/11/2007^3$ | 17.07 | 11.87 | 5.20    | 1,900        | < 0.5 | < 0.5 | 4     | < 0.5  | 39             | <50     | 9       | < 0.5   | < 0.5 | 0.7   |
| MW-1     | $07/27/2007^3$ | 17.07 | 11.91 | 5.16    | 1,500        | < 0.5 | < 0.5 | 0.6   | < 0.5  | 56             | <50     | 8       | < 0.5   | < 0.5 | 0.8   |
| MW-1     | $10/22/2007^3$ | 17.07 | -     | -       | 610          | < 0.5 | < 0.5 | < 0.5 | < 0.5  | 65             | <50     | 5       | < 0.5   | < 0.5 | 0.7   |
| MW-1     | 11/26/2007     | 17.07 | 11.96 | 5.11    | -            | -     | -     | -     | -      | -              | -       | -       | -       | -     | -     |
| MW-1     | $01/21/2008^3$ | 17.07 | 11.78 | 5.29    | 1,100        | < 0.5 | < 0.5 | 0.8   | < 0.5  | 48             | <50     | 5       | < 0.5   | < 0.5 | 0.7   |
| MW-1     | $04/04/2008^3$ | 17.07 | 11.83 | 5.24    | 1,600        | < 0.5 | < 0.5 | < 0.5 | < 0.5  | 53             | <50     | 6       | < 0.5   | < 0.5 | 0.6   |
| MW-1     | $07/21/2008^3$ | 17.07 | 12.10 | 4.97    | 950          | < 0.5 | < 0.5 | < 0.5 | < 0.5  | 72             | <50     | 11      | < 0.5   | < 0.5 | 0.7   |
| MW-1     | $10/09/2008^3$ | 17.07 | 12.17 | 4.90    | 960          | < 0.5 | < 0.5 | < 0.5 | <0.5   | 59             | <50     | 5       | < 0.5   | < 0.5 | 0.5   |
| MW-1     | $01/21/2009^3$ | 17.07 | 12.15 | 4.92    | 840          | < 0.5 | < 0.5 | < 0.5 | < 0.5  | 31             | <50     | 5       | < 0.5   | < 0.5 | 0.5   |

|          |                         |       |       |         | HYDROCARBONS |        |        | PRIN   | IARY V | OCS            |         | ADDITIC | ONAL VO | DCS   |       |
|----------|-------------------------|-------|-------|---------|--------------|--------|--------|--------|--------|----------------|---------|---------|---------|-------|-------|
| Location | Date                    | тос   | DTW   | GWE     | TPH-GRO      | В      | T      | E      | X      | MTBE by SW8260 | ETHANOL | TBA     | DIPE    | ETBE  | TAME  |
|          | Units                   | ft    | ft    | ft-amsl | µg/L         | µg/L   | µg/L   | µg/L   | µg/L   | µg∕L           | µg/L    | µg∕L    | µg/L    | µg/L  | µg/L  |
| MW-1     | 04/29/2009              | 17.07 | 11.68 | 5.39    | 1.800        | <0.5   | <0.5   | 3      | < 0.5  | 25             | <50     | 5       | < 0.5   | <0.5  | <0.5  |
| MW-1     | $07/23/2009^3$          | 17.07 | 11.85 | 5.22    | 1,900        | < 0.5  | < 0.5  | < 0.5  | < 0.5  | 30             | <50     | 4 I     | < 0.5   | < 0.5 | < 0.5 |
| MW-1     | 01/28/2010              | 17.07 | 10.81 | 6.26    | 2,600        | < 0.5  | < 0.5  | 2      | < 0.5  | 31             | <50     | 11      | < 0.5   | < 0.5 | < 0.5 |
| MW-1     | 07/22/2010              | 17.07 | 11.76 | 5.31    | 4,200        | 0.5 J  | < 0.5  | 3      | < 0.5  | 59             | <50     | 9       | < 0.5   | < 0.5 | 0.6 J |
| MW-1     | 01/20/2011              | 17.07 | 11.33 | 5.74    | 2,500        | < 0.5  | < 0.5  | 2      | < 0.5  | 30             | <50     | 4 J     | < 0.5   | < 0.5 | < 0.5 |
| MW-1     | 07/18/2011              | 17.07 | 11.41 | 5.66    | 2,200        | < 0.5  | < 0.5  | 4      | < 0.5  | 55             | <50     | 5       | < 0.5   | < 0.5 | 0.5 J |
| MW-1     | 04/02/2012              | 17.07 | 10.76 | 6.31    | 1,600        | < 0.5  | < 0.5  | 2      | < 0.5  | 23             | <50     | 3 J     | < 0.5   | < 0.5 | < 0.5 |
| MW-1     | 5/1/2013                | 17.07 | 11.40 | 5.67    | 1,500        | <0.5   | <0.5   | <0.5   | <0.5   | 38             | <50     | <2      | <0.5    | <0.5  | <0.5  |
|          |                         |       |       |         |              |        |        |        |        |                |         |         |         |       |       |
| MW-2     | $04/05/2002^1$          | 16.82 | 11.17 | 5.65    | <50          | < 0.50 | < 0.50 | < 0.50 | <1.5   | <2/<2.5        | -       | <100    | <2      | <2    | <2    |
| MW-2     | 07/01/2002              | 16.82 | 11.36 | 5.46    | <50          | < 0.50 | 0.57   | 0.52   | <1.5   | <2.5/<2        | -       | <100    | <2      | <2    | <2    |
| MW-2     | 10/08/2002              | 16.82 | 11.57 | 5.25    | <100         | <2.0   | <2.0   | <2.0   | <5.0   | <10/<2         | -       | <100    | <2      | <2    | <2    |
| MW-2     | 01/11/2003              | 16.82 | 10.94 | 5.88    | <50          | < 0.50 | < 0.50 | < 0.50 | <1.5   | <2.5/<2        | -       | <100    | <2      | <2    | <2    |
| MW-2     | 04/01/2003              | 16.82 | 11.03 | 5.79    | <50          | < 0.5  | < 0.5  | < 0.5  | <1.5   | <0.5/<2.5      | <50     | <5      | < 0.5   | < 0.5 | < 0.5 |
| MW-2     | $07/01/2003^3$          | 16.82 | 11.30 | 5.52    | <50          | < 0.5  | < 0.5  | < 0.5  | < 0.5  | < 0.5          | <50     | <5      | <0.5    | <0.5  | < 0.5 |
| MW-2     | $10/02/2003^3$          | 16.82 | 11.63 | 5.19    | <50          | < 0.5  | < 0.5  | < 0.5  | < 0.5  | < 0.5          | <50     | <5      | <0.5    | <0.5  | < 0.5 |
| MW-2     | $01/05/2004^3$          | 16.82 | 10.82 | 6.00    | <50          | < 0.5  | < 0.5  | < 0.5  | < 0.5  | < 0.5          | <50     | <5      | <0.5    | <0.5  | < 0.5 |
| MW-2     | $04/05/2004^3$          | 16.82 | 11.21 | 5.61    | <50          | < 0.5  | < 0.5  | < 0.5  | < 0.5  | < 0.5          | <50     | <5      | <0.5    | < 0.5 | < 0.5 |
| MW-2     | $07/01/2004^3$          | 16.82 | 11.46 | 5.36    | <50          | < 0.5  | < 0.5  | < 0.5  | < 0.5  | < 0.5          | <50     | <5      | < 0.5   | < 0.5 | < 0.5 |
| MW-2     | 10/05/2004 <sup>3</sup> | 16.82 | 11.57 | 5.25    | <50          | < 0.5  | < 0.5  | < 0.5  | < 0.5  | < 0.5          | <50     | <5      | < 0.5   | < 0.5 | < 0.5 |
| MW-2     | $01/04/2005^{3}$        | 16.82 | 10.87 | 5.95    | <50          | 0.5    | < 0.5  | 8      | 0.9    | 87             | <50     | 14      | <0.5    | <0.5  | 2     |
| MW-2     | $04/14/2005^{3}$        | 16.82 | 10.72 | 6.10    | <50          | <0.5   | <0.5   | <0.5   | < 0.5  | < 0.5          | <50     | <5      | <0.5    | <0.5  | <0.5  |
| MW-2     | 07/08/2005°             | 16.82 | 11.16 | 5.66    | <50          | <0.5   | < 0.5  | <0.5   | < 0.5  | <0.5           | <50     | <5      | <0.5    | <0.5  | <0.5  |
| MW-2     | 10/27/2005 <sup>°</sup> | 16.82 | 11.59 | 5.23    | <50          | <0.5   | <0.5   | <0.5   | < 0.5  | < 0.5          | <50     | <5      | <0.5    | <0.5  | <0.5  |
| MW-2     | $01/12/2006^3$          | 16.82 | 10.68 | 6.14    | <50          | <0.5   | <0.5   | <0.5   | <0.5   | < 0.5          | <50     | <5      | <0.5    | <0.5  | <0.5  |
| MW-2     | 04/13/2006 <sup>3</sup> | 16.82 | 10.37 | 6.45    | <50          | <0.5   | <0.5   | <0.5   | <0.5   | < 0.5          | <50     | <5      | < 0.5   | <0.5  | <0.5  |
| MW-2     | 07/13/2006 <sup>3</sup> | 16.82 | 10.68 | 6.14    | <50          | <0.5   | <0.5   | <0.5   | <0.5   | < 0.5          | <50     | <5      | <0.5    | <0.5  | <0.5  |
| MW-2     | $10/16/2006^3$          | 16.82 | 11.48 | 5.34    | <50          | <0.5   | <0.5   | <0.5   | <0.5   | < 0.5          | <50     | <5      | <0.5    | <0.5  | <0.5  |
| MW-2     | $01/20/2007^{3}$        | 16.82 | 11.27 | 5.55    | <50          | < 0.5  | < 0.5  | < 0.5  | <0.5   | < 0.5          | <50     | <2      | < 0.5   | < 0.5 | < 0.5 |

|          |                |            |            |                | HYDROCARBONS        |           |           | PRIN      | IARY V           | OCS                  |         | ADDITIC  | ONAL VO | DCS           |          |
|----------|----------------|------------|------------|----------------|---------------------|-----------|-----------|-----------|------------------|----------------------|---------|----------|---------|---------------|----------|
| Location | Date<br>Units  | TOC<br>ft  | DTW        | GWE<br>ft-amsl | а<br>л∕в<br>ПРН-GRO | В<br>µg/L | Т<br>µg/L | E<br>µg/L | <u>Х</u><br>µg/L | ™<br>™MTBE by SW8260 | ETHANOL | T<br>TBA | DIPE    | t<br>T∕& ETBE | t<br>PME |
|          |                | <b>)</b> · | <b>J</b> * | <b>)</b>       | -                   | _         | -         | -         | -                | -                    | -       | _        | -       | _             | _        |
| MW-2     | $04/11/2007^3$ | 16.82      | 11.20      | 5.62           | <50                 | < 0.5     | < 0.5     | < 0.5     | < 0.5            | < 0.5                | <50     | <2       | < 0.5   | < 0.5         | < 0.5    |
| MW-2     | $07/25/2007^3$ | -          | -          | -              | -                   | -         | _         | -         | -                | -                    | <50     | <2       | < 0.5   | < 0.5         | < 0.5    |
| MW-2     | $07/27/2007^3$ | 16.82      | 11.27      | 5.55           | <50                 | < 0.5     | < 0.5     | < 0.5     | < 0.5            | < 0.5                | -       | -        | -       | -             | -        |
| MW-2     | $10/22/2007^3$ | 16.82      | -          | -              | <50                 | < 0.5     | < 0.5     | < 0.5     | < 0.5            | < 0.5                | <50     | <2       | < 0.5   | < 0.5         | < 0.5    |
| MW-2     | 11/26/2007     | 16.82      | 11.31      | 5.51           | -                   | -         | -         | -         | -                | -                    | -       | -        | -       | -             | -        |
| MW-2     | $01/21/2008^3$ | 16.82      | 11.08      | 5.74           | <50                 | < 0.5     | < 0.5     | < 0.5     | < 0.5            | < 0.5                | <50     | <2       | < 0.5   | < 0.5         | < 0.5    |
| MW-2     | $04/04/2008^3$ | 16.82      | 11.12      | 5.70           | <50                 | < 0.5     | < 0.5     | < 0.5     | < 0.5            | < 0.5                | <50     | <2       | < 0.5   | < 0.5         | < 0.5    |
| MW-2     | $07/21/2008^3$ | 16.82      | 11.56      | 5.26           | <50                 | < 0.5     | < 0.5     | < 0.5     | < 0.5            | < 0.5                | <50     | <2       | < 0.5   | < 0.5         | < 0.5    |
| MW-2     | $10/09/2008^3$ | 16.82      | 11.73      | 5.09           | <50                 | < 0.5     | < 0.5     | < 0.5     | < 0.5            | < 0.5                | <50     | <2       | < 0.5   | < 0.5         | < 0.5    |
| MW-2     | $01/21/2009^3$ | 16.82      | 11.55      | 5.27           | <50                 | < 0.5     | < 0.5     | < 0.5     | < 0.5            | < 0.5                | <50     | <2       | < 0.5   | < 0.5         | < 0.5    |
| MW-2     | 04/29/2009     | 16.82      | 11.06      | 5.76           | <50                 | < 0.5     | < 0.5     | < 0.5     | < 0.5            | < 0.5                | <50     | <2       | <0.5    | < 0.5         | < 0.5    |
| MW-2     | $07/23/2009^3$ | 16.82      | 11.30      | 5.52           | <50                 | < 0.5     | < 0.5     | < 0.5     | < 0.5            | < 0.5                | <50     | <2       | <0.5    | < 0.5         | < 0.5    |
| MW-2     | 01/28/2010     | 16.82      | 10.23      | 6.59           | <50                 | < 0.5     | < 0.5     | < 0.5     | < 0.5            | < 0.5                | <50     | <2       | <0.5    | < 0.5         | < 0.5    |
| MW-2     | 07/22/2010     | 16.82      | 11.03      | 5.79           | <50                 | < 0.5     | < 0.5     | < 0.5     | < 0.5            | < 0.5                | <50     | <2       | <0.5    | < 0.5         | <0.5     |
| MW-2     | 01/20/2011     | 16.82      | 10.52      | 6.30           | <50                 | < 0.5     | < 0.5     | < 0.5     | < 0.5            | < 0.5                | <50     | <2       | < 0.5   | < 0.5         | < 0.5    |
| MW-2     | 07/18/2011     | 16.82      | 10.61      | 6.21           | <50                 | < 0.5     | < 0.5     | < 0.5     | < 0.5            | < 0.5                | <50     | <2       | < 0.5   | < 0.5         | < 0.5    |
| MW-2     | 04/02/2012     | 16.82      | 9.86       | 6.96           | <50                 | < 0.5     | < 0.5     | < 0.5     | < 0.5            | < 0.5                | <50     | <2       | < 0.5   | < 0.5         | < 0.5    |
| MW-2     | 5/1/2013       | 16.82      | 10.52      | 6.30           | <50                 | <0.5      | <0.5      | <0.5      | <0.5             | <0.5                 | <50     | <2       | <0.5    | <0.5          | <0.5     |
| MW-3     | $04/05/2002^1$ | 16.52      | 11.29      | 5.23           | <50                 | < 0.50    | 0.59      | < 0.50    | <1.5             | <2.5/<2              | -       | <100     | <2      | <2            | <2       |
| MW-3     | 07/01/2002     | 16.52      | 11.55      | 4.97           | <50                 | < 0.50    | 0.60      | < 0.50    | <1.5             | <2.5/<2              | -       | <100     | <2      | <2            | <2       |
| MW-3     | 10/08/2002     | 16.52      | 11.62      | 4.90           | <100                | <2.0      | <2.0      | <2.0      | <5.0             | <2/<10               | -       | <100     | <2      | <2            | <2       |
| MW-3     | 01/11/2003     | 16.52      | 11.09      | 5.43           | <50                 | < 0.50    | < 0.50    | < 0.50    | <1.5             | <2.5/<2              | -       | <100     | <2      | <2            | <2       |
| MW-3     | 04/01/2003     | 16.52      | 11.25      | 5.27           | <50                 | < 0.5     | < 0.5     | < 0.5     | <1.5             | <0.5/<2.5            | -       | <5       | < 0.5   | < 0.5         | < 0.5    |
| MW-3     | $07/01/2003^3$ | 16.52      | 11.42      | 5.10           | <50                 | < 0.5     | < 0.5     | < 0.5     | < 0.5            | 2                    | <50     | <5       | <0.5    | < 0.5         | < 0.5    |
| MW-3     | $10/02/2003^3$ | 16.52      | 11.74      | 4.78           | <50                 | < 0.5     | < 0.5     | < 0.5     | < 0.5            | < 0.5                | <50     | <5       | < 0.5   | < 0.5         | < 0.5    |
| MW-3     | $01/05/2004^3$ | 16.52      | 11.06      | 5.46           | <50                 | < 0.5     | < 0.5     | < 0.5     | < 0.5            | < 0.5                | <50     | <5       | < 0.5   | < 0.5         | < 0.5    |
| MW-3     | $04/05/2004^3$ | 16.52      | 11.40      | 5.12           | <50                 | < 0.5     | < 0.5     | < 0.5     | < 0.5            | 0.6                  | <50     | <5       | < 0.5   | < 0.5         | < 0.5    |
| MW-3     | $07/01/2004^3$ | 16.52      | 11.58      | 4.94           | <50                 | < 0.5     | < 0.5     | < 0.5     | < 0.5            | 0.8                  | <50     | <5       | < 0.5   | < 0.5         | < 0.5    |

|              |                                  |                |                |              | HYDROCARBONS |              |              | PRIN         | IARY V       | OCS            | 1          | ADDITIC  | ONAL VO      | DCS          |              |
|--------------|----------------------------------|----------------|----------------|--------------|--------------|--------------|--------------|--------------|--------------|----------------|------------|----------|--------------|--------------|--------------|
| Location     | Date                             | тос            | DTW            | GWE          | TPH-GRO      | B            | T            | E            | X            | MTBE by SW8260 | ETHANOL    | TBA      | DIPE         | ETBE         | TAME         |
|              | Units                            | ft             | ft             | ft-amsl      | μyr          | μyr          | μyι          | μyι          | μyr          | μyr            | μŷĽ        | μyl      | μŷL          | μŷL          | μŷL          |
| MW-3<br>MW-3 | $10/05/2004^3$<br>$01/04/2005^3$ | 16.52<br>16.52 | 11.60<br>10.95 | 4.92<br>5.57 | <50<br><50   | <0.5<br><0.5 | <0.5<br><0.5 | <0.5<br><0.5 | <0.5<br><0.5 | <0.5<br><0.5   | <50<br><50 | <5<br><5 | <0.5<br><0.5 | <0.5<br><0.5 | <0.5<br><0.5 |
| MW-3         | $04/14/2005^3$                   | 16.52          | 11 10          | 5 42         | <50          | <0.5         | <0.5         | <0.5         | <0.5         | <0.5           | <50        | <5       | <0.5         | <0.5         | <0.5         |
| MW-3         | $07/08/2005^3$                   | 16.52          | 11.29          | 5.23         | <50          | < 0.5        | < 0.5        | < 0.5        | < 0.5        | <0.5           | <50        | <5       | < 0.5        | < 0.5        | < 0.5        |
| MW-3         | $10/27/2005^3$                   | 16.52          | 11.68          | 4.84         | <50          | < 0.5        | < 0.5        | < 0.5        | < 0.5        | < 0.5          | <50        | <5       | < 0.5        | < 0.5        | < 0.5        |
| MW-3         | $01/12/2006^3$                   | 16.52          | 10.83          | 5.69         | <50          | < 0.5        | < 0.5        | < 0.5        | < 0.5        | < 0.5          | <50        | <5       | < 0.5        | < 0.5        | < 0.5        |
| MW-3         | $04/13/2006^3$                   | 16.52          | 10.65          | 5.87         | <50          | < 0.5        | < 0.5        | < 0.5        | < 0.5        | < 0.5          | <50        | <5       | < 0.5        | < 0.5        | < 0.5        |
| MW-3         | $07/13/2006^3$                   | 16.52          | 11.03          | 5.49         | <50          | < 0.5        | < 0.5        | < 0.5        | < 0.5        | < 0.5          | <50        | <5       | < 0.5        | < 0.5        | < 0.5        |
| MW-3         | $10/16/2006^3$                   | 16.52          | 11.46          | 5.06         | <50          | < 0.5        | < 0.5        | < 0.5        | < 0.5        | < 0.5          | <50        | <5       | < 0.5        | < 0.5        | < 0.5        |
| MW-3         | $01/20/2007^3$                   | 16.52          | 11.39          | 5.13         | <50          | < 0.5        | < 0.5        | < 0.5        | < 0.5        | < 0.5          | <50        | <2       | < 0.5        | <0.5         | < 0.5        |
| MW-3         | $04/11/2007^3$                   | 16.52          | 11.27          | 5.25         | <50          | < 0.5        | < 0.5        | < 0.5        | < 0.5        | < 0.5          | <50        | <2       | < 0.5        | < 0.5        | < 0.5        |
| MW-3         | $07/27/2007^3$                   | 16.52          | 11.38          | 5.14         | <50          | < 0.5        | < 0.5        | < 0.5        | < 0.5        | < 0.5          | <50        | <2       | < 0.5        | < 0.5        | < 0.5        |
| MW-3         | $10/22/2007^3$                   | 16.52          | -              | -            | <50          | < 0.5        | < 0.5        | < 0.5        | < 0.5        | < 0.5          | <50        | <2       | < 0.5        | < 0.5        | < 0.5        |
| MW-3         | 11/26/2007                       | 16.52          | 11.35          | 5.17         | -            | -            | -            | -            | -            | -              | -          | -        | -            | -            | -            |
| MW-3         | $01/21/2008^3$                   | 16.52          | 11.16          | 5.36         | <50          | < 0.5        | < 0.5        | < 0.5        | < 0.5        | < 0.5          | <50        | <2       | < 0.5        | < 0.5        | < 0.5        |
| MW-3         | $04/04/2008^3$                   | 16.52          | 11.15          | 5.37         | <50          | < 0.5        | < 0.5        | < 0.5        | < 0.5        | < 0.5          | <50        | <2       | < 0.5        | < 0.5        | < 0.5        |
| MW-3         | $07/21/2008^3$                   | 16.52          | 11.38          | 5.14         | <50          | < 0.5        | < 0.5        | < 0.5        | < 0.5        | < 0.5          | <50        | <2       | < 0.5        | <0.5         | <0.5         |
| MW-3         | $10/09/2008^{3}$                 | 16.52          | 11.49          | 5.03         | <50          | < 0.5        | < 0.5        | < 0.5        | < 0.5        | < 0.5          | <50        | <2       | < 0.5        | < 0.5        | < 0.5        |
| MW-3         | $01/21/2009^3$                   | 16.52          | 11.52          | 5.00         | <50          | < 0.5        | < 0.5        | < 0.5        | < 0.5        | < 0.5          | <50        | <2       | < 0.5        | < 0.5        | < 0.5        |
| MW-3         | 04/29/2009                       | 16.52          | 11.10          | 5.42         | <50          | < 0.5        | < 0.5        | < 0.5        | < 0.5        | <0.5           | <50        | <2       | < 0.5        | < 0.5        | < 0.5        |
| MW-3         | $07/23/2009^{3}$                 | 16.52          | 11.20          | 5.32         | <50          | <0.5         | <0.5         | <0.5         | <0.5         | <0.5           | <50        | <2       | <0.5         | <0.5         | <0.5         |
| MW-3         | 01/28/2010                       | 16.52          | 10.41          | 6.11         | <50          | <0.5         | <0.5         | <0.5         | <0.5         | <0.5           | <50        | <2       | <0.5         | <0.5         | <0.5         |
| MW-3         | 07/22/2010                       | 16.52          | 10.91          | 5.61         | <50          | <0.5         | <0.5         | <0.5         | <0.5         | 1              | <50        | <2       | <0.5         | <0.5         | <0.5         |
| MW-3         | 01/20/2011                       | 16.52          | 10.55          | 5.97         | <50          | < 0.5        | < 0.5        | < 0.5        | < 0.5        | <0.5           | <50        | <2       | < 0.5        | < 0.5        | < 0.5        |
| MW-3         | 07/18/2011                       | 16.52          | 10.43          | 6.09         | <50          | < 0.5        | < 0.5        | < 0.5        | < 0.5        | < 0.5          | <50        | <2       | < 0.5        | < 0.5        | < 0.5        |
| MW-3         | 04/02/2012                       | 16.52          | 10.22          | 6.30         | <50          | < 0.5        | < 0.5        | < 0.5        | < 0.5        | < 0.5          | <50        | <2       | < 0.5        | < 0.5        | < 0.5        |
| MW-3         | 5/1/2013                         | 16.52          | 10.96          | 5.56         | <50          | <0.5         | <0.5         | <0.5         | <0.5         | <0.5           | <50        | <2       | <0.5         | <0.5         | <0.5         |
| Trip Blank   | 04/05/2002                       | -              | -              | -            | <50          | <0.50        | <0.50        | <0.50        | <1.5         | <2.5           | -          | -        | -            | -            | -            |

|            |                  |     |     |         | HYDROCARBONS     |        |        | PRIN   | IARY V | OCS            | I       | ADDITIC | ONAL VO | DCS  |      |
|------------|------------------|-----|-----|---------|------------------|--------|--------|--------|--------|----------------|---------|---------|---------|------|------|
| Location   | Date             | TOC | DTW | GWE     | ПРН-GRO          | B      | T      | E      | X      | MTBE by SW8260 | ETHANOL | TBA     | DIPE    | ETBE | TAME |
|            | Units            | ft  | ft  | ft-amsl | μÿL              | μyr    | μŷĽ    | μyr    | μyr    | μyr            | μŷĽ     | μŷL     | μyl     | μyl  | μŷĽ  |
| Trip Blank | 07/01/2002       | -   | -   | -       | <50              | <0.50  | <0.50  | <0.50  | <1.5   | <2.5           | -       | -       | -       | -    | -    |
| Trip Blank | 10/08/2002       | -   | -   | -       | <100             | <2.0   | <2.0   | <2.0   | <5.0   | <10            | -       | -       | -       | -    | -    |
| Trip Blank | 01/11/2003       | -   | -   | -       | <50              | < 0.50 | < 0.50 | < 0.50 | <1.5   | <2.5           | -       | -       | -       | -    | -    |
| Trip Blank | 04/01/2003       | -   | -   | -       | <50              | < 0.5  | < 0.5  | < 0.5  | <1.5   | <2.5           | -       | -       | -       | -    | -    |
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| Trip Blank | $10/02/2003^{3}$ | -   | -   | -       | <50              | < 0.5  | < 0.5  | < 0.5  | < 0.5  | < 0.5          | -       | -       | -       | -    | -    |
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| Trip Blank | $04/05/2004^3$   | -   | -   | -       | <50              | < 0.5  | < 0.5  | < 0.5  | < 0.5  | < 0.5          | -       | -       | -       | -    | -    |
| Trip Blank | $07/01/2004^3$   | -   | -   | -       | <50              | < 0.5  | < 0.5  | < 0.5  | < 0.5  | < 0.5          | -       | -       | -       | -    | -    |
| Trip Blank | $10/05/2004^3$   | -   | -   | -       | <50              | < 0.5  | < 0.5  | < 0.5  | < 0.5  | < 0.5          | -       | -       | -       | -    | -    |
| Trip Blank | $01/04/2005^3$   | -   | -   | -       | <50              | < 0.5  | < 0.5  | < 0.5  | < 0.5  | <0.5           | -       | -       | -       | -    | -    |
| Trip Blank | $04/14/2005^3$   | -   | -   | -       | <50              | < 0.5  | < 0.5  | < 0.5  | < 0.5  | <0.5           | -       | -       | -       | -    | -    |
| Trip Blank | $07/08/2005^3$   | -   | -   | -       | <50              | < 0.5  | < 0.5  | < 0.5  | < 0.5  | <0.5           | -       | -       | -       | -    | -    |
| Trip Blank | $10/27/2005^3$   | -   | -   | -       | <50              | < 0.5  | < 0.5  | < 0.5  | < 0.5  | <0.5           | -       | -       | -       | -    | -    |
| Trip Blank | $01/12/2006^3$   | -   | -   | -       | <50              | < 0.5  | < 0.5  | < 0.5  | < 0.5  | <0.5           | -       | -       | -       | -    | -    |
| Trip Blank | $04/13/2006^3$   | -   | -   | -       | <50              | < 0.5  | < 0.5  | < 0.5  | < 0.5  | <0.5           | -       | -       | -       | -    | -    |
| Trip Blank | $07/13/2006^3$   | -   | -   | -       | <50              | < 0.5  | < 0.5  | < 0.5  | < 0.5  | <0.5           | -       | -       | -       | -    | -    |
| Trip Blank | $10/16/2006^3$   | -   | -   | -       | <50              | < 0.5  | < 0.5  | < 0.5  | < 0.5  | <0.5           | -       | -       | -       | -    | -    |
| Trip Blank | $01/20/2007^3$   | -   | -   | -       | <50              | < 0.5  | < 0.5  | < 0.5  | < 0.5  | <0.5           | -       | -       | -       | -    | -    |
| Trip Blank | $04/11/2007^3$   | -   | -   | -       | <50              | < 0.5  | < 0.5  | < 0.5  | < 0.5  | <0.5           | -       | -       | -       | -    | -    |
| Trip Blank | $07/27/2007^3$   | -   | -   | -       | <50              | < 0.5  | < 0.5  | < 0.5  | < 0.5  | <0.5           | -       | -       | -       | -    | -    |
| Trip Blank | $10/22/2007^3$   | -   | -   | -       | <50              | < 0.5  | < 0.5  | < 0.5  | < 0.5  | <0.5           | -       | -       | -       | -    | -    |
| Trip Blank | $01/21/2008^3$   | -   | -   | -       | <50              | < 0.5  | < 0.5  | < 0.5  | < 0.5  | <0.5           | -       | -       | -       | -    | -    |
| Trip Blank | $04/04/2008^3$   | -   | -   | -       | <50              | < 0.5  | < 0.5  | < 0.5  | < 0.5  | <0.5           | -       | -       | -       | -    | -    |
| Trip Blank | $07/21/2008^3$   | -   | -   | -       | <50              | < 0.5  | < 0.5  | < 0.5  | < 0.5  | <0.5           | -       | -       | -       | -    | -    |
| Trip Blank | $10/09/2008^3$   | -   | -   | -       | <50              | < 0.5  | < 0.5  | < 0.5  | < 0.5  | <0.5           | -       | -       | -       | -    | -    |
| Trip Blank | $01/21/2009^3$   | -   | -   | -       | <50 <sup>5</sup> | < 0.5  | < 0.5  | < 0.5  | < 0.5  | < 0.5          | -       | -       | -       | -    | -    |
| Trip Blank | 04/29/2009       | -   | -   | -       | <50              | < 0.5  | < 0.5  | < 0.5  | < 0.5  | <0.5           | -       | -       | -       | -    | -    |
| Trip Blank | $07/23/2009^3$   | -   | -   | -       | <50              | < 0.5  | < 0.5  | < 0.5  | < 0.5  | < 0.5          | -       | -       | -       | -    | -    |

#### GROUNDWATER MONITORING AND SAMPLING DATA FORMER CHEVRON SERVICE STATION 93600 2200 TELEGRAPH AVE OAKLAND, CALIFORNIA

|                          |            |     |     |         | HYDROCARBONS |       |       | PRIN  | IARY V | OCS            | A       | ADDITIC | ONAL VO | DCS   |       |
|--------------------------|------------|-----|-----|---------|--------------|-------|-------|-------|--------|----------------|---------|---------|---------|-------|-------|
| Location                 | Date       | тос | DTW | GWE     | ТРН-СКО      | В     | Т     | Е     | X      | MTBE by SW8260 | ETHANOL | TBA     | DIPE    | ETBE  | TAME  |
|                          | Units      | ft  | ft  | ft-amsl | µg∕L         | µg∕L  | µg∕L  | µg/L  | µg∕L   | µg∕L           | µg∕L    | µg∕L    | µg∕L    | µg/L  | µg/L  |
| Trip Blank<br>Trip Blank | 01/28/2010 | -   | -   | -       | <50          | <0.5  | <0.5  | <0.5  | <0.5   | <0.5           | -       | -       | -       | -     | -     |
| Trip Blank               | 01/20/2011 | -   | -   | -       | <50          | < 0.5 | < 0.5 | < 0.5 | < 0.5  | < 0.5          | -       | -       | -       | -     | -     |
| Trip Blank               | 07/18/2011 | -   | -   | -       | <50          | < 0.5 | < 0.5 | < 0.5 | < 0.5  | <0.5           | -       | -       | -       | -     | -     |
| Trip Blank               | 04/02/2012 | -   | -   | -       | <50          | < 0.5 | < 0.5 | < 0.5 | < 0.5  | < 0.5          | -       | <2      | < 0.5   | < 0.5 | < 0.5 |
| Trip Blank               | 5/1/2013   | -   | -   | -       | <50          | <0.5  | <0.5  | <0.5  | <0.5   | <0.5           | -       | <2      | <0.5    | <0.5  | <0.5  |

#### Abbreviations and Notes:

TOC = Top of casing DTW = Depth to water GWE = Groundwater elevation

(ft-amsl) = Feet above mean sea level

ft = Feet

 $\mu g/L$  = Micrograms per liter

TPH-GRO = Total petroleum hydrocarbons - gasoline range organics

VOCS = Volatile organic compounds

B = Benzene

T = Toluene

E = Ethylbenzene

X = Xylenes (Total)

MTBE = Methyl tert butyl ether

TBA = Tert-butyl alcohol

DIPE = Diisopropyl ether

ETBE = Tert-butyl ethyl ether

TAME = Tert-amyl methyl ether

-- = Not available / not applicable

<x = Not detected above laboratory method detection limit</pre>

J = Estimated concentration

#### GROUNDWATER MONITORING AND SAMPLING DATA FORMER CHEVRON SERVICE STATION 93600 2200 TELEGRAPH AVE OAKLAND, CALIFORNIA

|          |       |     |     |         | HYDROCARBONS |      |      | PRIN | IARY V | OCS            | A       | DDITIC | NAL VO | DCS  |      |
|----------|-------|-----|-----|---------|--------------|------|------|------|--------|----------------|---------|--------|--------|------|------|
| Location | Date  | тос | DTW | GWE     | ТРН-GRO      | В    | Т    | Ε    | X      | MTBE by SW8260 | ETHANOL | TBA    | DIPE   | ETBE | TAME |
|          | Units | ft  | ft  | ft-amsl | µg∕L         | µg∕L | µg∕L | µg∕L | µg∕L   | µg∕L           | µg∕L    | µg∕L   | µg∕L   | µg∕L | µg∕L |

1 Well development performed.

3 BTEX and MTBE by EPA Method 8260.

5 Laboratory report indicates the original analysis was performed on an instrument where the ending calibration standard failed the method criteria. The sample was originally analyzed approximately 30 minutes after the LCS/LCSD. The LCS/LCSD showed good GRO recovery and the surrogate recovery for this sample was 85%. The sample was reanalyzed from a vial with headspace since only 1 vial was submitted. The results for the original and the reanalysis were similar. The reanalysis was reported.

# ATTACHMENT A

# CRA'S JUNE 8, 2012 SUBSURFACE INVESTIGATION REPORT AND CASE CLOSURE REQUEST



5900 Hollis Street, Suite A Emeryville, California 94608 Telephone: (510) 420-0700 www.CRAworld.com

Fax: (510) 420-9170

# TRANSMITTAL

| DATE:                       | June 8,               | 2012   | <b>Reference No</b>                               | D.: <u>311965</u>                           |
|-----------------------------|-----------------------|--|---|---|
|                             |                       |  | <b>PROJECT NAME</b>                               | E: Former Chevron Service Station 93600     |
| то:                         | Mr. Ma                | ark Detterman  | ,<br>,  |   |
|                             | Alame                 | da County Environmental  | Health Services                                   |   |
|                             | 1131 H                | Jarbor Bay Parkway Suite   | 250   | —   |
|                             | <u></u>               |  | 230   | —   |
|                             | Alame                 | da, CA 94502-6577  |   | _   |
|                             |                       |  |   | _   |
| Please find                 | d enclose             | <b>d:</b> Draft  | ⊠ Final<br>□ Other                                |   |
|                             |                       | Prints   |   |   |
| Sent via:                   |                       | Mail   | □ Same Day  | y Courier<br>GeoTracker Upload              |
|                             |                       |  |   | Geoffacker Opload                           |
| OUAN                        | ΤΙΤΥ                  |  | DESCR   | RIPTION                                     |
| 1                           |                       | Subsurface Investigation   | Report and Case C                                 | Closure Request                             |
|                             |                       | 0  | 1   | 1   |
|                             |                       |  |   |   |
| As R                        | Requested<br>Your Use | E Fo   | or Review and Comm<br>or Review and Signat        | nent<br>Iture                               |
|                             |                       |  |   |   |
| COMME<br>Should yo<br>3333. | NTS:<br>ou have a     | any questions or concerns  | with this document                                | nt, please contact Nathan Lee at (510) 420- |
|                             |                       |  |   |   |
| Copy to:                    | ]                     | Ms. Catalina Espino Devin<br>Mr. George Kim, Chong ar<br>Mr. Christopher Curtis, M | ne , Chevron<br>nd Myung, Inc.<br>V Broadway, LLC |   |
| Complete                    | ed by: _              | Tina M. Hariu  | Signed:   | Tina M. Hereie                              |
|                             |                       | [1 lease r fillt]  |   |   |
| Filing:                     | Correspo              | ndence File  |   |   |



Catalina Espino Devine Project Manager Marketing Business Unit Chevron Environmental Management Company 6101 Bollinger Canyon Road San Ramon, CA 94583 Tel (925) 790-3949 espino@chevron.com

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

Re: Chevron Service Station No. 9-3600 2200 Telegraph Avenue Oakland, CA

I have reviewed the attached report dated June 8, 2012.

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 to the best of my knowledge.

Sincerely,

Catalina Espino Devine Project Manager

Attachment: Report



# SUBSURFACE INVESTIGATION REPORT AND CASE CLOSURE REQUEST

# FORMER CHEVRON SERVICE STATION 93600 2200 TELEGRAPH AVENUE OAKLAND, CALIFORNIA Fuel Leak Case No. RO00002435

**Prepared For:** 

Mr. Mark Detterman Alameda County Environmental Health Services 1131 Harbor Bay Parkway, Suite 250 Alameda, CA 94502 6577

### Prepared by: Conestoga-Rovers & Associates

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JUNE 8, 2012 REF. NO. 311965 (11) This report is printed on recycled paper.



# SUBSURFACE INVESTIGATION REPORT AND CASE CLOSURE REQUEST

FORMER CHEVRON SERVICE STATION 93600 2200 TELEGRAPH AVENUE OAKLAND, CALIFORNIA Fuel Leak Case No. RO00002435

Amarch & Mesauch

Amanda McDonell

Una M. Harce

Tina M. Hariu, PG 5907, CHG 346



Prepared by: Conestoga-Rovers & Associates

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JUNE 8, 2012 Ref. No. 311965 (11) This report is printed on recycled paper

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## 1.0 INTRODUCTION

Conestoga-Rovers & Associates (CRA) is submitting this *Subsurface Investigation Report and Closure Request* for the site referenced above on behalf of Chevron Environmental Management Company (Chevron) (Figure 1). CRA submitted a *Work Plan for Soil Borings* dated January 30, 2009. The scope of work was conditionally approved by Alameda County Environmental Health (ACEH) in a correspondence dated April 13, 2011 (Appendix A). The work could not be executed until 2012 when all necessary access agreements for the onsite and offsite portion of the investigation were secured.

In the April 13, 2011 approval letter, ACEH requested:

- Delineation of the extent of dissolved-phase petroleum hydrocarbon constituents in groundwater downgradient (offsite) of well MW-1
- Clearance of boreholes for utilities using a hand auger, instead of an air knife as specified in the work plan
- Placement of a soil bore in the vicinity of boring B-8 (near the underground storage tank [UST] pit), where previous borings had been refused

Therefore, the investigation was performed to define the extent of dissolved-phase petroleum hydrocarbons in groundwater downgradient of the site and to attempt a boring in the vicinity of former boring B-8.

Subsurface investigation included advancing one onsite and four offsite soil borings (Figure 2). The field work was conducted between April 12 and 13, 2012. Presented below are site background, a summary of field investigation activities, subsurface investigation results, and a comparison of site data to the low-risk fuel case closure criteria.

# 2.0 <u>SITE BACKGROUND</u>

# 2.1 <u>SITE DESCRIPTION</u>

The site is an active Chevron gasoline service station located at 2200 Telegraph Avenue, in Oakland, California. The property is at the southeast corner of the intersection of Telegraph and West Grand Avenues, and is bound on the east by the Douglas Parking Lot (Figure 2). Surrounding properties are commercial businesses, with a church located to the west across Telegraph Avenue. The Bay Area Rapid Transit (BART) runs directly beneath the site and trends northwest to southeast (Figure 2). Based

on information provided by BART, the top of tunnel is approximately 12 feet below grade (fbg) in this area.

Current site facilities include three 10,000-gallon underground storage tanks (UST) that share a common pit near the northeastern corner of the site, and five dispenser islands covered by a canopy (Figure 2).

## 2.2 <u>HISTORICAL OWNERSHIP</u>

Chevron purchased the land in 1951 and operated a retail service station until 1983. All facilities and improvements were removed in 1984 when Chevron attempted to sell the land. Due to the presence of the BART right-of-way, Chevron was unable to complete the sale, and in 1985, rebuilt the station into its current configuration. In 2000, Chevron sold the land and facilities to the current station dealer, Mr. George Kim.

## 2.3 <u>TOPOGRAPHY AND SURFACE HYDROLOGY</u>

The regional ground surface slopes gently toward the east. The nearest surface water body is Lake Merritt, which is located approximately 1,850 feet east of the site (Figure 1). Lake Merritt drains into Oakland Inner Harbor.

The site topography is relatively flat, and the ground surface occurs at an elevation of approximately 17 feet above mean sea level (amsl). The adjacent Parking Lot surface elevation is 1 to 2 feet lower than the site, and slopes slightly to the east toward Valley Street (Figure 2).

# 2.4 <u>REGIONAL GEOLOGY AND HYDROGEOLOGY</u>

The site is located on the eastern flank of the San Francisco Basin, a broad Franciscan Complex depression approximately 4 miles east of San Francisco Bay. The basin basement is overlain first by the Pleistocene Santa Clara Formation, then by the Alameda Formation, and lastly by the Temescal Formation. The three units consist of unconsolidated sediments varying in total thickness from approximately 300 to 1,000 feet. The Santa Clara Formation is comprised primarily of alluvial fan deposits interspersed with lake, swamp, river channel, and flood plain deposits. The overlying Alameda Formation was deposited in an estuary environment and consists of organic clays and alluvial deposits. The Temescal Formation is an alluvial deposit ranging in thickness

from 1 to 50 feet and consists primarily of silts and clays overlying a basal gravel unit (California Regional Water Quality Control Board [RWQCB], 1999).<sup>1</sup>

The site is within the Oakland subarea of the East Bay Plain groundwater basin. This basin encompasses approximately 115 square miles and is bound by San Pablo Bay to the north, Alameda County to the south, the Hayward Fault to the east and the San Francisco Bay to the west. Groundwater flow direction in the basin typically follows surface topography; however, local groundwater flow direction can be influenced by subsurface features. Groundwater in this basin is designated as beneficial for municipal and domestic water supply, as indicated in the San Francisco Bay Basin Water Quality Control Plan prepared by the RWQCB – Region 2. However, current beneficial water use of groundwater in the basin is minimal due to readily available, high-quality imported surface water.

## 2.5 <u>PREVIOUS ENVIRONMENTAL WORK</u>

Environmental investigation began at the site in 1986 with replacement of the USTs. Between 1986 and early 2012, the following investigation activities were conducted:

- Collection of 39 soil samples and seven grab-groundwater samples
- Drilling and sampling of eight soil borings
- Installation and sampling of 16 vadose wells with vapor sensors
- Installation and sampling of three groundwater monitoring wells
- Groundwater monitoring since 2002

A summary of previous environmental investigation and remediation is included in Appendix B.

## 3.0 <u>SUBSURFACE INVESTIGATION ACTIVITIES</u>

Subsurface investigation activities performed at the site are described below.

## Access Agreements

Onsite and offsite access agreements were updated and/or negotiated to allow soil and groundwater sampling at one onsite and four offsite boring locations.

<sup>&</sup>lt;sup>1</sup> California Regional Water Quality Control Board San Francisco Bay Region East Bay Plain Ground Water Basin Beneficial Use Evaluation Report, 1999.

## BART Right-of-Way

A BART representative was on site on April 9, 2012 to assess proposed drilling locations in the vicinity of the BART right-of-way prior to drilling. On the basis of CRA discussions with BART personnel, proposed locations were adjusted to outside the BART right-of-way.

## <u>Site Health and Safety Plan</u>

CRA performed all work under the guidelines set forth in a comprehensive site health and safety plan (HASP). The plan was reviewed and signed by all site workers and visitors. The HASP was maintained onsite at all times.

## <u>Permits</u>

Drilling permits W2012-0198 and W2012-0205 were obtained from ACEH on April 2, 2012 (Appendix C).

# **Utility Clearance**

Prior to drilling, CRA contacted Underground Service Alert (USA) to mark underground utilities near the proposed boring locations. CRA contracted Norcal Geophysical Services (Norcal) of Cotati, California to verify underground utility locations near proposed boring locations. Borings were marked and utilities cleared on April 9 2012. Geophysical methods included performing an electromagnetic (EM) survey and ground penetrating radar, and tracing known electrical lines.

# Drilling Company

Gregg Drilling and Testing, Inc. (Gregg Drilling) of Martinez, California (C57 license #485165) performed the drilling activities.

# <u>Drilling Dates</u>

Drilling took place on April 12 and 13, 2012.

# CRA Personnel

Onsite CRA personnel included Sequoia Patterson and Amanda McDonell. CRA managed the field investigation activities performed by Gregg Drilling. All field work was performed under the supervision of California Professional Geologist Tina Hariu (PG 5907).

# <u>Drilling Method</u>

Gregg Drilling advanced five soil borings (B-8B, and B-9 through B-12) using direct-push technology.

# Boring Depths

Boring B-8B was attempted twice (within several feet of each other), but both locations were refused at 3 fbg. CRA staff manually explored the boreholes and observed what appeared to be a shiny metal surface at one location. The metal appeared unoxidized and uncoated and is not consistent with the appearance of metal from an underground storage tank used for service station operations (i.e., oxidation resistant coating).

Norcal was later contacted to further re-examine the results of their geophysical survey. The results indicated that no anomaly was detected in the area during the initial screening. However, due to the proximity of steel reinforcement structures above the nearby tank pit, the metal detector sensitivity had to be reduced and the object was not detected.

Borings B-9 through B-12 were advanced to 30 fbg. Soil boring locations are shown on Figure 2.

# <u>Soil Sampling</u>

Soil was sampled using dual-tube. This methodology involves advancing an outer hollow rod and then advancing an inner rod with an acetate sheath to collect undisturbed soil samples. Soil was continuously logged according to the ASTM D2488-06 Unified Soil Classification System. Soil was screened for volatile organic compounds using a PID. Boring logs are included in Appendix D.

Soil samples selected for laboratory analyses were capped with Teflon<sup>®</sup> tape and plastic end caps. All samples were properly sealed, labeled, preserved on ice, logged on chain-of-custody forms, and released to Eurofins/Lancaster Laboratories (Lancaster) of Lancaster, Pennsylvania for analyses.

# Grab-Groundwater Sampling

Depth-discrete grab-groundwater samples were collected at first encountered groundwater from each boring using a disposable bailer. Saturated conditions were first observed in borings B-9, B-10, B-11, and B-12 at depths of 13, 18, 20, and 23 fbg, respectively. Unsuccessful attempts were made to collect shallower groundwater samples from B-10 through B-12 by retracting the outer dual-tube rods and waiting for a

minimum of 20 minutes to allow groundwater to enter the bailer. Examination of soil cores collected at B-10, B-11, and B-12 above the depths where first groundwater samples were obtained also provided verification of dry conditions, despite the presence of potential water-bearing sand and silty sand.

Additional grab-groundwater samples were collected at varying intervals (to a maximum depth interval of 30 fbg) on the basis of observed lithology, and the presence or absence of groundwater during soil sampling. Deeper groundwater samples were collected using a screened sleeve inserted into the dual-tube rods, which allowed the collection of depth-discrete samples, while minimizing the potential for cross-contamination from shallower groundwater.

Grab-groundwater samples were decanted into clean, laboratory-supplied containers. All samples were sealed, labeled, logged on a chain-of-custody form, placed on ice, and transported to a State-approved laboratory for analyses.

## Laboratory Analyses

Soil and grab-groundwater samples were analyzed by Lancaster for the following constituents:

- Total petroleum hydrocarbons quantified as gasoline (TPHg) using EPA Method 8015 modified; and
- Benzene, toluene, ethylbenzene, and total xylenes (BTEX), methyl tertiary-butyl ether (MTBE), di-isopropyl ether (DIPE), ethyl tertiary-butyl ether (ETBE), tertiary-amyl methyl ether (TAME), and tertiary butyl alcohol (TBA) using EPA Method 8260B.

## Waste Disposal

Soil cuttings and rinsate water were stored onsite in sealed and labeled Department of Transportation (DOT) approved 55-gallon drums. The drums were transported to a Clean Harbors Buttonwillow disposal facility on May 31, 2012.

## 4.0 **INVESTIGATION RESULTS**

## 4.1 SITE GEOLOGY AND HYDROGEOLOGY

## <u>Geology</u>

Figure 3 presents the locations of Geologic Cross-Sections A to A' and B to B' (Figures 4 and 5). Cross-Section A to A' was prepared along the direction of

groundwater flow (i.e., northwest to southeast), and B to B' was prepared generally perpendicular to groundwater flow (i.e., northwest to southwest).

As shown on the cross-sections, the shallow subsurface consists of a continuous, poorly graded sand and clayey sand unit that extends to depths up to approximately 7 fbg. This unit is underlain by a low permeability silt and clay unit that ranges in thickness from about 7 feet in the adjacent Douglas Parking Lot on the southeast, to 15 feet on the northwest site of the site (Figure 4). At borings B-10, B-11, and B-12, the silt and clay unit is likely interbedded with coarse materials between 8 and 10 fbg because core material was not recovered from this interval during sampling. The potential significance of this coarse zone is discussed in Section 4.1. Southeast of well MW-1 (in the Parking Lot), a relatively thick (i.e., to up to 17 feet) silty sand, sand, and gravel unit underlies the silt and clay, and extends to the maximum depth explored of 30 fbg (Figure 5).

## <u>Hydrogeology</u>

Groundwater beneath the site flows to the southeast, paralleling the BART tunnel. The BART tunnel appears to influence both onsite and offsite groundwater elevations. In this area, the top of tunnel occurs at a depth of approximately 12 fbg (Figure 4). As shown, this depth corresponds with the top of the thick, high permeability silty sand, sand, and gravel unit that occurs immediately southeast of MW-1. It is also in this area where the water table appears to decline rapidly, as discussed below.

According to monitoring well data from the three site wells, onsite (static) groundwater occurs at depths between approximately 10 and 11 fbg (the site monitoring wells are screened between 5 and 20 fbg). Groundwater was first encountered at offsite boring locations B-10, B-11, and B-12 at depths of 18, 20, and 23 fbg, respectively. As shown on Figure 4, potentiometric heads decline rapidly across relatively short lateral distances between MW-1, B-10, and B-12 in the southwestern portion of the Parking Lot. Figure 4 illustrates the top and bottom of the BART tunnel, relative to observed groundwater elevations. Near this area, the BART tunnel begins its descent into the subsurface, and the tunnel appears to slightly dewater the aquifer, resulting in a depression of the water table along the tunnel. Based on this hydrogeologic evaluation, boring B-12 is the most downgradient location from both MW-1 and the former tanks.

## 4.2 <u>SOIL SAMPLING AND ANALYTICAL RESULTS</u>

Twenty-four soil samples were collected for chemical analyses in this investigation. The laboratory analytical report is presented in Appendix E. Concentrations of chemicals detected in this and previous investigations are summarized in Table 1 and presented on Figures 6 and 7. The highest chemical concentrations detected in the current investigation include 15 milligrams per kilogram (mg/kg) TPHg, 0.002 mg/kg benzene and 0.001 mg/kg MTBE.

The detection of low concentrations of TPHg and benzene in soil samples collected at 10 fbg in offsite borings is coincident with the base of the zone of no soil recovery between 8 and 10 fbg at borings B-10 and B-11 (silt was observed at B-9 in that depth interval). "No recovery" is often associated with saturated and/or coarse materials; however, it should be noted that unsaturated conditions were observed below this interval. It is likely then, that perched (ephemeral) groundwater originating onsite may have historically resided in the zone of no recovery depositing low concentrations of residual hydrocarbons in soil.

No TPHg, BTEX, MTBE, or other fuel oxygenates were detected in soil above RWQCB-San Francisco Bay Region Environmental Screening Levels (ESLs).<sup>2</sup>

## 4.3 GRAB-GROUNDWATER SAMPLING AND ANALYTICAL RESULTS

Nine grab-groundwater samples were collected from the four offsite borings. Analytical results are presented in Table 2 and on Figure 8. The laboratory analytical report for grab-groundwater is included in Appendix F. The highest concentrations detected include 1,800 micrograms per liter ( $\mu$ g/L) TPHg and 5  $\mu$ g/L MTBE. No benzene was detected.

<sup>&</sup>lt;sup>2</sup> California Regional Water Quality Control Board, San Francisco Bay Region, Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater, Interim Final November 2007 (Revised May 2008).
## 5.0 DISCUSSION AND INVESTIGATION CONCLUSIONS

This investigation was conducted to:

- Evaluate soil conditions in the vicinity of former boring B-8, where refusal had occurred in a previous investigation
- Delineate the extent of dissolved-phase petroleum hydrocarbon constituents in groundwater downgradient (offsite) of well MW-1

# 5.1 <u>DISCUSSION</u>

# Boring B-8

Soil samples were not collected at boring B-8 due to refusal during utility clearance. Two attempts to complete the boring were made (in addition to the original attempt) with no success. Based on numerous attempts to clear utilities with geophysics, and three attempts to drill near B-8, the immediate vicinity appears to contain numerous utilities and subsurface features that make drilling technically impracticable to drill at this location.

# <u>Soil</u>

Low concentrations of TPHg and benzene were detected in several shallow (i.e., 10 fbg) soil samples. No ESLs for soil were exceeded and no further investigation is warranted.

# <u>Groundwater</u>

No benzene has been detected in any recent groundwater samples from either groundwater monitoring wells or grab-groundwater locations. TPHg, ethylbenzene, total xylenes, and/or MTBE have been detected in groundwater. As shown on Figures 4 and 8, the lateral and vertical extents of petroleum hydrocarbons are delineated downgradient of well MW-1 and boring B-9 (the location of the maximum detected TPHg concentration of 1,800  $\mu$ g/L) at boring B-12. TPHg exceeded the ESL for a drinking water aquifer in four samples. However, TPHg concentrations attenuate to below detection limits within less than 100 feet downgradient of the former USTs.

# 5.2 <u>CONCLUSIONS</u>

In conclusion, the results of the investigation indicate that:

- Soil impacts at offsite locations are below ESLs
- The lateral and vertical extents of hydrocarbons and oxygenates in groundwater are limited and adequately delineated

# 6.0 <u>ADDITIONAL INFORMATION</u>

# 6.1 SENSITIVE RECEPTOR SURVEY

In 2008, CRA compiled well data provided by California Department of Water Resources (DWR) (Table 3).<sup>3</sup> The nearest municipal and irrigation wells are approximately 3,800 and 2,500 feet from the site, respectively. Wells in DWR records with undefined uses are approximately 3,000 feet from the site. The nearest surface water is Lake Merritt, which is located approximately 1,850 feet east of the site. Due to proximity, residual onsite petroleum hydrocarbon concentrations are not expected to impact potential sensitive receptors.

# 6.2 <u>UTILITY SURVEY</u>

Various utilities have been identified on and around the site. However, it does not appear that the utility lines are acting as preferential pathways for significant hydrocarbon migration because groundwater is below the depth of typical utility depths.

While the BART line appears to affect groundwater flow, the extent of hydrocarbons is adequately defined in the direction of potential groundwater flow affects.

# 6.3 <u>CONCENTRATION TRENDS</u>

CRA uses the guidance provided within the United States Environmental Protection Agency (EPA) document *Calculation and Use of First-Order Rate Constants for Monitored Natural Attenuation Studies* (November 2002) to estimate the time for groundwater concentrations to reach water quality objectives (WQOs). CRA also uses the EPA

<sup>&</sup>lt;sup>3</sup> The DWR well report was presented to ACEH in the CRA Site Conceptual Model (December 30, 2008).

document *On-line Tools for Assessing Petroleum Releases* (September 2004) to assess the proper methodology of determining where to begin a trend analysis. A receptor is located some distance from the source, and no impact to the receptor is seen when the release first occurs. The analytes take time to travel to the receptor. The first data points that show an analyte detection is called the first arrival time. The first arrival time varies for each receptor based upon distance from the receptor and the transport rates through the heterogeneous medium.

As the analyte plume expands and stabilizes, the analyte concentration reaches the maximum concentration. If the source of the release is finite (e.g., a single release from an underground storage tank), the concentration will eventually decrease from the maximum, to below the concentration of concern. This period is called the duration.

CRA evaluates groundwater monitoring data from each well (the receptor) and creates a degradation trend analysis for site COCs from the maximum detection through the latest sampling date. The starting point can vary from the maximum detection if the transport mechanisms are not sufficiently linear. For example, groundwater monitoring data may show that the maximum concentration occurred at some point in the past and that degradation seemed to be occurring. However, due to the heterogeneous nature of the subsurface and seasonal groundwater level fluctuations, the duration does not demonstrate a steady degradation behavior. The concentrations of the analyte may increase one or more times before showing consistent attenuation towards the concentration objective.

MW-1 is the only well that contains detectable concentrations of petroleum hydrocarbons (i.e., TPHg is currently at 1,600  $\mu$ g/L). Therefore, CRA prepared a trend graph to estimate the time for the TPHg concentration at MW-1 to achieve the site WQO, which is the RWQCB ESL of 100  $\mu$ g/L.<sup>4</sup>

CRA used the following first-order exponential decay rate calculation.<sup>5</sup>

 $y = be^{(ax)}$ 

Where "a" is a decay constant, "b" is a concentration at time (x), y is concentration (WQO), and "x" is time.

<sup>&</sup>lt;sup>4</sup> California Regional Water Quality Control Board, San Francisco Bay Region, Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater, Interim Final November 2007 (Revised May 2008).

<sup>&</sup>lt;sup>5</sup> EPA-Groundwater Issue; Calculation and Use of First-Order Rate Constants for Monitored Natural Attenuation Studies; Charles J. Newell, et al., 2002.

The results of this analysis are described below.

# 6.4 <u>TREND GRAPH</u>

As shown below on Figure A, the TPHg concentration in well MW-1 is generally stable, but saw a slight increase to its maximum concentration of  $4,200 \,\mu\text{g/L}$  in 2010. While this technically is the peak concentration, it is unlikely that the last four data points shown on Figure A represent a trend decreasing at the rate shown. Therefore, we have not calculated a degradation rate and instead characterize this as a stable plume of limited extent (i.e., TPHg has not traveled as far downgradient as boring B-12).



# 6.5 LOW-RISK GROUNDWATER CASE CLOSURE CRITERIA

Based on the information presented above, the site meets the RWQCB-SF criteria for a low-risk fuel site. As described in the January 5, 1996 RWQCB-SF memorandum *Regional Board Supplemental Instructions to State Water Board December 8, 1995, Interim Guidance on Required Cleanup at Low-Risk Fuel Sites,* a low-risk groundwater case has the following general characteristics:

- The leak has stopped and ongoing sources, including light non-aqueous phase liquids (LNAPL), have been removed or remediated to the maximum extent practicable
- The site has been adequately characterized
- The dissolved petroleum hydrocarbon plume is not migrating
- No municipal or private water wells, deeper drinking water aquifers, surface waters, or other sensitive receptors will be affected by any residual onsite concentrations
- The site presents no significant risk to human health or the environment

Each of the low-risk groundwater case characteristics, as they relate to the site, is discussed below.

## 6.5.1 THE LEAK WAS STOPPED AND ONGOING SOURCES, INCLUDING LNAPL, HAVE BEEN REMOVED OR REMEDIATED

In October 1986, a previously backfilled UST pit was excavated and sampled prior to the installation of the current USTs. TPHg concentrations detected in soil were de minimis. During station piping upgrades in July 1994, all product piping was removed and replaced. Approximately 100 cubic yards of soil was removed from the site.

No LNAPL has been encountered at the site.

## 6.5.2 <u>THE SITE HAS BEEN ADEQUATELY CHARACTERIZED</u>

The extent of hydrocarbons and oxygenates is adequately defined by soil samples collected during current and previous subsurface investigations (Figures 4 through 7).

## 6.5.3 THE DISSOLVED PETROLEUM HYDROCARBON PLUME IS NOT MIGRATING

Dissolved hydrocarbon concentrations are stable and limited in extent. Therefore, the plume is not migrating.

## 6.5.4 NO MUNICIPAL OR PRIVATE WATER WELLS, DEEPER DRINKING WATER AQUIFERS, SURFACE WATERS, OR OTHER SENSITIVE RECEPTORS WILL BE AFFECTED BY ANY RESIDUAL CONCENTRATION ONSITE

The nearest municipal and irrigation wells are approximately 3,800 and 2,500 feet from the site, respectively. The nearest surface water is Lake Merritt, which is located approximately 1,850 feet east of the site. Due to the distance to these receptors, hydrocarbons at the site do not pose a significant risk to potential sensitive receptors.

## 6.5.5 THE SITE PRESENTS NO SIGNIFICANT RISK TO HUMAN HEALTH OR THE ENVIRONMENT

No benzene is detected in groundwater and no benzene was detected in soil above ESLs. No other analytes are detected at concentrations that pose a significant health risk. Therefore, the site does not pose a significant risk to human health or the environment.

## 6.6 <u>CONCLUSION</u>

Petroleum hydrocarbons at this site do not appear to pose a significant risk to public human health or the environment under its current-use scenario (i.e., a service station), or in the event it is redeveloped in the future.

On the basis of the site evaluation presented herein, CRA respectfully requests:

- Discontinuation of semiannual monitoring
- Approval to destroy the three existing monitoring wells
- ACEH closure of this site

FIGURES



311965-2012(011)GN-WA001 MAY 1/2012



<sup>311965-2012(011)</sup>GN-EM003 MAY 15/2012



311965-2012(011)GN-EM004 MAY 29/2012







10

Figure 5

**GEOLOGIC CROSS-SECTION B-B' CHEVRON SERVICE STATION 93600** 2200 TELEGRAPH AVENUE Oakland, California



- - ---- TELECOMMUNICATIONS LINE

311965-2012(011)GN-EM006 MAY 29/2012



BASEMAP MODIFIED FROM DRAWING PROVIDED BY GETTLER-RYAN INC.

311965-2012(011)GN-EM007 MAY 29/2012



| Sample<br>ID                          | Date                             | Depth                    | TPHg  | Benzene     | Toluene     | Ethyl-<br>benzene | Total<br>Xylenes | MTBE          | Pb    | TBA     | DIPE     | ETBE     | TAME     |
|---------------------------------------|----------------------------------|--------------------------|-------|-------------|-------------|-------------------|------------------|---------------|-------|---------|----------|----------|----------|
|                                       |                                  | fbg                      | •     |             |             | - M               | illigrams pe     | r kilogram (m | g/kg) |         |          |          |          |
|                                       |                                  |                          | ESL ( | Groundwater | is a Curren | t or Potenti      | al Drinking      | Water Resour  | rce)  |         |          |          |          |
| ESL Table <sup>1</sup><br>Residential | K-1 Direct Exp<br>(mg/kg)        | oosure:                  | 110   | 0.12        | 63          | 2.3               | 31               | 30            | 260   | 320,000 | NE       | NE       | NE       |
| ESL Table <sup>1</sup><br>Commerica   | K-2 Direct Exp<br>VIndustrial Wo | oosure:<br>orker (mg/kg) | 450   | 0.27        | 210         | 5.0               | 100              | 65            | 750   | 320,000 | NE       | NE       | NE       |
| ESL Table <sup>1</sup><br>Constructio | K-3 Direct Exp<br>m/Trench Work  | posure:<br>er (mg/kg)    | 4,200 | 12          | 650         | 210               | 420              | 2,800         | 750   | 320,000 | NE       | NE       | NE       |
| 2012 CRA                              | Soil Boring I                    | nvestigation             |       |             |             |                   |                  |               |       |         |          |          |          |
| B-9                                   | 4/12/2012                        | 5                        | <1    | < 0.0005    | < 0.001     | < 0.001           | < 0.001          | < 0.0005      |       | < 0.020 | < 0.001  | < 0.001  | < 0.001  |
| B-9                                   | 4/12/2012                        | 10                       | 15    | 0.002       | < 0.001     | 0.39              | 0.051            | < 0.0005      |       | < 0.021 | < 0.001  | < 0.001  | < 0.001  |
| B-9                                   | 4/12/2012                        | 15                       | <1    | < 0.0005    | < 0.001     | 0.002             | 0.007            | < 0.0005      |       | < 0.021 | < 0.001  | < 0.001  | < 0.001  |
| B-9                                   | 4/12/2012                        | 20                       | <1    | < 0.0005    | < 0.001     | 0.003             | 0.007            | 0.0007        |       | < 0.020 | < 0.001  | < 0.001  | < 0.001  |
| B-9                                   | 4/12/2012                        | 25                       | <1    | < 0.0005    | < 0.001     | < 0.001           | < 0.001          | < 0.0005      |       | < 0.020 | < 0.001  | < 0.001  | < 0.001  |
| B-9                                   | 4/12/2012                        | 29.5                     | <1    | < 0.0005    | < 0.001     | < 0.001           | < 0.001          | < 0.0005      |       | < 0.020 | < 0.001  | < 0.001  | < 0.001  |
| B-10                                  | 4/12/2012                        | 5                        | <1.0  | < 0.0005    | < 0.001     | < 0.001           | < 0.001          | < 0.0005      |       | < 0.020 | < 0.001  | < 0.001  | < 0.001  |
| B-10                                  | 4/12/2012                        | 10                       | 4.9   | < 0.0005    | < 0.001     | 0.001             | < 0.001          | 0.001         |       | < 0.021 | < 0.001  | < 0.001  | < 0.001  |
| B-10                                  | 4/12/2012                        | 15                       | 2.9   | < 0.0005    | < 0.001     | 0.047             | 0.062            | < 0.0005      |       | < 0.020 | < 0.001  | < 0.001  | < 0.001  |
| B-10                                  | 4/12/2012                        | 20                       | < 0.9 | < 0.0005    | < 0.001     | < 0.001           | < 0.001          | < 0.0005      |       | < 0.021 | < 0.001  | < 0.001  | < 0.001  |
| B-10                                  | 4/12/2012                        | 25                       | <1.0  | < 0.0005    | < 0.001     | < 0.001           | < 0.001          | < 0.0005      |       | < 0.020 | < 0.001  | < 0.001  | < 0.001  |
| B-10                                  | 4/12/2012                        | 29.5                     | <1    | < 0.0005    | < 0.001     | < 0.001           | < 0.001          | < 0.0005      |       | < 0.020 | < 0.001  | < 0.001  | < 0.001  |
| B-11                                  | 4/12/2012                        | 5                        | <1.0  | < 0.0005    | < 0.0009    | < 0.0009          | < 0.0009         | < 0.0005      |       | < 0.019 | < 0.0009 | < 0.0009 | < 0.0009 |
| B-11                                  | 4/12/2012                        | 10                       | 3.2   | < 0.0005    | < 0.001     | < 0.001           | 0.001            | < 0.0005      |       | < 0.021 | < 0.001  | < 0.001  | < 0.001  |
| B-11                                  | 4/12/2012                        | 15                       | <1.0  | < 0.0005    | < 0.001     | < 0.001           | < 0.001          | < 0.0005      |       | < 0.020 | < 0.001  | < 0.001  | < 0.001  |
| B-11                                  | 4/12/2012                        | 20                       | <0.9  | 0.0006      | < 0.001     | 0.011             | 0.011            | < 0.0005      |       | < 0.020 | < 0.001  | < 0.001  | < 0.001  |

| Sample<br>ID            | Date   | Depth                  | TPHg  | Benzene     | Toluene                  | Ethyl-<br>benzene | Total<br>Xylenes | MTBE           | Pb    | TBA     | DIPE    | ETBE    | TAME    |
|-------------------------|--|------------------------|-------|-------------|--------------------------|-------------------|------------------|----------------|-------|---------|---------|---------|---------|
|                         |  | fbg                    | •     |             |                          | - M               | illigrams pe     | er kilogram (m | g/kg) |         |         |         |         |
|                         |  |                        | ESL ( | Groundwater | <sup>,</sup> is a Curren | t or Potenti      | ial Drinking     | Water Resour   | rce)  |         |         |         |         |
| ESL Table<br>Residentia | e <sup>1</sup> K-1 Direct Exp<br>al (mg/kg)        | osure:                 | 110   | 0.12        | 63                       | 2.3               | 31               | 30             | 260   | 320,000 | NE      | NE      | NE      |
| ESL Table<br>Commeric   | e <sup>1</sup> K-2 Direct Exp<br>cal/Industrial Wo | osure:<br>rker (mg/kg) | 450   | 0.27        | 210                      | 5.0               | 100              | 65             | 750   | 320,000 | NE      | NE      | NE      |
| ESL Table<br>Construct  | e <sup>1</sup> K-3 Direct Exp<br>ion/Trench Work   | vosure:<br>er (mg/kg)  | 4,200 | 12          | 650                      | 210               | 420              | 2,800          | 750   | 320,000 | NE      | NE      | NE      |
| B-11                    | 4/12/2012  | 25                     | <0.9  | < 0.0005    | < 0.001                  | < 0.001           | < 0.001          | < 0.0005       |       | < 0.019 | < 0.001 | < 0.001 | < 0.001 |
| B-11                    | 4/12/2012  | 29.5                   | <1    | < 0.0005    | < 0.001                  | < 0.001           | < 0.001          | < 0.0005       |       | < 0.021 | < 0.001 | < 0.001 | < 0.001 |
| B-12                    | 4/13/2012  | 5                      | <0.9  | < 0.0005    | < 0.001                  | < 0.001           | < 0.001          | < 0.0005       |       | < 0.021 | < 0.001 | < 0.001 | < 0.001 |
| B-12                    | 4/13/2012  | 10                     | <1.0  | < 0.0005    | < 0.001                  | < 0.001           | < 0.001          | < 0.0005       |       | < 0.019 | < 0.001 | < 0.001 | < 0.001 |
| B-12                    | 4/13/2012  | 15                     | <1    | < 0.0005    | < 0.001                  | < 0.001           | < 0.001          | < 0.0005       |       | < 0.021 | < 0.001 | < 0.001 | < 0.001 |
| B-12                    | 4/13/2012  | 20                     | <1    | < 0.0005    | < 0.001                  | < 0.001           | < 0.001          | < 0.0005       |       | < 0.019 | < 0.001 | < 0.001 | < 0.001 |
| B-12                    | 4/13/2012  | 25                     | <0.9  | < 0.0005    | < 0.001                  | < 0.001           | < 0.001          | < 0.0005       |       | < 0.020 | < 0.001 | < 0.001 | < 0.001 |
| B-12                    | 4/13/2012  | 29.5                   | <1    | < 0.0005    | < 0.001                  | < 0.001           | < 0.001          | < 0.0005       |       | <0.020  | < 0.001 | < 0.001 | < 0.001 |
| 2002 Delt               | ta Monitoring V                                    | Well Installat         | tion  |             |                          |                   |                  |                |       |         |         |         |         |
| MW-1                    | 3/12/2002  | 6.5                    | <1.0  | < 0.005     | < 0.005                  | < 0.005           | < 0.15           | < 0.05         |       |         |         |         |         |
| MW-1                    | 3/12/2002  | 11.5                   | 3.2   | < 0.005     | < 0.005                  | 0.15              | < 0.15           | < 0.05         |       |         |         |         |         |
| MW-1                    | 3/12/2002  | 16.5                   | <1.0  | < 0.005     | < 0.005                  | < 0.005           | < 0.15           | < 0.05         |       |         |         |         |         |
| MW-1                    | 3/12/2002  | 20                     | <1.0  | < 0.005     | < 0.005                  | < 0.005           | < 0.15           | < 0.05         |       |         |         |         |         |
| MW-2                    | 3/12/2002  | 6.5                    | <1.0  | < 0.005     | < 0.005                  | < 0.005           | < 0.15           | < 0.05         |       |         |         |         |         |
| MW-2                    | 3/12/2002  | 11.5                   | <1.0  | < 0.005     | < 0.005                  | < 0.005           | < 0.15           | < 0.05         |       |         |         |         |         |
| MW-2                    | 3/12/2002  | 16.5                   | <1.0  | < 0.005     | < 0.005                  | < 0.005           | < 0.15           | < 0.05         |       |         |         |         |         |
| MW-2                    | 3/12/2002  | 20                     | <1.0  | < 0.005     | < 0.005                  | < 0.005           | < 0.15           | < 0.05         |       |         |         |         |         |

| Sample<br>ID                          | Date  | Depth                  | TPHg  | Benzene     | Toluene     | Ethyl-<br>benzene | Total<br>Xylenes | MTBE          | Pb     | TBA     | DIPE | ETBE | TAME |
|---------------------------------------|---|------------------------|-------|-------------|-------------|-------------------|------------------|---------------|--------|---------|------|------|------|
|                                       |   | fbg                    | •     |             |             | – M               | illigrams pe     | r kilogram (n | ıg/kg) |         |      |      |      |
|                                       |   |                        | ESL ( | Groundwater | is a Curren | t or Potenti      | al Drinking      | Water Resou   | rce)   |         |      |      |      |
| ESL Table <sup>1</sup><br>Residential | K-1 Direct Exp<br>! (mg/kg)                   | osure:                 | 110   | 0.12        | 63          | 2.3               | 31               | 30            | 260    | 320,000 | NE   | NE   | NE   |
| ESL Table <sup>1</sup><br>Commerica   | K-2 Direct Exp<br>VIndustrial Wo              | osure:<br>rker (mg/kg) | 450   | 0.27        | 210         | 5.0               | 100              | 65            | 750    | 320,000 | NE   | NE   | NE   |
| ESL Table<br>Constructio              | <sup>1</sup> K-3 Direct Exp<br>on/Trench Work | oosure:<br>er (mg/kg)  | 4,200 | 12          | 650         | 210               | 420              | 2,800         | 750    | 320,000 | NE   | NE   | NE   |
| MW-3                                  | 3/12/2002                                     | 6.5                    | <1.0  | < 0.005     | < 0.005     | < 0.005           | <0.15            | < 0.05        |        |         |      |      |      |
| MW-3                                  | 3/12/2002                                     | 11.5                   | <1.0  | < 0.005     | < 0.005     | < 0.005           | < 0.15           | < 0.05        |        |         |      |      |      |
| MW-3                                  | 3/12/2002                                     | 16.5                   | <1.0  | < 0.005     | < 0.005     | < 0.005           | < 0.15           | < 0.05        |        |         |      |      |      |
| MW-3                                  | 3/12/2002                                     | 20                     | <1.0  | < 0.005     | < 0.005     | < 0.005           | <0.15            | <0.05         |        |         |      |      |      |
| 2000 Gettl                            | er-Ryan Basel                                 | ine Investiga          | tion  |             |             |                   |                  |               |        |         |      |      |      |
| B-1                                   | 11/8/2000                                     | 6                      | <1.0  | <.005       | <.005       | <.005             | <.005            | <.005         | 32     |         |      |      |      |
| B-1                                   | 11/8/2000                                     | 10                     | <1.0  | <.005       | <.005       | <.005             | <.005            | <.005         | 10     |         |      |      |      |
| B-2                                   | 11/8/2000                                     | 6                      | <1.0  | <.005       | <.005       | <.005             | <.005            | <.005         | 9.6    |         |      |      |      |
| B-2                                   | 11/8/2000                                     | 10                     | <1.0  | <.005       | <.005       | <.005             | <.005            | <.005         | 6.2    |         |      |      |      |
| B-3                                   | 11/8/2000                                     | 5                      | <1.0  | <.005       | <.005       | <.005             | <.005            | <.005         | 27     |         |      |      |      |
| B-4                                   | 11/8/2000                                     | 5                      | <1.0  | <.005       | <.005       | <.005             | <.005            | <.005         | 26     |         |      |      |      |
| B-4                                   | 11/8/2000                                     | 10                     | <1.0  | <.005       | <.005       | <.005             | <.005            | <.005         | 27     |         |      |      |      |
| B-5                                   | 11/8/2000                                     | 5                      | <1.0  | <.005       | <.005       | <.005             | <.005            | <.005         | 17     |         |      |      |      |
| B-5                                   | 11/8/2000                                     | 10                     | <1.0  | <.005       | <.005       | <.005             | <.005            | <.005         | 8.9    |         |      |      |      |
| B-6                                   | 11/8/2000                                     | 5                      | <1.0  | <.005       | <.005       | <.005             | <.005            | <.005         | 27     |         |      |      |      |
| B-6                                   | 11/8/2000                                     | 10                     | <1.0  | <.005       | <.005       | <.005             | <.005            | <.005         | 3.6    |         |      |      |      |
| B-7                                   | 11/8/2000                                     | 5                      | <1.0  | <.005       | <.005       | <.005             | <.005            | <.005         | 6.5    |         |      |      |      |

| Sample<br>ID                         | Date  | Depth                  | TPHg       | Benzene     | Toluene                  | Ethyl-<br>benzene | Total<br>Xylenes | MTBE          | Pb     | TBA     | DIPE | ETBE | TAME |
|--------------------------------------|---|------------------------|------------|-------------|--------------------------|-------------------|------------------|---------------|--------|---------|------|------|------|
|                                      |   | fbg                    | •          |             |                          | - M               | illigrams pe     | r kilogram (n | ıg/kg) |         |      |      |      |
|                                      |   |                        | ESL (      | Groundwater | <sup>,</sup> is a Curren | t or Potenti      | al Drinking      | Water Resou   | rce)   |         |      |      |      |
| ESL Table <sup>1</sup><br>Residentia | <sup>1</sup> K-1 Direct Exp<br>l (mg/kg)        | osure:                 | 110        | 0.12        | 63                       | 2.3               | 31               | 30            | 260    | 320,000 | NE   | NE   | NE   |
| ESL Table <sup>1</sup><br>Commerica  | <sup>1</sup> K-2 Direct Exp<br>al/Industrial Wo | osure:<br>rker (mg/kg) | 450        | 0.27        | 210                      | 5.0               | 100              | 65            | 750    | 320,000 | NE   | NE   | NE   |
| ESL Table<br>Construction            | <sup>1</sup> K-3 Direct Exp<br>on/Trench Worke  | oosure:<br>er (mg/kg)  | 4,200      | 12          | 650                      | 210               | 420              | 2,800         | 750    | 320,000 | NE   | NE   | NE   |
| B-7                                  | 11/8/2000                                       | 10                     | <1.0       | <.005       | <.005                    | <.005             | <.005            | <.005         | 6.8    |         |      |      |      |
| 1994 Touc                            | chstone Produc                                  | t-Line Remo            | val and Sa | ampling Re  | port                     |                   |                  |               |        |         |      |      |      |
| P1                                   | 7/25/1994                                       | 4.5                    | <1.0       | < 0.005     | < 0.005                  | < 0.005           | < 0.005          |               |        |         |      |      |      |
| P2                                   | 7/25/1994                                       | 4.5                    | <1.0       | < 0.005     | < 0.005                  | < 0.005           | < 0.005          |               |        |         |      |      |      |
| P3                                   | 7/25/1994                                       | 5                      | <1.0       | < 0.005     | 0.012                    | 0.008             | 0.045            |               |        |         |      |      |      |
| P4                                   | 7/25/1994                                       | 5                      | <1.0       | < 0.005     | < 0.005                  | < 0.005           | < 0.005          |               |        |         |      |      |      |
| P5                                   | 7/25/1994                                       | 5                      | <1.0       | < 0.005     | < 0.005                  | < 0.005           | < 0.005          |               |        |         |      |      |      |
| P6                                   | 7/25/1994                                       | 5.5                    | 3.6        | < 0.005     | 0.03                     | 0.012             | 1.3              |               |        |         |      |      |      |
| P7                                   | 7/25/1994                                       | 5.5                    | <1.0       | < 0.005     | 0.005                    | < 0.005           | 0.007            |               |        |         |      |      |      |
| P8                                   | 7/25/1994                                       | 5                      | <1.0       | < 0.005     | < 0.005                  | < 0.005           | < 0.005          |               |        |         |      |      |      |
|                                      |   |                        |            |             |                          |                   |                  |               |        |         |      |      |      |
| 1986 Blair                           | ne Tech Service                                 | es Tank Pit S          | ampling    |             |                          |                   |                  |               |        |         |      |      |      |
| #1                                   | 10/29/1986                                      | 2.5                    | 15         |             |                          |                   |                  |               |        |         |      |      |      |
| #2                                   | 10/29/1986                                      | 2                      | 44         |             |                          |                   |                  |               |        |         |      |      |      |
| #2                                   | 10/27/1986                                      | 13                     | 4.5        |             |                          |                   |                  |               |        |         |      |      |      |
| #3                                   | 10/29/1986                                      | 2                      | 1.4        |             |                          |                   |                  |               |        |         |      |      |      |
| #3                                   | 10/27/1986                                      | 13                     | ND         |             |                          |                   |                  |               |        |         |      |      |      |

### SOIL ANALYTICAL DATA CHEVRON #93600 2220 TELEGRAPH AVENUE OAKLAND, CALIFORNIA

| Sample<br>ID                         | Date   | Depth                  | TPHg  | Benzene     | Toluene       | Ethyl-<br>benzene | Total<br>Xylenes | MTBE          | Pb     | TBA     | DIPE | ETBE | TAME |
|--------------------------------------|--|------------------------|-------|-------------|---------------|-------------------|------------------|---------------|--------|---------|------|------|------|
|                                      |  | fbg                    | •     |             |               | - <i>M</i>        | illigrams per    | • kilogram (n | ıg/kg) |         |      |      |      |
|                                      |  |                        | ESL ( | Groundwater | · is a Curren | t or Potenti      | al Drinking      | Water Resou   | rce)   |         |      |      |      |
| ESL Table <sup>1</sup><br>Residentia | K-1 Direct Exp<br>l (mg/kg)                    | osure:                 | 110   | 0.12        | 63            | 2.3               | 31               | 30            | 260    | 320,000 | NE   | NE   | NE   |
| ESL Table <sup>1</sup><br>Commerica  | K-2 Direct Exp<br>VIndustrial Wo               | osure:<br>rker (mg/kg) | 450   | 0.27        | 210           | 5.0               | 100              | 65            | 750    | 320,000 | NE   | NE   | NE   |
| ESL Table<br>Constructio             | <sup>1</sup> K-3 Direct Exp<br>on/Trench Worke | vosure:<br>er (mg/kg)  | 4,200 | 12          | 650           | 210               | 420              | 2,800         | 750    | 320,000 | NE   | NE   | NE   |
| #4                                   | 10/29/1986                                     | 2                      | <1.0  |             |               |                   |                  |               |        |         |      |      |      |

Notes:

Total petroleum hydrocarbons as gasoline (TPHg) by EPA Method 8015M.

Benzene, toluene, ethylbenzene, total xylenes (BTEX), and methyl tertiary-butyl ether (MTBE) by EPA Method 8021B.

Total lead by EPA Method 6010.

<sup>1</sup>ESL = Environmental Screening Levels: *California Regional Water Quality Control Board, San Francisco Bay Region, Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater. Interim Final - November 2007 (Revised May 2008).* 

NE = Not established.

fbg = Feet below grade.

<x = Not detected at or above reporting limit shown.

-- = Not analyzed.

#### GRAB-GROUNDWATER ANALYTICAL DATA FORMER CHEVRON SERVICE STATION #93600 2200 TELEGRAPH AVENUE OAKLAND, CALIFORNIA

| Location   | Depth   | Date      | TPHg              | Benzene       | Toluene         | Ethylbenzene      | Total Xylenes     | MTBE        | TBA     | DIPE  | ETBE  | TAME  |
|--|---|-----------|-------------------|---------------|-----------------|-------------------|-------------------|-------------|---------|-------|-------|-------|
| ESL Table <sup>1</sup>   | fbg   |           | •                 |               |                 | <i>N</i>          | 1icrograms per li | iter (µg/L) | -       |       |       |       |
|  |   |           | ESL (Groun        | dwater is a C | Current or Pote | ntial Drinking Wa | ater Resource)    |             |         |       |       |       |
| ESL Table F-1A: Groun  | dwater is a                                     |           |                   |               |                 |                   |                   |             |         |       |       |       |
| Current or Potential Sour  | ce of Drinking                                  |           | 100               | 1             | 40              | 30                | 20                | 5           | 320,000 | NE    | NE    | NE    |
| Water (Residen   | tial)   |           |                   |               |                 |                   |                   |             |         |       |       |       |
| ESL Table F-4A: Lowest<br>Aquatic Habitat                                      | t Freshwater<br>Goal                            |           | 210               | 46            | 130             | 290               | 100               | 66,000      | 320,000 | NE    | NE    | NE    |
| ESL Table E-1: Groundwa<br>Levels for Evaluation of P<br>Intrusion Concerns (R | ater Screening<br>otential Vapor<br>esidential) |           | (Use Soil<br>Gas) | 540           | 380,000         | 170,000           | 160,000           | 24,000      | 320,000 | NE    | NE    | NE    |
| B-9  | 13  | 4/12/2012 | 1,800             | < 0.5         | < 0.5           | 43                | 130               | < 0.5       | <2      | < 0.5 | < 0.5 | <0.5  |
| B-9  | 20  | 4/12/2012 | 1,400             | < 0.5         | < 0.5           | 51                | 150               | 5           | <2      | < 0.5 | < 0.5 | < 0.5 |
| B-9  | 30  | 4/12/2012 | 320               | < 0.5         | < 0.5           | 13                | 40                | 1           | <2      | < 0.5 | < 0.5 | < 0.5 |
| B-10   | 18  | 4/12/2012 | <50               | < 0.5         | < 0.5           | 0.7               | 0.8               | 5           | <2      | < 0.5 | < 0.5 | < 0.5 |
| B-10   | 29.5  | 4/12/2012 | 64                | < 0.5         | < 0.5           | 1                 | 2                 | 1           | <2      | < 0.5 | < 0.5 | < 0.5 |
| B-11   | 23  | 4/12/2012 | <50               | < 0.5         | < 0.5           | < 0.5             | < 0.5             | < 0.5       | <2      | < 0.5 | < 0.5 | < 0.5 |
| B-11   | 29.5  | 4/12/2012 | 220               | < 0.5         | < 0.5           | 10                | 8                 | < 0.5       | <2      | < 0.5 | < 0.5 | < 0.5 |
| B-12   | 23  | 4/13/2012 | <50               | < 0.5         | < 0.5           | < 0.5             | <0.5              | < 0.5       | <2      | < 0.5 | < 0.5 | < 0.5 |
| B-12   | 30  | 4/13/2012 | <50               | < 0.5         | < 0.5           | < 0.5             | <0.5              | < 0.5       | <2      | < 0.5 | < 0.5 | < 0.5 |

#### NOTES:

TPHg = Total petroleum hydrcarbons quantified as gasoline analyzed by EPA Method 8015 modified.

Benzene, toluene, ethylbenzene, and total xylenes (BTEX), methyl tertiary-butyl ether (MTBE), tertiary-butyl alcohol (TBA), di-sopropyl ether (DIPE), ethyl tertiary-butyl ether (ETBE), and tertiary-amyl methyl ether (TAME) analyzed by EPA Method 8260B.

<sup>1</sup>ESL = Environmental Screening Levels: California Regional Water Quality Control Board, San Francisco Bay Region, Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater. Interim Final - November 2007 (Revised May 2008).

fbg = Feet below grade.

NE = Not established.

 $\mu$ g/L = Micrograms per liter.

**Bold** = Concentration exceeds ESL.

< x = Chemical not detected at or above laboratory reporting limit shown.

#### WELL SURVEY DATA FORMER CHEVRON STATION #93600 2200 TELEGRAPH AVE. OAKLAND, CALIFORNIA

| Well Address  | Well ID   | Distance<br>from Site<br>(feet) | Well<br>Type/Use | DWR File<br>Name | Destroyed |
|---|-----------|---------------------------------|------------------|------------------|-----------|
| 2225 Telegraph Ave., Oakland, CA                    | MW-6A     | 110                             | monitoring       | 51286105         | NO RECORD |
| 2225 Telegraph Ave., Oakland, CA                    | MW-6C     | 110                             | monitoring       | 51286107         | YES       |
| 2225 Telegraph Ave., Oakland, CA                    | MW-6D     | 110                             | monitoring       | 51286108         | NO RECORD |
| 2225 Telegraph Ave., Oakland, CA                    | MW-6H     | 110                             | monitoring       | 51286114         | NO RECORD |
| 2225 Telegraph Ave., Oakland, CA                    | RW-1      | 120                             | monitoring       | 51286111         | NO RECORD |
| 2225 Telegraph Ave., Oakland, CA                    | MW-6B     | 135                             | monitoring       | 51286106         | NO RECORD |
| 2225 Telegraph Ave., Oakland, CA                    | RW-3      | 190                             | monitoring       | 51286110         | YES       |
| 2225 Telegraph Ave., Oakland, CA                    | RW-3A     | 190                             | remediation      | 51286116         | NO RECORD |
| 2225 Telegraph Ave., Oakland, CA                    | MW-6I     | 205                             | monitoring       | 51286115         | NO RECORD |
| 2225 Telegraph Ave., Oakland, CA                    | MW-6G     | 220                             | monitoring       | 51286113         | NO RECORD |
| 20th Street b/n Broadway and Telegraph, Oakland, CA | MW-9      | 800                             | test             | 51286188         | NO RECORD |
| 2345 Broadway, Oakland, CA                          | MW-1      | 950                             | monitoring       | 51286103         | NO RECORD |
| 1911 Telegraph Ave, Oakland, CA                     | MW-1      | 1,100                           | test             | 51286177         | NO RECORD |
| 611 20th Street, Oakland, CA                        | MW-12     | 1,140                           | test             | 51286172         | NO RECORD |
| 612 Williams Street, Oakland, CA                    | MW-13     | 1,140                           | test             | 51286173         | NO RECORD |
| 585 Williams Street, Oakland, CA                    | MW-14     | 1,140                           | test             | 51286174         | NO RECORD |
| 588-596 Williams Street, Oakland, CA                | MW-15     | 1,140                           | test             | 51286175         | NO RECORD |
| 536 20th Street, Oakland, CA                        | MW-16     | 1,140                           | test             | 51286176         | NO RECORD |
| 552 19th Street, Oakland, CA                        | MW-1      | 1,290                           | test             | 51286187         | NO RECORD |
| 23rd and Valdez, Oakland, CA                        | MW-1      | 1,300                           | monitoring       | 51286083         | NO RECORD |
| 23rd and Valdez, Oakland, CA                        | MW-2      | 1,300                           | monitoring       | 51286085         | NO RECORD |
| 23rd and Valdez, Oakland, CA                        | MW-2      | 1,300                           | monitoring       | 51286086         | NO RECORD |
| 23rd and Valdez, Oakland, CA                        | SB1       | 1,300                           | boring           | 51286088         | NO RECORD |
| 23rd and Valdez, Oakland, CA                        | SB2       | 1,300                           | boring           | 51286089         | NO RECORD |
| 23rd and Valdez, Oakland, CA                        | SB3       | 1,300                           | boring           | 51286090         | NO RECORD |
| 23rd and Valdez, Oakland, CA                        | SB4/MW-4  | 1,300                           | monitoring       | 51286091         | NO RECORD |
| 23rd and Valdez, Oakland, CA                        | SB-5/MW-5 | 1,300                           | monitoring       | 51286092         | NO RECORD |
| 23rd and Valdez, Oakland, CA                        | SB-6/MW-6 | 1,300                           | monitoring       | 51286093         | NO RECORD |
| 23rd and Valdez, Oakland, CA                        | SB-7/MW-7 | 1,300                           | monitoring       | 51286094         | NO RECORD |
| 23rd and Valdez, Oakland, CA                        | SB-8      | 1,300                           | boring           | 51286095         | NO RECORD |
| 23rd and Valdez, Oakland, CA                        | SB-9      | 1,300                           | boring           | 51286096         | NO RECORD |
| 23rd and Valdez, Oakland, CA                        | SB-10     | 1,300                           | boring           | 51286097         | NO RECORD |
| 23rd and Valdez, Oakland, CA                        | SB-11     | 1,300                           | boring           | 51286098         | NO RECORD |
| 23rd and Valdez, Oakland, CA                        | SB-12     | 1,300                           | boring           | 51286099         | NO RECORD |
| 23rd and Valdez, Oakland, CA                        | MW-8      | 1,300                           | monitoring       | 51286101         | NO RECORD |
| 23rd and Valdez, Oakland, CA                        | MW-9      | 1,300                           | monitoring       | 51286102         | NO RECORD |
| 19th Street b/n Broadway and Telegraph, Oakland, CA | MW-8      | 1,350                           | test             | 51286186         | NO RECORD |
| 2103 San Pablo Ave, Oakland, CA                     | ES-1      | 1,360                           | monitoring       | 51286121         | NO RECORD |
| 2103 San Pablo Ave, Oakland, CA                     | ES-2      | 1,360                           | monitoring       | 51286122         | NO RECORD |

#### WELL SURVEY DATA FORMER CHEVRON STATION #93600 2200 TELEGRAPH AVE. OAKLAND, CALIFORNIA

| Well Address                     | Well ID   | Distance<br>from Site<br>(feet) | Well<br>Type/Use | DWR File<br>Name | Destroyed |
|----------------------------------|-----------|---------------------------------|------------------|------------------|-----------|
| 2103 San Pablo Ave, Oakland, CA  | ES-3      | 1,360                           | monitoring       | 51286123         | NO RECORD |
| 2103 San Pablo Ave, Oakland, CA  | ES-4      | 1,360                           | monitoring       | 51286124         | NO RECORD |
| 2103 San Pablo Ave, Oakland, CA  | ES-5      | 1,360                           | monitoring       | 51286125         | NO RECORD |
| 577 19th Street, Oakland, CA     | MW-6      | 1,380                           | test             | 51286185         | NO RECORD |
| 2633 Telegraph Ave., Oakland, CA | MW-1      | 1,400                           | monitoring       | 51286059         | NO RECORD |
| 2633 Telegraph Ave., Oakland, CA | MW-2      | 1,400                           | monitoring       | 51286060         | NO RECORD |
| 2633 Telegraph Ave., Oakland, CA | MW-3      | 1,400                           | monitoring       | 51286061         | NO RECORD |
| 2633 Telegraph Ave., Oakland, CA | MW-4      | 1,400                           | monitoring       | 51286062         | NO RECORD |
| 2633 Telegraph Ave., Oakland, CA | MW-5      | 1,400                           | monitoring       | 51286063         | NO RECORD |
| San Pablo and 19th, Oakland, CA  | SB1       | 1,400                           | boring           | 51286154         | NO RECORD |
| San Pablo and 19th, Oakland, CA  | SB2       | 1,400                           | boring           | 51286155         | NO RECORD |
| San Pablo and 19th, Oakland, CA  | SB3       | 1,400                           | boring           | 51286156         | NO RECORD |
| San Pablo and 19th, Oakland, CA  | SB4       | 1,400                           | boring           | 51286157         | NO RECORD |
| San Pablo and 19th, Oakland, CA  | SB5       | 1,400                           | boring           | 51286158         | NO RECORD |
| San Pablo and 19th, Oakland, CA  | SB6       | 1,400                           | boring           | 51286159         | NO RECORD |
| San Pablo and 19th, Oakland, CA  | SB6       | 1,400                           | boring           | 51286158         | NO RECORD |
| San Pablo and 19th, Oakland, CA  | MW-11     | 1,400                           | test             | 51286171         | NO RECORD |
| 1975 Webster Street, Oakland, CA | MW-1/SB7  | 1,400                           | monitoring       | 51286198         | NO RECORD |
| 1975 Webster Street, Oakland, CA | MW-2/SB8  | 1,400                           | monitoring       | 51286199         | NO RECORD |
| 1975 Webster Street, Oakland, CA | MW-3/SB9  | 1,400                           | monitoring       | 51286200         | NO RECORD |
| 1975 Webster Street, Oakland, CA | MW-4/SB10 | 1,400                           | monitoring       | 51286201         | NO RECORD |
| 1975 Webster Street, Oakland, CA | SB1       | 1,400                           | monitoring       | 51286202         | NO RECORD |
| 1975 Webster Street, Oakland, CA | SB2       | 1,400                           | monitoring       | 51286203         | NO RECORD |
| 1975 Webster Street, Oakland, CA | SB3       | 1,400                           | monitoring       | 51286204         | NO RECORD |
| 1975 Webster Street, Oakland, CA | SB4       | 1,400                           | monitoring       | 51286205         | NO RECORD |
| 1975 Webster Street, Oakland, CA | SB5       | 1,400                           | monitoring       | 51286206         | NO RECORD |
| 1975 Webster Street, Oakland, CA | SB6       | 1,400                           | monitoring       | 51286207         | NO RECORD |
| 513 18th Street, Oakland, CA     | MW-4      | 1,500                           | test             | 51286189         | NO RECORD |
| One Kaiser Plaza, Oakland, CA    | MW-1      | 1,500                           | monitoring       | 51286208         | NO RECORD |
| One Kaiser Plaza, Oakland, CA    | MW-2      | 1,500                           | monitoring       | 51286209         | NO RECORD |
| One Kaiser Plaza, Oakland, CA    | MW-3      | 1,500                           | monitoring       | 51286210         | NO RECORD |
| One Kaiser Plaza, Oakland, CA    | B1        | 1,500                           | boring           | 51286211         | NO RECORD |
| 537 18th Street, Oakland, CA     | MW-2      | 1,550                           | monitoring       | 51286169         | NO RECORD |
| 18th and Jefferson, Oakland, CA  | MW-1      | 1,600                           | monitoring       | 51286161         | NO RECORD |
| 18th and Jefferson, Oakland, CA  | MW-2      | 1,600                           | monitoring       | 51286162         | NO RECORD |
| 18th and Jefferson, Oakland, CA  | MW-3      | 1,600                           | monitoring       | 51286163         | NO RECORD |
| 18th and Jefferson, Oakland, CA  | MW-1A     | 1,600                           | monitoring       | 51286166         | NO RECORD |
| 18th and Jefferson, Oakland, CA  | MW-4      | 1,600                           | monitoring       | 51286167         | NO RECORD |
| 18th and Jefferson, Oakland, CA  | #1        | 1,600                           | test             | 51286168         | NO RECORD |

#### WELL SURVEY DATA FORMER CHEVRON STATION #93600 2200 TELEGRAPH AVE. OAKLAND, CALIFORNIA

| Well Address  | Well ID           | Distance<br>from Site<br>(feet) | Well<br>Type/Use | DWR File<br>Name | Destroyed |
|---|-------------------|---------------------------------|------------------|------------------|-----------|
| 570 18th Street, Oakland, CA                        | MW-7              | 1,700                           | monitoring       | 51286170         | NO RECORD |
| 17th Street b/n Broadway and Telegraph, Oakland, CA | MW-5              | 1,700                           | test             | 51286184         | NO RECORD |
| 300 Lakeside Drive, Oakland, CA                     | MW-1              | 1,700                           | monitoring       | 51286190         | NO RECORD |
| 300 Lakeside Drive, Oakland                         | MW-2              | 1,700                           | monitoring       | 51286194         | NO RECORD |
| 17th and Broadway Street, Oakland, CA               | B3                | 1,700                           | boring           | 51343201         | NO RECORD |
| 509 17th Street, Oakland, CA                        | MW-3              | 1,750                           | test             | 51315010         | NO RECORD |
| 2100 Harrison Street, Oakland, CA                   | MW-1              | 1,800                           | monitoring       | 51286191         | NO RECORD |
| 2100 Harrison Street, Oakland, CA                   | MW-2              | 1,800                           | monitoring       | 51286192         | NO RECORD |
| 21st and Harrison Street, Oakland                   | MW-3              | 1,800                           | monitoring       | 51286195         | NO RECORD |
| 545 17th Street, Oakland, CA                        | MW-1              | 1,800                           | test             | 51315009         | NO RECORD |
| Broadway and 27th Street                            | MW-1              | 2,000                           | monitoring       | 51286072         | NO RECORD |
| Broadway and 27th Street                            | MW-2              | 2,000                           | monitoring       | 51286073         | NO RECORD |
| Broadway and 27th Street                            | MW-3              | 2,000                           | monitoring       | 51286074         | NO RECORD |
| 294 27th Street, Oakland                            | SB-1              | 2,050                           | boring           | 51286065         | NO RECORD |
| 294 27th Street, Oakland                            | SB-2              | 2,050                           | boring           | 51286066         | NO RECORD |
| 294 27th Street, Oakland                            | SB-2A             | 2,050                           | boring           | 51286067         | NO RECORD |
| 294 27th Street, Oakland                            | SB-3              | 2,050                           | boring           | 51286068         | NO RECORD |
| 294 27th Street, Oakland, CA                        | MW-1              | 2,050                           | monitoring       | 51286081         | NO RECORD |
| 294 27th Street, Oakland, CA                        | MW-2              | 2,050                           | monitoring       | 51286082         | NO RECORD |
| 2800 Telegraph Ave., Oakland, CA                    | SB-1              | 2,100                           | monitoring       | F37              | YES       |
| 2800 Telegraph Ave., Oakland, CA                    | S-1               | 2,100                           | monitoring       | F38              | YES       |
| 2800 Telegraph Ave., Oakland, CA                    | S-4               | 2,100                           | monitoring       | F39              | YES       |
| 2800 Telegraph Ave., Oakland, CA                    | S-5               | 2,100                           | monitoring       | F3A              | YES       |
| 2800 Telegraph Ave., Oakland, CA                    | S-10              | 2,100                           | monitoring       | F3B              | YES       |
| 2800 Telegraph Ave., Oakland, CA                    | S-2               | 2,100                           | monitoring       | 51286047         | NO RECORD |
| 2800 Telegraph Ave., Oakland, CA                    | S-3               | 2,100                           | monitoring       | 51286048         | NO RECORD |
| 2800 Telegraph Ave., Oakland, CA                    | S-6               | 2,100                           | monitoring       | 51286052         | NO RECORD |
| 2800 Telegraph Ave., Oakland, CA                    | S-7               | 2,100                           | monitoring       | 51286053         | NO RECORD |
| 2800 Telegraph Ave., Oakland, CA                    | S-8               | 2,100                           | monitoring       | 51286055         | NO RECORD |
| 2800 Telegraph Ave., Oakland, CA                    | S-9               | 2,100                           | monitoring       | 51286056         | NO RECORD |
| 2800 Telegraph Ave., Oakland, CA                    | S-10              | 2,100                           | monitoring       | 51286057         | NO RECORD |
| 2800 Telegraph Ave., Oakland, CA                    | S-11              | 2,100                           | monitoring       | 51286058         | NO RECORD |
| 633 Sycamore St., Oakland, CA                       | MW-1              | 2,670                           | monitoring       | 51286042         | NO RECORD |
| 633 Sycamore St., Oakland, CA                       | MW-2              | 2,670                           | monitoring       | 51286043         | NO RECORD |
| 633 Sycamore St., Oakland, CA                       | MW-3              | 2,670                           | monitoring       | 51286044         | NO RECORD |
| Five City Center, Oakland, CA                       | MW <b>-</b> 1,2,3 | 2,700                           | monitoring       | 51315036         | NO RECORD |
| Five City Center, Oakland, CA                       | B4                | 2,700                           | boring           | 51315037         | NO RECORD |
| Five City Center, Oakland, CA                       | B1                | 2,700                           | boring           | 51315040         | NO RECORD |
| Five City Center, Oakland, CA                       | B2                | 2,700                           | boring           | 51315041         | NO RECORD |

#### WELL SURVEY DATA FORMER CHEVRON STATION #93600 2200 TELEGRAPH AVE. OAKLAND, CALIFORNIA

| Well Address                       | Well ID | Distance<br>from Site<br>(feet) | Well<br>Type/Use | DWR File<br>Name | Destroyed |
|------------------------------------|---------|---------------------------------|------------------|------------------|-----------|
| Five City Center, Oakland, CA      | B3      | 2,700                           | boring           | 51315042         | NO RECORD |
| Middle School (Location uncertain) | N/A     | NC                              | Irrigation       | 51286015         | NO RECORD |
| No Address                         | E2      | NC                              | boring           | 51315011         | NO RECORD |
| No Address                         | E3      | NC                              | boring           | 51315012         | NO RECORD |
| No Address                         | A2      | NC                              | boring           | 51315013         | NO RECORD |
| No Address                         | A3      | NC                              | boring           | 51315014         | NO RECORD |
| No Address                         | A5      | NC                              | boring           | 51315015         | NO RECORD |
| No Address                         | A6      | NC                              | boring           | 51315016         | NO RECORD |
| No Address                         | B1      | NC                              | boring           | 51315017         | NO RECORD |
| No Address                         | B3      | NC                              | boring           | 51315018         | NO RECORD |
| No Address                         | B4      | NC                              | boring           | 51315019         | NO RECORD |
| No Address                         | B6      | NC                              | boring           | 51315020         | NO RECORD |
| No Address                         | C2      | NC                              | boring           | 51315022         | NO RECORD |
| No Address                         | C5      | NC                              | boring           | 51315023         | NO RECORD |
| No Address                         | C6      | NC                              | boring           | 51315024         | NO RECORD |
| No Address                         | D1      | NC                              | boring           | 51315025         | NO RECORD |
| No Address                         | D2      | NC                              | boring           | 51315026         | NO RECORD |
| No Address                         | D3      | NC                              | boring           | 51315027         | NO RECORD |
| No Address                         | D5      | NC                              | boring           | 51315028         | NO RECORD |
| No Address                         | D7      | NC                              | boring           | 51315029         | NO RECORD |
| No Address                         | E4      | NC                              | boring           | 51315030         | NO RECORD |
| No Address                         | E4.4    | NC                              | boring           | 51315031         | NO RECORD |
| No Address                         | E4.7    | NC                              | boring           | 51315032         | NO RECORD |
| No Address                         | E5.3    | NC                              | boring           | 51315033         | NO RECORD |
| No Address                         | E6      | NC                              | boring           | 51315034         | NO RECORD |

Notes:

Survey conducted in a 2,000-foot radius of site.

Compiled from data provided by California Department of Water Resources.

Department of Water Resources data are confidential.

NC = Not calculated.

APPENDIX A

## ACEH CORRESPONDENCE

### ALAMEDA COUNTY HEALTH CARE SERVICES



ALEX BRISCOE, Director

AGENCY

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

April 13, 2011

Mr. Dave PattonUi IChevron Environmental Management9096001 Bollinger Canyon RoadCoSan Ramon, CA 94583(sent via electronic mail to drpatten@chevron.com)

Ui Hwang 909 Trent Street Concord, CA 94518 Choung & Myung Inc. 2200 Telegraph Avenue Oakland, CA 94612-2316

Subject: Approval With Modifications to Work Plan; Fu el Leak Case No. RO0002435 and Geotracker Global ID T0600161613, Chevron # 9-3600, 2200 Telegraph Avenue, Oakland, CA 94612

Dear Responsible Parties:

Alameda County Environmental Health (ACEH) staff has revie wed the case file in cluding the *Site Conceptual Model*, dated December 30, 2008, the *Work Plan for Soil Borings*, dated January 30, 2009, and the *First Semi-Annual 2011 Groundwater Monitoring and Sampling Report*, dated March 21, 2011; all submitted on your be half by Con estoga-Rovers & Associates (CRA). Th ank you for submitting the reports.

Based on ACEH staff review of the work plan, the proposed scope of work is conditionally approved for implementation provided that the technical comments below are incorporated during the proposed field investigation. Submittal of a revise d work plan or a work plan addendum is not required unless an alternate scope of work outside that described in the work pl an or technical comments below is proposed. We request that you address the following technical comments, perform the proposed work, and send us the reports described below. Please provide 72-hour advance written notification to this office (e-mail preferred to: mark.detterman@acgov.org) prior to the start of field activities.

## **TECHNICAL COMMENTS**

- 1. Work Plan Modifications The work plan proposed the installation of four thirty-foot soil bores on an adjacent car parking lot, in the downg radient direction of ground water flow. One b ore was proposed as a replacement bore for a previously approved bore location (B-10) that could not be installed due to surface impediments (billboard and fence). A second bore was included to construct a nominal transect rough ly parallel to the form er eastern edge of UST complex, and roughly perpendicular to the direction of groundwater flow. Two a dditional bores are intended to delineate groundwater and are proposed to be installed approximately 20 feet further downgradient in a second row. Soil samples will be collected and depth-discrete grab groundwater samples will be collected every 10 feet vertically, beginning at first encountered groundwater, to vertically define groundwater. ACEH requests the following modifications to the work plan:
  - a. **Representative Shallow Soil Samples** The work plan addendum proposes the use of a n air knife or hand auger to a depth of 8 feet below gr ade surface (bgs). As discu ssed in previous letters ACEH agrees that hand clearing soil bores is an important step, and recognizes that Chevron corporate preferences exist; however, ACEH is concerned that the proposed total depth for hand clearing the bores may p reclude collection of important shallow soil data in cluding analytical sample collection. ACEH is also concerned that use of an air knife will volatilize target compounds resulting in low-biased analytical results as the majority of the vadose zone would be air knifed (8 of approximately 11 feet). To ensure proper collection of shallow soil samples in the

vadose zone, including adequate instrument screening (PID or o ther), sampling, and analysis, when appropriate, ACEH requests the bores be cleared with a hand auger. The apparent lack of utilities in the area of the prop osed bores provides additional rationale for the elimination of the use of an air knife at the site.

- b. Delineation downgradient of Well MW-1 ACEH additionally requests the installation of one or more soil bores downgradient of well M W-1 to delineate the downgradient extent of impact ed groundwater. The se can be in stalled as ext ensions of the two propo sed nominal transects discussed above.
- c. Soil Bore B-8 Replacement To assist in expediting future a ppropriate actions ACEH also requests (reaffirms the previous request) for the in stallation of a replacement soil b ore in the vicinity of bore B-8. With the inclusion of underground utilities on site plans, it is understood that B-8 likely hit refusal on the water line that services the kiosk. A bore in this approximate location would assist in addressing any potential sources associated with the UST complex, or potentially elsewhere, and upgradient of well MW-1 (MW-2 is a minimum of 35 feet from the UST complex). It may not b e necessary to extend the bore to 3 0 feet, as planned downgradient of the UST complex, depending on the presence or absence of impacted media.
- d. Collection and Analysis of Soil & Groundwater ACEH generally concurs with the proposed collection and the selected analytical suite outlined for soil and groundwater data contained in the work plan; however, ACEH did n ot locate details for the mini mum number of soil samples proposed to be submitted for analysis. Please en sure that the soil samples are collected and submitted for analysis at changes in lithology, the capillary fringe, saturated zone, and zones with high PID readings, odor, or discoloration.
- 2. Groundwater Sampling Interval Please place the site on an annual groundwater sampling basis coinciding with the second quarter of the year. The addition of similar groundwater monitoring data is not anticipated to sig nificantly increase our understanding of the site. Thi s will place the next sampling in April 2012.

### **TECHNICAL REPORT REQUEST**

Please submit technical reports to ACEH, according to the following schedule:

• June 24, 2011 - Soil and Groundwater Investigation 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 <u>mark.detterman@acgov.org</u>.

Sincerely,

Mark E. Detterman, PG, CEG Hazardous Materials Specialist

Enclosures: Attachment 1 – Responsible Party (ies) Legal Requirements / Obligations Electro nic Report Upload (ftp) Instructions

cc: Nathan Lee, Conestoga-Rovers & Assoc., 5900 Hollis Street, Suite A, Emeryville, CA 94608 (sent via electronic mail to <u>NLee@craworld.com</u>)
Donna Drogos, ACEH, (sent via electronic mail to <u>donna.drogos@acgov.org</u>)
Mark Detterman, ACEH, (sent via electronic mail to <u>mark.detterman@acgov.org</u>)

Responsible Parties RO0002435 April 13, 2011, Page 3

GeoTracker, eFile

#### 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 u sed for all public information requests, regulatory review, and compliance/enforcement activities. In structions 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 Alame da County FTP site is a n 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 the SWRCB web site for more info rmation on these requirements visit (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 a ccompanied 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.

| Alamoda County Environmental Cleanup                      | REVISION DATE: July 20, 2010   |  |  |  |  |
|---|--|--|--|--|--|
| Oversight Programs<br>(LOP and SLIC)                      | ISSUE DATE: July 5, 2005   |  |  |  |  |
|   | PREVIOUS REVISIONS: October 31, 2005;<br>December 16, 2005; March 27, 2009; July 8, 2010 |  |  |  |  |
| SECTION: Miscellaneous Administrative Topics & Procedures | SUBJECT: Electronic Report Upload (ftp)<br>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 <u>do not</u> 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 complia nce with the County's current security standards and a password. Documents 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 <u>deh.loptoxic@acgov.org</u>
  - 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 <a href="http://alcoftp1.acgov.org">http://alcoftp1.acgov.org</a>
    - (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 <u>deh.loptoxic@acgov.org</u> 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 st art with the RO# follo wed by **Report Upload**. (e.g., Subjec t: RO1234 Report Upload) If site is a new case without an RO#, use the street address instead.
  - d) If your document meets the above requirem ents and you follow the submission instructions, you will receive a notification by email indicating that your document was successfully uploaded to the ftp site.

APPENDIX B

SITE ENVIRONMENTAL HISTORY

# APPENDIX B SUMMARY OF PREVIOUS ENVIRONMENTAL WORK FORMER CHEVRON SERVICE STATION 93600 2200 TELEGRAPH AVENUE, OAKLAND, CALIFORNIA

## 1986 Tank Pit Sampling

In October 1986, new gasoline USTs were installed in the location of the original tank pit. Soil and groundwater samples were collected by Blaine Tech Services, Inc. (Blaine Tech) prior to installation of the new USTs. Additional information on soil and groundwater sampling is available in Blaine Tech's account of site activities dated November 21 and 28, 1986.

## October 1992 Vadose Zone Well Sampling

In October 1992, Groundwater Technology, Inc. collected a groundwater sample from onsite vadose well VW-2-1 at the request of Chevron. Because these wells do not currently exist, nor is there any record of their installation, the location and depth of the well is unknown. Additional information is available in Groundwater Technology, Inc.'s *Monitoring and Sampling Report of Vadose Well 2-1* dated November 20, 1992.

## 1994 Product Line Replacement

In July 1994, gasoline product lines were removed and replaced. Excavation of approximately 100 cubic yards of soil was performed and Touchstone Developments collected compliance soil samples P-1 through P-8 from product line trenches at depths between approximately 4.5 and 5.5 fbg. Additional information is available in Touchstone Developments' August 9, 1994 *Product-Line Removal and Sampling Report*.

## 2000 Baseline Evaluation

In November 2000, G-R advanced soil borings B-1 through B-8 to depths ranging from 4 to 16 fbg for a baseline evaluation for Chevron prior to property transfer. Boring B-2 through B-6 were advanced above the BART underground tunnel and were therefore only advanced to 10 fbg in accordance with BART restrictions. Additional information is available in G-R's November 21, 2000 *Baseline Evaluation*.

## 2002 Monitoring Well Installation

In March 2002, G-R installed groundwater monitor wells MW-1 through MW-3 to a depth of 20 fbg. Additional information is available in G-R's May 30, 2002 *Monitoring Well Installation Report*.

APPENDIX C

## DRILLING PERMITS

## Alameda County Public Works Agency - Water Resources Well Permit



399 Elmhurst Street Hayward, CA 94544-1395 Telephone: (510)670-6633 Fax:(510)782-1939

#### Application Approved on: 04/02/2012 By jamesy

Permit Numbers: W2012-0198 Permits Valid from 04/12/2012 to 04/13/2012

| Application Id:                            | 1332794538757   | City of Project Site:Oakland   |
|--|---|--|
| Project Start Date:<br>Assigned Inspector: | 04/12/2012<br>Contact Steve Miller at (510) 670-5517 or steve   | Completion Date:04/13/2012<br>em@acpwa.org                                 |
| Applicant:                                 | Conestoga Rovers & Assoicates - Amanda  | Phone: 510-420-3353  |
| Property Owner:<br>Client:                 | McDonell<br>5900 Hollis St Suite A, Emeryville, CA 94608<br>George Kim<br>2601 Telegraph Ave, Oakland, CA 94612<br>Chevron EMC<br>6101 Bollinger Canyon Road, San Ramon, CA | <b>Phone:</b> 415-209-4066<br><b>Phone:</b><br>94583                       |
|  | Receipt Number: WR2012-0087<br>Payer Name : conestoga rovers & associat   | Total Due:\$265.00Y Total Amount Paid:\$265.00esPaid By: CHECKPAID IN FULL |

#### Works Requesting Permits:

Borehole(s) for Investigation-Environmental/Monitorinig Study - 1 Boreholes Driller: Gregg Drilling and Testing - Lic #: 485165 - Method: DP

Work Total: \$265.00

| Specifications |            |            |           |           |           |
|----------------|------------|------------|-----------|-----------|-----------|
| Permit         | Issued Dt  | Expire Dt  | #         | Hole Diam | Max Depth |
| Number         |            |            | Boreholes |           |           |
| W2012-<br>0198 | 04/02/2012 | 07/11/2012 | 1         | 2.00 in.  | 30.00 ft  |

#### **Specific Work Permit Conditions**

1. Backfill bore hole by tremie with cement grout or cement grout/sand mixture. Upper two-three feet replaced in kind or with compacted cuttings. All cuttings remaining or unused shall be containerized and hauled off site. The containers shall be clearly labeled to the ownership of the container and labeled hazardous or non-hazardous.

2. Boreholes shall not be left open for a period of more than 24 hours. All boreholes left open more than 24 hours will need approval from Alameda County Public Works Agency, Water Resources Section. All boreholes shall be backfilled according to permit destruction requirements and all concrete material and asphalt material shall be to Caltrans Spec or County/City Codes. No borehole(s) shall be left in a manner to act as a conduit at any time.

3. Permittee shall assume entire responsibility for all activities and uses under this permit and shall indemnify, defend and save the Alameda County Public Works Agency, its officers, agents, and employees free and harmless from any and all expense, cost, liability in connection with or resulting from the exercise of this Permit including, but not limited to, properly damage, personal injury and wrongful death.

4. Applicant shall contact Steve Miller for an inspection time at (510) 670-5517 or email to stevem@acpwa.org at least five (5) working days prior to starting, once the permit has been approved. Confirm the scheduled date(s) at least 24 hours prior to drilling.

5. Copy of approved drilling permit must be on site at all times. Failure to present or show proof of the approved permit application on site shall result in a fine of \$500.00.
## Alameda County Public Works Agency - Water Resources Well Permit

6. Prior to any drilling activities onto any public right-of-ways, it shall be the applicants responsibilities to contact and coordinate a Underground Service Alert (USA), obtain encroachment permit(s), excavation permit(s) or any other permits required for that City or to the County and follow all City or County Ordinances. It shall also be the applicants responsibilities to provide to the Cities or to Alameda County a Traffic Safety Plan for any lane closures or detours planned. No work shall begin until all the permits and requirements have been approved or obtained.

7. Permit is valid only for the purpose specified herein. No changes in construction procedures, as described on this permit application. Boreholes shall not be converted to monitoring wells, without a permit application process.

## Alameda County Public Works Agency - Water Resources Well Permit



399 Elmhurst Street Hayward, CA 94544-1395 Telephone: (510)670-6633 Fax:(510)782-1939

## Application Approved on: 04/02/2012 By jamesy

Permit Numbers: W2012-0205 Permits Valid from 04/12/2012 to 04/13/2012

| Application Id:                            | 1332953976208<br>2201 Valley Street  | City of Project S                | i <b>te:</b> Oakland            |
|--|--|----------------------------------|---------------------------------|
| Project Start Date:<br>Assigned Inspector: | 04/12/2012<br>Contact Steve Miller at (510) 670-5517 or steve  | Completion Da<br>m@acpwa.org     | 1 <b>te:</b> 04/13/2012         |
| Applicant:                                 | Conestoga Rovers and Associates - Amanda   | Phor                             | <b>ie:</b> 510-420-3353         |
| Property Owner:<br>Client:                 | McDonell<br>5900 Hollis St. Suite A, Emeryville, CA 94608<br>MV Broadway LLC<br>580 Second Street Suite 260, Oakland, CA 946<br>Chevron EMC<br>6101 Billinger Canyon Road, San Ramon, CA 9 | 07<br>94583                      | i <b>e:</b> 510-839-4000<br>ie: |
|  | Receipt Number: WR2012-0094  | Total Due:<br>Total Amount Paid: | \$265.00<br>\$265.00            |

Payer Name : Conestoga Paid By: CHECK

## **Works Requesting Permits:**

Specifications

Borehole(s) for Investigation-Environmental/Monitorinig Study - 4 Boreholes Driller: Gregg drilling and testing - Lic #: 485165 - Method: DP

Work Total: \$265.00

PAID IN FULL

| opeemeane |            |            |           |           |           |
|-----------|------------|------------|-----------|-----------|-----------|
| Permit    | Issued Dt  | Expire Dt  | #         | Hole Diam | Max Depth |
| Number    |            |            | Boreholes |           |           |
| W2012-    | 04/02/2012 | 07/11/2012 | 4         | 2.00 in.  | 30.00 ft  |
| 0205      |            |            |           |           |           |

## **Specific Work Permit Conditions**

1. Backfill bore hole by tremie with cement grout or cement grout/sand mixture. Upper two-three feet replaced in kind or with compacted cuttings. All cuttings remaining or unused shall be containerized and hauled off site. The containers shall be clearly labeled to the ownership of the container and labeled hazardous or non-hazardous.

2. Boreholes shall not be left open for a period of more than 24 hours. All boreholes left open more than 24 hours will need approval from Alameda County Public Works Agency, Water Resources Section. All boreholes shall be backfilled according to permit destruction requirements and all concrete material and asphalt material shall be to Caltrans Spec or County/City Codes. No borehole(s) shall be left in a manner to act as a conduit at any time.

3. Permittee shall assume entire responsibility for all activities and uses under this permit and shall indemnify, defend and save the Alameda County Public Works Agency, its officers, agents, and employees free and harmless from any and all expense, cost, liability in connection with or resulting from the exercise of this Permit including, but not limited to, properly damage, personal injury and wrongful death.

4. Applicant shall contact Steve Miller for an inspection time at (510) 670-5517 or email to stevem@acpwa.org at least five (5) working days prior to starting, once the permit has been approved. Confirm the scheduled date(s) at least 24 hours prior to drilling.

5. Copy of approved drilling permit must be on site at all times. Failure to present or show proof of the approved permit application on site shall result in a fine of \$500.00.

## Alameda County Public Works Agency - Water Resources Well Permit

6. Prior to any drilling activities onto any public right-of-ways, it shall be the applicants responsibilities to contact and coordinate a Underground Service Alert (USA), obtain encroachment permit(s), excavation permit(s) or any other permits required for that City or to the County and follow all City or County Ordinances. It shall also be the applicants responsibilities to provide to the Cities or to Alameda County a Traffic Safety Plan for any lane closures or detours planned. No work shall begin until all the permits and requirements have been approved or obtained.

7. Permit is valid only for the purpose specified herein. No changes in construction procedures, as described on this permit application. Boreholes shall not be converted to monitoring wells, without a permit application process.

APPENDIX D

BORING LOGS



## **BORING / WELL LOG**

| CLIENT NAME     | Chevron Environmental Management Company | BORING/WELL NAME       | B-8B        |       |                      |
|-----------------|--|------------------------|-------------|-------|----------------------|
| JOB/SITE NAME   | 93600                                    | DRILLING STARTED       | 12-Apr-12   |       |                      |
| LOCATION        | 2200 Telegraph Avenue, Oakland, CA       | DRILLING COMPLETED     | 12-Apr-12   |       |                      |
| PROJECT NUMBER  | 311965                                   | WELL DEVELOPMENT D     | ATE (YIELD) | NA    |                      |
| DRILLER         | Gregg Drilling, C-57 #485165             | GROUND SURFACE ELEV    | ATION _     | NA    |                      |
| DRILLING METHOD | Direct push                              | TOP OF CASING ELEVAT   | ION _       | NA    |                      |
| BORING DIAMETER | 2-inches                                 | SCREENED INTERVALS     | _           | NA    |                      |
| LOGGED BY       | A. McDonell                              | DEPTH TO WATER (First  | Encountered | d) NA | $\underline{\nabla}$ |
| REVIEWED BY     | T. Hariu, PG #5907                       | DEPTH TO WATER (Statio | c)          | NA    | <u> </u>             |
| REMARKS         | Refusal - Metal object in subsurface     |                        |             |       |                      |

| PID (ppm) | BLOW<br>COUNTS | SAMPLE ID | EXTENT | DEPTH<br>(fbg) | U.S.C.S. | GRAPHIC<br>LOG | LITHOLOGIC DESCRIPTION   | CONTACT<br>DEPTH (fbg) | WEL | L DIAGRAM                   |
|-----------|----------------|-----------|--------|----------------|----------|----------------|--|------------------------|-----|-----------------------------|
|           |                |           | Т      |                |          |                | ASPHALT  | 0.5                    |     |                             |
|           |                |           |        |                | SP       |                | <b>SAND:</b> Brown; moist; poorly graded; fine to medium sand. | 3.0                    |     | Portland Type I/II          |
|           |                |           |        |                |          |                | @ 3 fbg - refusal due to metal obstruction in subsufrace.      |                        |     | Bottom of Boring<br>@ 3 fbg |
|           |                |           |        |                |          |                |  |                        |     |                             |
|           |                |           |        |                |          |                |  |                        |     |                             |
|           |                |           |        |                |          |                |  |                        |     |                             |
|           |                |           |        |                |          |                |  |                        |     |                             |
|           |                |           |        |                |          |                |  |                        |     |                             |
|           |                |           |        |                |          |                |  |                        |     |                             |



## **BORING / WELL LOG**

| CLIENT NAME     | Chevron Environmental Management Company | BORING/WELL NAME        | B-9         |              |                      |
|-----------------|--|-------------------------|-------------|--------------|----------------------|
| JOB/SITE NAME   | 93600                                    | DRILLING STARTED        | 12-Apr-12   |              |                      |
| LOCATION        | 2200 Telegraph Avenue, Oakland, CA       | DRILLING COMPLETED      | 12-Apr-12   |              |                      |
| PROJECT NUMBER  | 311965                                   | WELL DEVELOPMENT DA     | TE (YIELD)  | NA           |                      |
| DRILLER         | Gregg Drilling, C-57 #485165             | GROUND SURFACE ELEV     | ATION _     | NA           |                      |
| DRILLING METHOD | Direct push                              | TOP OF CASING ELEVATI   | ON _        | NA           |                      |
| BORING DIAMETER | 2-inches                                 | SCREENED INTERVALS      | _           | NA           |                      |
| LOGGED BY       | A. McDonell                              | DEPTH TO WATER (First B | Encountered | l) 13.50 fbg | $\underline{\nabla}$ |
| REVIEWED BY     | T. Hariu, PG #5907                       | DEPTH TO WATER (Static  | )           | NA           | <u> </u>             |

REMARKS

|                    | PID (ppm) | BLOW<br>COUNTS | SAMPLE ID  | EXTENT | DEPTH<br>(fbg) | U.S.C.S. | GRAPHIC<br>LOG | LITHOLOGIC DESCRIPTION  | CONTACT<br>DEPTH (fbg) | WELL DIAGRAM                 |
|--------------------|-----------|----------------|------------|--------|----------------|----------|----------------|---|------------------------|------------------------------|
|                    |           |                |            |        | <br>           | SP       |                | ASPHALT<br>SAND: Brown; moist; poorly graded; medium sand.  | _0.5                   |                              |
| /12                | 1.0       |                | B-9-5      |        |                |          |                | SII T with cand: Black: moist   | 6.0                    |                              |
| U DEFAULT.GDT 5/29 | 25        |                | B-9 -10    |        | <br><br>       | ML       |                | © 8 fbg - Dark gray; increase clay; low plasticity.<br>@ 9 fbg - Brownish gray.   |                        |                              |
| GH B-12.GP         |           |                |            |        |                |          |                | @ 11 fbg - Gray; increase clay and sand content; fine sand.   | 12.0                   |                              |
| S\311965-B-9 THROU | 1.0       |                | B-9 -15    |        | <br><br>15     |          |                | Silty SAND with gravel: Gray; moist; well graded;       Image: Silty SAND with gravel: Gray; moist; well graded;         medium to coarse sand, fine gravel.       Image: Silty Sand Silty Si |                        | Portland Type I/II           |
| 965-BORING LOG     |           |                |            |        |                | SM       |                | @ 17 fbg - increase sand; well graded; fine to medium sand.   |                        |                              |
| 3600 OAKLAND\311   | 0.6       |                | B-9 -20    |        | <br>           |          |                | @ 20 fbg - <u>Silty SAND:</u> Brown; wet; well graded; fine to coarse sand; trace fine gravel.  |                        |                              |
| -\311965 9-3       | -         |                | B-9-25     | ļ      | <br>25         |          |                | @ 24 fbg - Gray.  | 26.0                   |                              |
| CHEVRON/3119-      |           |                |            |        | <br>           | sw       |                | <b><u>SAND with gravel</u></b> : Brown; wet; well graded; fine to coarse sand; fine gravel.   | 20.0                   |                              |
| ):: (Ole           | 0.7       |                | B-9 - 29.5 | Ц      |                | <br>ML   |                | Sandy SILT: Dark brown; wet; fine sand.   | 30.0                   |                              |
| MELL LOG (F        |           |                |            |        |                |          |                |   |                        | Bottom of Boring<br>@ 30 fbg |



## **BORING / WELL LOG**

|                 | Chevron Environmental Management Company | BORING/WELL NAME       | B-10        |              |                      |
|-----------------|--|------------------------|-------------|--------------|----------------------|
| JOB/SITE NAME   | 93600                                    | DRILLING STARTED       | 12-Apr-12   |              |                      |
| LOCATION        | 2200 Telegraph Avenue, Oakland, CA       | DRILLING COMPLETED _   | 12-Apr-12   |              |                      |
| PROJECT NUMBER  | 311965                                   | WELL DEVELOPMENT DA    | TE (YIELD)  | NA           |                      |
| DRILLER         | Gregg Drilling, C-57 #485165             | GROUND SURFACE ELEV    | ATION _     | NA           |                      |
| DRILLING METHOD | Direct push                              | TOP OF CASING ELEVAT   | ION _       | NA           |                      |
| BORING DIAMETER | 2-inches                                 | SCREENED INTERVALS     | _           | NA           |                      |
| LOGGED BY       | A. McDonell                              | DEPTH TO WATER (First  | Encountered | l) 18.00 fbg | $\underline{\nabla}$ |
| REVIEWED BY     | T. Hariu, PG #5907                       | DEPTH TO WATER (Static | ;)          | NA           | Ţ                    |

REMARKS

|                             | PID (ppm) | BLOW<br>COUNTS | SAMPLE ID            | EXTENT | DEPTH<br>(fbg)   | U.S.C.S. | GRAPHIC<br>LOG | LITHOLOGIC DESCRIPTION  | CONTACT<br>DEPTH (fbg) | WELI | L DIAGRAM          |
|-----------------------------|-----------|----------------|----------------------|--------|------------------|----------|----------------|---|------------------------|------|--------------------|
|                             |           |                |                      |        |                  | SP       |                | ASPHALT<br>SAND: Brown; moist; poorly graded; medium sand.  | 0.5                    |      |                    |
| r 5/29/12                   | 1.5       |                | B-10- 5              |        |                  | ML       |                | Sandy SILT: Dark brown; moist; well graded; fine to medium sand.<br>@ 6 fbg - Black.  | 5.0                    |      |                    |
| DEFAULT.GD1                 | 1.0       |                | D 40 40              | 0      | <br>             |          | └┘⊥╵╴<br>┝┑┯╷╸ | No recovery   | 8.0<br>10.0            |      |                    |
| 311965-B-9 THROUGH B-12.GPJ | 3.0       |                | B-10- 10<br>B-10- 15 |        | <br><br><br><br> | ML       |                | <u>SILT:</u> Gray; dry; trace clay.<br>@ 13 fbg - <u>SILT with sand:</u> Gray; moist; poorly graded;<br>fine sand.  | 16 5                   |      | Portland Type I/II |
| 311965-BORING LOGS          | 0.5       |                | B-10- 20             |        | <br><br>         |          |                | Silty SAND: Brown; moist; poorly graded; fine sand;<br>lenses of medium sand up to 1" thick.<br>@ 18 fbg - wet<br>@ 20 fbg - increase sand; well graded, fine to medium | ⊻                      |      |                    |
| 35 9-3600 OAKLAND\3         |           |                |                      |        |                  | SM       |                | @ 22 fbg - <u>SAND with silt:</u> Brown; wet; well graded; medium to coarse sand; trace fine gravel.  |                        |      |                    |
| KON\3119\3119(              | 0.5       |                | B-10- 25             |        | 25<br>           | GW       |                | <b><u>GRAVEL with sand:</u></b> Reddish brown; wet; well graded; medium to coarse sand; fine gravel.  | 25.0                   |      |                    |
| IC (PID) I:\CHEVR           | 0.2       |                | B-10- 29.5           |        | <br><br>30       | SM       |                | Silty SAND: Tan; wet; poorly graded; fine sand.   | 28.0                   |      | Bottom of Boring   |
| MELL LC                     |           |                |                      |        |                  |          |                |   |                        |      | @ 30 fbg           |



## **BORING / WELL LOG**

|                 | Chevron Environmental Management Company | BORING/WELL NAMEB-1       | 11       |             |                      |
|-----------------|--|---------------------------|----------|-------------|----------------------|
| JOB/SITE NAME   | 93600                                    | DRILLING STARTED 12-      | -Apr-12  |             |                      |
| LOCATION        | 2200 Telegraph Avenue, Oakland, CA       | DRILLING COMPLETED 12-    | -Apr-12  |             |                      |
| PROJECT NUMBER  | 311965                                   | WELL DEVELOPMENT DATE     | (YIELD)  | NA          |                      |
| DRILLER         | Gregg Drilling, C-57 #485165             | GROUND SURFACE ELEVAT     | ION _    | NA          |                      |
| DRILLING METHOD | Direct push                              | TOP OF CASING ELEVATION   | I _      | NA          |                      |
| BORING DIAMETER | 2-inches                                 | SCREENED INTERVALS        | _        | NA          |                      |
| LOGGED BY       | A. McDonell                              | DEPTH TO WATER (First Enc | ountered | ) 20.00 fbg | $\underline{\nabla}$ |
| REVIEWED BY     | T. Hariu, PG #5907                       | DEPTH TO WATER (Static)   |          | NA          | Ţ                    |

REMARKS

| PID (ppm) | BLOW<br>COUNTS | SAMPLE ID  | EXTENT | DEPTH<br>(fbg) | U.S.C.S. | GRAPHIC<br>LOG | LITHOLOGIC DESCRIPTION  | CONTACT<br>DEPTH (fbg) | WELL DIAGRAM                 |
|-----------|----------------|------------|--------|----------------|----------|----------------|---|------------------------|------------------------------|
|           |                |            |        |                |          |                | ASPHALT<br>SAND: Brown; moist; poorly graded; medium sand.  | 0.5                    |                              |
| 0.6       |                | B-11- 5    |        | <br><br>- 5    | SP       |                |   | 6.0                    |                              |
|           |                |            | ╏╏     |                |          |                | SILT with sand: Black; moist.   | _0.0                   |                              |
|           |                |            |        | _ ]            | ML       |                | @ 7 fbg - Dark brown; increase silt content.  | 8.0                    |                              |
|           |                |            | 0      |                |          |                | No recovery   |                        |                              |
| 2.6       |                | B-11- 10   |        | -10-           |          |                | <b>CLAY:</b> Dark brown; moist; high plasticity.  | 10.0                   |                              |
|           |                |            | Iŀ     |                | CL       |                |   |                        |                              |
|           |                |            |        |                |          |                | Silty SAND: Brown: moist: poorly graded: fine sand  | 12.5                   |                              |
| 1.3       |                | B-11- 15   |        | <br>- 15<br>   | SM       |                | @ 15 fbg - Gray; well graded sand; fine to coarse sand; some fine gravel.   |                        | Portland Type I/II           |
| 0.7       |                | B-11- 20   |        | <br>           |          |                | <ul> <li>@ 18 fbg - Reddish brown; increase in coarse sand and fine gravel.</li> <li><u>SAND with gravel:</u> Brown; wet; well graded; coarse sand and fine gravel</li> </ul> | 20.0                   |                              |
|           |                |            |        | ]              | SW       |                | Sand and nine gravel.   |                        |                              |
|           |                |            |        |                |          |                | Silty SAND: Gray; wet; poorly graded; fine sand; some fine gravel.  | 23.0                   |                              |
| 0.6       |                | B-11- 25   |        | 25<br><br>     | SM       |                | @ 25 fbg SAND with silt: Gray; wet; poorly graded; fine sand.   |                        |                              |
| 0.6       |                | B-11- 29.5 |        |                |          |                | @ 28 fbg - increase in grain size; well graded; medium to coarse sand.  | 30.0                   |                              |
|           |                |            |        | 30-            |          |                |   |                        | Bottom of Boring<br>@ 30 fbg |



## **BORING / WELL LOG**

| CLIENT NAME     | Chevron Environmental Management Company<br>93600 | BORING/WELL NAME        | B-12<br>13-Apr-12 |              |                     |
|-----------------|---|-------------------------|-------------------|--------------|---------------------|
| LOCATION        | 2200 Telegraph Avenue, Oakland, CA                |                         | 13-Apr-12         |              |                     |
| PROJECT NUMBER  | 311965  | WELL DEVELOPMENT DA     | TE (YIELD)_       | NA           |                     |
| DRILLER         | Gregg Drilling, C-57 #485165                      | GROUND SURFACE ELEV     | ATION _           | NA           |                     |
| DRILLING METHOD | Direct push                                       | TOP OF CASING ELEVATION | ON _              | NA           |                     |
| BORING DIAMETER | 2-inches  | SCREENED INTERVALS      | _                 | NA           |                     |
| LOGGED BY       | A. McDonell                                       | DEPTH TO WATER (First E | ncountered        | l) 23.00 fbg | $\overline{\Delta}$ |
| REVIEWED BY     | T. Hariu, PG #5907                                | DEPTH TO WATER (Static) |                   | NA           | Ţ                   |

REMARKS

|                | PID (ppm) | BLOW<br>COUNTS | SAMPLE ID  | EXTENT | DEPTH<br>(fbg) | U.S.C.S.    | GRAPHIC<br>LOG | LITHOLOGIC DESCRIPTION  | CONTACT<br>DEPTH (fbg) | WELL DIAGRAM               |     |
|----------------|-----------|----------------|------------|--------|----------------|-------------|----------------|---|------------------------|----------------------------|-----|
|                |           |                |            |        |                | SP          |                | ASPHALT<br>SAND: Brown; moist; poorly graded; medium sand.  | _0.5                   |                            |     |
| F 5/29/12      | 0         |                | B-12- 5    | ł      | <br>           | — — —<br>ML |                | SILT with sand: Black; moist; poorly graded; fine sand.   | 6.0                    |                            |     |
| EFAULT.GD1     |           |                |            |        |                |             |                | No recovery   | _8.0                   |                            |     |
| H B-12.GPJ DE  | 0         |                | B-12- 10   |        |                | CL          |                | <b><u>CLAY</u></b> : Brownish black; moist; medium to high plasticity.  |                        |                            |     |
| -B-9 THROUG    |           |                |            |        |                |             |                | Sandy SILT: Brown; moist; poorly graded; fine sand.   | _13.0                  | Perfand Type //            |     |
| NG LOGS\311965 | 0         |                | B-12- 15   |        |                | SM          |                | @ 15 fbg - Reddish brown; some streaks of light gray;<br>increase sand content.   |                        |                            |     |
| VD\311965-BORI | 0         |                | B-12- 20   |        | <br>20         |             |                | @ 20 - increase in moisture content.  | _21.0                  |                            |     |
| 9-3600 OAKLAN  |           |                |            |        |                |             |                | Coarse sand; fine gravel; Brown; moist; well graded; fine to coarse sand; fine gravel; angular to sub angular gravel.     @ 23 fbg - wet. | 2                      |                            |     |
| 3119\311965    | 0         |                | B-12- 25   |        | <br>25         | SW          |                | @ 26 fbg - increase in gravel content and size to fine  |                        |                            |     |
| I:\CHEVRON\.   |           |                |            |        | <br>           | <br>SM      |                | gravei.<br>   | _28.0                  |                            |     |
| ELL LOG (PID)  | 0         |                | B-12- 29.5 |        | -30-           | 5141        | 신산값            |   | 30.0                   | Bottom of Bori<br>@ 30 fbg | ing |
| ≥              |           |                |            |        |                |             |                |   |                        |                            |     |

APPENDIX E

SOIL LABORATORY ANALYTICAL REPORT



**Analysis Report** 

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

Lancaster

Laboratories

## ANALYTICAL RESULTS

Prepared by:

Lancaster Laboratories 2425 New Holland Pike Lancaster, PA 17605-2425

B-12-S-29.5-120413 Grab Soil

Prepared for:

ChevronTexaco 6001 Bollinger Canyon Rd L4310 San Ramon CA 94583

6616849

April 26, 2012

Project: 93600

Submittal Date: 04/14/2012 Group Number: 1302261 PO Number: 0015074399 Release Number: PATTEN State of Sample Origin: CA

| Client Sample Description    | Lancaster Labs (LLI) # |
|------------------------------|------------------------|
| B-9-S-5-120412 Grab Soil     | 6616826                |
| B-9-S-10-120412 Grab Soil    | 6616827                |
| B-9-S-15-120412 Grab Soil    | 6616828                |
| B-9-S-20-120412 Grab Soil    | 6616829                |
| B-9-S-25-120412 Grab Soil    | 6616830                |
| B-9-S-29.5-120412 Grab Soil  | 6616831                |
| B-10-S-5-120412 Grab Soil    | 6616832                |
| B-10-S-10-120412 Grab Soil   | 6616833                |
| B-10-S-15-120412 Grab Soil   | 6616834                |
| B-10-S-20-120412 Grab Soil   | 6616835                |
| B-10-S-25-120412 Grab Soil   | 6616836                |
| B-10-S-29.5-120412 Grab Soil | 6616837                |
| B-11-S-5-120412 Grab Soil    | 6616838                |
| B-11-S-10-120412 Grab Soil   | 6616839                |
| B-11-S-15-120412 Grab Soil   | 6616840                |
| B-11-S-20-120412 Grab Soil   | 6616841                |
| B-11-S-25-120412 Grab Soil   | 6616842                |
| B-11-S-29.5-120412 Grab Soil | 6616843                |
| B-12-S-5-120413 Grab Soil    | 6616844                |
| B-12-S-10-120413 Grab Soil   | 6616845                |
| B-12-S-15-120413 Grab Soil   | 6616846                |
| B-12-S-20-120413 Grab Soil   | 6616847                |
| B-12-S-25-120413 Grab Soil   | 6616848                |

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





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Lancaster

Laboratories

ELECTRONIC Chevron COPY TO ELECTRONIC CRA COPY TO Attn: CRA EDD

Attn: Nathan Lee

Respectfully Submitted,

Matalie x 200

Natalie R. Luciano Specialist

(717) 556-7258



# **Analysis Report**

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

Page 1 of 1

## Sample Description: B-9-S-5-120412 Grab Soil Facility# 93600 CRAW 2200 Telegraph-Oakland T0600161613 B-9

## LLI Sample # SW 6616826 LLI Group # 1302261 Account # 10880

#### Project Name: 93600

| Collected: | 04/12/2012 | 08:00 | by SP |
|------------|------------|-------|-------|
|------------|------------|-------|-------|

ChevronTexaco 6001 Bollinger Canyon Rd L4310 San Ramon CA 94583

Submitted: 04/14/2012 10:00 Reported: 04/26/2012 17:41

### 00905

| CAT<br>No. | Analysis Name               | CAS Number       | As Received<br>Result | As Received<br>Method<br>Detection Limit* | As Received<br>Limit of<br>Quantitation | Dilution<br>Factor |
|------------|-----------------------------|------------------|-----------------------|---|---|--------------------|
| GC/MS      | Volatiles SW-84             | 5 8260B          | mg/kg                 | mg/kg                                     | mg/kg                                   |                    |
| 10237      | t-Amyl methyl ether         | 994-05-8         | N.D.                  | 0.001                                     | 0.005                                   | 1.02               |
| 10237      | Benzene                     | 71-43-2          | N.D.                  | 0.0005                                    | 0.005                                   | 1.02               |
| 10237      | t-Butyl alcohol             | 75-65-0          | N.D.                  | 0.020                                     | 0.10                                    | 1.02               |
| 10237      | Ethyl t-butyl ether         | 637-92-3         | N.D.                  | 0.001                                     | 0.005                                   | 1.02               |
| 10237      | Ethylbenzene                | 100-41-4         | N.D.                  | 0.001                                     | 0.005                                   | 1.02               |
| 10237      | di-Isopropyl ether          | 108-20-3         | N.D.                  | 0.001                                     | 0.005                                   | 1.02               |
| 10237      | Methyl Tertiary Butyl Ether | 1634-04-4        | N.D.                  | 0.0005                                    | 0.005                                   | 1.02               |
| 10237      | Toluene                     | 108-88-3         | N.D.                  | 0.001                                     | 0.005                                   | 1.02               |
| 10237      | Xylene (Total)              | 1330-20-7        | N.D.                  | 0.001                                     | 0.005                                   | 1.02               |
| GC Vol     | Latiles SW-84               | 6 8015B modified | mg/kg                 | mg/kg                                     | mg/kg                                   |                    |
| 01725      | TPH-GRO N. CA soil C6-C12   | n.a.             | N.D.                  | 1   | 1                                       | 24.56              |

#### General Sample Comments

State of California Lab Certification No. 2501

|            | Laboratory Sample Analysis Record |                          |        |              |                          |       |                  |                    |  |  |
|------------|-----------------------------------|--------------------------|--------|--------------|--------------------------|-------|------------------|--------------------|--|--|
| CAT<br>No. | Analysis Name                     | Method                   | Trial# | Batch#       | Analysis<br>Date and Tim | ne    | Analyst          | Dilution<br>Factor |  |  |
| 10237      | BTEX + 5 Oxygenates 8260<br>Soil  | SW-846 8260B             | 1      | B121071AA    | 04/16/2012               | 23:59 | Andrea E Lando   | 1.02               |  |  |
| 00374      | GC/MS - Bulk Soil Prep            | SW-846 5035A<br>Modified | 1      | 201210527379 | 04/14/2012               | 22:30 | Scott W Freisher | n.a.               |  |  |
| 00374      | GC/MS - Bulk Soil Prep            | SW-846 5035A<br>Modified | 2      | 201210527379 | 04/14/2012               | 22:29 | Scott W Freisher | n.a.               |  |  |
| 06646      | GC/MS HL Bulk Sample Prep         | SW-846 5035A<br>Modified | 1      | 201210527379 | 04/14/2012               | 19:25 | Scott W Freisher | n.a.               |  |  |
| 01725      | TPH-GRO N. CA soil C6-C12         | SW-846 8015B<br>modified | 1      | 12108A16A    | 04/17/2012               | 19:51 | Marie D John     | 24.56              |  |  |
| 01150      | GC - Bulk Soil Prep               | SW-846 5035A<br>Modified | 1      | 201210527379 | 04/14/2012               | 19:26 | Scott W Freisher | n.a.               |  |  |



# **Analysis Report**

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## Sample Description: B-9-S-10-120412 Grab Soil Facility# 93600 CRAW 2200 Telegraph-Oakland T0600161613 B-9

## LLI Sample # SW 6616827 LLI Group # 1302261 Account # 10880

### Project Name: 93600

| Collected: | 04/12/2012 | 08:30 | by SP |
|------------|------------|-------|-------|
|------------|------------|-------|-------|

ChevronTexaco 6001 Bollinger Canyon Rd L4310 San Ramon CA 94583

Submitted: 04/14/2012 10:00 Reported: 04/26/2012 17:41

## 00910

| CAT<br>No. | Analysis Name              | CAS Number        | As Received<br>Result | As Received<br>Method<br>Detection Limit* | As Received<br>Limit of<br>Quantitation | Dilution<br>Factor |
|------------|----------------------------|-------------------|-----------------------|---|---|--------------------|
| GC/MS      | Volatiles SW-84            | 46 8260B          | mg/kg                 | mg/kg                                     | mg/kg                                   |                    |
| 10237      | t-Amyl methyl ether        | 994-05-8          | N.D.                  | 0.001                                     | 0.005                                   | 1.03               |
| 10237      | Benzene                    | 71-43-2           | 0.002                 | 0.0005                                    | 0.005                                   | 1.03               |
| 10237      | t-Butyl alcohol            | 75-65-0           | N.D.                  | 0.021                                     | 0.10                                    | 1.03               |
| 10237      | Ethyl t-butyl ether        | 637-92-3          | N.D.                  | 0.001                                     | 0.005                                   | 1.03               |
| 10237      | Ethylbenzene               | 100-41-4          | 0.39                  | 0.050                                     | 0.25                                    | 50.4               |
| 10237      | di-Isopropyl ether         | 108-20-3          | N.D.                  | 0.001                                     | 0.005                                   | 1.03               |
| 10237      | Methyl Tertiary Butyl Ethe | er 1634-04-4      | N.D.                  | 0.0005                                    | 0.005                                   | 1.03               |
| 10237      | Toluene                    | 108-88-3          | N.D.                  | 0.001                                     | 0.005                                   | 1.03               |
| 10237      | Xylene (Total)             | 1330-20-7         | 0.051                 | 0.001                                     | 0.005                                   | 1.03               |
| GC Vol     | atiles SW-8                | 46 8015B modified | mg/kg                 | mg/kg                                     | mg/kg                                   |                    |
| 01725      | TPH-GRO N. CA soil C6-C12  | n.a.              | 15                    | 1.0                                       | 1.0                                     | 26.18              |

### General Sample Comments

State of California Lab Certification No. 2501

|            | Laboratory Sample Analysis Record |                          |        |              |                          |       |                   |                    |  |  |
|------------|-----------------------------------|--------------------------|--------|--------------|--------------------------|-------|-------------------|--------------------|--|--|
| CAT<br>No. | Analysis Name                     | Method                   | Trial# | Batch#       | Analysis<br>Date and Tim | ne    | Analyst           | Dilution<br>Factor |  |  |
| 10237      | BTEX + 5 Oxygenates 8260<br>Soil  | SW-846 8260B             | 1      | B121071AA    | 04/17/2012               | 04:49 | Andrea E Lando    | 1.03               |  |  |
| 10237      | BTEX + 5 Oxygenates 8260<br>Soil  | SW-846 8260B             | 1      | R121121AA    | 04/21/2012               | 14:30 | Kerri E Legerlotz | 50.4               |  |  |
| 00374      | GC/MS - Bulk Soil Prep            | SW-846 5035A<br>Modified | 1      | 201210527379 | 04/14/2012               | 22:30 | Scott W Freisher  | n.a.               |  |  |
| 00374      | GC/MS - Bulk Soil Prep            | SW-846 5035A<br>Modified | 2      | 201210527379 | 04/14/2012               | 22:30 | Scott W Freisher  | n.a.               |  |  |
| 06646      | GC/MS HL Bulk Sample Prep         | SW-846 5035A<br>Modified | 1      | 201210527379 | 04/14/2012               | 19:30 | Scott W Freisher  | n.a.               |  |  |
| 01725      | TPH-GRO N. CA soil C6-C12         | SW-846 8015B<br>modified | 1      | 12108A16A    | 04/18/2012               | 07:58 | Marie D John      | 26.18              |  |  |
| 01150      | GC - Bulk Soil Prep               | SW-846 5035A<br>Modified | 1      | 201210527379 | 04/14/2012               | 19:30 | Scott W Freisher  | n.a.               |  |  |



# **Analysis Report**

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## Sample Description: B-9-S-15-120412 Grab Soil Facility# 93600 CRAW 2200 Telegraph-Oakland T0600161613 B-9

## LLI Sample # SW 6616828 LLI Group # 1302261 Account # 10880

### Project Name: 93600

| Collected: | 04/12/2012 | 09:10 | by SF |
|------------|------------|-------|-------|
|------------|------------|-------|-------|

ChevronTexaco 6001 Bollinger Canyon Rd L4310 San Ramon CA 94583

Submitted: 04/14/2012 10:00 Reported: 04/26/2012 17:41

### 00915

| CAT<br>No. | Analysis Name               | CAS Number     | As Received<br>Result | As Received<br>Method<br>Detection Limit* | As Received<br>Limit of<br>Quantitation | Dilution<br>Factor |
|------------|-----------------------------|----------------|-----------------------|---|---|--------------------|
| GC/MS      | Volatiles SW-846            | 8260B          | mg/kg                 | mg/kg                                     | mg/kg                                   |                    |
| 10237      | t-Amyl methyl ether         | 994-05-8       | N.D.                  | 0.001                                     | 0.005                                   | 1.06               |
| 10237      | Benzene                     | 71-43-2        | N.D.                  | 0.0005                                    | 0.005                                   | 1.06               |
| 10237      | t-Butyl alcohol             | 75-65-0        | N.D.                  | 0.021                                     | 0.11                                    | 1.06               |
| 10237      | Ethyl t-butyl ether         | 637-92-3       | N.D.                  | 0.001                                     | 0.005                                   | 1.06               |
| 10237      | Ethylbenzene                | 100-41-4       | 0.002                 | 0.001                                     | 0.005                                   | 1.06               |
| 10237      | di-Isopropyl ether          | 108-20-3       | N.D.                  | 0.001                                     | 0.005                                   | 1.06               |
| 10237      | Methyl Tertiary Butyl Ether | 1634-04-4      | N.D.                  | 0.0005                                    | 0.005                                   | 1.06               |
| 10237      | Toluene                     | 108-88-3       | N.D.                  | 0.001                                     | 0.005                                   | 1.06               |
| 10237      | Xylene (Total)              | 1330-20-7      | 0.007                 | 0.001                                     | 0.005                                   | 1.06               |
| GC Vol     | Latiles SW-846              | 8015B modified | mg/kg                 | mg/kg                                     | mg/kg                                   |                    |
| 01725      | TPH-GRO N. CA soil C6-C12   | n.a.           | N.D.                  | 1   | 1                                       | 24.56              |

### General Sample Comments

State of California Lab Certification No. 2501

|            | Laboratory Sample Analysis Record |                          |        |              |                          |       |                  |                    |  |  |
|------------|-----------------------------------|--------------------------|--------|--------------|--------------------------|-------|------------------|--------------------|--|--|
| CAT<br>No. | Analysis Name                     | Method                   | Trial# | Batch#       | Analysis<br>Date and Tim | ie    | Analyst          | Dilution<br>Factor |  |  |
| 10237      | BTEX + 5 Oxygenates 8260<br>Soil  | SW-846 8260B             | 1      | B121071AA    | 04/17/2012               | 02:35 | Andrea E Lando   | 1.06               |  |  |
| 00374      | GC/MS - Bulk Soil Prep            | SW-846 5035A<br>Modified | 1      | 201210527379 | 04/14/2012               | 22:30 | Scott W Freisher | n.a.               |  |  |
| 00374      | GC/MS - Bulk Soil Prep            | SW-846 5035A<br>Modified | 2      | 201210527379 | 04/14/2012               | 22:30 | Scott W Freisher | n.a.               |  |  |
| 06646      | GC/MS HL Bulk Sample Prep         | SW-846 5035A<br>Modified | 1      | 201210527379 | 04/14/2012               | 19:37 | Scott W Freisher | n.a.               |  |  |
| 01725      | TPH-GRO N. CA soil C6-C12         | SW-846 8015B<br>modified | 1      | 12108A16A    | 04/17/2012               | 20:29 | Marie D John     | 24.56              |  |  |
| 01150      | GC - Bulk Soil Prep               | SW-846 5035A<br>Modified | 1      | 201210527379 | 04/14/2012               | 19:35 | Scott W Freisher | n.a.               |  |  |



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## Sample Description: B-9-S-20-120412 Grab Soil Facility# 93600 CRAW 2200 Telegraph-Oakland T0600161613 B-9

## LLI Sample # SW 6616829 LLI Group # 1302261 Account # 10880

#### Project Name: 93600

| COTTECTED O A A A A A A A A A A A A A A A A A A | ollected∶ | 04/12/2012 | 09:40 | by SI |
|---|-----------|------------|-------|-------|
|---|-----------|------------|-------|-------|

Submitted: 04/14/2012 10:00 Reported: 04/26/2012 17:41 ChevronTexaco 6001 Bollinger Canyon Rd L4310 San Ramon CA 94583

### 00920

| CAT<br>No. | Analysis Name               | CAS Number     | As Received<br>Result | As Received<br>Method<br>Detection Limit* | As Received<br>Limit of<br>Quantitation | Dilution<br>Factor |
|------------|-----------------------------|----------------|-----------------------|---|---|--------------------|
| GC/MS      | Volatiles SW-846            | 8260B          | mg/kg                 | mg/kg                                     | mg/kg                                   |                    |
| 10237      | t-Amyl methyl ether         | 994-05-8       | N.D.                  | 0.001                                     | 0.005                                   | 0.98               |
| 10237      | Benzene                     | 71-43-2        | N.D.                  | 0.0005                                    | 0.005                                   | 0.98               |
| 10237      | t-Butyl alcohol             | 75-65-0        | N.D.                  | 0.020                                     | 0.098                                   | 0.98               |
| 10237      | Ethyl t-butyl ether         | 637-92-3       | N.D.                  | 0.001                                     | 0.005                                   | 0.98               |
| 10237      | Ethylbenzene                | 100-41-4       | 0.003                 | 0.001                                     | 0.005                                   | 0.98               |
| 10237      | di-Isopropyl ether          | 108-20-3       | N.D.                  | 0.001                                     | 0.005                                   | 0.98               |
| 10237      | Methyl Tertiary Butyl Ether | 1634-04-4      | 0.0007                | 0.0005                                    | 0.005                                   | 0.98               |
| 10237      | Toluene                     | 108-88-3       | N.D.                  | 0.001                                     | 0.005                                   | 0.98               |
| 10237      | Xylene (Total)              | 1330-20-7      | 0.007                 | 0.001                                     | 0.005                                   | 0.98               |
| GC Vol     | latiles SW-846              | 8015B modified | mg/kg                 | mg/kg                                     | mg/kg                                   |                    |
| 01725      | TPH-GRO N. CA soil C6-C12   | n.a.           | N.D.                  | 1   | 1                                       | 24.49              |

#### General Sample Comments

State of California Lab Certification No. 2501

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

#### Laboratory Sample Analysis Record CAT Trial# Batch# Analysis Dilution Analysis Name Method Analyst Date and Time Factor No. 10237 BTEX + 5 Oxygenates 8260 SW-846 8260B 1 B121071AA 04/17/2012 02:57 Andrea E Lando 0.98 Soil 00374 GC/MS - Bulk Soil Prep SW-846 5035A 1 201210527379 04/14/2012 22:30 Scott W Freisher n.a. Modified 2 201210527379 00374 GC/MS - Bulk Soil Prep SW-846 5035A 04/14/2012 22:30 Scott W Freisher n.a. Modified 06646 GC/MS HL Bulk Sample Prep SW-846 5035A 1 201210527379 04/14/2012 19:41 Scott W Freisher n.a. Modified 01725 TPH-GRO N. CA soil C6-C12 SW-846 8015B 1 12108A16A 04/17/2012 21:07 Marie D John 24.49 modified 01150 GC - Bulk Soil Prep SW-846 5035A 1 201210527379 04/14/2012 19:41 Scott W Freisher n.a. Modified



# **Analysis Report**

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LLI Sample # SW 6616830 LLI Group # 1302261

# 10880

## Sample Description: B-9-S-25-120412 Grab Soil Facility# 93600 CRAW 2200 Telegraph-Oakland T0600161613 B-9

## Project Name: 93600

Collected: 04/12/2012 10:03 by SP

Submitted: 04/14/2012 10:00 Reported: 04/26/2012 17:41 ChevronTexaco 6001 Bollinger Canyon Rd L4310 San Ramon CA 94583

## 00925

| CAT<br>No. | Analysis Name               | CAS Number     | As Received<br>Result | As Received<br>Method<br>Detection Limit* | As Received<br>Limit of<br>Quantitation | Dilution<br>Factor |
|------------|-----------------------------|----------------|-----------------------|---|---|--------------------|
| GC/MS      | Volatiles SW-846            | 8260B          | mg/kg                 | mg/kg                                     | mg/kg                                   |                    |
| 10237      | t-Amyl methyl ether         | 994-05-8       | N D                   | 0 001                                     | 0 005                                   | 0 99               |
| 10237      | Benzene                     | 71-43-2        | N.D.                  | 0.0005                                    | 0.005                                   | 0.99               |
| 10237      | t-Butyl alcohol             | 75-65-0        | N.D.                  | 0.020                                     | 0.099                                   | 0.99               |
| 10237      | Ethyl t-butyl ether         | 637-92-3       | N.D.                  | 0.001                                     | 0.005                                   | 0.99               |
| 10237      | Ethylbenzene                | 100-41-4       | N.D.                  | 0.001                                     | 0.005                                   | 0.99               |
| 10237      | di-Isopropyl ether          | 108-20-3       | N.D.                  | 0.001                                     | 0.005                                   | 0.99               |
| 10237      | Methyl Tertiary Butyl Ether | 1634-04-4      | N.D.                  | 0.0005                                    | 0.005                                   | 0.99               |
| 10237      | Toluene                     | 108-88-3       | N.D.                  | 0.001                                     | 0.005                                   | 0.99               |
| 10237      | Xylene (Total)              | 1330-20-7      | N.D.                  | 0.001                                     | 0.005                                   | 0.99               |
| GC Vol     | latiles SW-846              | 8015B modified | mg/kg                 | mg/kg                                     | mg/kg                                   |                    |
| 01725      | TPH-GRO N. CA soil C6-C12   | n.a.           | N.D.                  | 1   | 1                                       | 24.75              |

#### General Sample Comments

State of California Lab Certification No. 2501

|            | Laboratory Sample Analysis Record |                          |        |              |                          |       |                  |                    |  |  |
|------------|-----------------------------------|--------------------------|--------|--------------|--------------------------|-------|------------------|--------------------|--|--|
| CAT<br>No. | Analysis Name                     | Method                   | Trial# | Batch#       | Analysis<br>Date and Tir | ne    | Analyst          | Dilution<br>Factor |  |  |
| 10237      | BTEX + 5 Oxygenates 8260<br>Soil  | SW-846 8260B             | 1      | B121071AA    | 04/17/2012               | 03:20 | Andrea E Lando   | 0.99               |  |  |
| 00374      | GC/MS - Bulk Soil Prep            | SW-846 5035A<br>Modified | 1      | 201210527379 | 04/14/2012               | 22:30 | Scott W Freisher | n.a.               |  |  |
| 00374      | GC/MS - Bulk Soil Prep            | SW-846 5035A<br>Modified | 2      | 201210527379 | 04/14/2012               | 22:30 | Scott W Freisher | n.a.               |  |  |
| 06646      | GC/MS HL Bulk Sample Prep         | SW-846 5035A<br>Modified | 1      | 201210527379 | 04/14/2012               | 19:47 | Scott W Freisher | n.a.               |  |  |
| 01725      | TPH-GRO N. CA soil C6-C12         | SW-846 8015B<br>modified | 1      | 12108A16A    | 04/17/2012               | 21:45 | Marie D John     | 24.75              |  |  |
| 01150      | GC - Bulk Soil Prep               | SW-846 5035A<br>Modified | 1      | 201210527379 | 04/14/2012               | 19:48 | Scott W Freisher | n.a.               |  |  |



# **Analysis Report**

Account

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LLI Sample # SW 6616831 LLI Group # 1302261

# 10880

## Sample Description: B-9-S-29.5-120412 Grab Soil Facility# 93600 CRAW 2200 Telegraph-Oakland T0600161613 B-9

### Project Name: 93600

Collected: 04/12/2012 09:55 by SP

Submitted: 04/14/2012 10:00 Reported: 04/26/2012 17:41 ChevronTexaco 6001 Bollinger Canyon Rd L4310 San Ramon CA 94583

### 00929

| CAT<br>No. | Analysis Name            | CAS Number         | As Received<br>Result | As Received<br>Method<br>Detection Limit* | As Received<br>Limit of<br>Quantitation | Dilution<br>Factor |
|------------|--------------------------|--------------------|-----------------------|---|---|--------------------|
| GC/MS      | Volatiles SW-3           | 846 8260B          | mg/kg                 | mg/kg                                     | mg/kg                                   |                    |
| 10237      | t-Amyl methyl ether      | 994-05-8           | N.D.                  | 0.001                                     | 0.005                                   | 1.02               |
| 10237      | Benzene                  | 71-43-2            | N.D.                  | 0.0005                                    | 0.005                                   | 1.02               |
| 10237      | t-Butyl alcohol          | 75-65-0            | N.D.                  | 0.020                                     | 0.10                                    | 1.02               |
| 10237      | Ethyl t-butyl ether      | 637-92-3           | N.D.                  | 0.001                                     | 0.005                                   | 1.02               |
| 10237      | Ethylbenzene             | 100-41-4           | N.D.                  | 0.001                                     | 0.005                                   | 1.02               |
| 10237      | di-Isopropyl ether       | 108-20-3           | N.D.                  | 0.001                                     | 0.005                                   | 1.02               |
| 10237      | Methyl Tertiary Butyl Et | her 1634-04-4      | N.D.                  | 0.0005                                    | 0.005                                   | 1.02               |
| 10237      | Toluene                  | 108-88-3           | N.D.                  | 0.001                                     | 0.005                                   | 1.02               |
| 10237      | Xylene (Total)           | 1330-20-7          | N.D.                  | 0.001                                     | 0.005                                   | 1.02               |
| GC Vol     | atiles SW-3              | 846 8015B modified | mg/kg                 | mg/kg                                     | mg/kg                                   |                    |
| 01725      | TPH-GRO N. CA soil C6-C1 | 2 n.a.             | N.D.                  | 1   | 1                                       | 23.83              |

#### General Sample Comments

State of California Lab Certification No. 2501

|            | Laboratory Sample Analysis Record |                          |        |              |                          |       |                  |                    |  |  |
|------------|-----------------------------------|--------------------------|--------|--------------|--------------------------|-------|------------------|--------------------|--|--|
| CAT<br>No. | Analysis Name                     | Method                   | Trial# | Batch#       | Analysis<br>Date and Tir | ne    | Analyst          | Dilution<br>Factor |  |  |
| 10237      | BTEX + 5 Oxygenates 8260<br>Soil  | SW-846 8260B             | 1      | B121071AA    | 04/17/2012               | 00:21 | Andrea E Lando   | 1.02               |  |  |
| 00374      | GC/MS - Bulk Soil Prep            | SW-846 5035A<br>Modified | 1      | 201210527379 | 04/14/2012               | 22:30 | Scott W Freisher | n.a.               |  |  |
| 00374      | GC/MS - Bulk Soil Prep            | SW-846 5035A<br>Modified | 2      | 201210527379 | 04/14/2012               | 22:30 | Scott W Freisher | n.a.               |  |  |
| 06646      | GC/MS HL Bulk Sample Prep         | SW-846 5035A<br>Modified | 1      | 201210527379 | 04/14/2012               | 19:51 | Scott W Freisher | n.a.               |  |  |
| 01725      | TPH-GRO N. CA soil C6-C12         | SW-846 8015B<br>modified | 1      | 12108A16A    | 04/17/2012               | 22:23 | Marie D John     | 23.83              |  |  |
| 01150      | GC - Bulk Soil Prep               | SW-846 5035A<br>Modified | 1      | 201210527379 | 04/14/2012               | 19:50 | Scott W Freisher | n.a.               |  |  |



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LLI Sample # SW 6616832 LLI Group # 1302261

# 10880

## Sample Description: B-10-S-5-120412 Grab Soil Facility# 93600 CRAW 2200 Telegraph-Oakland T0600161613 B-10

#### Project Name: 93600

Collected: 04/12/2012 11:05 by SP

Submitted: 04/14/2012 10:00 Reported: 04/26/2012 17:41 ChevronTexaco 6001 Bollinger Canyon Rd L4310 San Ramon CA 94583

### 01005

| CAT<br>No. | Analysis Name        |         | CAS Number     | As Received<br>Result | As Received<br>Method<br>Detection Limit* | As Received<br>Limit of<br>Quantitation | Dilution<br>Factor |
|------------|----------------------|---------|----------------|-----------------------|---|---|--------------------|
| GC/MS      | Volatiles            | SW-846  | 8260B          | mg/kg                 | mg/kg                                     | mg/kg                                   |                    |
| 10237      | t-Amyl methyl ether  |         | 994-05-8       | N.D.                  | 0.001                                     | 0.005                                   | 1.02               |
| 10237      | Benzene              |         | 71-43-2        | N.D.                  | 0.0005                                    | 0.005                                   | 1.02               |
| 10237      | t-Butyl alcohol      |         | 75-65-0        | N.D.                  | 0.020                                     | 0.10                                    | 1.02               |
| 10237      | Ethyl t-butyl ether  |         | 637-92-3       | N.D.                  | 0.001                                     | 0.005                                   | 1.02               |
| 10237      | Ethylbenzene         |         | 100-41-4       | N.D.                  | 0.001                                     | 0.005                                   | 1.02               |
| 10237      | di-Isopropyl ether   |         | 108-20-3       | N.D.                  | 0.001                                     | 0.005                                   | 1.02               |
| 10237      | Methyl Tertiary Buty | l Ether | 1634-04-4      | N.D.                  | 0.0005                                    | 0.005                                   | 1.02               |
| 10237      | Toluene              |         | 108-88-3       | N.D.                  | 0.001                                     | 0.005                                   | 1.02               |
| 10237      | Xylene (Total)       |         | 1330-20-7      | N.D.                  | 0.001                                     | 0.005                                   | 1.02               |
| GC Vol     | atiles               | SW-846  | 8015B modified | mg/kg                 | mg/kg                                     | mg/kg                                   |                    |
| 01725      | TPH-GRO N. CA soil C | 6-C12   | n.a.           | N.D.                  | 1.0                                       | 1.0                                     | 25.56              |

#### General Sample Comments

State of California Lab Certification No. 2501

|            | Laboratory Sample Analysis Record |                          |        |              |                          |       |                  |                    |  |  |
|------------|-----------------------------------|--------------------------|--------|--------------|--------------------------|-------|------------------|--------------------|--|--|
| CAT<br>No. | Analysis Name                     | Method                   | Trial# | Batch#       | Analysis<br>Date and Tir | ne    | Analyst          | Dilution<br>Factor |  |  |
| 10237      | BTEX + 5 Oxygenates 8260<br>Soil  | SW-846 8260B             | 1      | B121071AA    | 04/17/2012               | 00:43 | Andrea E Lando   | 1.02               |  |  |
| 00374      | GC/MS - Bulk Soil Prep            | SW-846 5035A<br>Modified | 1      | 201210527379 | 04/14/2012               | 22:30 | Scott W Freisher | n.a.               |  |  |
| 00374      | GC/MS - Bulk Soil Prep            | SW-846 5035A<br>Modified | 2      | 201210527379 | 04/14/2012               | 22:30 | Scott W Freisher | n.a.               |  |  |
| 06646      | GC/MS HL Bulk Sample Prep         | SW-846 5035A<br>Modified | 1      | 201210527379 | 04/14/2012               | 19:55 | Scott W Freisher | n.a.               |  |  |
| 01725      | TPH-GRO N. CA soil C6-C12         | SW-846 8015B<br>modified | 1      | 12108A16A    | 04/17/2012               | 23:01 | Marie D John     | 25.56              |  |  |
| 01150      | GC - Bulk Soil Prep               | SW-846 5035A<br>Modified | 1      | 201210527379 | 04/14/2012               | 19:54 | Scott W Freisher | n.a.               |  |  |



# **Analysis Report**

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LLI Sample # SW 6616833 LLI Group # 1302261

# 10880

## Sample Description: B-10-S-10-120412 Grab Soil Facility# 93600 CRAW 2200 Telegraph-Oakland T0600161613 B-10

#### Project Name: 93600

Collected: 04/12/2012 11:20 by SP

Submitted: 04/14/2012 10:00 Reported: 04/26/2012 17:41 ChevronTexaco 6001 Bollinger Canyon Rd L4310 San Ramon CA 94583

### 01010

| CAT<br>No. | Analysis Name               | CAS Number     | As Received<br>Result | As Received<br>Method<br>Detection Limit* | As Received<br>Limit of<br>Quantitation | Dilution<br>Factor |
|------------|-----------------------------|----------------|-----------------------|---|---|--------------------|
| GC/MS      | Volatiles SW-846            | 8260B          | mg/kg                 | mg/kg                                     | mg/kg                                   |                    |
| 10237      | t-Amyl methyl ether         | 994-05-8       | N.D.                  | 0.001                                     | 0.005                                   | 1.03               |
| 10237      | Benzene                     | 71-43-2        | N.D.                  | 0.0005                                    | 0.005                                   | 1.03               |
| 10237      | t-Butyl alcohol             | 75-65-0        | N.D.                  | 0.021                                     | 0.10                                    | 1.03               |
| 10237      | Ethyl t-butyl ether         | 637-92-3       | N.D.                  | 0.001                                     | 0.005                                   | 1.03               |
| 10237      | Ethylbenzene                | 100-41-4       | 0.001                 | 0.001                                     | 0.005                                   | 1.03               |
| 10237      | di-Isopropyl ether          | 108-20-3       | N.D.                  | 0.001                                     | 0.005                                   | 1.03               |
| 10237      | Methyl Tertiary Butyl Ether | 1634-04-4      | 0.001                 | 0.0005                                    | 0.005                                   | 1.03               |
| 10237      | Toluene                     | 108-88-3       | N.D.                  | 0.001                                     | 0.005                                   | 1.03               |
| 10237      | Xylene (Total)              | 1330-20-7      | N.D.                  | 0.001                                     | 0.005                                   | 1.03               |
| GC Vol     | latiles SW-846              | 8015B modified | mg/kg                 | mg/kg                                     | mg/kg                                   |                    |
| 01725      | TPH-GRO N. CA soil C6-C12   | n.a.           | 4.9                   | 1   | 1                                       | 24.37              |

#### General Sample Comments

State of California Lab Certification No. 2501

|            | Laboratory Sample Analysis Record |                          |        |              |                          |       |                  |                    |  |  |
|------------|-----------------------------------|--------------------------|--------|--------------|--------------------------|-------|------------------|--------------------|--|--|
| CAT<br>No. | Analysis Name                     | Method                   | Trial# | Batch#       | Analysis<br>Date and Tir | ne    | Analyst          | Dilution<br>Factor |  |  |
| 10237      | BTEX + 5 Oxygenates 8260<br>Soil  | SW-846 8260B             | 1      | B121071AA    | 04/17/2012               | 04:04 | Andrea E Lando   | 1.03               |  |  |
| 00374      | GC/MS - Bulk Soil Prep            | SW-846 5035A<br>Modified | 1      | 201210527379 | 04/14/2012               | 22:30 | Scott W Freisher | n.a.               |  |  |
| 00374      | GC/MS - Bulk Soil Prep            | SW-846 5035A<br>Modified | 2      | 201210527379 | 04/14/2012               | 22:30 | Scott W Freisher | n.a.               |  |  |
| 06646      | GC/MS HL Bulk Sample Prep         | SW-846 5035A<br>Modified | 1      | 201210527379 | 04/14/2012               | 19:58 | Scott W Freisher | n.a.               |  |  |
| 01725      | TPH-GRO N. CA soil C6-C12         | SW-846 8015B<br>modified | 1      | 12108A16A    | 04/17/2012               | 23:39 | Marie D John     | 24.37              |  |  |
| 01150      | GC - Bulk Soil Prep               | SW-846 5035A<br>Modified | 1      | 201210527379 | 04/14/2012               | 19:58 | Scott W Freisher | n.a.               |  |  |



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## Sample Description: B-10-S-15-120412 Grab Soil Facility# 93600 CRAW 2200 Telegraph-Oakland T0600161613 B-10

## LLI Sample # SW 6616834 LLI Group # 1302261 Account # 10880

### Project Name: 93600

|  | Collected: | 04/12/2012 | 11:34 | by SF |
|--|------------|------------|-------|-------|
|--|------------|------------|-------|-------|

Submitted: 04/14/2012 10:00 Reported: 04/26/2012 17:41 ChevronTexaco 6001 Bollinger Canyon Rd L4310 San Ramon CA 94583

### 01015

| CAT<br>No. | Analysis Name        |         | CAS Number     | As Received<br>Result | As Received<br>Method<br>Detection Limit* | As Received<br>Limit of<br>Quantitation | Dilution<br>Factor |
|------------|----------------------|---------|----------------|-----------------------|---|---|--------------------|
| GC/MS      | Volatiles            | SW-846  | 8260B          | mg/kg                 | mg/kg                                     | mg/kg                                   |                    |
| 10237      | t-Amyl methyl ether  |         | 994-05-8       | N.D.                  | 0.001                                     | 0.005                                   | 0.99               |
| 10237      | Benzene              |         | 71-43-2        | N.D.                  | 0.0005                                    | 0.005                                   | 0.99               |
| 10237      | t-Butyl alcohol      |         | 75-65-0        | N.D.                  | 0.020                                     | 0.099                                   | 0.99               |
| 10237      | Ethyl t-butyl ether  |         | 637-92-3       | N.D.                  | 0.001                                     | 0.005                                   | 0.99               |
| 10237      | Ethylbenzene         |         | 100-41-4       | 0.047                 | 0.001                                     | 0.005                                   | 0.99               |
| 10237      | di-Isopropyl ether   |         | 108-20-3       | N.D.                  | 0.001                                     | 0.005                                   | 0.99               |
| 10237      | Methyl Tertiary Buty | l Ether | 1634-04-4      | N.D.                  | 0.0005                                    | 0.005                                   | 0.99               |
| 10237      | Toluene              |         | 108-88-3       | N.D.                  | 0.001                                     | 0.005                                   | 0.99               |
| 10237      | Xylene (Total)       |         | 1330-20-7      | 0.062                 | 0.001                                     | 0.005                                   | 0.99               |
| GC Vol     | atiles               | SW-846  | 8015B modified | mg/kg                 | mg/kg                                     | mg/kg                                   |                    |
| 01725      | TPH-GRO N. CA soil C | 6-C12   | n.a.           | 2.9                   | 0.9                                       | 0.9                                     | 23.26              |

#### General Sample Comments

State of California Lab Certification No. 2501

|            | Laboratory Sample Analysis Record |                          |        |              |                          |       |                  |                    |  |  |
|------------|-----------------------------------|--------------------------|--------|--------------|--------------------------|-------|------------------|--------------------|--|--|
| CAT<br>No. | Analysis Name                     | Method                   | Trial# | Batch#       | Analysis<br>Date and Tim | ne    | Analyst          | Dilution<br>Factor |  |  |
| 10237      | BTEX + 5 Oxygenates 8260<br>Soil  | SW-846 8260B             | 1      | B121071AA    | 04/17/2012               | 04:26 | Andrea E Lando   | 0.99               |  |  |
| 00374      | GC/MS - Bulk Soil Prep            | SW-846 5035A<br>Modified | 1      | 201210527379 | 04/14/2012               | 22:30 | Scott W Freisher | n.a.               |  |  |
| 00374      | GC/MS - Bulk Soil Prep            | SW-846 5035A<br>Modified | 2      | 201210527379 | 04/14/2012               | 22:30 | Scott W Freisher | n.a.               |  |  |
| 06646      | GC/MS HL Bulk Sample Prep         | SW-846 5035A<br>Modified | 1      | 201210527379 | 04/14/2012               | 20:04 | Scott W Freisher | n.a.               |  |  |
| 01725      | TPH-GRO N. CA soil C6-C12         | SW-846 8015B<br>modified | 1      | 12108A16A    | 04/18/2012               | 00:17 | Marie D John     | 23.26              |  |  |
| 01150      | GC - Bulk Soil Prep               | SW-846 5035A<br>Modified | 1      | 201210527379 | 04/14/2012               | 20:06 | Scott W Freisher | n.a.               |  |  |



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LLI Sample # SW 6616835 LLI Group # 1302261

# 10880

## Sample Description: B-10-S-20-120412 Grab Soil Facility# 93600 CRAW 2200 Telegraph-Oakland T0600161613 B-10

#### Project Name: 93600

| Collected: | 04/12/2012 | 12:08 | by SP |
|------------|------------|-------|-------|
| COTICCCCC  |            | 12.00 | Dy Dr |

Submitted: 04/14/2012 10:00 Reported: 04/26/2012 17:41 ChevronTexaco 6001 Bollinger Canyon Rd L4310 San Ramon CA 94583

### 01020

| CAT<br>No. | Analysis Name             | CAS Number        | As Received<br>Result | As Received<br>Method<br>Detection Limit* | As Received<br>Limit of<br>Quantitation | Dilution<br>Factor |
|------------|---------------------------|-------------------|-----------------------|---|---|--------------------|
| GC/MS      | Volatiles SW-8            | 846 8260B         | mg/kg                 | mg/kg                                     | mg/kg                                   |                    |
| 10237      | t-Amyl methyl ether       | 994-05-8          | N.D.                  | 0.001                                     | 0.005                                   | 1.04               |
| 10237      | Benzene                   | 71-43-2           | N.D.                  | 0.0005                                    | 0.005                                   | 1.04               |
| 10237      | t-Butyl alcohol           | 75-65-0           | N.D.                  | 0.021                                     | 0.10                                    | 1.04               |
| 10237      | Ethyl t-butyl ether       | 637-92-3          | N.D.                  | 0.001                                     | 0.005                                   | 1.04               |
| 10237      | Ethylbenzene              | 100-41-4          | N.D.                  | 0.001                                     | 0.005                                   | 1.04               |
| 10237      | di-Isopropyl ether        | 108-20-3          | N.D.                  | 0.001                                     | 0.005                                   | 1.04               |
| 10237      | Methyl Tertiary Butyl Eth | ler 1634-04-4     | N.D.                  | 0.0005                                    | 0.005                                   | 1.04               |
| 10237      | Toluene                   | 108-88-3          | N.D.                  | 0.001                                     | 0.005                                   | 1.04               |
| 10237      | Xylene (Total)            | 1330-20-7         | N.D.                  | 0.001                                     | 0.005                                   | 1.04               |
| GC Vol     | latiles SW-8              | 46 8015B modified | mg/kg                 | mg/kg                                     | mg/kg                                   |                    |
| 01725      | TPH-GRO N. CA soil C6-C12 | n.a.              | N.D.                  | 0.9                                       | 0.9                                     | 23.06              |

#### General Sample Comments

State of California Lab Certification No. 2501

|            | Laboratory Sample Analysis Record |                          |        |              |                          |       |                  |                    |  |  |
|------------|-----------------------------------|--------------------------|--------|--------------|--------------------------|-------|------------------|--------------------|--|--|
| CAT<br>No. | Analysis Name                     | Method                   | Trial# | Batch#       | Analysis<br>Date and Tim | ne    | Analyst          | Dilution<br>Factor |  |  |
| 10237      | BTEX + 5 Oxygenates 8260<br>Soil  | SW-846 8260B             | 1      | B121071AA    | 04/17/2012               | 01:05 | Andrea E Lando   | 1.04               |  |  |
| 00374      | GC/MS - Bulk Soil Prep            | SW-846 5035A<br>Modified | 1      | 201210527379 | 04/14/2012               | 22:31 | Scott W Freisher | n.a.               |  |  |
| 00374      | GC/MS - Bulk Soil Prep            | SW-846 5035A<br>Modified | 2      | 201210527379 | 04/14/2012               | 22:31 | Scott W Freisher | n.a.               |  |  |
| 06646      | GC/MS HL Bulk Sample Prep         | SW-846 5035A<br>Modified | 1      | 201210527379 | 04/14/2012               | 20:10 | Scott W Freisher | n.a.               |  |  |
| 01725      | TPH-GRO N. CA soil C6-C12         | SW-846 8015B<br>modified | 1      | 12108A16A    | 04/18/2012               | 00:55 | Marie D John     | 23.06              |  |  |
| 01150      | GC - Bulk Soil Prep               | SW-846 5035A<br>Modified | 1      | 201210527379 | 04/14/2012               | 20:09 | Scott W Freisher | n.a.               |  |  |



# **Analysis Report**

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LLI Sample # SW 6616836 LLI Group # 1302261

# 10880

## Sample Description: B-10-S-25-120412 Grab Soil Facility# 93600 CRAW 2200 Telegraph-Oakland T0600161613 B-10

#### Project Name: 93600

Collected: 04/12/2012 12:16 by SP

Submitted: 04/14/2012 10:00 Reported: 04/26/2012 17:41 ChevronTexaco 6001 Bollinger Canyon Rd L4310 San Ramon CA 94583

### 01025

| CAT<br>No. | Analysis Name          |       | CAS Number     | As Received<br>Result | As Received<br>Method<br>Detection Limit* | As Received<br>Limit of<br>Quantitation | Dilution<br>Factor |
|------------|------------------------|-------|----------------|-----------------------|---|---|--------------------|
| GC/MS      | Volatiles SV           | w-846 | 8260B          | mg/kg                 | mg/kg                                     | mg/kg                                   |                    |
| 10237      | t-Amyl methyl ether    |       | 994-05-8       | N.D.                  | 0.001                                     | 0.005                                   | 1.02               |
| 10237      | Benzene                |       | 71-43-2        | N.D.                  | 0.0005                                    | 0.005                                   | 1.02               |
| 10237      | t-Butyl alcohol        |       | 75-65-0        | N.D.                  | 0.020                                     | 0.10                                    | 1.02               |
| 10237      | Ethyl t-butyl ether    |       | 637-92-3       | N.D.                  | 0.001                                     | 0.005                                   | 1.02               |
| 10237      | Ethylbenzene           |       | 100-41-4       | N.D.                  | 0.001                                     | 0.005                                   | 1.02               |
| 10237      | di-Isopropyl ether     |       | 108-20-3       | N.D.                  | 0.001                                     | 0.005                                   | 1.02               |
| 10237      | Methyl Tertiary Butyl  | Ether | 1634-04-4      | N.D.                  | 0.0005                                    | 0.005                                   | 1.02               |
| 10237      | Toluene                |       | 108-88-3       | N.D.                  | 0.001                                     | 0.005                                   | 1.02               |
| 10237      | Xylene (Total)         |       | 1330-20-7      | N.D.                  | 0.001                                     | 0.005                                   | 1.02               |
| GC Vol     | latiles SV             | w-846 | 8015B modified | mg/kg                 | mg/kg                                     | mg/kg                                   |                    |
| 01725      | TPH-GRO N. CA soil C6- | -C12  | n.a.           | N.D.                  | 1.0                                       | 1.0                                     | 25.64              |

#### General Sample Comments

State of California Lab Certification No. 2501

|            | Laboratory Sample Analysis Record |                          |        |              |                          |       |                  |                    |  |  |
|------------|-----------------------------------|--------------------------|--------|--------------|--------------------------|-------|------------------|--------------------|--|--|
| CAT<br>No. | Analysis Name                     | Method                   | Trial# | Batch#       | Analysis<br>Date and Tim | ne    | Analyst          | Dilution<br>Factor |  |  |
| 10237      | BTEX + 5 Oxygenates 8260<br>Soil  | SW-846 8260B             | 1      | B121071AA    | 04/17/2012               | 01:28 | Andrea E Lando   | 1.02               |  |  |
| 00374      | GC/MS - Bulk Soil Prep            | SW-846 5035A<br>Modified | 1      | 201210527379 | 04/14/2012               | 22:31 | Scott W Freisher | n.a.               |  |  |
| 00374      | GC/MS - Bulk Soil Prep            | SW-846 5035A<br>Modified | 2      | 201210527379 | 04/14/2012               | 22:31 | Scott W Freisher | n.a.               |  |  |
| 06646      | GC/MS HL Bulk Sample Prep         | SW-846 5035A<br>Modified | 1      | 201210527379 | 04/14/2012               | 20:19 | Scott W Freisher | n.a.               |  |  |
| 01725      | TPH-GRO N. CA soil C6-C12         | SW-846 8015B<br>modified | 1      | 12108A16A    | 04/18/2012               | 02:11 | Marie D John     | 25.64              |  |  |
| 01150      | GC - Bulk Soil Prep               | SW-846 5035A<br>Modified | 1      | 201210527379 | 04/14/2012               | 20:17 | Scott W Freisher | n.a.               |  |  |



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LLI Sample # SW 6616837 LLI Group # 1302261

# 10880

## Sample Description: B-10-S-29.5-120412 Grab Soil Facility# 93600 CRAW 2200 Telegraph-Oakland T0600161613 B-10

## Project Name: 93600

| Collected: | 04/1 | 12/2012 | 12:18 | hv | ςр |
|------------|------|---------|-------|----|----|
| COTTECLEU  | 04/1 |         | 12.10 | Dy | SP |

Submitted: 04/14/2012 10:00 Reported: 04/26/2012 17:41 ChevronTexaco 6001 Bollinger Canyon Rd L4310 San Ramon CA 94583

### 01029

| CAT<br>No. | Analysis Name             | CAS Number        | As Received<br>Result | As Received<br>Method<br>Detection Limit* | As Received<br>Limit of<br>Quantitation | Dilution<br>Factor |
|------------|---------------------------|-------------------|-----------------------|---|---|--------------------|
| GC/MS      | Volatiles SW-8            | 46 8260B          | mg/kg                 | mg/kg                                     | mg/kg                                   |                    |
| 10237      | t-Amyl methyl ether       | 994-05-8          | N.D.                  | 0.001                                     | 0.005                                   | 1                  |
| 10237      | Benzene                   | 71-43-2           | N.D.                  | 0.0005                                    | 0.005                                   | 1                  |
| 10237      | t-Butyl alcohol           | 75-65-0           | N.D.                  | 0.020                                     | 0.10                                    | 1                  |
| 10237      | Ethyl t-butyl ether       | 637-92-3          | N.D.                  | 0.001                                     | 0.005                                   | 1                  |
| 10237      | Ethylbenzene              | 100-41-4          | N.D.                  | 0.001                                     | 0.005                                   | 1                  |
| 10237      | di-Isopropyl ether        | 108-20-3          | N.D.                  | 0.001                                     | 0.005                                   | 1                  |
| 10237      | Methyl Tertiary Butyl Eth | er 1634-04-4      | N.D.                  | 0.0005                                    | 0.005                                   | 1                  |
| 10237      | Toluene                   | 108-88-3          | N.D.                  | 0.001                                     | 0.005                                   | 1                  |
| 10237      | Xylene (Total)            | 1330-20-7         | N.D.                  | 0.001                                     | 0.005                                   | 1                  |
| GC Vol     | latiles SW-8              | 46 8015B modified | mg/kg                 | mg/kg                                     | mg/kg                                   |                    |
| 01725      | TPH-GRO N. CA soil C6-C12 | n.a.              | N.D.                  | 1   | 1                                       | 23.81              |

### General Sample Comments

State of California Lab Certification No. 2501

|            | Laboratory Sample Analysis Record |                          |        |              |                          |       |                  |                    |  |  |  |
|------------|-----------------------------------|--------------------------|--------|--------------|--------------------------|-------|------------------|--------------------|--|--|--|
| CAT<br>No. | Analysis Name                     | Method                   | Trial# | Batch#       | Analysis<br>Date and Tim | ne    | Analyst          | Dilution<br>Factor |  |  |  |
| 10237      | BTEX + 5 Oxygenates 8260<br>Soil  | SW-846 8260B             | 1      | B121071AA    | 04/17/2012               | 01:50 | Andrea E Lando   | 1                  |  |  |  |
| 00374      | GC/MS - Bulk Soil Prep            | SW-846 5035A<br>Modified | 1      | 201210527379 | 04/14/2012               | 22:31 | Scott W Freisher | n.a.               |  |  |  |
| 00374      | GC/MS - Bulk Soil Prep            | SW-846 5035A<br>Modified | 2      | 201210527379 | 04/14/2012               | 22:31 | Scott W Freisher | n.a.               |  |  |  |
| 06646      | GC/MS HL Bulk Sample Prep         | SW-846 5035A<br>Modified | 1      | 201210527379 | 04/14/2012               | 20:26 | Scott W Freisher | n.a.               |  |  |  |
| 01725      | TPH-GRO N. CA soil C6-C12         | SW-846 8015B<br>modified | 1      | 12108A16A    | 04/18/2012               | 02:54 | Marie D John     | 23.81              |  |  |  |
| 01150      | GC - Bulk Soil Prep               | SW-846 5035A<br>Modified | 1      | 201210527379 | 04/14/2012               | 20:26 | Scott W Freisher | n.a.               |  |  |  |



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LLI Sample # SW 6616838 LLI Group # 1302261

# 10880

## Sample Description: B-11-S-5-120412 Grab Soil Facility# 93600 CRAW 2200 Telegraph-Oakland T0600161613 B-11

### Project Name: 93600

Collected: 04/12/2012 13:40 by SP

Submitted: 04/14/2012 10:00 Reported: 04/26/2012 17:41

01105

| CAT<br>No. | Analysis Name               | CAS Number     | As Received<br>Result | As Received<br>Method<br>Detection Limit* | As Received<br>Limit of<br>Quantitation | Dilution<br>Factor |
|------------|-----------------------------|----------------|-----------------------|---|---|--------------------|
| GC/MS      | Volatiles SW-846            | 8260B          | mg/kg                 | mg/kg                                     | mg/kg                                   |                    |
| 10237      | t-Amyl methyl ether         | 994-05-8       | N.D.                  | 0.0009                                    | 0.005                                   | 0.93               |
| 10237      | Benzene                     | 71-43-2        | N.D.                  | 0.0005                                    | 0.005                                   | 0.93               |
| 10237      | t-Butyl alcohol             | 75-65-0        | N.D.                  | 0.019                                     | 0.093                                   | 0.93               |
| 10237      | Ethyl t-butyl ether         | 637-92-3       | N.D.                  | 0.0009                                    | 0.005                                   | 0.93               |
| 10237      | Ethylbenzene                | 100-41-4       | N.D.                  | 0.0009                                    | 0.005                                   | 0.93               |
| 10237      | di-Isopropyl ether          | 108-20-3       | N.D.                  | 0.0009                                    | 0.005                                   | 0.93               |
| 10237      | Methyl Tertiary Butyl Ether | 1634-04-4      | N.D.                  | 0.0005                                    | 0.005                                   | 0.93               |
| 10237      | Toluene                     | 108-88-3       | N.D.                  | 0.0009                                    | 0.005                                   | 0.93               |
| 10237      | Xylene (Total)              | 1330-20-7      | N.D.                  | 0.0009                                    | 0.005                                   | 0.93               |
| GC Vol     | atiles SW-846               | 8015B modified | mg/kg                 | mg/kg                                     | mg/kg                                   |                    |
| 01725      | TPH-GRO N. CA soil C6-C12   | n.a.           | N.D.                  | 1.0                                       | 1.0                                     | 25.96              |

ChevronTexaco

San Ramon CA 94583

6001 Bollinger Canyon Rd L4310

#### General Sample Comments

State of California Lab Certification No. 2501

|            | Laboratory Sample Analysis Record |                          |        |              |                          |       |                  |                    |  |  |
|------------|-----------------------------------|--------------------------|--------|--------------|--------------------------|-------|------------------|--------------------|--|--|
| CAT<br>No. | Analysis Name                     | Method                   | Trial# | Batch#       | Analysis<br>Date and Tim | ne    | Analyst          | Dilution<br>Factor |  |  |
| 10237      | BTEX + 5 Oxygenates 8260<br>Soil  | SW-846 8260B             | 1      | B121071AA    | 04/17/2012               | 02:13 | Andrea E Lando   | 0.93               |  |  |
| 00374      | GC/MS - Bulk Soil Prep            | SW-846 5035A<br>Modified | 1      | 201210527379 | 04/14/2012               | 22:31 | Scott W Freisher | n.a.               |  |  |
| 00374      | GC/MS - Bulk Soil Prep            | SW-846 5035A<br>Modified | 2      | 201210527379 | 04/14/2012               | 22:31 | Scott W Freisher | n.a.               |  |  |
| 06646      | GC/MS HL Bulk Sample Prep         | SW-846 5035A<br>Modified | 1      | 201210527379 | 04/14/2012               | 20:29 | Scott W Freisher | n.a.               |  |  |
| 01725      | TPH-GRO N. CA soil C6-C12         | SW-846 8015B<br>modified | 1      | 12108A16A    | 04/18/2012               | 03:32 | Marie D John     | 25.96              |  |  |
| 01150      | GC - Bulk Soil Prep               | SW-846 5035A<br>Modified | 1      | 201210527379 | 04/14/2012               | 20:29 | Scott W Freisher | n.a.               |  |  |



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LLI Sample # SW 6616839 LLI Group # 1302261

# 10880

## Sample Description: B-11-S-10-120412 Grab Soil Facility# 93600 CRAW 2200 Telegraph-Oakland T0600161613 B-11

#### Project Name: 93600

Collected: 04/12/2012 13:50 by SP

Submitted: 04/14/2012 10:00 Reported: 04/26/2012 17:41

Reported: 04

01110

| CAT<br>No. | Analysis Name               | CAS Number     | As Received<br>Result | As Received<br>Method<br>Detection Limit* | As Received<br>Limit of<br>Quantitation | Dilution<br>Factor |
|------------|-----------------------------|----------------|-----------------------|---|---|--------------------|
| GC/MS      | Volatiles SW-846            | 8260B          | mg/kg                 | mg/kg                                     | mg/kg                                   |                    |
| 10237      | t-Amyl methyl ether         | 994-05-8       | N.D.                  | 0.001                                     | 0.005                                   | 1.05               |
| 10237      | Benzene                     | 71-43-2        | N.D.                  | 0.0005                                    | 0.005                                   | 1.05               |
| 10237      | t-Butyl alcohol             | 75-65-0        | N.D.                  | 0.021                                     | 0.11                                    | 1.05               |
| 10237      | Ethyl t-butyl ether         | 637-92-3       | N.D.                  | 0.001                                     | 0.005                                   | 1.05               |
| 10237      | Ethylbenzene                | 100-41-4       | N.D.                  | 0.001                                     | 0.005                                   | 1.05               |
| 10237      | di-Isopropyl ether          | 108-20-3       | N.D.                  | 0.001                                     | 0.005                                   | 1.05               |
| 10237      | Methyl Tertiary Butyl Ether | 1634-04-4      | N.D.                  | 0.0005                                    | 0.005                                   | 1.05               |
| 10237      | Toluene                     | 108-88-3       | N.D.                  | 0.001                                     | 0.005                                   | 1.05               |
| 10237      | Xylene (Total)              | 1330-20-7      | 0.001                 | 0.001                                     | 0.005                                   | 1.05               |
| GC Vol     | Latiles SW-846              | 8015B modified | mg/kg                 | mg/kg                                     | mg/kg                                   |                    |
| 01725      | TPH-GRO N. CA soil C6-C12   | n.a.           | 3.2                   | 1.0                                       | 1.0                                     | 26.01              |

ChevronTexaco

San Ramon CA 94583

6001 Bollinger Canyon Rd L4310

#### General Sample Comments

State of California Lab Certification No. 2501

|            | Laboratory Sample Analysis Record |                          |        |              |                          |       |                  |                    |  |  |
|------------|-----------------------------------|--------------------------|--------|--------------|--------------------------|-------|------------------|--------------------|--|--|
| CAT<br>No. | Analysis Name                     | Method                   | Trial# | Batch#       | Analysis<br>Date and Tim | ne    | Analyst          | Dilution<br>Factor |  |  |
| 10237      | BTEX + 5 Oxygenates 8260<br>Soil  | SW-846 8260B             | 1      | B121071AA    | 04/17/2012               | 03:42 | Andrea E Lando   | 1.05               |  |  |
| 00374      | GC/MS - Bulk Soil Prep            | SW-846 5035A<br>Modified | 1      | 201210527379 | 04/14/2012               | 22:31 | Scott W Freisher | n.a.               |  |  |
| 00374      | GC/MS - Bulk Soil Prep            | SW-846 5035A<br>Modified | 2      | 201210527379 | 04/14/2012               | 22:31 | Scott W Freisher | n.a.               |  |  |
| 06646      | GC/MS HL Bulk Sample Prep         | SW-846 5035A<br>Modified | 1      | 201210527379 | 04/14/2012               | 20:40 | Scott W Freisher | n.a.               |  |  |
| 01725      | TPH-GRO N. CA soil C6-C12         | SW-846 8015B<br>modified | 1      | 12108A16A    | 04/18/2012               | 04:10 | Marie D John     | 26.01              |  |  |
| 01150      | GC - Bulk Soil Prep               | SW-846 5035A<br>Modified | 1      | 201210527379 | 04/14/2012               | 20:40 | Scott W Freisher | n.a.               |  |  |



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LLI Sample # SW 6616840 LLI Group # 1302261

# 10880

## Sample Description: B-11-S-15-120412 Grab Soil Facility# 93600 CRAW 2200 Telegraph-Oakland T0600161613 B-11

## Project Name: 93600

Collected: 04/12/2012 14:05 by SP

Submitted: 04/14/2012 10:00 Reported: 04/26/2012 17:41 ChevronTexaco 6001 Bollinger Canyon Rd L4310 San Ramon CA 94583

#### 01115

| CAT<br>No. | Analysis Name               | CAS Number     | As Received<br>Result | As Received<br>Method<br>Detection Limit* | As Received<br>Limit of<br>Quantitation | Dilution<br>Factor |
|------------|-----------------------------|----------------|-----------------------|---|---|--------------------|
| GC/MS      | Volatiles SW-846            | 8260B          | mg/kg                 | mg/kg                                     | mg/kg                                   |                    |
| 10237      | t-Amyl methyl ether         | 994-05-8       | N.D.                  | 0.001                                     | 0.005                                   | 1.02               |
| 10237      | Benzene                     | 71-43-2        | N.D.                  | 0.0005                                    | 0.005                                   | 1.02               |
| 10237      | t-Butyl alcohol             | 75-65-0        | N.D.                  | 0.020                                     | 0.10                                    | 1.02               |
| 10237      | Ethyl t-butyl ether         | 637-92-3       | N.D.                  | 0.001                                     | 0.005                                   | 1.02               |
| 10237      | Ethylbenzene                | 100-41-4       | N.D.                  | 0.001                                     | 0.005                                   | 1.02               |
| 10237      | di-Isopropyl ether          | 108-20-3       | N.D.                  | 0.001                                     | 0.005                                   | 1.02               |
| 10237      | Methyl Tertiary Butyl Ether | 1634-04-4      | N.D.                  | 0.0005                                    | 0.005                                   | 1.02               |
| 10237      | Toluene                     | 108-88-3       | N.D.                  | 0.001                                     | 0.005                                   | 1.02               |
| 10237      | Xylene (Total)              | 1330-20-7      | N.D.                  | 0.001                                     | 0.005                                   | 1.02               |
| GC Vol     | latiles SW-846              | 8015B modified | mg/kg                 | mg/kg                                     | mg/kg                                   |                    |
| 01725      | TPH-GRO N. CA soil C6-C12   | n.a.           | N.D.                  | 1.0                                       | 1.0                                     | 25.48              |

#### General Sample Comments

State of California Lab Certification No. 2501

|            | Laboratory Sample Analysis Record |                          |        |              |                          |       |                  |                    |  |  |  |
|------------|-----------------------------------|--------------------------|--------|--------------|--------------------------|-------|------------------|--------------------|--|--|--|
| CAT<br>No. | Analysis Name                     | Method                   | Trial# | Batch#       | Analysis<br>Date and Tir | ne    | Analyst          | Dilution<br>Factor |  |  |  |
| 10237      | BTEX + 5 Oxygenates 8260<br>Soil  | SW-846 8260B             | 1      | B121081AA    | 04/17/2012               | 22:22 | Andrea E Lando   | 1.02               |  |  |  |
| 00374      | GC/MS - Bulk Soil Prep            | SW-846 5035A<br>Modified | 1      | 201210527379 | 04/14/2012               | 22:31 | Scott W Freisher | n.a.               |  |  |  |
| 00374      | GC/MS - Bulk Soil Prep            | SW-846 5035A<br>Modified | 2      | 201210527379 | 04/14/2012               | 22:31 | Scott W Freisher | n.a.               |  |  |  |
| 06646      | GC/MS HL Bulk Sample Prep         | SW-846 5035A<br>Modified | 1      | 201210527379 | 04/14/2012               | 20:44 | Scott W Freisher | n.a.               |  |  |  |
| 01725      | TPH-GRO N. CA soil C6-C12         | SW-846 8015B<br>modified | 1      | 12108A16A    | 04/18/2012               | 04:48 | Marie D John     | 25.48              |  |  |  |
| 01150      | GC - Bulk Soil Prep               | SW-846 5035A<br>Modified | 1      | 201210527379 | 04/14/2012               | 20:44 | Scott W Freisher | n.a.               |  |  |  |



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LLI Sample # SW 6616841 LLI Group # 1302261

# 10880

## Sample Description: B-11-S-20-120412 Grab Soil Facility# 93600 CRAW 2200 Telegraph-Oakland T0600161613 B-11

## Project Name: 93600

Collected: 04/12/2012 14:25 by SP

Submitted: 04/14/2012 10:00 Reported: 04/26/2012 17:41 ChevronTexaco 6001 Bollinger Canyon Rd L4310 San Ramon CA 94583

### 01120

| CAT<br>No. | Analysis Name           |         | CAS Number    | As Received<br>Result | As Received<br>Method<br>Detection Limit* | As Received<br>Limit of<br>Quantitation | Dilution<br>Factor |
|------------|-------------------------|---------|---------------|-----------------------|---|---|--------------------|
| GC/MS      | Volatiles SW            | -846 82 | 260B          | mg/kg                 | mg/kg                                     | mg/kg                                   |                    |
| 10237      | t-Amyl methyl ether     |         | 994-05-8      | N.D.                  | 0.001                                     | 0.005                                   | 1                  |
| 10237      | Benzene                 |         | 71-43-2       | 0.0006                | 0.0005                                    | 0.005                                   | 1                  |
| 10237      | t-Butyl alcohol         |         | 75-65-0       | N.D.                  | 0.020                                     | 0.10                                    | 1                  |
| 10237      | Ethyl t-butyl ether     |         | 637-92-3      | N.D.                  | 0.001                                     | 0.005                                   | 1                  |
| 10237      | Ethylbenzene            |         | 100-41-4      | 0.011                 | 0.001                                     | 0.005                                   | 1                  |
| 10237      | di-Isopropyl ether      |         | 108-20-3      | N.D.                  | 0.001                                     | 0.005                                   | 1                  |
| 10237      | Methyl Tertiary Butyl E | Ether   | 1634-04-4     | N.D.                  | 0.0005                                    | 0.005                                   | 1                  |
| 10237      | Toluene                 |         | 108-88-3      | N.D.                  | 0.001                                     | 0.005                                   | 1                  |
| 10237      | Xylene (Total)          |         | 1330-20-7     | 0.011                 | 0.001                                     | 0.005                                   | 1                  |
| GC Vol     | latiles SW              | -846 80 | )15B modified | mg/kg                 | mg/kg                                     | mg/kg                                   |                    |
| 01725      | TPH-GRO N. CA soil C6-C | C12     | n.a.          | N.D.                  | 0.9                                       | 0.9                                     | 22.96              |

#### General Sample Comments

State of California Lab Certification No. 2501

|            | Laboratory Sample Analysis Record |                          |        |              |                          |       |                  |                    |  |  |  |  |
|------------|-----------------------------------|--------------------------|--------|--------------|--------------------------|-------|------------------|--------------------|--|--|--|--|
| CAT<br>No. | Analysis Name                     | Method                   | Trial# | Batch#       | Analysis<br>Date and Tim | ne    | Analyst          | Dilution<br>Factor |  |  |  |  |
| 10237      | BTEX + 5 Oxygenates 8260<br>Soil  | SW-846 8260B             | 1      | B121081AA    | 04/17/2012               | 22:45 | Andrea E Lando   | 1                  |  |  |  |  |
| 00374      | GC/MS - Bulk Soil Prep            | SW-846 5035A<br>Modified | 1      | 201210527379 | 04/14/2012               | 22:31 | Scott W Freisher | n.a.               |  |  |  |  |
| 00374      | GC/MS - Bulk Soil Prep            | SW-846 5035A<br>Modified | 2      | 201210527379 | 04/14/2012               | 22:31 | Scott W Freisher | n.a.               |  |  |  |  |
| 06646      | GC/MS HL Bulk Sample Prep         | SW-846 5035A<br>Modified | 1      | 201210527379 | 04/14/2012               | 20:50 | Scott W Freisher | n.a.               |  |  |  |  |
| 01725      | TPH-GRO N. CA soil C6-C12         | SW-846 8015B<br>modified | 1      | 12108A16A    | 04/18/2012               | 05:26 | Marie D John     | 22.96              |  |  |  |  |
| 01150      | GC - Bulk Soil Prep               | SW-846 5035A<br>Modified | 1      | 201210527379 | 04/14/2012               | 20:48 | Scott W Freisher | n.a.               |  |  |  |  |



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LLI Sample # SW 6616842 LLI Group # 1302261

# 10880

## Sample Description: B-11-S-25-120412 Grab Soil Facility# 93600 CRAW 2200 Telegraph-Oakland T0600161613 B-11

### Project Name: 93600

Collected: 04/12/2012 14:55 by SP

Submitted: 04/14/2012 10:00 Reported: 04/26/2012 17:41 6001 Bollinger Canyon Rd L4310 San Ramon CA 94583

ChevronTexaco

### 01125

| CAT<br>No. | Analysis Name           | CAS Nu        | As Rece<br>nber Result  | As Received<br>ived Method<br>Detection Lim | As Received<br>Limit of<br>it* Quantitation | Dilution<br>Factor |
|------------|-------------------------|---------------|-------------------------|---|---|--------------------|
| GC/MS      | Volatiles SW-           | -846 8260B    | mg/kg                   | mg/kg                                       | mg/kg                                       |                    |
| 10237      | t-Amyl methyl ether     | 994-05        | -8 N.D.                 | 0.001                                       | 0.005                                       | 0.95               |
| 10237      | Benzene                 | 71-43-2       | 2 N.D.                  | 0.0005                                      | 0.005                                       | 0.95               |
| 10237      | t-Butyl alcohol         | 75-65-0       | ) N.D.                  | 0.019                                       | 0.095                                       | 0.95               |
| 10237      | Ethyl t-butyl ether     | 637-92        | -3 N.D.                 | 0.001                                       | 0.005                                       | 0.95               |
| 10237      | Ethylbenzene            | 100-41-       | -4 N.D.                 | 0.001                                       | 0.005                                       | 0.95               |
| 10237      | di-Isopropyl ether      | 108-20-       | -3 N.D.                 | 0.001                                       | 0.005                                       | 0.95               |
| 10237      | Methyl Tertiary Butyl E | ther 1634-04  | 4-4 N.D.                | 0.0005                                      | 0.005                                       | 0.95               |
| 10237      | Toluene                 | 108-88-       | -3 N.D.                 | 0.001                                       | 0.005                                       | 0.95               |
| 10237      | Xylene (Total)          | 1330-2        | D-7 N.D.                | 0.001                                       | 0.005                                       | 0.95               |
| GC Vol     | atiles SW-              | 846 8015B mod | lified <sup>mg/kg</sup> | mg/kg                                       | mg/kg                                       |                    |
| 01725      | TPH-GRO N. CA soil C6-C | 12 n.a.       | N.D.                    | 0.9   | 0.9   | 23.3               |

#### General Sample Comments

State of California Lab Certification No. 2501

|            | Laboratory Sample Analysis Record |                          |        |              |                          |       |                  |                    |  |  |  |
|------------|-----------------------------------|--------------------------|--------|--------------|--------------------------|-------|------------------|--------------------|--|--|--|
| CAT<br>No. | Analysis Name                     | Method                   | Trial# | Batch#       | Analysis<br>Date and Tir | ne    | Analyst          | Dilution<br>Factor |  |  |  |
| 10237      | BTEX + 5 Oxygenates 8260<br>Soil  | SW-846 8260B             | 1      | B121081AA    | 04/17/2012               | 23:07 | Andrea E Lando   | 0.95               |  |  |  |
| 00374      | GC/MS - Bulk Soil Prep            | SW-846 5035A<br>Modified | 1      | 201210527379 | 04/14/2012               | 22:31 | Scott W Freisher | n.a.               |  |  |  |
| 00374      | GC/MS - Bulk Soil Prep            | SW-846 5035A<br>Modified | 2      | 201210527379 | 04/14/2012               | 22:31 | Scott W Freisher | n.a.               |  |  |  |
| 06646      | GC/MS HL Bulk Sample Prep         | SW-846 5035A<br>Modified | 1      | 201210527379 | 04/14/2012               | 20:55 | Scott W Freisher | n.a.               |  |  |  |
| 01725      | TPH-GRO N. CA soil C6-C12         | SW-846 8015B<br>modified | 1      | 12108A16A    | 04/18/2012               | 06:04 | Marie D John     | 23.3               |  |  |  |
| 01150      | GC - Bulk Soil Prep               | SW-846 5035A<br>Modified | 1      | 201210527379 | 04/14/2012               | 20:56 | Scott W Freisher | n.a.               |  |  |  |



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LLI Sample # SW 6616843 LLI Group # 1302261

# 10880

## Sample Description: B-11-S-29.5-120412 Grab Soil Facility# 93600 CRAW 2200 Telegraph-Oakland T0600161613 B-11

#### Project Name: 93600

Collected: 04/12/2012 15:00 by SP

Submitted: 04/14/2012 10:00 Reported: 04/26/2012 17:41 6001 Bollinger Canyon Rd L4310 San Ramon CA 94583

ChevronTexaco

### 01129

| CAT<br>No. | Analysis Name        |         | CAS Number     | As Received<br>Result | As Received<br>Method<br>Detection Limit* | As Received<br>Limit of<br>Quantitation | Dilution<br>Factor |
|------------|----------------------|---------|----------------|-----------------------|---|---|--------------------|
| GC/MS      | Volatiles            | SW-846  | 8260B          | mg/kg                 | mg/kg                                     | mg/kg                                   |                    |
| 10237      | t-Amyl methyl ether  |         | 994-05-8       | N.D.                  | 0.001                                     | 0.005                                   | 1.05               |
| 10237      | Benzene              |         | 71-43-2        | N.D.                  | 0.0005                                    | 0.005                                   | 1.05               |
| 10237      | t-Butyl alcohol      |         | 75-65-0        | N.D.                  | 0.021                                     | 0.11                                    | 1.05               |
| 10237      | Ethyl t-butyl ether  |         | 637-92-3       | N.D.                  | 0.001                                     | 0.005                                   | 1.05               |
| 10237      | Ethylbenzene         |         | 100-41-4       | N.D.                  | 0.001                                     | 0.005                                   | 1.05               |
| 10237      | di-Isopropyl ether   |         | 108-20-3       | N.D.                  | 0.001                                     | 0.005                                   | 1.05               |
| 10237      | Methyl Tertiary Buty | l Ether | 1634-04-4      | N.D.                  | 0.0005                                    | 0.005                                   | 1.05               |
| 10237      | Toluene              |         | 108-88-3       | N.D.                  | 0.001                                     | 0.005                                   | 1.05               |
| 10237      | Xylene (Total)       |         | 1330-20-7      | N.D.                  | 0.001                                     | 0.005                                   | 1.05               |
| GC Vol     | atiles               | SW-846  | 8015B modified | mg/kg                 | mg/kg                                     | mg/kg                                   |                    |
| 01725      | TPH-GRO N. CA soil C | 6-C12   | n.a.           | N.D.                  | 1   | 1                                       | 23.9               |

#### General Sample Comments

State of California Lab Certification No. 2501

|            | Laboratory Sample Analysis Record |                          |        |              |                          |       |                  |                    |  |  |  |
|------------|-----------------------------------|--------------------------|--------|--------------|--------------------------|-------|------------------|--------------------|--|--|--|
| CAT<br>No. | Analysis Name                     | Method                   | Trial# | Batch#       | Analysis<br>Date and Tim | ne    | Analyst          | Dilution<br>Factor |  |  |  |
| 10237      | BTEX + 5 Oxygenates 8260<br>Soil  | SW-846 8260B             | 1      | B121081AA    | 04/17/2012               | 23:29 | Andrea E Lando   | 1.05               |  |  |  |
| 00374      | GC/MS - Bulk Soil Prep            | SW-846 5035A<br>Modified | 1      | 201210527379 | 04/14/2012               | 22:31 | Scott W Freisher | n.a.               |  |  |  |
| 00374      | GC/MS - Bulk Soil Prep            | SW-846 5035A<br>Modified | 2      | 201210527379 | 04/14/2012               | 22:31 | Scott W Freisher | n.a.               |  |  |  |
| 06646      | GC/MS HL Bulk Sample Prep         | SW-846 5035A<br>Modified | 1      | 201210527379 | 04/14/2012               | 21:02 | Scott W Freisher | n.a.               |  |  |  |
| 01725      | TPH-GRO N. CA soil C6-C12         | SW-846 8015B<br>modified | 1      | 12108A16A    | 04/18/2012               | 06:42 | Marie D John     | 23.9               |  |  |  |
| 01150      | GC - Bulk Soil Prep               | SW-846 5035A<br>Modified | 1      | 201210527379 | 04/14/2012               | 21:03 | Scott W Freisher | n.a.               |  |  |  |



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LLI Sample # SW 6616844 LLI Group # 1302261

# 10880

## Sample Description: B-12-S-5-120413 Grab Soil Facility# 93600 CRAW 2200 Telegraph-Oakland T0600161613 B-12

## Project Name: 93600

Collected: 04/13/2012 07:40 by SP

Submitted: 04/14/2012 10:00 Reported: 04/26/2012 17:41 ChevronTexaco 6001 Bollinger Canyon Rd L4310 San Ramon CA 94583

### 01205

| CAT<br>No. | Analysis Name               | CAS Number     | As Received<br>Result | As Received<br>Method<br>Detection Limit* | As Received<br>Limit of<br>Quantitation | Dilution<br>Factor |
|------------|-----------------------------|----------------|-----------------------|---|---|--------------------|
| GC/MS      | Volatiles SW-846            | 8260B          | mg/kg                 | mg/kg                                     | mg/kg                                   |                    |
| 10237      | t-Amyl methyl ether         | 994-05-8       | N.D.                  | 0.001                                     | 0.005                                   | 1.04               |
| 10237      | Benzene                     | 71-43-2        | N.D.                  | 0.0005                                    | 0.005                                   | 1.04               |
| 10237      | t-Butyl alcohol             | 75-65-0        | N.D.                  | 0.021                                     | 0.10                                    | 1.04               |
| 10237      | Ethyl t-butyl ether         | 637-92-3       | N.D.                  | 0.001                                     | 0.005                                   | 1.04               |
| 10237      | Ethylbenzene                | 100-41-4       | N.D.                  | 0.001                                     | 0.005                                   | 1.04               |
| 10237      | di-Isopropyl ether          | 108-20-3       | N.D.                  | 0.001                                     | 0.005                                   | 1.04               |
| 10237      | Methyl Tertiary Butyl Ether | 1634-04-4      | N.D.                  | 0.0005                                    | 0.005                                   | 1.04               |
| 10237      | Toluene                     | 108-88-3       | N.D.                  | 0.001                                     | 0.005                                   | 1.04               |
| 10237      | Xylene (Total)              | 1330-20-7      | N.D.                  | 0.001                                     | 0.005                                   | 1.04               |
| GC Vol     | atiles SW-846               | 8015B modified | mg/kg                 | mg/kg                                     | mg/kg                                   |                    |
| 01725      | TPH-GRO N. CA soil C6-C12   | n.a.           | N.D.                  | 0.9                                       | 0.9                                     | 23.5               |

### General Sample Comments

State of California Lab Certification No. 2501

|            | Laboratory Sample Analysis Record |                          |        |              |                          |       |                  |                    |  |  |  |
|------------|-----------------------------------|--------------------------|--------|--------------|--------------------------|-------|------------------|--------------------|--|--|--|
| CAT<br>No. | Analysis Name                     | Method                   | Trial# | Batch#       | Analysis<br>Date and Tim | ne    | Analyst          | Dilution<br>Factor |  |  |  |
| 10237      | BTEX + 5 Oxygenates 8260<br>Soil  | SW-846 8260B             | 1      | B121081AA    | 04/17/2012               | 23:51 | Andrea E Lando   | 1.04               |  |  |  |
| 00374      | GC/MS - Bulk Soil Prep            | SW-846 5035A<br>Modified | 1      | 201210527379 | 04/14/2012               | 22:32 | Scott W Freisher | n.a.               |  |  |  |
| 00374      | GC/MS - Bulk Soil Prep            | SW-846 5035A<br>Modified | 2      | 201210527379 | 04/14/2012               | 22:32 | Scott W Freisher | n.a.               |  |  |  |
| 06646      | GC/MS HL Bulk Sample Prep         | SW-846 5035A<br>Modified | 1      | 201210527379 | 04/14/2012               | 21:10 | Scott W Freisher | n.a.               |  |  |  |
| 01725      | TPH-GRO N. CA soil C6-C12         | SW-846 8015B<br>modified | 1      | 12108A16A    | 04/18/2012               | 07:20 | Marie D John     | 23.5               |  |  |  |
| 01150      | GC - Bulk Soil Prep               | SW-846 5035A<br>Modified | 1      | 201210527379 | 04/14/2012               | 21:08 | Scott W Freisher | n.a.               |  |  |  |



## **Analysis Report**

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## Sample Description: B-12-S-10-120413 Grab Soil Facility# 93600 CRAW 2200 Telegraph-Oakland T0600161613 B-12

## LLI Sample # SW 6616845 LLI Group # 1302261 Account # 10880

#### Project Name: 93600

| Collected: | 04/13/2012 | 07:50 | by SP |
|------------|------------|-------|-------|
| COTTECLEU. |            | 07.50 | Dy Dr |

Submitted: 04/14/2012 10:00 Reported: 04/26/2012 17:41

### 01210

| CAT<br>No. | Analysis Name              | CAS Number       | As Received<br>Result | As Received<br>Method<br>Detection Limit* | As Received<br>Limit of<br>Quantitation | Dilution<br>Factor |
|------------|----------------------------|------------------|-----------------------|---|---|--------------------|
| GC/MS      | Volatiles SW-84            | 6 8260B          | mg/kg                 | mg/kg                                     | mg/kg                                   |                    |
| 10237      | t-Amyl methyl ether        | 994-05-8         | N.D.                  | 0.001                                     | 0.005                                   | 0.97               |
| 10237      | Benzene                    | 71-43-2          | N.D.                  | 0.0005                                    | 0.005                                   | 0.97               |
| 10237      | t-Butyl alcohol            | 75-65-0          | N.D.                  | 0.019                                     | 0.097                                   | 0.97               |
| 10237      | Ethyl t-butyl ether        | 637-92-3         | N.D.                  | 0.001                                     | 0.005                                   | 0.97               |
| 10237      | Ethylbenzene               | 100-41-4         | N.D.                  | 0.001                                     | 0.005                                   | 0.97               |
| 10237      | di-Isopropyl ether         | 108-20-3         | N.D.                  | 0.001                                     | 0.005                                   | 0.97               |
| 10237      | Methyl Tertiary Butyl Ethe | 1634-04-4        | N.D.                  | 0.0005                                    | 0.005                                   | 0.97               |
| 10237      | Toluene                    | 108-88-3         | N.D.                  | 0.001                                     | 0.005                                   | 0.97               |
| 10237      | Xylene (Total)             | 1330-20-7        | N.D.                  | 0.001                                     | 0.005                                   | 0.97               |
| GC Vol     | latiles SW-84              | 6 8015B modified | mg/kg                 | mg/kg                                     | mg/kg                                   |                    |
| 01725      | TPH-GRO N. CA soil C6-C12  | n.a.             | N.D.                  | 1.0                                       | 1.0                                     | 25.69              |

ChevronTexaco

San Ramon CA 94583

6001 Bollinger Canyon Rd L4310

#### General Sample Comments

State of California Lab Certification No. 2501

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

### Laboratory Sample Analysis Record

| CAT<br>No. | Analysis Name                    | Method                   | Trial# | Batch#       | Analysis<br>Date and Time |      | Analyst          | Dilution<br>Factor |
|------------|----------------------------------|--------------------------|--------|--------------|---------------------------|------|------------------|--------------------|
| 10237      | BTEX + 5 Oxygenates 8260<br>Soil | SW-846 8260B             | 1      | B121081AA    | 04/18/2012 00             | 0:14 | Andrea E Lando   | 0.97               |
| 00374      | GC/MS - Bulk Soil Prep           | SW-846 5035A<br>Modified | 1      | 201210527379 | 04/14/2012 22             | 2:32 | Scott W Freisher | n.a.               |
| 00374      | GC/MS - Bulk Soil Prep           | SW-846 5035A<br>Modified | 2      | 201210527379 | 04/14/2012 22             | 2:32 | Scott W Freisher | n.a.               |
| 00374      | GC/MS - Bulk Soil Prep           | SW-846 5035A<br>Modified | 3      | 201210527379 | 04/14/2012 22             | 2:32 | Scott W Freisher | n.a.               |
| 00374      | GC/MS - Bulk Soil Prep           | SW-846 5035A<br>Modified | 4      | 201210527379 | 04/14/2012 22             | 2:32 | Scott W Freisher | n.a.               |
| 00374      | GC/MS - Bulk Soil Prep           | SW-846 5035A<br>Modified | 5      | 201210527379 | 04/14/2012 22             | 2:32 | Scott W Freisher | n.a.               |
| 00374      | GC/MS - Bulk Soil Prep           | SW-846 5035A<br>Modified | 6      | 201210527379 | 04/14/2012 22             | 2:32 | Scott W Freisher | n.a.               |
| 06646      | GC/MS HL Bulk Sample Prep        | SW-846 5035A<br>Modified | 1      | 201210527379 | 04/14/2012 23             | 1:43 | Scott W Freisher | n.a.               |
| 06646      | GC/MS HL Bulk Sample Prep        | SW-846 5035A<br>Modified | 2      | 201210527379 | 04/14/2012 23             | 1:45 | Scott W Freisher | n.a.               |
| 06646      | GC/MS HL Bulk Sample Prep        | SW-846 5035A<br>Modified | 3      | 201210527379 | 04/14/2012 23             | 1:43 | Scott W Freisher | n.a.               |
| 06646      | GC/MS HL Bulk Sample Prep        | SW-846 5035A<br>Modified | 4      | 201210527379 | 04/14/2012 23             | 1:44 | Scott W Freisher | n.a.               |

\*=This limit was used in the evaluation of the final result



# **Analysis Report**

Account

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LLI Sample # SW 6616845

# 10880

LLI Group # 1302261

## Sample Description: B-12-S-10-120413 Grab Soil Facility# 93600 CRAW 2200 Telegraph-Oakland T0600161613 B-12

### Project Name: 93600

Collected: 04/13/2012 07:50 by SP

Submitted: 04/14/2012 10:00 Reported: 04/26/2012 17:41

01210

## Laboratory Sample Analysis Record

ChevronTexaco

San Ramon CA 94583

6001 Bollinger Canyon Rd L4310

| CAT<br>No. | Analysis Name             | Method                   | Trial# | Batch#       | Analysis<br>Date and Time | Analyst          | Dilution<br>Factor |
|------------|---------------------------|--------------------------|--------|--------------|---------------------------|------------------|--------------------|
| 01725      | TPH-GRO N. CA soil C6-C12 | SW-846 8015B<br>modified | 1      | 12109B16A    | 04/19/2012 17:15          | Laura M Krieger  | 25.69              |
| 01150      | GC - Bulk Soil Prep       | SW-846 5035A<br>Modified | 1      | 201210527379 | 04/14/2012 21:49          | Scott W Freisher | n.a.               |
| 01150      | GC - Bulk Soil Prep       | SW-846 5035A<br>Modified | 2      | 201210527379 | 04/14/2012 21:50          | Scott W Freisher | n.a.               |
| 01150      | GC - Bulk Soil Prep       | SW-846 5035A<br>Modified | 3      | 201210527379 | 04/14/2012 21:53          | Scott W Freisher | n.a.               |
| 01150      | GC - Bulk Soil Prep       | SW-846 5035A<br>Modified | 4      | 201210527379 | 04/14/2012 21:53          | Scott W Freisher | n.a.               |
| 01150      | GC - Bulk Soil Prep       | SW-846 5035A<br>Modified | 5      | 201210527379 | 04/14/2012 21:51          | Scott W Freisher | n.a.               |
| 01150      | GC - Bulk Soil Prep       | SW-846 5035A<br>Modified | 6      | 201210527379 | 04/14/2012 21:54          | Scott W Freisher | n.a.               |



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LLI Sample # SW 6616846 LLI Group # 1302261

# 10880

## Sample Description: B-12-S-15-120413 Grab Soil Facility# 93600 CRAW 2200 Telegraph-Oakland T0600161613 B-12

## Project Name: 93600

Collected: 04/13/2012 08:00 by SP

Submitted: 04/14/2012 10:00 Reported: 04/26/2012 17:41 ChevronTexaco 6001 Bollinger Canyon Rd L4310 San Ramon CA 94583

### 01215

| CAT<br>No. | Analysis Name               | CAS Number     | As Received<br>Result | As Received<br>Method<br>Detection Limit* | As Received<br>Limit of<br>Quantitation | Dilution<br>Factor |
|------------|-----------------------------|----------------|-----------------------|---|---|--------------------|
| GC/MS      | Volatiles SW-846            | 8260B          | mg/kg                 | mg/kg                                     | mg/kg                                   |                    |
| 10237      | t-Amyl methyl ether         | 994-05-8       | N.D.                  | 0.001                                     | 0.005                                   | 1.04               |
| 10237      | Benzene                     | 71-43-2        | N.D.                  | 0.0005                                    | 0.005                                   | 1.04               |
| 10237      | t-Butyl alcohol             | 75-65-0        | N.D.                  | 0.021                                     | 0.10                                    | 1.04               |
| 10237      | Ethyl t-butyl ether         | 637-92-3       | N.D.                  | 0.001                                     | 0.005                                   | 1.04               |
| 10237      | Ethylbenzene                | 100-41-4       | N.D.                  | 0.001                                     | 0.005                                   | 1.04               |
| 10237      | di-Isopropyl ether          | 108-20-3       | N.D.                  | 0.001                                     | 0.005                                   | 1.04               |
| 10237      | Methyl Tertiary Butyl Ether | 1634-04-4      | N.D.                  | 0.0005                                    | 0.005                                   | 1.04               |
| 10237      | Toluene                     | 108-88-3       | N.D.                  | 0.001                                     | 0.005                                   | 1.04               |
| 10237      | Xylene (Total)              | 1330-20-7      | N.D.                  | 0.001                                     | 0.005                                   | 1.04               |
| GC Vol     | latiles SW-846              | 8015B modified | mg/kg                 | mg/kg                                     | mg/kg                                   |                    |
| 01725      | TPH-GRO N. CA soil C6-C12   | n.a.           | N.D.                  | 1   | 1                                       | 24.2               |

### General Sample Comments

State of California Lab Certification No. 2501

|            | Laboratory Sample Analysis Record |                          |        |              |                          |       |                  |                    |  |
|------------|-----------------------------------|--------------------------|--------|--------------|--------------------------|-------|------------------|--------------------|--|
| CAT<br>No. | Analysis Name                     | Method                   | Trial# | Batch#       | Analysis<br>Date and Tim | ne    | Analyst          | Dilution<br>Factor |  |
| 10237      | BTEX + 5 Oxygenates 8260<br>Soil  | SW-846 8260B             | 1      | B121081AA    | 04/18/2012               | 01:20 | Andrea E Lando   | 1.04               |  |
| 00374      | GC/MS - Bulk Soil Prep            | SW-846 5035A<br>Modified | 1      | 201210527379 | 04/14/2012               | 22:32 | Scott W Freisher | n.a.               |  |
| 00374      | GC/MS - Bulk Soil Prep            | SW-846 5035A<br>Modified | 2      | 201210527379 | 04/14/2012               | 22:32 | Scott W Freisher | n.a.               |  |
| 06646      | GC/MS HL Bulk Sample Prep         | SW-846 5035A<br>Modified | 1      | 201210527379 | 04/14/2012               | 22:00 | Scott W Freisher | n.a.               |  |
| 01725      | TPH-GRO N. CA soil C6-C12         | SW-846 8015B<br>modified | 1      | 12109B16A    | 04/19/2012               | 20:28 | Laura M Krieger  | 24.2               |  |
| 01150      | GC - Bulk Soil Prep               | SW-846 5035A<br>Modified | 1      | 201210527379 | 04/14/2012               | 21:59 | Scott W Freisher | n.a.               |  |



# **Analysis Report**

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LLI Sample # SW 6616847 LLI Group # 1302261

# 10880

## Sample Description: B-12-S-20-120413 Grab Soil Facility# 93600 CRAW 2200 Telegraph-Oakland T0600161613 B-12

## Project Name: 93600

| <b>7</b> 0 | ٦.  | lect | -ed: | 04  | /13   | /2012 | 08:20 | hv | SP |
|------------|-----|------|------|-----|-------|-------|-------|----|----|
| しし         | · 上 | TECI | Leui | UI. | / ± J | /     | 00.20 | Dy | DE |

Submitted: 04/14/2012 10:00 Reported: 04/26/2012 17:41 ChevronTexaco 6001 Bollinger Canyon Rd L4310 San Ramon CA 94583

### 01220

| CAT<br>No. | Analysis Name               | CAS Number       | As Received<br>Result | As Received<br>Method<br>Detection Limit* | As Received<br>Limit of<br>Quantitation | Dilution<br>Factor |
|------------|-----------------------------|------------------|-----------------------|---|---|--------------------|
| GC/MS      | Volatiles SW-846            | 5 8260B          | mg/kg                 | mg/kg                                     | mg/kg                                   |                    |
| 10237      | t-Amyl methyl ether         | 994-05-8         | N.D.                  | 0.001                                     | 0.005                                   | 0.96               |
| 10237      | Benzene                     | 71-43-2          | N.D.                  | 0.0005                                    | 0.005                                   | 0.96               |
| 10237      | t-Butyl alcohol             | 75-65-0          | N.D.                  | 0.019                                     | 0.096                                   | 0.96               |
| 10237      | Ethyl t-butyl ether         | 637-92-3         | N.D.                  | 0.001                                     | 0.005                                   | 0.96               |
| 10237      | Ethylbenzene                | 100-41-4         | N.D.                  | 0.001                                     | 0.005                                   | 0.96               |
| 10237      | di-Isopropyl ether          | 108-20-3         | N.D.                  | 0.001                                     | 0.005                                   | 0.96               |
| 10237      | Methyl Tertiary Butyl Ether | 1634-04-4        | N.D.                  | 0.0005                                    | 0.005                                   | 0.96               |
| 10237      | Toluene                     | 108-88-3         | N.D.                  | 0.001                                     | 0.005                                   | 0.96               |
| 10237      | Xylene (Total)              | 1330-20-7        | N.D.                  | 0.001                                     | 0.005                                   | 0.96               |
| GC Vol     | Latiles SW-840              | 5 8015B modified | mg/kg                 | mg/kg                                     | mg/kg                                   |                    |
| 01725      | TPH-GRO N. CA soil C6-C12   | n.a.             | N.D.                  | 1   | 1                                       | 23.83              |

### General Sample Comments

State of California Lab Certification No. 2501

|            | Laboratory Sample Analysis Record |                          |        |              |                          |       |                  |                    |  |  |
|------------|-----------------------------------|--------------------------|--------|--------------|--------------------------|-------|------------------|--------------------|--|--|
| CAT<br>No. | Analysis Name                     | Method                   | Trial# | Batch#       | Analysis<br>Date and Tim | ne    | Analyst          | Dilution<br>Factor |  |  |
| 10237      | BTEX + 5 Oxygenates 8260<br>Soil  | SW-846 8260B             | 1      | B121081AA    | 04/18/2012               | 01:42 | Andrea E Lando   | 0.96               |  |  |
| 00374      | GC/MS - Bulk Soil Prep            | SW-846 5035A<br>Modified | 1      | 201210527379 | 04/14/2012               | 22:32 | Scott W Freisher | n.a.               |  |  |
| 00374      | GC/MS - Bulk Soil Prep            | SW-846 5035A<br>Modified | 2      | 201210527379 | 04/14/2012               | 22:32 | Scott W Freisher | n.a.               |  |  |
| 06646      | GC/MS HL Bulk Sample Prep         | SW-846 5035A<br>Modified | 1      | 201210527379 | 04/14/2012               | 22:05 | Scott W Freisher | n.a.               |  |  |
| 01725      | TPH-GRO N. CA soil C6-C12         | SW-846 8015B<br>modified | 1      | 12109B16A    | 04/19/2012               | 21:06 | Laura M Krieger  | 23.83              |  |  |
| 01150      | GC - Bulk Soil Prep               | SW-846 5035A<br>Modified | 1      | 201210527379 | 04/14/2012               | 22:06 | Scott W Freisher | n.a.               |  |  |



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LLI Sample # SW 6616848 LLI Group # 1302261

# 10880

## Sample Description: B-12-S-25-120413 Grab Soil Facility# 93600 CRAW 2200 Telegraph-Oakland T0600161613 B-12

#### Project Name: 93600

Collected: 04/13/2012 08:30 by SP

Submitted: 04/14/2012 10:00 Reported: 04/26/2012 17:41

4/26/2012 17:41

01225

| CAT<br>No. | Analysis Name              | CAS Number       | As Received<br>Result | As Received<br>Method<br>Detection Limit* | As Received<br>Limit of<br>Quantitation | Dilution<br>Factor |
|------------|----------------------------|------------------|-----------------------|---|---|--------------------|
| GC/MS      | Volatiles SW-84            | 6 8260B          | mg/kg                 | mg/kg                                     | mg/kg                                   |                    |
| 10237      | t-Amyl methyl ether        | 994-05-8         | N.D.                  | 0.001                                     | 0.005                                   | 0.98               |
| 10237      | Benzene                    | 71-43-2          | N.D.                  | 0.0005                                    | 0.005                                   | 0.98               |
| 10237      | t-Butyl alcohol            | 75-65-0          | N.D.                  | 0.020                                     | 0.098                                   | 0.98               |
| 10237      | Ethyl t-butyl ether        | 637-92-3         | N.D.                  | 0.001                                     | 0.005                                   | 0.98               |
| 10237      | Ethylbenzene               | 100-41-4         | N.D.                  | 0.001                                     | 0.005                                   | 0.98               |
| 10237      | di-Isopropyl ether         | 108-20-3         | N.D.                  | 0.001                                     | 0.005                                   | 0.98               |
| 10237      | Methyl Tertiary Butyl Ethe | r 1634-04-4      | N.D.                  | 0.0005                                    | 0.005                                   | 0.98               |
| 10237      | Toluene                    | 108-88-3         | N.D.                  | 0.001                                     | 0.005                                   | 0.98               |
| 10237      | Xylene (Total)             | 1330-20-7        | N.D.                  | 0.001                                     | 0.005                                   | 0.98               |
| GC Vol     | latiles SW-84              | 6 8015B modified | mg/kg                 | mg/kg                                     | mg/kg                                   |                    |
| 01725      | TPH-GRO N. CA soil C6-C12  | n.a.             | N.D.                  | 0.9                                       | 0.9                                     | 23.04              |

ChevronTexaco

San Ramon CA 94583

6001 Bollinger Canyon Rd L4310

#### General Sample Comments

State of California Lab Certification No. 2501

|            | Laboratory Sample Analysis Record |                          |        |              |                          |       |                  |                    |  |  |
|------------|-----------------------------------|--------------------------|--------|--------------|--------------------------|-------|------------------|--------------------|--|--|
| CAT<br>No. | Analysis Name                     | Method                   | Trial# | Batch#       | Analysis<br>Date and Tim | ne    | Analyst          | Dilution<br>Factor |  |  |
| 10237      | BTEX + 5 Oxygenates 8260<br>Soil  | SW-846 8260B             | 1      | B121081AA    | 04/18/2012               | 02:05 | Andrea E Lando   | 0.98               |  |  |
| 00374      | GC/MS - Bulk Soil Prep            | SW-846 5035A<br>Modified | 1      | 201210527379 | 04/14/2012               | 22:32 | Scott W Freisher | n.a.               |  |  |
| 00374      | GC/MS - Bulk Soil Prep            | SW-846 5035A<br>Modified | 2      | 201210527379 | 04/14/2012               | 22:32 | Scott W Freisher | n.a.               |  |  |
| 06646      | GC/MS HL Bulk Sample Prep         | SW-846 5035A<br>Modified | 1      | 201210527379 | 04/14/2012               | 22:09 | Scott W Freisher | n.a.               |  |  |
| 01725      | TPH-GRO N. CA soil C6-C12         | SW-846 8015B<br>modified | 1      | 12109B16A    | 04/19/2012               | 21:44 | Laura M Krieger  | 23.04              |  |  |
| 01150      | GC - Bulk Soil Prep               | SW-846 5035A<br>Modified | 1      | 201210527379 | 04/14/2012               | 22:08 | Scott W Freisher | n.a.               |  |  |


# **Analysis Report**

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LLI Sample # SW 6616849 LLI Group # 1302261

# 10880

### Sample Description: B-12-S-29.5-120413 Grab Soil Facility# 93600 CRAW 2200 Telegraph-Oakland T0600161613 B-12

#### Project Name: 93600

Collected: 04/13/2012 08:45 by SP

Submitted: 04/14/2012 10:00 Reported: 04/26/2012 17:41 ChevronTexaco 6001 Bollinger Canyon Rd L4310 San Ramon CA 94583

#### 01229

| CAT<br>No. | Analysis Name             | CAS Number         | As Received<br>Result | As Received<br>Method<br>Detection Limit* | As Received<br>Limit of<br>Quantitation | Dilution<br>Factor |
|------------|---------------------------|--------------------|-----------------------|---|---|--------------------|
| GC/MS      | Volatiles SW-8            | 346 8260B          | mg/kg                 | mg/kg                                     | mg/kg                                   |                    |
| 10237      | t-Amyl methyl ether       | 994-05-8           | N.D.                  | 0.001                                     | 0.005                                   | 1.02               |
| 10237      | Benzene                   | 71-43-2            | N.D.                  | 0.0005                                    | 0.005                                   | 1.02               |
| 10237      | t-Butyl alcohol           | 75-65-0            | N.D.                  | 0.020                                     | 0.10                                    | 1.02               |
| 10237      | Ethyl t-butyl ether       | 637-92-3           | N.D.                  | 0.001                                     | 0.005                                   | 1.02               |
| 10237      | Ethylbenzene              | 100-41-4           | N.D.                  | 0.001                                     | 0.005                                   | 1.02               |
| 10237      | di-Isopropyl ether        | 108-20-3           | N.D.                  | 0.001                                     | 0.005                                   | 1.02               |
| 10237      | Methyl Tertiary Butyl Eth | ler 1634-04-4      | N.D.                  | 0.0005                                    | 0.005                                   | 1.02               |
| 10237      | Toluene                   | 108-88-3           | N.D.                  | 0.001                                     | 0.005                                   | 1.02               |
| 10237      | Xylene (Total)            | 1330-20-7          | N.D.                  | 0.001                                     | 0.005                                   | 1.02               |
| GC Vol     | atiles SW-8               | 346 8015B modified | mg/kg                 | mg/kg                                     | mg/kg                                   |                    |
| 01725      | TPH-GRO N. CA soil C6-C1: | 2 n.a.             | N.D.                  | 1   | 1                                       | 24.04              |

#### General Sample Comments

State of California Lab Certification No. 2501

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

|            |                                  | Laborat                  | ory Sa | mple Analysis | s Record                 |       |                  |                    |
|------------|----------------------------------|--------------------------|--------|---------------|--------------------------|-------|------------------|--------------------|
| CAT<br>No. | Analysis Name                    | Method                   | Trial# | Batch#        | Analysis<br>Date and Tir | ne    | Analyst          | Dilution<br>Factor |
| 10237      | BTEX + 5 Oxygenates 8260<br>Soil | SW-846 8260B             | 1      | B121081AA     | 04/18/2012               | 02:27 | Andrea E Lando   | 1.02               |
| 00374      | GC/MS - Bulk Soil Prep           | SW-846 5035A<br>Modified | 1      | 201210527379  | 04/14/2012               | 22:33 | Scott W Freisher | n.a.               |
| 00374      | GC/MS - Bulk Soil Prep           | SW-846 5035A<br>Modified | 2      | 201210527379  | 04/14/2012               | 22:33 | Scott W Freisher | n.a.               |
| 06646      | GC/MS HL Bulk Sample Prep        | SW-846 5035A<br>Modified | 1      | 201210527379  | 04/14/2012               | 22:23 | Scott W Freisher | n.a.               |
| 01725      | TPH-GRO N. CA soil C6-C12        | SW-846 8015B<br>modified | 1      | 12109B16A     | 04/19/2012               | 22:22 | Laura M Krieger  | 24.04              |
| 01150      | GC - Bulk Soil Prep              | SW-846 5035A<br>Modified | 1      | 201210527379  | 04/14/2012               | 22:24 | Scott W Freisher | n.a.               |



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### Quality Control Summary

Client Name: ChevronTexaco Reported: 04/26/12 at 05:41 PM Group Number: 1302261

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

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

### Laboratory Compliance Quality Control

| Analysis Name               | Blank<br><u>Result</u> | Blank<br><u>MDL**</u> | Blank<br><u>LOO</u> | Report<br><u>Units</u> | LCS<br><u>%REC</u> | LCSD<br><u>%REC</u> | LCS/LCSD<br><u>Limits</u> | <u>RPD</u> | <u>RPD Max</u> |
|-----------------------------|------------------------|-----------------------|---------------------|------------------------|--------------------|---------------------|---------------------------|------------|----------------|
| Batch number: B121071AA     | Sample nu              | umber(s): 60          | 516826-66           | 16839                  |                    |                     |                           |            |                |
| t-Amyl methyl ether         | N.D.                   | 0.001                 | 0.005               | mg/kg                  | 89                 | 93                  | 56-137                    | 5          | 30             |
| Benzene                     | N.D.                   | 0.0005                | 0.005               | mg/kg                  | 87                 | 93                  | 80-120                    | 6          | 30             |
| t-Butyl alcohol             | N.D.                   | 0.020                 | 0.10                | mg/kg                  | 85                 | 91                  | 60-149                    | 7          | 30             |
| Ethyl t-butyl ether         | N.D.                   | 0.001                 | 0.005               | mg/kg                  | 91                 | 97                  | 70-122                    | 6          | 30             |
| Ethylbenzene                | N.D.                   | 0.001                 | 0.005               | mg/kg                  | 85                 | 88                  | 80-120                    | 3          | 30             |
| di-Isopropyl ether          | N.D.                   | 0.001                 | 0.005               | mg/kg                  | 93                 | 99                  | 73-121                    | 6          | 30             |
| Methyl Tertiary Butyl Ether | N.D.                   | 0.0005                | 0.005               | mg/kg                  | 91                 | 96                  | 74-121                    | 6          | 30             |
| Toluene                     | N.D.                   | 0.001                 | 0.005               | mg/kg                  | 83                 | 88                  | 80-120                    | 6          | 30             |
| Xylene (Total)              | N.D.                   | 0.001                 | 0.005               | mg/kg                  | 82                 | 85                  | 80-120                    | 4          | 30             |
| Batch number: B121081AA     | Sample nu              | mber(s): 60           | 516840-66           | 16849                  |                    |                     |                           |            |                |
| t-Amyl methyl ether         | N.D.                   | 0.001                 | 0.005               | mg/kg                  | 89                 | 86                  | 56-137                    | 4          | 30             |
| Benzene                     | N.D.                   | 0.0005                | 0.005               | mg/kg                  | 86                 | 87                  | 80-120                    | 2          | 30             |
| t-Butyl alcohol             | N.D.                   | 0.020                 | 0.10                | mg/kg                  | 100                | 101                 | 60-149                    | 0          | 30             |
| Ethyl t-butyl ether         | N.D.                   | 0.001                 | 0.005               | mg/kg                  | 91                 | 89                  | 70-122                    | 2          | 30             |
| Ethylbenzene                | N.D.                   | 0.001                 | 0.005               | mg/kg                  | 90                 | 91                  | 80-120                    | 1          | 30             |
| di-Isopropyl ether          | N.D.                   | 0.001                 | 0.005               | mg/kg                  | 93                 | 94                  | 73-121                    | 1          | 30             |
| Methyl Tertiary Butyl Ether | N.D.                   | 0.0005                | 0.005               | mg/kg                  | 89                 | 85                  | 74-121                    | 5          | 30             |
| Toluene                     | N.D.                   | 0.001                 | 0.005               | mg/kg                  | 87                 | 88                  | 80-120                    | 1          | 30             |
| Xylene (Total)              | N.D.                   | 0.001                 | 0.005               | mg/kg                  | 87                 | 87                  | 80-120                    | 0          | 30             |
| Batch number: R121121AA     | Sample nu              | mber(s): 60           | 516827              |                        |                    |                     |                           |            |                |
| Ethylbenzene                | N.D.                   | 0.050                 | 0.25                | mg/kg                  | 103                | 104                 | 80-120                    | 1          | 30             |
| Batch number: 12108A16A     | Sample nu              | umber(s): 60          | 516826-66           | 16844                  |                    |                     |                           |            |                |
| TPH-GRO N. CA soil C6-C12   | N.D.                   | 1.0                   | 1.0                 | mg/kg                  | 94                 | 94                  | 67-119                    | 0          | 30             |
| Batch number: 12109B16A     | Sample nu              | mber(s): 60           | 516845-66           | 16849                  |                    |                     |                           |            |                |
| TPH-GRO N. CA soil C6-C12   | N.D.                   | 1.0                   | 1.0                 | mg/kg                  | 101                |                     | 67-119                    |            |                |

### 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 | Dup RPD |
|-------------------------|----------|----------|---------------|------------|---------|-----------|------|-----|---------|
| <u>Analysis Name</u>    | %REC     | %REC     | <u>Limits</u> | <u>RPD</u> | MAX     | Conc      | Conc | RPD | Max     |
| Batch number: B121081AA | Sample r | umber(s) | : 6616840-    | 6616849    | 9 UNSPK | : 6616845 |      |     |         |
| t-Amyl methyl ether     | 84       | 88       | 59-123        | 14         | 30      |           |      |     |         |
| Benzene                 | 84       | 84       | 55-143        | 10         | 30      |           |      |     |         |
| t-Butyl alcohol         | 115      | 106      | 47-153        | 1          | 30      |           |      |     |         |

\*- Outside of specification

\*\*-This limit was used in the evaluation of the final result for the blank

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



# **Analysis Report**

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### Quality Control Summary

Client Name: ChevronTexaco Reported: 04/26/12 at 05:41 PM Group Number: 1302261

### 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<br><u>%REC</u> | MSD<br><u>%REC</u> | MS/MSD<br><u>Limits</u> | <u>RPD</u>   | RPD<br><u>MAX</u> | BKG<br><u>Conc</u> | DUP<br><u>Conc</u> | DUP<br><u>RPD</u> | Dup RPD<br><u>Max</u> |
|--|-------------------|--------------------|-------------------------|--------------|-------------------|--------------------|--------------------|-------------------|-----------------------|
| Ethyl t-butyl ether                                  | 90                | 94                 | 58-124                  | 13           | 30                |                    |                    |                   |                       |
| Ethylbenzene   | 70                | 65                 | 44-141                  | 3            | 30                |                    |                    |                   |                       |
| di-Isopropyl ether                                   | 92                | 98                 | 59-133                  | 15           | 30                |                    |                    |                   |                       |
| Methyl Tertiary Butyl Ether                          | 86                | 89                 | 55-129                  | 13           | 30                |                    |                    |                   |                       |
| Toluene  | 78                | 76                 | 50-146                  | 7            | 30                |                    |                    |                   |                       |
| Xylene (Total)                                       | 66                | 63                 | 44-136                  | 4            | 30                |                    |                    |                   |                       |
| Batch number: R121121AA<br>Ethylbenzene              | Sample r<br>91    | uumber(s)          | : 6616827<br>44-141     | UNSPK:       | P61649            | 1                  |                    |                   |                       |
| Batch number: 12109B16A<br>TPH-GRO N. CA soil C6-C12 | Sample r<br>101   | umber(s)<br>98     | : 6616845-<br>39-118    | -661684<br>3 | 9 UNSPK<br>30     | : 6616845          |                    |                   |                       |

### 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: 8260 Ext.                    | Soil Master w/GRO     |            |                      |  |
|----------------------|------------------------------------|-----------------------|------------|----------------------|--|
| Batch nu             | Dibromofluoromethane               | 1,2-Dichloroethane-d4 | Toluene-d8 | 4-Bromofluorobenzene |  |
| 6616826              | 105                                | 97                    | 101        | 97                   |  |
| 6616827              | 101                                | 94                    | 105        | 101                  |  |
| 6616828              | 105                                | 98                    | 102        | 100                  |  |
| 6616829              | 103                                | 96                    | 101        | 99                   |  |
| 6616830              | 106                                | 94                    | 103        | 97                   |  |
| 6616831              | 107                                | 95                    | 101        | 96                   |  |
| 6616832              | 107                                | 103                   | 101        | 100                  |  |
| 6616833              | 102                                | 94                    | 104        | 101                  |  |
| 6616834              | 100                                | 93                    | 101        | 102                  |  |
| 6616835              | 106                                | 95                    | 103        | 97                   |  |
| 6616836              | 106                                | 94                    | 104        | 98                   |  |
| 6616837              | 106                                | 97                    | 102        | 95                   |  |
| 6616838              | 106                                | 104                   | 101        | 98                   |  |
| 6616839              | 102                                | 95                    | 101        | 96                   |  |
| Blank                | 104                                | 100                   | 95         | 102                  |  |
| LCS                  | 104                                | 104                   | 98         | 105                  |  |
| LCSD                 | 105                                | 98                    | 98         | 104                  |  |
| Limits:              | 50-141                             | 54-135                | 52-141     | 50-131               |  |
| Analysis<br>Batch nu | Name: 8260 Ext.<br>mber: B121081AA | Soil Master w/GRO     |            |                      |  |
|                      | Dibromofluoromethane               | 1,2-Dichloroethane-d4 | Toluene-d8 | 4-Bromofluorobenzene |  |
| 6616840              | 106                                | 103                   | 99         | 99                   |  |
| 6616841              | 103                                | 96                    | 103        | 99                   |  |
| 6616842              | 105                                | 105                   | 102        | 99                   |  |
| 6616843              | 102                                | 98                    | 103        | 95                   |  |

\*- Outside of specification

\*\*-This limit was used in the evaluation of the final result for the blank

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



Client Name: ChevronTexaco

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# **Analysis Report**

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### Quality Control Summary

Group Number: 1302261

| Reporte               | d: 04/26/12 at                        | 05:41 PM              |            | or out ind   |          |
|-----------------------|---------------------------------------|-----------------------|------------|--------------|----------|
| 11020200              |                                       |                       | Surrogate  | Quality      | Control  |
| 6616844               | 106                                   | 102                   | 101        | 98           |          |
| 6616845               | 105                                   | 100                   | 101        | 99           |          |
| 6616846               | 102                                   | 96                    | 103        | 99           |          |
| 6616847               | 104                                   | 97                    | 105        | 95           |          |
| 6616848               | 105                                   | 95                    | 103        | 93           |          |
| 6616940               | 109                                   | 00                    | 102        | 96           |          |
| Dlank                 | 100                                   | 100                   | 102        | 90           |          |
| BIANK                 | 102                                   | 101                   | 100        | 99           |          |
| LCS                   | 102                                   | 101                   | 102        | 104          |          |
| LCSD                  | 102                                   | 94                    | 103        | 103          |          |
| MS                    | 106                                   | 104                   | 105        | 104          |          |
| MSD                   | 104                                   | 98                    | 104        | 103          |          |
| Limits:               | 50-141                                | 54-135                | 52-141     | 50-131       |          |
| Analysis<br>Batch num | Name: 8260 Ext. So<br>nber: R121121AA | oil Master w/GRO      |            |              |          |
|                       | Dibromofluoromethane                  | 1,2-Dichloroethane-d4 | Toluene-d8 | 4-Bromofluor | obenzene |
| Blank                 | 79                                    | 83                    | 85         | 84           |          |
| LCS                   | 77                                    | 80                    | 81         | 82           |          |
| LCSD                  | 82                                    | 86                    | 82         | 84           |          |
| MS                    | 62                                    | 65                    | 63         | 62           |          |
| Limits:               | 50-141                                | 54-135                | 52-141     | 50-131       |          |
| Analycic              | Name: TDU_CDO N                       | TA soil C6-C12        |            |              |          |
| Batch num             | nber: 12108A16A                       | LA SUII CU-CIZ        |            |              |          |
| Datoon na             | Trifluorotoluene-F                    |                       |            |              |          |
| 6616826               | 85                                    |                       |            |              |          |
| 6616827               | 86                                    |                       |            |              |          |
| 6616828               | 84                                    |                       |            |              |          |
| 6616829               | 83                                    |                       |            |              |          |
| 6616830               | 88                                    |                       |            |              |          |
| 6616831               | 92                                    |                       |            |              |          |
| 6616832               | 87                                    |                       |            |              |          |
| 6616833               | 78                                    |                       |            |              |          |
| 6616033               | 04                                    |                       |            |              |          |
| 0010034               | 04                                    |                       |            |              |          |
| 6616835               | 88                                    |                       |            |              |          |
| 0010836               | 8/                                    |                       |            |              |          |
| 6616837               | 63                                    |                       |            |              |          |
| 6616838               | 89                                    |                       |            |              |          |
| 6616839               | 83                                    |                       |            |              |          |
| 6616840               | 90                                    |                       |            |              |          |
| 6616841               | 86                                    |                       |            |              |          |
| 6616842               | 91                                    |                       |            |              |          |
| 6616843               | 92                                    |                       |            |              |          |
| 6616844               | 80                                    |                       |            |              |          |
| Blank                 | 92                                    |                       |            |              |          |
| DIGUN                 | 2 <u>2</u><br>2 <u>5</u>              |                       |            |              |          |
| LCSD                  | 86                                    |                       |            |              |          |
| <br>Limits:           | 61-122                                |                       |            |              |          |
| 7                     | News, IIDU CDO N                      |                       |            |              |          |
| Batch num             | nber: 12109B16A                       | LA SUII LO-LIZ        |            |              |          |

Trifluorotoluene-F

\*- Outside of specification

\*\*-This limit was used in the evaluation of the final result for the blank

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



# **Analysis Report**

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### Quality Control Summary

Client Name: ChevronTexaco Reported: 04/26/12 at 05:41 PM Group Number: 1302261

Surrogate Quality Control

| 6616845 | 83     |
|---------|--------|
| 6616846 | 83     |
| 6616847 | 86     |
| 6616848 | 86     |
| 6616849 | 88     |
| Blank   | 90     |
| LCS     | 95     |
| MS      | 88     |
| MSD     | 86     |
|         |        |
| Limits: | 61-122 |
|         |        |

\*- Outside of specification

- \*\*-This limit was used in the evaluation of the final result for the blank
- (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.

|   |   |   | Ch  | evro                                      | on C   | alifor   | nia F            | Re                                    | ·i(              | on                      | A                                       | na                                    | lys                                 | sis                     | R                                      | eq                | ļU   | est  | /C            | ha          | in of Cı   | too   | dy  |
|---|---|---|---|---|--|--|------------------|---------------------------------------|------------------|-------------------------|---|---------------------------------------|-------------------------------------|-------------------------|--|-------------------|------|--|---------------|-------------|--|---|---|
| Where quality is a  | Labora<br>science.  | atories   | Q   | ४५।                                       | 312.   | -¢6 F  | 2,60F            | Ac                                    | ct. #:           | 10                      | 88                                      | 10                                    | Samp                                | For l<br>ble #:<br>Anal |  | ster              |      |  | is usi<br>-너( | e only<br>9 |  | 246   | 614   |
| <i></i>   |   |   |   |   |  | •  |                  |                                       | <del></del>      |                         |   |                                       |                                     | Des                     | ,                                      | tion              | Cod  |  |               |             |  |   |   |
| Facility #:9 - 3         Site Address:220         Chevron PM:MAR k         Consultant/Office:         Consultant/Office:         Consultant Prj. Mgr.:         Consultant Phone #:         Sampler:         Service Order #:  | 600<br>0 TEI<br>HOR<br>RA /<br>VATIHA<br>510-42<br>ia Pat                                   | LEGRA<br>NE<br>EME<br>N LEE<br>0-070<br>Itersol           | (C1<br>}PH A<br>Lead C<br>RYV<br>0<br>0<br>Nor  | RA 3<br>VE,<br>onsultar<br>ILLE<br>Fax #: | <u>1965)</u><br>OAKL/<br>nt: <u>C</u> R<br>510 4 | 4ND C/<br>RA<br>20 9170  | 1<br>2           | q                                     | nposite          | al Number of Containers | (+MTBE 8260 2 8021□                     | 8015 MOD GRO<br>2015 MOD DBO          | full scan                           | Oxygenates              |  | E, ʆBE, TAME, TBA | 8260 |  |               |             | Preserva           H = HCl           N = HNO3           S = H2SO4           J value repor           Must meet lor           possible for 8           8021 MTBE Co           Confirm high           Confirm all high           Run ox | tive Code<br>T = Thios<br>B = NaO<br>O = Othe<br>ting needed<br>west detect<br>260 compo<br>nfirmation<br>est hit by 82<br>ts by 8260<br>y's on highe | es<br>sulfate<br>H<br>er<br>d<br>tion limits<br>bunds<br>260<br>est hit |
| field <u>Point Name</u>   | Matrix  | Repeat<br>Sample  | Top<br>Depth  | Year M                                    | onth Day   | Time<br>Collected  | New<br>Field Pt. | Gral                                  | Con              | Tots                    | втех                                    | Her (                                 | 8260                                |                         | Lead                                   | DID               |      |  |               |             | 🗋 Run ox   | y's on all hi   | its   |
| $   \begin{array}{c}     B-9 \\     B-9 \\     B-9 \\     B-9 \\     B-9 \\     B-9 \\     B-10 \\     B-1$ | S<br>S<br>S<br>S<br>S<br>S<br>S<br>S<br>S<br>S<br>S<br>S<br>S<br>S<br>S<br>S<br>S<br>S<br>S |   | 5<br>10<br>15<br>20<br>25<br>24.5<br>10<br>15<br>20<br>25<br>24.5<br>10<br>15<br>20<br>25<br>24.5<br>10<br>15<br>20<br>25<br>24.5<br>10<br>15<br>20<br>25<br>24<br>5<br>10<br>15<br>20<br>25<br>24<br>5<br>10<br>15<br>20<br>25<br>24<br>15<br>20<br>25<br>24<br>15<br>20<br>25<br>24<br>15<br>20<br>25<br>24<br>15<br>20<br>25<br>24<br>15<br>20<br>25<br>24<br>15<br>15<br>15<br>15<br>15<br>15<br>15<br>15<br>15<br>15 |   |  | 0800<br>0830<br>0910<br>0940<br>1003<br>0955<br>1105<br>1120<br>1134<br>1208<br>1216<br>1218 |                  | X X X X X X X X X X X X X X X X X X X |                  |                         | XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX | X X X X X X X X X X X X X X X X X X X |                                     |                         |  | XXXXXXXXXXXXXXXX  |      |  |               |             | Comments /<br>Please e)<br>Results<br>To<br>NleeOCN  | Remarks<br>Marl<br>and El<br>avorld   | DF<br>, com   |
| Turnaround Time Req<br>STD. TA<br>24 hour<br>Data Package Options<br>QC Summary<br>Type VI (Raw Data)<br>WIP (RWQCB)  | rested (*<br>72 hour<br>4 day<br>(please ci<br>ppe I – Full<br>Coelt Deli                   | TAT) (plea<br>4<br>5<br>ircle if requ<br>l<br>iverable no | ase circle<br>8 hour<br>day<br>hired)<br>t needed   | )<br>                                     |  | Relinquished<br>Relinquished<br>Relinquished<br>UPS  |                  | ercia                                 | z<br>I Car<br>Ot | rier:                   | <u>ک</u>                                | 13A<br>13A                            | Dat<br>Dat<br>PR.17<br>Dat<br>PR.12 |                         | Tim<br>630<br>Tim<br>542<br>Tim<br>639 |                   |      | ved by<br>ved by<br>Ved by<br>EA<br>ved by | loci<br>al    | 1h          | ion CRA<br>- 13,   | Date<br>4-12-12<br>Date<br>PC/2<br>Date<br>Date   | Time<br>1632<br>Time<br>1549<br>Time<br>Time                            |

4

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3460 Rev. 10/04/01

### Chevron California Reaion Analysis Request/Chain of Cratody

| Lancaster L<br>Where quality is a s | _abor  | atories          | 2            |                                       |                      |                    | Ac                               | xct. #:      | 10           | )<br>ह    | 50     | )<br>_ Sa | F                   | or L:<br>∍ #: ( | anca<br>O C | ster L       | abor<br>3 a  | atorie<br>6 -      | s use<br>40 | only | SCR#:                          | 246                               | 5141          |
|-------------------------------------|--|------------------|--------------|---------------------------------------|----------------------|--------------------|----------------------------------|--------------|--------------|-----------|--------|-----------|---------------------|-----------------|-------------|--------------|--------------|--------------------|-------------|------|--------------------------------|-----------------------------------|---------------|
|                                     |  |                  | ø            | +1312-                                | \$6 P.               | 30F6               |                                  |              |              |           |        |           | A                   | naly            | ses         | Requ         | este         | d                  |             |      | G#130                          | )996                              | 1             |
| Facility #: 9-36                    | 00<br>00 TF  | LEGR             | (cra<br>APH  | 311965<br>AVF 0                       | )<br>AKLAND          | <u>c</u> A         |                                  |              |              |           |        | -         | F                   | Pres            | erva        | tion C       | ode          | s<br>              |             |      | Preserv<br>H = HCl<br>N = HNO: | ative Cod<br>T = Thios<br>B = NaO | es<br>sulfate |
| Chevron PM: MARK                    | HORN   | E                | Lead C       | onsultant:                            | CRA                  |                    |                                  |              | ſS           |           |        | Cleanul   |                     |                 |             | BA           |              |                    |             |      | $\mathbf{S} = H_2 SO_4$        | 0 = Othe                          | r             |
| Consultant/Office:                  | <u>RA /</u>  | EMER             | YVIL         |                                       |                      |                    |                                  |              | taine        | 21        |        | ica Geł   |                     |                 |             | E A          |              |                    |             |      | J value repo                   | rting needeo<br>west detect       | ion limits    |
| Consultant Prj. Mgr.: <u>N</u>      | nsultant Prj. Mgr.: <u>N/HTIF/NV LEE</u><br>nsultant Phone #: 510 - 420 - 0700 Eax #: 510 - 420 - 9170 |                  |              |                                       |                      |                    |                                  |              |              | 8         | 0      |           |                     |                 |             | A<br>F<br>F  |              |                    |             |      | possible for                   | 3260 compo                        | unds          |
| Sampler: SEQUOIA                    |  |                  |              | ber o                                 | 8260                 | 0<br>GR            | DRO                              |              | ates         | 7421      |        | 2         |                     |                 |             | Confirm high | est hit by 8 | 260                |             |      |                                |                                   |               |
| Service Order #:                    | ampler: Non SAR:   |                  |              |                                       |                      |                    |                                  |              |              | + MTBE    | 015 MC | 015 MO    | ul scan             | Dxygen          | 420         | 到。           |              |                    |             |      | Confirm all h                  | iits by 8260<br>w's on highe      | est hit       |
| Field<br>Point Name                 | Matrix   | Repeat<br>Sample | Top<br>Depth | Year Month Da                         | Time<br>av Collected | New<br>Field Pt.   | Grab                             | Com          | Total        | втех      | TPH 8  | ТРН 8(    | 8260 fi             |                 | Lead 7      | Dip          |              |                    |             |      | Run ov                         | y's on all hi                     | ts            |
| B-11 1<br>B-11 1                    | 5<br>5   |                  | 5            | 2012-4-1.                             | 2 1340<br>1350       |                    | X<br>X                           |              | l<br>l       | X<br>X    | ××     |           |                     |                 |             | ×<br>×       |              |                    |             |      | Comments/<br>Please e          | Remarks<br>mail                   |               |
| B-11 ·<br>B-11 ·                    | <u>s</u>   |                  | 15           |                                       | 1405                 |                    | X<br>X                           |              | ۱<br>۱       | X<br>X    | Y<br>X |           |                     |                 |             | ×<br>×       | +            |                    |             |      | results<br>to                  | and E                             | DP            |
| B-11 +                              | 5  | ·····            | 25           |                                       | 1455.                |                    | X                                |              |              | X         | X      |           |                     |                 |             | ×            |              |                    |             |      | nleeOcro                       | world.                            | com           |
|                                     |  |                  | ~1.5         |                                       | .3001                |                    |                                  |              |              | $\hat{}$  | _X     |           |                     |                 |             |              |              |                    |             |      |                                |                                   |               |
|                                     |  |                  |              |                                       |                      |                    |                                  |              |              |           |        |           |                     |                 |             |              |              |                    |             |      |                                |                                   |               |
| ····                                |  |                  |              | · · · · · · · · · · · · · · · · · · · |                      |                    |                                  |              |              |           |        |           |                     |                 |             |              |              |                    |             |      |                                |                                   |               |
|                                     |  |                  |              |                                       |                      |                    |                                  |              |              |           |        |           |                     |                 |             |              | _            |                    |             | -    |                                |                                   |               |
|                                     |  |                  |              |                                       | Betinguishe          | d hur              |                                  |              |              |           |        |           |                     |                 | Time        |              |              |                    |             |      |                                | Dete                              | Time          |
| Turnaround Time Req                 | uested (   | (TAT) (piea      | ase circle   | e)                                    |                      | por                | $\overline{\boldsymbol{\gamma}}$ | $\geq$       |              | - <u></u> |        | ć,        | -/1-/,              | 2 1             | 630         | Se           |              | eu by:<br><u> </u> | loci        | 1/2  | w1                             | H-1240                            | 1630          |
| 24-hour                             | 4 day  | 5                | day          |                                       | Relinguished         |                    | Ē                                | 2            |              | ر         | 13     | p         | Date<br>RIL         | . 1.            | Time<br>54  |              |              | ed by:             | al          | per  | <u> </u>                       | Date<br>3,4PR/2                   | Time<br>154   |
| Data Package Options                | (please o  | circle if requ   | uired)       |                                       | Rélinquishe          | d by:              | L                                | -            |              |           | 13/    | pro f     | Date<br>2∕ <u>∠</u> | 16              | Time        | Re           | ceiv         | et by:             | NE          | K    | ~                              | Date                              | Time          |
| Type VI (Raw Data)                  | pe ı – Ful<br>Coelt Del  | liverable no     | ot neede     | d                                     | Relinquished<br>UPS  | d by Comm<br>FedEx | ercia                            | il Car<br>Ot | rier:<br>her |           |        |           |                     |                 |             | Re           | ceiv         | ed by:             |             | A    | /                              | Date                              | Time<br>∖⊛¢   |
| Disk                                |  |                  |              | - <u>.</u>                            | Temperature          | e Upon Red         | eipt:                            | (A           | 2-3          | C         | )°     |           |                     |                 |             | Cı           | stod         | y Seà              | is Int      | acto | Ves No                         |                                   |               |

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### Chevron California Region Analysis Request/Chain of Crotody

| <u>Lancaste</u>  | Labor   | atories   |   |                   |   |  |                                      | Ac           | cct. #    | <u> </u>       | 181 | 30 | )<br>_ Sar                          | Fo<br>mple #               | r Lanı<br>#:                           | cast  | er Lab<br>168                         | oorato | ories<br>o-Y   | use on        | ly<br>SCR#:  | 246   | 5140  |
|--|---|---|---|-------------------|---|--|--------------------------------------|--------------|-----------|----------------|-----|----|-------------------------------------|----------------------------|--|---|---------------------------------------|--------|--|---------------|--|---|---|
| There quanty is  | a solence.  |   | Q   | 541               | 312-  | 6 P.   | 50F (                                | þ            |           |                |     |    |                                     | An                         | alyse                                  | es A  | eque                                  | sted   |  |               | <i>] G</i> <sup>#</sup> 1302   | 1066  |   |
| Facility #: $q-3$ Site Address: $2\lambda$ Chevron PM: $MARI$ Consultant/Office:Consultant Pri. Mgr.:Consultant Phone #:Sampler: $SEQUO$ Service Order #:FieldPoint NameB-12B-12B-12B-12B-12B-12B-12B-12B-12B-12B-12B-12B-12 | 600<br>00 TI<br>CRA/<br>NATH,<br>SIO 42<br>IA PAI<br>Matrix<br>S<br>S<br>S<br>S<br>S<br>S | (0) $ELEGF$ $NE$ $EMFF$ $AN LI$ $0 	 0 	 0 	 0 	 0 	 0 	 0 	 0 	 0 	 0$ | $\frac{1}{2}$ $\frac{2}{2}$ | $\frac{1191}{14}$ | <u>65</u><br><u>7</u><br>ant:<br><u>510</u><br><u>510</u><br><u>510</u><br><u>510</u> | 4KLANI<br>CRA<br>1209170<br>1209170<br>0120<br>0120<br>0120<br>0120<br>0120<br>0120<br>0120<br>0 | 2<br>New<br>Field Pt.                | r × × × Grab | Composite |                |     | <  | TPH 8015 MOD DRO Silica Gel Cleanup | Pre                        |  |   | S S S S S S S S S S S S S S S S S S S |        |  |               | Preserva $H = HCI$ $N = HNO_3$ $S = H_2SO_4$ $\Box$ J value report $\Box$ Must meet low<br>possible for 8: $8021$ MTBE Cor $\Box$ Confirm higher $\Box$ Confirm all hit $\Box$ Run oxy $\Box$ Run oxyComments / FPlease $Yesul ts$ $to$ $n leel$ | tive Code<br>T = Thios<br>B = NaOl<br>O = Other $O = Other O = OtherO = OtherO = Other O = OtherO = Other$ | es<br>ulfate<br>f<br>r<br>ion limits<br>unds<br>260<br>est hit<br>s |
| Turnaround Time Re<br>STD. TAT<br>24 hour<br>Data Package Option<br>QC Summary<br>Type VI (Raw Data)<br>WIP (RWQCB)  | equested<br>72 hour<br>4 day<br>Type I – Ft<br>Coelt De                                   | (TAT) (plea<br>(TAT) (plea<br>circle if required                        | ase circl<br>8 hour<br>6 day<br>uired)  | e)                |   | Relinquishe<br>Relinquishe<br>Relinquishe<br>UPS   | d by<br>d by<br>d by<br>comp<br>edex |              |           | rrier:<br>ther |     | 13 |                                     | Date<br>3-12<br>Date<br>U2 | Тії<br>12 <b>3</b><br>Тії<br>15<br>Тії | me<br>W<br>W<br>M<br>M<br>M<br>M<br>M<br>M<br>M<br>M<br>M<br>M<br>M<br>M<br>M<br>M<br>M<br>M<br>M | Rec<br>Sec<br>Rec<br>Rec              |        | by:<br>Land<br>by:<br>Land<br>by:<br>by:<br>by:<br>by:<br>by:<br>by:<br>by:<br>by: | n ben<br>elfe | CRA<br>13,   | Date<br><del>1-13-11</del><br>Date<br>PQ12<br>Date<br>Date<br>ylimlin   | Time<br>J3C<br>Time<br>Time<br>Time                                 |

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🔅 eurofins

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### **Explanation of Symbols and Abbreviations**

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

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

- < less than The number following the sign is the <u>limit of quantitation</u>, the smallest amount of analyte which can be reliably determined using this specific test.
- > greater than
- **ppm** parts per million One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.
- **ppb** parts per billion

### Data Qualifiers:

C – result confirmed by reanalysis.

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

U.S. EPA CLP Data Qualifiers:

### **Organic Qualifiers**

- **A** TIC is a possible aldol-condensation product
- **B** Analyte was also detected in the blank
- **C** Pesticide result confirmed by GC/MS
- **D** Compound quantitated on a diluted sample
- E Concentration exceeds the calibration range of the instrument
- **N** Presumptive evidence of a compound (TICs only)
- P Concentration difference between primary and confirmation columns >25%
- U Compound was not detected
- **X,Y,Z** Defined in case narrative

### **Inorganic Qualifiers**

- **B** Value is <CRDL, but  $\ge$ IDL
- E Estimated due to interference
- **M** Duplicate injection precision not met
- **N** Spike sample not within control limits
- S Method of standard additions (MSA) used for calculation
- U Compound was not detected
- W Post digestion spike out of control limits
  - \* Duplicate analysis not within control limits
- + Correlation coefficient for MSA < 0.995

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

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

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

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

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL LANCASTER LABORATORIES BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF LANCASTER LABORATORIES AND (B) WHETHER LANCASTER LABORATORIES HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Lancaster Laboratories which includes any conditions that vary from the Standard Terms and Conditions, and Lancaster hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

**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.

APPENDIX F

### GRAB-GROUNDWATER LABORATORY ANALYTICAL REPORT





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### ANALYTICAL RESULTS

Prepared by:

Lancaster Laboratories 2425 New Holland Pike Lancaster, PA 17605-2425

Prepared for: ChevronTexaco 6001 Bollinger Canyon Rd L4310

San Ramon CA 94583

April 30, 2012

Project: 93600

Submittal Date: 04/14/2012 Group Number: 1302260 PO Number: 0015074399 Release Number: PATTEN State of Sample Origin: CA

Client Sample Description B-9-W-13-120412 Grab Water B-9-W-20-120412 Grab Water B-9-W-30-120412 Grab Water B-10-W-18-120412 Grab Water B-10-W-29.5-120412 Grab Water B-11-W-23-120412 Grab Water B-11-W-29.5-120412 Grab Water B-12-W-23-120413 Grab Water B-12-W-30-120413 Grab Water

### Lancaster Labs (LLI) #

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

ELECTRONIC COPY TO CRA ELECTRONIC COPY TO

Chevron

Attn: CRA EDD Attn: Nathan Lee





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Respectfully Submitted,

Matalie K 200

Natalie R. Luciano Specialist

(717) 556-7258



# **Analysis Report**

Account

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Page 1 of 1

LLI Sample # WW 6616817 LLI Group # 1302260

# 10880

### Sample Description: B-9-W-13-120412 Grab Water Facility# 93600 CRAW 2200 Telegraph-Oakland T0600161613 B-9

#### Project Name: 93600

| Collected: | 04  | /12 | /2012 | 09:00 | by | SP  |
|------------|-----|-----|-------|-------|----|-----|
| COTTECLEU. | 01/ |     | /     | 00.60 | Dy | OF. |

Submitted: 04/14/2012 10:00 Reported: 04/30/2012 10:53 ChevronTexaco 6001 Bollinger Canyon Rd L4310 San Ramon CA 94583

#### т0913

| CAT<br>No. | Analysis Name               | CAS Number | As Received<br>Result | As Received<br>Method<br>Detection Limit* | As Received<br>Limit of<br>Quantitation | Dilution<br>Factor |
|------------|-----------------------------|------------|-----------------------|---|---|--------------------|
| GC/MS      | Volatiles SW-846            | 8260B      | ug/l                  | ug/l                                      | ug/l                                    |                    |
| 10943      | t-Amyl methyl ether         | 994-05-8   | N.D.                  | 0.5                                       | 1                                       | 1                  |
| 10943      | Benzene                     | 71-43-2    | N.D.                  | 0.5                                       | 1                                       | 1                  |
| 10943      | t-Butyl alcohol             | 75-65-0    | N.D.                  | 2   | 5                                       | 1                  |
| 10943      | Ethyl t-butyl ether         | 637-92-3   | N.D.                  | 0.5                                       | 1                                       | 1                  |
| 10943      | Ethylbenzene                | 100-41-4   | 43                    | 0.5                                       | 1                                       | 1                  |
| 10943      | di-Isopropyl ether          | 108-20-3   | N.D.                  | 0.5                                       | 1                                       | 1                  |
| 10943      | Methyl Tertiary Butyl Ether | 1634-04-4  | N.D.                  | 0.5                                       | 1                                       | 1                  |
| 10943      | Toluene                     | 108-88-3   | N.D.                  | 0.5                                       | 1                                       | 1                  |
| 10943      | Xylene (Total)              | 1330-20-7  | 130                   | 0.5                                       | 1                                       | 1                  |
| GC Vol     | atiles SW-846               | 8015B      | ug/l                  | ug/l                                      | ug/l                                    |                    |
| 01728      | TPH-GRO N. CA water C6-C12  | n.a.       | 1,800                 | 50  | 100                                     | 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.

| CAT<br>No.     | Analysis Name                                   | Method                       | Trial# | Batch#                 | Analysis<br>Date and Time            | Analyst                      | Dilution<br>Factor |
|----------------|---|------------------------------|--------|------------------------|--------------------------------------|------------------------------|--------------------|
| 10943          | BTEX + 5 Oxygenates 8260<br>Water               | SW-846 8260B                 | 1      | Z121101AA              | 04/19/2012 21:42                     | Daniel H Heller              | 1                  |
| 01163          | GC/MS VOA Water Prep                            | SW-846 5030B                 | 1      | Z121101AA              | 04/19/2012 21:42                     | Daniel H Heller              | 1                  |
| 01728<br>01146 | TPH-GRO N. CA water C6-C12<br>GC VOA Water Prep | SW-846 8015B<br>SW-846 5030B | 2<br>1 | 12108A07A<br>12108A07A | 04/18/2012 15:42<br>04/18/2012 15:42 | Marie D John<br>Marie D John | 1<br>1             |



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Page 1 of 1

### Sample Description: B-9-W-20-120412 Grab Water Facility# 93600 CRAW 2200 Telegraph-Oakland T0600161613 B-9

### LLI Sample # WW 6616818 LLI Group # 1302260 Account # 10880

#### Project Name: 93600

| Collected: 04/12/2012 09:24 by | SF |
|--------------------------------|----|
|--------------------------------|----|

ChevronTexaco 6001 Bollinger Canyon Rd L4310 San Ramon CA 94583

Submitted: 04/14/2012 10:00 Reported: 04/30/2012 10:53

#### т0920

| CAT<br>No. | Analysis Name               | CAS Number | As Received<br>Result | As Received<br>Method<br>Detection Limit* | As Received<br>Limit of<br>Quantitation | Dilution<br>Factor |
|------------|-----------------------------|------------|-----------------------|---|---|--------------------|
| GC/MS      | Volatiles SW-846            | 8260B      | ug/l                  | ug/l                                      | ug/l                                    |                    |
| 10943      | t-Amyl methyl ether         | 994-05-8   | N.D.                  | 0.5                                       | 1                                       | 1                  |
| 10943      | Benzene                     | 71-43-2    | N.D.                  | 0.5                                       | 1                                       | 1                  |
| 10943      | t-Butyl alcohol             | 75-65-0    | N.D.                  | 2   | 5                                       | 1                  |
| 10943      | Ethyl t-butyl ether         | 637-92-3   | N.D.                  | 0.5                                       | 1                                       | 1                  |
| 10943      | Ethylbenzene                | 100-41-4   | 51                    | 0.5                                       | 1                                       | 1                  |
| 10943      | di-Isopropyl ether          | 108-20-3   | N.D.                  | 0.5                                       | 1                                       | 1                  |
| 10943      | Methyl Tertiary Butyl Ether | 1634-04-4  | 5                     | 0.5                                       | 1                                       | 1                  |
| 10943      | Toluene                     | 108-88-3   | N.D.                  | 0.5                                       | 1                                       | 1                  |
| 10943      | Xylene (Total)              | 1330-20-7  | 150                   | 0.5                                       | 1                                       | 1                  |
| GC Vol     | latiles SW-846              | 8015B      | ug/l                  | ug/l                                      | ug/l                                    |                    |
| 01728      | TPH-GRO N. CA water C6-C12  | n.a.       | 1,400                 | 50  | 100                                     | 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.

| CAT<br>No.     | Analysis Name                                   | Method                       | Trial# | Batch#                 | Analysis<br>Date and Time            | Analyst                      | Dilution<br>Factor |
|----------------|---|------------------------------|--------|------------------------|--------------------------------------|------------------------------|--------------------|
| 10943          | BTEX + 5 Oxygenates 8260<br>Water               | SW-846 8260B                 | 1      | Z121101AA              | 04/19/2012 22:06                     | Daniel H Heller              | 1                  |
| 01163          | GC/MS VOA Water Prep                            | SW-846 5030B                 | 1      | Z121101AA              | 04/19/2012 22:06                     | Daniel H Heller              | 1                  |
| 01728<br>01146 | TPH-GRO N. CA water C6-C12<br>GC VOA Water Prep | SW-846 8015B<br>SW-846 5030B | 2<br>1 | 12108A07A<br>12108A07A | 04/18/2012 16:08<br>04/18/2012 16:08 | Marie D John<br>Marie D John | 1<br>1             |



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### Sample Description: B-9-W-30-120412 Grab Water Facility# 93600 CRAW 2200 Telegraph-Oakland T0600161613 B-9

### LLI Sample # WW 6616819 LLI Group # 1302260 Account # 10880

#### Project Name: 93600

|  | Collected: | 04/12/2012 | 10:15 | by SF |
|--|------------|------------|-------|-------|
|--|------------|------------|-------|-------|

ChevronTexaco 6001 Bollinger Canyon Rd L4310 San Ramon CA 94583

Submitted: 04/14/2012 10:00 Reported: 04/30/2012 10:53

#### т0930

| Analysis Name            | CAS N   | As Ro<br>umber Resu  | As<br>eceived Met<br>lt Det  | Received<br>:hod<br>:ection Limit*  | As Received<br>Limit of<br>Quantitation   | Dilution<br>Factor  |
|--------------------------|---|--|--|---|---|---|
| Volatiles SW-            | 846 8260B   | ug/l   | ug/  | 1   | ug/l  |   |
| t-Amyl methyl ether      | 994-0   | 5-8 N.D.   | 0.5  |   | 1   | 1   |
| Benzene                  | 71-43   | -2 N.D.  | 0.5  |   | 1   | 1   |
| t-Butyl alcohol          | 75-65   | -0 N.D.  | 2  |   | 5   | 1   |
| Ethyl t-butyl ether      | 637-9   | 2-3 N.D.   | 0.5  |   | 1   | 1   |
| Ethylbenzene             | 100-4   | 1-4 13   | 0.5  |   | 1   | 1   |
| di-Isopropyl ether       | 108-2   | 0-3 N.D.   | 0.5  |   | 1   | 1   |
| Methyl Tertiary Butyl Et | her 1634-   | 04-4 1   | 0.5  |   | 1   | 1   |
| Toluene                  | 108-8   | 8-3 N.D.   | 0.5  |   | 1   | 1   |
| Xylene (Total)           | 1330-   | 20-7 40  | 0.5  |   | 1   | 1   |
| latiles SW-              | 846 8015B   | ug/l   | ug/  | 1   | ug/l  |   |
| TPH-GRO N. CA water C6-C | 12 n.a.   | 320  | 50   |   | 100   | 1   |
|                          | Analysis NameVolatilesSW-t-Amyl methyl etherBenzenet-Butyl alcoholEthyl t-butyl etherEthyl benzenedi-Isopropyl etherMethyl Tertiary Butyl EtTolueneXylene (Total)latilesSW-TPH-GRO N. CA water C6-C | Analysis NameCAS NVolatilesSW-8468260Bt-Amyl methyl ether994-0Benzene71-43t-Butyl alcohol75-65Ethyl t-butyl ether637-9Ethyl benzene100-4di-Isopropyl ether108-2Methyl Tertiary Butyl Ether1634-Toluene108-8Xylene (Total)1330-latilesSW-8468015BTPH-GRO N. CA water C6-C12n.a. | Analysis Name         CAS Number         As Reference           Volatiles         SW-846         8260B         ug/l           t-Amyl methyl ether         994-05-8         N.D.           Benzene         71-43-2         N.D.           t-Butyl alcohol         75-65-0         N.D.           Ethyl t-butyl ether         637-92-3         N.D.           Ethyl benzene         100-41-4         13           di-Isopropyl ether         108-20-3         N.D.           Methyl Tertiary Butyl Ether         1634-04-4         1           Toluene         108-88-3         N.D.           Xylene (Total)         1330-20-7         40           Iatiles         SW-846         8015B         ug/l           TPH-GRO N. CA water C6-C12         n.a.         320 | Analysis Name       CAS Number       As Received<br>Result       Met<br>Det         Volatiles       SW-846       8260B       ug/l       ug/l       ug/l         t-Amyl methyl ether       994-05-8       N.D.       0.5         Benzene       71-43-2       N.D.       0.5         t-Butyl alcohol       75-65-0       N.D.       0.5         Ethyl t-butyl ether       637-92-3       N.D.       0.5         Ethyl trobutyl ether       100-41-4       13       0.5         di-Isopropyl ether       108-20-3       N.D.       0.5         Methyl Tertiary Butyl Ether       1634-04-4       1       0.5         Toluene       108-88-3       N.D.       0.5         Xylene (Total)       1330-20-7       40       0.5         Iatiles       SW-846       8015B       ug/l       ug/l         TPH-GRO N. CA water C6-C12       n.a.       320       50 | Analysis NameCAS NumberAs Received<br>ResultAs Received<br>Method<br>Detection Limit*VolatilesSW-846826 DEug/lug/lt-Amyl methyl ether994-05-8N.D.0.5Benzene71-43-2N.D.0.5t-Butyl alcohol75-65-0N.D.2Ethyl t-butyl ether637-92-3N.D.0.5Ethyl t-butyl ether100-41-4130.5di-Isopropyl ether108-20-3N.D.0.5Methyl Tertiary Butyl Ether1634-04-410.5Toluene108-88-3N.D.0.5Xylene (Total)330-20-7400.5TPH-GRO N. CA water C6-C12n.a.32050 | Analysis NameCAS NumberAs Received<br>ResultSk Received<br>Sk Received<br> |

### 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.

| CAT<br>No.     | Analysis Name                                   | Method                       | Trial# | Batch#                 | Analysis<br>Date and Time            | Analyst                      | Dilution<br>Factor |
|----------------|---|------------------------------|--------|------------------------|--------------------------------------|------------------------------|--------------------|
| 10943          | BTEX + 5 Oxygenates 8260<br>Water               | SW-846 8260B                 | 1      | Z121101AA              | 04/19/2012 19:43                     | Daniel H Heller              | 1                  |
| 01163          | GC/MS VOA Water Prep                            | SW-846 5030B                 | 1      | Z121101AA              | 04/19/2012 19:43                     | Daniel H Heller              | 1                  |
| 01728<br>01146 | TPH-GRO N. CA water C6-C12<br>GC VOA Water Prep | SW-846 8015B<br>SW-846 5030B | 1<br>1 | 12108A07A<br>12108A07A | 04/18/2012 16:35<br>04/18/2012 16:35 | Marie D John<br>Marie D John | 1<br>1             |



# **Analysis Report**

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| Sample Description: | B-10-W-18-120412 Grab Water             | LLI  | Sample | # | WW 6616820 |
|---------------------|---|------|--------|---|------------|
|                     | Facility# 93600 CRAW                    | LLI  | Group  | # | 1302260    |
|                     | 2200 Telegraph-Oakland T0600161613 B-10 | Acco | ount   | # | 10880      |

#### Project Name: 93600

| Collected: | 04/12/2012 | 11:45 | by SE |
|------------|------------|-------|-------|
|------------|------------|-------|-------|

ChevronTexaco 6001 Bollinger Canyon Rd L4310 San Ramon CA 94583

Submitted: 04/14/2012 10:00 Reported: 04/30/2012 10:53

#### T1018

| Analysis Name               | CAS Number   | As Received<br>Result  | As Received<br>Method<br>Detection Limit*   | As Received<br>Limit of<br>Quantitation  | Dilution<br>Factor   |
|-----------------------------|--|--|---|--|--|
| Volatiles SW-846            | 8260B  | ug/l   | ug/l  | ug/l   |  |
| t-Amyl methyl ether         | 994-05-8   | N.D.   | 0.5   | 1  | 1  |
| Benzene                     | 71-43-2  | N.D.   | 0.5   | 1  | 1  |
| t-Butyl alcohol             | 75-65-0  | N.D.   | 2   | 5  | 1  |
| Ethyl t-butyl ether         | 637-92-3   | N.D.   | 0.5   | 1  | 1  |
| Ethylbenzene                | 100-41-4   | 0.7  | 0.5   | 1  | 1  |
| di-Isopropyl ether          | 108-20-3   | N.D.   | 0.5   | 1  | 1  |
| Methyl Tertiary Butyl Ether | 1634-04-4  | 5  | 0.5   | 1  | 1  |
| Toluene                     | 108-88-3   | N.D.   | 0.5   | 1  | 1  |
| Xylene (Total)              | 1330-20-7  | 0.8  | 0.5   | 1  | 1  |
| latiles SW-846              | 8015B  | ug/l   | ug/l  | ug/l   |  |
| TPH-GRO N. CA water C6-C12  | n.a.   | N.D.   | 50  | 100  | 1  |
|                             | Analysis NameVolatilesSW-846t-Amyl methyl etherBenzenet-Butyl alcoholEthyl t-butyl etherEthylbenzenedi-Isopropyl etherMethyl Tertiary Butyl EtherTolueneXylene (Total)latilesSW-8466TPH-GRO N. CA water C6-C12 | Analysis Name         CAS Number           Volatiles         SW-846         8260B           t-Amyl methyl ether         994-05-8           Benzene         71-43-2           t-Butyl alcohol         75-65-0           Ethyl t-butyl ether         637-92-3           Ethylbenzene         100-41-4           di-Isopropyl ether         108-20-3           Methyl Tertiary Butyl Ether         1634-04-4           Toluene         108-88-3           Xylene (Total)         1330-20-7           Latiles         SW-846         8015B           TPH-GRO N. CA water C6-C12         n.a. | Analysis NameCAS NumberAs Received<br>ResultVolatilesSW-846 8260Bug/lt-Amyl methyl ether994-05-8N.D.Benzene71-43-2N.D.t-Butyl alcohol75-65-0N.D.Ethyl t-butyl ether637-92-3N.D.Ethyl benzene100-41-40.7di-Isopropyl ether108-20-3N.D.Methyl Tertiary Butyl Ether1634-04-45Toluene108-88-3N.D.Xylene (Total)1330-20-70.8IntellesSW-846 8015Bug/lTPH-GRO N. CA water C6-C12n.a.N.D. | Analysis Name       CAS Number       As Received<br>Result       As Received<br>Method<br>Detection Limit*         Volatiles       SW-846 8260B       ug/l       ug/l         t-Amyl methyl ether       994-05-8       N.D.       0.5         Benzene       71-43-2       N.D.       0.5         t-Butyl alcohol       75-65-0       N.D.       2         Ethyl t-butyl ether       637-92-3       N.D.       0.5         Ethyl t-butyl ether       100-41-4       0.7       0.5         di-Isopropyl ether       108-20-3       N.D.       0.5         Methyl Tertiary Butyl Ether       1634-04-4       5       0.5         Toluene       108-88-3       N.D.       0.5         Xylene (Total)       1330-20-7       0.8       0.5         true       SW-846 8015B       ug/l       ug/l         TPH-GRO N. CA water C6-C12       n.a.       N.D.       50 | Analysis NameCAS NumberAs Received<br>ResultAs Received<br>Method<br>petertion Limit*Seceived<br>finit of<br>QuantitationVolatilesSW-846 8260ug/lug/lug/lt-Amyl methyl ether994-05-8N.D.0.51Benzene71-43-2N.D.0.51t-Butyl alcohol75-65-0N.D.25Ethyl t-butyl ether637-92-3N.D.0.51Ethyl benzene100-41-40.70.51It-Isopropyl ether108-20-3N.D.0.51Methyl Tertiary Butyl Ether1634-04-450.51Toluene108-88-3N.D.0.51Xylene (Total)30-20-70.80.51TPH-GRO N. CA water C6-C12n.a.N.D.50100 |

#### 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.

| CAT<br>No. | Analysis Name                     | Method         | Trial# | Batch#    | Analysis<br>Date and Time | Analyst         | Dilution<br>Factor |
|------------|-----------------------------------|----------------|--------|-----------|---------------------------|-----------------|--------------------|
| 10943      | BTEX + 5 Oxygenates 8260<br>Water | SW-846 8260B   | 1      | Z121101AA | 04/19/2012 20:07          | Daniel H Heller | 1                  |
| 01163      | GC/MS VOA Water Prep              | SW-846 5030B   | 1      | Z121101AA | 04/19/2012 20:07          | Daniel H Heller | 1                  |
| 01728      | TPH-GRO N. CA water C6-C1         | 2 SW-846 8015B | 1      | 12108A07A | 04/18/2012 17:00          | Marie D John    | 1                  |
| 01146      | GC VOA Water Prep                 | SW-846 5030B   | 1      | 12108A07A | 04/18/2012 17:00          | Marie D John    | 1                  |



# **Analysis Report**

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# Sample Description: B-10-W-29.5-120412 Grab Water LLI Sample # WW 6616821 Facility# 93600 CRAW LLI Group # 1302260 2200 Telegraph-Oakland T0600161613 B-10 Account # 10880

### Project Name: 93600

| Collected: | 04/12/2012 | 12:30 | by SF |
|------------|------------|-------|-------|
|------------|------------|-------|-------|

Submitted: 04/14/2012 10:00 Reported: 04/30/2012 10:53 ChevronTexaco 6001 Bollinger Canyon Rd L4310 San Ramon CA 94583

#### т1029

| CAT<br>No. | Analysis Name               | CAS Number | As Received<br>Result | As Received<br>Method<br>Detection Limit* | As Received<br>Limit of<br>Quantitation | Dilution<br>Factor |
|------------|-----------------------------|------------|-----------------------|---|---|--------------------|
| GC/MS      | Volatiles SW-846            | 8260B      | ug/l                  | ug/l                                      | ug/l                                    |                    |
| 10943      | t-Amyl methyl ether         | 994-05-8   | N.D.                  | 0.5                                       | 1                                       | 1                  |
| 10943      | Benzene                     | 71-43-2    | N.D.                  | 0.5                                       | 1                                       | 1                  |
| 10943      | t-Butyl alcohol             | 75-65-0    | N.D.                  | 2   | 5                                       | 1                  |
| 10943      | Ethyl t-butyl ether         | 637-92-3   | N.D.                  | 0.5                                       | 1                                       | 1                  |
| 10943      | Ethylbenzene                | 100-41-4   | 1                     | 0.5                                       | 1                                       | 1                  |
| 10943      | di-Isopropyl ether          | 108-20-3   | N.D.                  | 0.5                                       | 1                                       | 1                  |
| 10943      | Methyl Tertiary Butyl Ether | 1634-04-4  | 1                     | 0.5                                       | 1                                       | 1                  |
| 10943      | Toluene                     | 108-88-3   | N.D.                  | 0.5                                       | 1                                       | 1                  |
| 10943      | Xylene (Total)              | 1330-20-7  | 2                     | 0.5                                       | 1                                       | 1                  |
| GC Vol     | latiles SW-846              | 8015B      | ug/l                  | ug/l                                      | ug/l                                    |                    |
| 01728      | TPH-GRO N. CA water C6-C12  | n.a.       | 64                    | 50  | 100                                     | 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.

| CAT<br>No.     | Analysis Name                                   | Method                       | Trial# | Batch#                 | Analysis<br>Date and Time            | Analyst                      | Dilution<br>Factor |
|----------------|---|------------------------------|--------|------------------------|--------------------------------------|------------------------------|--------------------|
| 10943          | BTEX + 5 Oxygenates 8260<br>Water               | SW-846 8260B                 | 1      | Z121101AA              | 04/19/2012 20:31                     | Daniel H Heller              | 1                  |
| 01163          | GC/MS VOA Water Prep                            | SW-846 5030B                 | 1      | Z121101AA              | 04/19/2012 20:31                     | Daniel H Heller              | 1                  |
| 01728<br>01146 | TPH-GRO N. CA water C6-C12<br>GC VOA Water Prep | SW-846 8015B<br>SW-846 5030B | 1<br>1 | 12108A07A<br>12108A07A | 04/18/2012 17:45<br>04/18/2012 17:45 | Marie D John<br>Marie D John | 1<br>1             |



# **Analysis Report**

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# Sample Description: B-11-W-23-120412 Grab Water LLI Sample # WW 6616822 Facility# 93600 CRAW LLI Group # 1302260 2200 Telegraph-Oakland T0600161613 B-11 Account # 10880

#### Project Name: 93600

Collected: 04/12/2012 14:35 by SP

Submitted: 04/14/2012 10:00 Reported: 04/30/2012 10:53 6001 Bollinger Canyon Rd L4310 San Ramon CA 94583

ChevronTexaco

#### T1123

| CAT<br>No. | Analysis Name               | CAS Number | As Received<br>Result | As Received<br>Method<br>Detection Limit* | As Received<br>Limit of<br>Quantitation | Dilution<br>Factor |
|------------|-----------------------------|------------|-----------------------|---|---|--------------------|
| GC/MS      | Volatiles SW-846            | 8260B      | ug/l                  | ug/l                                      | ug/l                                    |                    |
| 10943      | t-Amyl methyl ether         | 994-05-8   | N.D.                  | 0.5                                       | 1                                       | 1                  |
| 10943      | Benzene                     | 71-43-2    | N.D.                  | 0.5                                       | 1                                       | 1                  |
| 10943      | t-Butyl alcohol             | 75-65-0    | N.D.                  | 2   | 5                                       | 1                  |
| 10943      | Ethyl t-butyl ether         | 637-92-3   | N.D.                  | 0.5                                       | 1                                       | 1                  |
| 10943      | Ethylbenzene                | 100-41-4   | N.D.                  | 0.5                                       | 1                                       | 1                  |
| 10943      | di-Isopropyl ether          | 108-20-3   | N.D.                  | 0.5                                       | 1                                       | 1                  |
| 10943      | Methyl Tertiary Butyl Ether | 1634-04-4  | N.D.                  | 0.5                                       | 1                                       | 1                  |
| 10943      | Toluene                     | 108-88-3   | N.D.                  | 0.5                                       | 1                                       | 1                  |
| 10943      | Xylene (Total)              | 1330-20-7  | N.D.                  | 0.5                                       | 1                                       | 1                  |
| GC Vol     | atiles SW-846               | 8015B      | ug/l                  | ug/l                                      | ug/l                                    |                    |
| 01728      | TPH-GRO N. CA water C6-C12  | n.a.       | N.D.                  | 50  | 100                                     | 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.

| CAT<br>No. | Analysis Name                     | Method         | Trial# | Batch#    | Analysis<br>Date and Time | Analyst         | Dilution<br>Factor |
|------------|-----------------------------------|----------------|--------|-----------|---------------------------|-----------------|--------------------|
| 10943      | BTEX + 5 Oxygenates 8260<br>Water | SW-846 8260B   | 1      | Z121101AA | 04/19/2012 20:55          | Daniel H Heller | 1                  |
| 01163      | GC/MS VOA Water Prep              | SW-846 5030B   | 1      | Z121101AA | 04/19/2012 20:55          | Daniel H Heller | 1                  |
| 01728      | TPH-GRO N. CA water C6-C1         | 2 SW-846 8015B | 1      | 12108A07A | 04/18/2012 18:10          | Marie D John    | 1                  |
| 01146      | GC VOA Water Prep                 | SW-846 5030B   | 1      | 12108A07A | 04/18/2012 18:10          | Marie D John    | 1                  |



# **Analysis Report**

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# Sample Description: B-11-W-29.5-120412 Grab Water LLI Sample # WW 6616823 Facility# 93600 CRAW LLI Group # 1302260 2200 Telegraph-Oakland T0600161613 B-11 Account # 10880

### Project Name: 93600

|  | JILECLEU. | 04/1Z/Z01Z | 12,10 | DY SE |
|--|-----------|------------|-------|-------|
|--|-----------|------------|-------|-------|

Submitted: 04/14/2012 10:00 Reported: 04/30/2012 10:53 ChevronTexaco 6001 Bollinger Canyon Rd L4310 San Ramon CA 94583

#### T1129

| CAT<br>No. | Analysis Name               | CAS Number | As Received<br>Result | As Received<br>Method<br>Detection Limit* | As Received<br>Limit of<br>Quantitation | Dilution<br>Factor |
|------------|-----------------------------|------------|-----------------------|---|---|--------------------|
| GC/MS      | Volatiles SW-846            | 8260B      | ug/l                  | ug/l                                      | ug/l                                    |                    |
| 10943      | t-Amyl methyl ether         | 994-05-8   | N.D.                  | 0.5                                       | 1                                       | 1                  |
| 10943      | Benzene                     | 71-43-2    | N.D.                  | 0.5                                       | 1                                       | 1                  |
| 10943      | t-Butyl alcohol             | 75-65-0    | N.D.                  | 2   | 5                                       | 1                  |
| 10943      | Ethyl t-butyl ether         | 637-92-3   | N.D.                  | 0.5                                       | 1                                       | 1                  |
| 10943      | Ethylbenzene                | 100-41-4   | 10                    | 0.5                                       | 1                                       | 1                  |
| 10943      | di-Isopropyl ether          | 108-20-3   | N.D.                  | 0.5                                       | 1                                       | 1                  |
| 10943      | Methyl Tertiary Butyl Ether | 1634-04-4  | N.D.                  | 0.5                                       | 1                                       | 1                  |
| 10943      | Toluene                     | 108-88-3   | N.D.                  | 0.5                                       | 1                                       | 1                  |
| 10943      | Xylene (Total)              | 1330-20-7  | 8                     | 0.5                                       | 1                                       | 1                  |
| GC Vol     | atiles SW-846               | 8015B      | ug/l                  | ug/l                                      | ug/l                                    |                    |
| 01728      | TPH-GRO N. CA water C6-C12  | n.a.       | 220                   | 50  | 100                                     | 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.

| CAT<br>No.     | Analysis Name                                   | Method                       | Trial# | Batch#                 | Analysis<br>Date and Time            | Analyst                      | Dilution<br>Factor |
|----------------|---|------------------------------|--------|------------------------|--------------------------------------|------------------------------|--------------------|
| 10943          | BTEX + 5 Oxygenates 8260<br>Water               | SW-846 8260B                 | 1      | Z121101AA              | 04/19/2012 21:19                     | Daniel H Heller              | 1                  |
| 01163          | GC/MS VOA Water Prep                            | SW-846 5030B                 | 1      | Z121101AA              | 04/19/2012 21:19                     | Daniel H Heller              | 1                  |
| 01728<br>01146 | TPH-GRO N. CA water C6-C12<br>GC VOA Water Prep | SW-846 8015B<br>SW-846 5030B | 1<br>1 | 12108A07A<br>12108A07A | 04/18/2012 18:36<br>04/18/2012 18:36 | Marie D John<br>Marie D John | 1<br>1             |



# **Analysis Report**

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# Sample Description: B-12-W-23-120413 Grab Water LLI Sample # WW 6616824 Facility# 93600 CRAW LLI Group # 1302260 2200 Telegraph-Oakland T0600161613 B-12 Account # 10880

#### Project Name: 93600

Collected: 04/13/2012 08:40 by SP

Submitted: 04/14/2012 10:00 Reported: 04/30/2012 10:53 6001 Bollinger Canyon Rd L4310 San Ramon CA 94583

ChevronTexaco

#### T1223

| CAT<br>No. | Analysis Name               | CAS Number | As Received<br>Result | As Received<br>Method<br>Detection Limit* | As Received<br>Limit of<br>Quantitation | Dilution<br>Factor |
|------------|-----------------------------|------------|-----------------------|---|---|--------------------|
| GC/MS      | Volatiles SW-846            | 8260B      | ug/l                  | ug/l                                      | ug/l                                    |                    |
| 10943      | t-Amyl methyl ether         | 994-05-8   | N.D.                  | 0.5                                       | 1                                       | 1                  |
| 10943      | Benzene                     | 71-43-2    | N.D.                  | 0.5                                       | 1                                       | 1                  |
| 10943      | t-Butyl alcohol             | 75-65-0    | N.D.                  | 2   | 5                                       | 1                  |
| 10943      | Ethyl t-butyl ether         | 637-92-3   | N.D.                  | 0.5                                       | 1                                       | 1                  |
| 10943      | Ethylbenzene                | 100-41-4   | N.D.                  | 0.5                                       | 1                                       | 1                  |
| 10943      | di-Isopropyl ether          | 108-20-3   | N.D.                  | 0.5                                       | 1                                       | 1                  |
| 10943      | Methyl Tertiary Butyl Ether | 1634-04-4  | N.D.                  | 0.5                                       | 1                                       | 1                  |
| 10943      | Toluene                     | 108-88-3   | N.D.                  | 0.5                                       | 1                                       | 1                  |
| 10943      | Xylene (Total)              | 1330-20-7  | N.D.                  | 0.5                                       | 1                                       | 1                  |
| GC Vol     | latiles SW-846              | 8015B      | ug/l                  | ug/l                                      | ug/l                                    |                    |
| 01728      | TPH-GRO N. CA water C6-C12  | n.a.       | N.D.                  | 50  | 100                                     | 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.

| CAT<br>No. | Analysis Name                     | Method       | Trial# | Batch#                 | Analysis<br>Date and Time            | Analyst                      | Dilution<br>Factor |
|------------|-----------------------------------|--------------|--------|------------------------|--------------------------------------|------------------------------|--------------------|
| 10943      | BTEX + 5 Oxygenates 8260<br>Water | SW-846 8260B | 1      | F121114AA              | 04/21/2012 02:52                     | Kevin A Sposito              | 1                  |
| 01163      | GC/MS VOA Water Prep              | SW-846 5030B | 1      | F121114AA              | 04/21/2012 02:52                     | Kevin A Sposito              | 1                  |
| 01128      | GC VOA Water Prep                 | SW-846 5030B | 1<br>1 | 12108A07A<br>12108A07A | 04/18/2012 19:01<br>04/18/2012 19:01 | Marie D John<br>Marie D John | 1                  |



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# Sample Description: B-12-W-30-120413 Grab Water LLI Sample # WW 6616825 Facility# 93600 CRAW LLI Group # 1302260 2200 Telegraph-Oakland T0600161613 B-12 Account # 10880

### Project Name: 93600

| Collected: | 04/13/2012 | 09:00 | by SP |
|------------|------------|-------|-------|
| COTTECLEU  |            | 09.00 | Dy Dr |

Submitted: 04/14/2012 10:00 Reported: 04/30/2012 10:53 6001 Bollinger Canyon Rd L4310 San Ramon CA 94583

ChevronTexaco

#### T1230

| CAT<br>No. | Analysis Name               | CAS Number | As Received<br>Result | As Received<br>Method<br>Detection Limit* | As Received<br>Limit of<br>Quantitation | Dilution<br>Factor |
|------------|-----------------------------|------------|-----------------------|---|---|--------------------|
| GC/MS      | Volatiles SW-846            | 8260B      | ug/l                  | ug/l                                      | ug/l                                    |                    |
| 10943      | t-Amyl methyl ether         | 994-05-8   | N.D.                  | 0.5                                       | 1                                       | 1                  |
| 10943      | Benzene                     | 71-43-2    | N.D.                  | 0.5                                       | 1                                       | 1                  |
| 10943      | t-Butyl alcohol             | 75-65-0    | N.D.                  | 2   | 5                                       | 1                  |
| 10943      | Ethyl t-butyl ether         | 637-92-3   | N.D.                  | 0.5                                       | 1                                       | 1                  |
| 10943      | Ethylbenzene                | 100-41-4   | N.D.                  | 0.5                                       | 1                                       | 1                  |
| 10943      | di-Isopropyl ether          | 108-20-3   | N.D.                  | 0.5                                       | 1                                       | 1                  |
| 10943      | Methyl Tertiary Butyl Ether | 1634-04-4  | N.D.                  | 0.5                                       | 1                                       | 1                  |
| 10943      | Toluene                     | 108-88-3   | N.D.                  | 0.5                                       | 1                                       | 1                  |
| 10943      | Xylene (Total)              | 1330-20-7  | N.D.                  | 0.5                                       | 1                                       | 1                  |
| GC Vol     | latiles SW-846              | 8015B      | ug/l                  | ug/l                                      | ug/l                                    |                    |
| 01728      | TPH-GRO N. CA water C6-C12  | n.a.       | N.D.                  | 50  | 100                                     | 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.

| CAT<br>No.              | Analysis Name   | Method                                       | Trial#      | Batch#                              | Analysis<br>Date and Time                                | Analyst   | Dilution<br>Factor |
|-------------------------|---|--|-------------|-------------------------------------|--|---|--------------------|
| 10943                   | BTEX + 5 Oxygenates 8260<br>Water                                       | SW-846 8260B                                 | 1           | F121154AA                           | 04/25/2012 00:14   | Kevin A Sposito                                 | 1                  |
| 01163<br>01728<br>01146 | GC/MS VOA Water Prep<br>TPH-GRO N. CA water C6-C12<br>GC VOA Water Prep | SW-846 5030B<br>SW-846 8015B<br>SW-846 5030B | 1<br>1<br>1 | F121154AA<br>12108A07A<br>12108A07A | 04/25/2012 00:14<br>04/18/2012 19:26<br>04/18/2012 19:26 | Kevin A Sposito<br>Marie D John<br>Marie D John | 1<br>1<br>1        |



# **Analysis Report**

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### Quality Control Summary

Client Name: ChevronTexaco Reported: 04/30/12 at 10:53 AM Group Number: 1302260

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

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

### Laboratory Compliance Quality Control

| <u>Analysis Name</u>        | Blank<br><u>Result</u> | Blank<br><u>MDL**</u> | Blank<br><u>LOO</u> | Report<br><u>Units</u> | LCS<br><u>%REC</u> | LCSD<br><u>%REC</u> | LCS/LCSD<br><u>Limits</u> | <u>RPD</u> | <u>RPD Max</u> |
|-----------------------------|------------------------|-----------------------|---------------------|------------------------|--------------------|---------------------|---------------------------|------------|----------------|
| Batch number: F121114AA     | Sample numb            | er(s): 661            | L6824               |                        |                    |                     |                           |            |                |
| t-Amyl methyl ether         | N.D.                   | 0.5                   | 1                   | ug/l                   | 86                 |                     | 66-120                    |            |                |
| Benzene                     | N.D.                   | 0.5                   | 1                   | ug/l                   | 91                 |                     | 77-121                    |            |                |
| t-Butyl alcohol             | N.D.                   | 2.                    | 5                   | ug/l                   | 93                 |                     | 68-125                    |            |                |
| Ethyl t-butyl ether         | N.D.                   | 0.5                   | 1                   | ug/l                   | 88                 |                     | 66-120                    |            |                |
| Ethylbenzene                | N.D.                   | 0.5                   | 1                   | ug/l                   | 88                 |                     | 79-120                    |            |                |
| di-Isopropyl ether          | N.D.                   | 0.5                   | 1                   | ug/l                   | 89                 |                     | 71-124                    |            |                |
| Methyl Tertiary Butyl Ether | N.D.                   | 0.5                   | 1                   | ug/l                   | 86                 |                     | 68-121                    |            |                |
| Toluene                     | N.D.                   | 0.5                   | 1                   | ug/l                   | 90                 |                     | 79-120                    |            |                |
| Xylene (Total)              | N.D.                   | 0.5                   | 1                   | ug/l                   | 90                 |                     | 77-120                    |            |                |
| Batch number: F121154AA     | Sample numb            | er(s): 661            | L6825               |                        |                    |                     |                           |            |                |
| t-Amyl methyl ether         | N.D.                   | 0.5                   | 1                   | ug/l                   | 78                 |                     | 66-120                    |            |                |
| Benzene                     | N.D.                   | 0.5                   | 1                   | ug/l                   | 91                 |                     | 77-121                    |            |                |
| t-Butyl alcohol             | N.D.                   | 2.                    | 5                   | ug/l                   | 92                 |                     | 68-125                    |            |                |
| Ethyl t-butyl ether         | N.D.                   | 0.5                   | 1                   | ug/l                   | 85                 |                     | 66-120                    |            |                |
| Ethylbenzene                | N.D.                   | 0.5                   | 1                   | ug/l                   | 86                 |                     | 79-120                    |            |                |
| di-Isopropyl ether          | N.D.                   | 0.5                   | 1                   | ug/l                   | 87                 |                     | 71-124                    |            |                |
| Methyl Tertiary Butyl Ether | N.D.                   | 0.5                   | 1                   | ug/l                   | 81                 |                     | 68-121                    |            |                |
| Toluene                     | N.D.                   | 0.5                   | 1                   | ug/l                   | 91                 |                     | 79-120                    |            |                |
| Xylene (Total)              | N.D.                   | 0.5                   | 1                   | ug/l                   | 89                 |                     | 77-120                    |            |                |
| Batch number: Z121101AA     | Sample numb            | er(s): 661            | 16817-6616          | 823                    |                    |                     |                           |            |                |
| t-Amyl methyl ether         | N.D.                   | 0.5                   | 1                   | ug/l                   | 83                 |                     | 66-120                    |            |                |
| Benzene                     | N.D.                   | 0.5                   | 1                   | ug/l                   | 92                 |                     | 77-121                    |            |                |
| t-Butyl alcohol             | N.D.                   | 2.                    | 5                   | ug/l                   | 99                 |                     | 68-125                    |            |                |
| Ethyl t-butyl ether         | N.D.                   | 0.5                   | 1                   | ug/l                   | 83                 |                     | 66-120                    |            |                |
| Ethylbenzene                | N.D.                   | 0.5                   | 1                   | ug/l                   | 99                 |                     | 79-120                    |            |                |
| di-Isopropyl ether          | N.D.                   | 0.5                   | 1                   | ug/l                   | 83                 |                     | 71-124                    |            |                |
| Methyl Tertiary Butyl Ether | N.D.                   | 0.5                   | 1                   | ug/l                   | 88                 |                     | 68-121                    |            |                |
| Toluene                     | N.D.                   | 0.5                   | 1                   | ug/l                   | 102                |                     | 79-120                    |            |                |
| Xylene (Total)              | N.D.                   | 0.5                   | 1                   | ug/l                   | 102                |                     | 77-120                    |            |                |
| Batch number: 12108A07A     | Sample numb            | er(s): 661            | L6817-6616          | 825                    |                    |                     |                           |            |                |
| TPH-GRO N. CA water C6-C12  | N.D.                   | 50.                   | 100                 | ug/l                   | 109                | 109                 | 75-135                    | 0          | 30             |

### 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 | Dup RPD |
|-------------------------------|---------|
|-------------------------------|---------|

\*- Outside of specification

\*\*-This limit was used in the evaluation of the final result for the blank

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



Client Name: ChevronTexaco

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# **Analysis Report**

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### Quality Control Summary

| Group Number: 130 | 2260 |
|-------------------|------|
|-------------------|------|

| Reported: $04/30/12$ at 10: | 53 AM       |           |               | 0104     |         |           | 200         |     |            |
|-----------------------------|-------------|-----------|---------------|----------|---------|-----------|-------------|-----|------------|
| Analysis Name               | <u>%REC</u> | %REC      | <u>Limits</u> | RPD      | MAX     | Conc      | <u>Conc</u> | RPD | <u>Max</u> |
| Batch number: F121114AA     | Sample r    | number(s) | : 6616824     | UNSPK:   | P62034  | 2         |             |     |            |
| t-Amyl methyl ether         | 86          | 84        | 65-117        | 2        | 30      | -         |             |     |            |
| Benzene                     | 97          | 95        | 72-134        | 2        | 30      |           |             |     |            |
| t-Butyl alcohol             | 97          | 95        | 67-119        | 2        | 30      |           |             |     |            |
| Ethyl t-butyl ether         | 93          | 92        | 74-122        | 1        | 30      |           |             |     |            |
| Ethylbenzene                | 95          | 93        | 71-134        | 2        | 30      |           |             |     |            |
| di-Isopropyl ether          | 91          | 91        | 70-129        | 0        | 30      |           |             |     |            |
| Methyl Tertiary Butyl Ether | 94          | 90        | 72-126        | 2        | 30      |           |             |     |            |
| Toluene                     | 101         | 100       | 80-125        | 1        | 30      |           |             |     |            |
| Xylene (Total)              | 97          | 96        | 79-125        | 1        | 30      |           |             |     |            |
| Batch number: F121154AA     | Sample r    | number(s) | : 6616825     | UNSPK:   | P61720  | 2         |             |     |            |
| t-Amyl methyl ether         | 88          | 94        | 65-117        | 7        | 30      |           |             |     |            |
| Benzene                     | 97          | 101       | 72-134        | 4        | 30      |           |             |     |            |
| t-Butyl alcohol             | 91          | 94        | 67-119        | 3        | 30      |           |             |     |            |
| Ethyl t-butyl ether         | 90          | 93        | 74-122        | 3        | 30      |           |             |     |            |
| Ethylbenzene                | 94          | 105       | 71-134        | 11       | 30      |           |             |     |            |
| di-Isopropyl ether          | 94          | 98        | 70-129        | 5        | 30      |           |             |     |            |
| Methyl Tertiary Butyl Ether | 86          | 89        | 72-126        | 3        | 30      |           |             |     |            |
| Toluene                     | 87          | 85        | 80-125        | 3        | 30      |           |             |     |            |
| Xylene (Total)              | 90          | 94        | 79-125        | 4        | 30      |           |             |     |            |
| Batch number: Z121101AA     | Sample r    | number(s) | : 6616817-    | -6616823 | 3 UNSPK | : P614567 |             |     |            |
| t-Amyl methyl ether         | 84          | 80        | 65-117        | 4        | 30      |           |             |     |            |
| Benzene                     | 102         | 98        | 72-134        | 4        | 30      |           |             |     |            |
| t-Butyl alcohol             | 96          | 92        | 67-119        | 4        | 30      |           |             |     |            |
| Ethyl t-butyl ether         | 85          | 83        | 74-122        | 2        | 30      |           |             |     |            |
| Ethylbenzene                | 105         | 102       | 71-134        | 3        | 30      |           |             |     |            |
| di-Isopropyl ether          | 86          | 84        | 70-129        | 3        | 30      |           |             |     |            |
| Methyl Tertiary Butyl Ether | 90          | 87        | 72-126        | 3        | 30      |           |             |     |            |
| Toluene                     | 110         | 105       | 80-125        | 5        | 30      |           |             |     |            |
| Xylene (Total)              | 104         | 102       | 79-125        | 2        | 30      |           |             |     |            |

### Surrogate Quality Control

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

| Analysis             | Name: UST VOCs by                    | 8260B - Water         |            |                      |
|----------------------|--------------------------------------|-----------------------|------------|----------------------|
| Bacchi nu            | Dibromofluoromethane                 | 1,2-Dichloroethane-d4 | Toluene-d8 | 4-Bromofluorobenzene |
| 6616824              | 96                                   | 102                   | 97         | 89                   |
| Blank                | 95                                   | 100                   | 97         | 88                   |
| LCS                  | 95                                   | 104                   | 97         | 95                   |
| MS                   | 93                                   | 101                   | 97         | 95                   |
| MSD                  | 93                                   | 102                   | 97         | 95                   |
| Limits:              | 80-116                               | 77-113                | 80-113     | 78-113               |
| Analysis<br>Batch nu | Name: UST VOCs by<br>mber: F121154AA | 8260B - Water         |            |                      |
|                      | Dibromofluoromethane                 | 1,2-Dichloroethane-d4 | Toluene-d8 | 4-Bromofluorobenzene |
| 6616825              | 98                                   | 102                   | 97         | 88                   |

\*- Outside of specification

\*\*-This limit was used in the evaluation of the final result for the blank

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



# **Analysis Report**

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### Quality Control Summary

| Client<br>Reporte    | Name: Chevron<br>ed: 04/30/12 at                          | Texaco<br>t 10:53 AM  | Group Number: 1302260 |                      |  |  |  |  |  |  |  |
|----------------------|---|-----------------------|-----------------------|----------------------|--|--|--|--|--|--|--|
|                      |   |                       | Surrogate             | Quality Control      |  |  |  |  |  |  |  |
| Blank                | 98  | 104                   | 97                    | 87                   |  |  |  |  |  |  |  |
| LCS                  | 94  | 98                    | 97                    | 95                   |  |  |  |  |  |  |  |
| MS                   | 92  | 99                    | 94                    | 103                  |  |  |  |  |  |  |  |
| MSD                  | 93  | 97                    | 90                    | 100                  |  |  |  |  |  |  |  |
| Limits:              | 80-116  | 77-113                | 80-113                | 78-113               |  |  |  |  |  |  |  |
| Analysis             | Name: UST VOCs by   | y 8260B - Water       |                       |                      |  |  |  |  |  |  |  |
| Bacchi Ilu           | Dibromofluoromethane                                      | 1,2-Dichloroethane-d4 | Toluene-d8            | 4-Bromofluorobenzene |  |  |  |  |  |  |  |
| 6616817              | 95  | 93                    | 106                   | 96                   |  |  |  |  |  |  |  |
| 6616818              | 97  | 93                    | 106                   | 97                   |  |  |  |  |  |  |  |
| 6616819              | 97  | 94                    | 105                   | 96                   |  |  |  |  |  |  |  |
| 6616820              | 99  | 97                    | 104                   | 93                   |  |  |  |  |  |  |  |
| 6616821              | 99  | 97                    | 104                   | 93                   |  |  |  |  |  |  |  |
| 6616822              | 100   | 96                    | 104                   | 93                   |  |  |  |  |  |  |  |
| 6616823              | 100   | 93                    | 106                   | 96                   |  |  |  |  |  |  |  |
| Blank                | 101   | 100                   | 104                   | 92                   |  |  |  |  |  |  |  |
| LCS                  | 99  | 95                    | 101                   | 98                   |  |  |  |  |  |  |  |
| MS                   | 100   | 98                    | 103                   | 99                   |  |  |  |  |  |  |  |
| MSD                  | 99  | 96                    | 104                   | 99                   |  |  |  |  |  |  |  |
| Limits:              | 80-116  | 77-113                | 80-113                | 78-113               |  |  |  |  |  |  |  |
| Analysis<br>Batch nu | Name: TPH-GRO N.<br>mber: 12108A07A<br>Trifluorotoluene-F | CA water C6-C12       |                       |                      |  |  |  |  |  |  |  |
| 6616817              | 72  |                       |                       |                      |  |  |  |  |  |  |  |
| 6616818              | 71  |                       |                       |                      |  |  |  |  |  |  |  |
| 6616819              | 68  |                       |                       |                      |  |  |  |  |  |  |  |
| 6616820              | 69  |                       |                       |                      |  |  |  |  |  |  |  |
| 6616821              | 68  |                       |                       |                      |  |  |  |  |  |  |  |
| 6616822              | 68  |                       |                       |                      |  |  |  |  |  |  |  |
| 6616823              | 69  |                       |                       |                      |  |  |  |  |  |  |  |
| 6616824              | 70  |                       |                       |                      |  |  |  |  |  |  |  |
| 6616825              | 66  |                       |                       |                      |  |  |  |  |  |  |  |
| Blank                | 69  |                       |                       |                      |  |  |  |  |  |  |  |
| LCS                  | 79  |                       |                       |                      |  |  |  |  |  |  |  |
| LCSD                 | 80  |                       |                       |                      |  |  |  |  |  |  |  |
| Limits:              | 63-135  |                       |                       |                      |  |  |  |  |  |  |  |

\*- Outside of specification

\*\*-This limit was used in the evaluation of the final result for the blank

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

### Chevron California Region Analysis Request/Chain of Cuntody

| Lancaster L  | abora  | atories          |   |        |          |  |   |                  | Ac         | xct.#          | 10                   | <u>88</u>        | 50  | _ Sa                            | F<br>ample     | or L<br>#: (      | anca<br>OC      | ster Lai                            | orator | ries u<br>25 | use on   | ly<br>SCR#   | :  | 246   | 142  |
|--|--|------------------|---|--------|----------|--|---|------------------|------------|----------------|----------------------|------------------|---|---------------------------------|----------------|-------------------|-----------------|-------------------------------------|--------|--------------|----------|--|--|---|--|
| • Mile quarty base   | , <b>,,,,,</b> ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,      |                  | Ø   | 113    | 12-      | Ø  | Pel   | loF (            | ~          |                |                      |                  |   |                                 | A              | naly              | ses             | Reque                               | sted   |              |          | $]G^{\#}I$   | 307  | 1266  | )  |
|  |  |                  |   |        |          |  |   | ><br>            |            | losite         | Number of Containers | MTBE 8260 2 8021 | 15 MOD GRO  | 15 MOD DRO 🗆 Silica Gel Cleanup | l scan         | xygenates         | 20 🗆 7421 🗌     | ETBE, TAME, TBA 9                   | odes   |              |          | Pre:<br>H = HCI<br>N = HNO<br>S = H₂SC<br>□ J value<br>□ Must m.<br>possible<br>8021 MTB<br>□ Confirm<br>□ Confirm | servati<br>T<br>D <sub>3</sub> E<br>Treportin<br>reportin<br>eet lowe<br>of 67 826<br>SE Confi<br>n highes<br>n all hits | ive Code<br>= Thiosi<br>3 = NaOH<br>D = Other<br>g needed<br>est detection<br>to compose<br>rmation<br>t hit by 82<br>by 8260 | es<br>ulfate<br>f<br>on limits<br>unds<br>60 |
| Field<br>Point Name  | Matrix   | Repeat<br>Sample | Top<br>Depth                              | Year N | Ionth Da | ıv C                                       | Time<br>ollected  | New<br>Field Pt. | Grab       | Comp           | Total                | BTEX +           | TPH 80  | TPH 80                          | 8260 ful       | •                 | Lead 74         | DIPE                                |        |              |          |  | oxy's<br>oxy's   | s on nigne<br>s on all hit  | st nit<br>S                                  |
| B-9-W<br>B-9-W<br>B-9-W<br>B-10-W<br>B-10-W<br>B-11-W<br>B-11-W<br>B-11-W  | \$<br>\$<br>\$<br>\$<br>\$<br>\$<br>\$<br>\$<br>\$ |                  | 13<br>20<br>30<br>18<br>295<br>23<br>29.5 |        |          |  | 400<br>924<br>015<br>145<br>230<br>435<br>510           |                  |            |                | 7777777777           | XXXX             | X<br>X<br>X<br>X<br>X<br>X<br>X<br>X<br>X<br>X<br>X<br>X<br>X |                                 |                |                   |                 |                                     |        |              |          | Commer<br>Pleuse<br>vesult<br>to<br>Niec (   | nts / Re<br>erna<br>ts ar  | Date  | ê, com                                       |
| Turnaround Time Requested (TAT) (please circle)RelinquishedSTD. TAT72 hour48 hour24 hour4 day5 day   |  |                  |   |        |          |  | Dr. C.  | Z                | $\geq$     |                | >                    | 13               | 4<br>3, q. p.   | イノイ<br>Date<br>てノノ              | <u>ار</u><br>ا | <u>30</u><br>Time | Sea<br>Rec<br>G | eived t                             | L      | Gen<br>Gen   | tron Cli | )A-<br>13,   | Date<br>PRIZ   | 1630<br>Time<br>15456   |  |
| Data Package Options (please circle if required)       Reling         QC Summary       Type I – Full         Type VI (Raw Data)       Coelt Deliverable not needed         WIP (RWQCB)       UPS         Disk       Temper |  |                  |   |        |          | linguisher<br>Linguisher<br>S<br>mperature | d by<br><i>Helge</i><br>d by Comm<br>FedEx<br>e Upon Re |                  | al Ca<br>O | rrier:<br>ther | ·(                   | [ <i>3</i> /<br> | 401   | Date<br>ソス                      | 11             | Time              | Rec<br>Rec      | eived t<br>E E<br>eived t<br>tody 8 | oy:    | E+           | - Čes    | No   | Date<br>Date   | Time<br>Time<br>اراک <sup>ری</sup> ن  |  |

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# Chevron California Region Analysis Request/Chain of Crotody

| Lancaster  | Labor         | atories     | 1         |                |                                     |   | Ad       | xct. #: | 10     | 28                    | 30           | S        | F<br>ample | or L<br>#: | anca        | ster L                | abor  | atorij<br>7 <b>-</b> 6 | es us    | se onl | y<br>SCR#:                       | 246   | 5138              |
|--|---------------|-------------|-----------|----------------|-------------------------------------|---|----------|---------|--------|-----------------------|--------------|----------|------------|------------|-------------|-----------------------|-------|------------------------|----------|--------|----------------------------------|---|-------------------|
| ••                                 |               |             | \$        | \$41312-       | ø6 1                                | 2,201                                   | c (      | 2       |        |                       |              |          | A          | naly       | ses         | Requ                  | Jest  | ed                     |          |        | ] G <sup>∉</sup> 130             | 226(  | >                 |
| Facility #: 4-3600   | )             |             | (6415     | V CRT 3        | 11965)                              |   |          |         |        |                       |              |          | P          | res        | erva        | tion (                | Code  | s                      |          |        | Preserva                         | tive Code   | es                |
| Site Address: _ ンみの  | 0 T           | ELE 6       | RAP       | H AVE,         | OAKLA                               | NOCA                                    |          |         |        |                       |              | þ        |            | · · · ·    |             |                       |       | _                      | -        | +      | H = HCI<br>$N = HNO_3$           | $\mathbf{T} = \text{Thios}$<br>$\mathbf{B} = \text{NaOl}$ | ulfate<br>-       |
| Chevron PM: MARK   | HORI          | VE          | Lead C    | consultant: Cf | ζ <b>Α</b>                          |   |          |         | ú      |                       |              | Clean    |            |            |             | ₩                     |       |                        |          |        | $S = H_2SO_4$                    | O = Othe  | r i               |
| Consultant/Office: CRA / ENERYVILLE                                      |               |             |           |                |                                     |   |          |         | iner   |                       |              | Gel (    |            |            |             | Ш<br>Ш                |       |                        |          |        | J value reporti                  | ng needed   |                   |
| Consultant Prj. Mgr.: NATHAN LEE   |               |             |           |                |                                     |   |          |         | onta   | 8021                  |              | Silica   |            |            | 1           | F                     |       |                        |          |        | Must meet low<br>possible for 82 | est detecti<br>60 compo                                   | on limits<br>unds |
| Consultant Phone #: 510 420 0700 Fax #: 510 420 9170                     |               |             |           |                |                                     |   |          |         | of C   | 28                    | RO           |          |            |            | Ē           |                       |       |                        |          |        | 8021 MTBE Con                    | firmation   |                   |
| Sampler: SEQUO   | A P           | ATTER       | SO N      |                |                                     | <b>.</b>                                |          | a       | ber    | Ш<br>82               | 0            | LO<br>LO | _          | ates       | 742         | Ĕ                     | Ĩ     |                        |          |        | Confirm highe                    | st hit by 82  | 60                |
| Service Order #:   |               |             | _ No      | n SAR:         | . <i></i>                           |   |          | osit    | Nun    | MTBI                  | 15 MC        | 15 MC    | ll scan    | xyger      | 22          | ie f                  | °     |                        |          |        | Confirm all hit                  | 3 by 8260   |                   |
| Field<br>Deint Nome  | h d a turis s | Repeat      | Тор       |                | Time                                | New                                     | Srab     | omp     | otal   | т<br>Т<br>Ц<br>Т<br>Ц | PH 80        | PH 80    | 260 fu     |            | ead 74      | Ľ.                    |       |                        |          |        | Run oxy                          | 's on nigne<br>'s on all hit                              | st nit<br>s       |
| B-12-  |               | Sample      | 2.3       | 2012-4-13      | 0840                                | Field Pl.                               | x        |         | 7      | ™<br>X                | ×            | F        | 80         |            | <u> </u>    | $\frac{\alpha}{\chi}$ |       | -                      | -        | +      | Comments / F                     | emarks  |                   |
| B-12-W   | W             |             | 30        | 2012-4-13      | 0900                                |   | X        |         | 7-     | ×                     | X            |          |            |            |             | ×                     |       |                        |          |        | Please em                        | ดเป   |                   |
|  |               |             |           |                |                                     |   |          |         |        |                       |              |          |            |            |             |                       |       |                        |          |        | results o                        | ind El  | DF                |
|  |               |             |           |                |                                     |   |          |         |        |                       |              |          |            |            |             | -                     |       |                        |          |        | to                               |   | com               |
|  |               |             |           |                |                                     |   |          |         |        |                       |              |          |            |            |             |                       | {     |                        |          | _      | Inteeserve                       | VVV1210   |                   |
|  |               |             |           |                |                                     |   |          |         |        |                       |              |          |            |            |             |                       | +     |                        |          |        | -                                |   |                   |
|  |               |             |           |                |                                     |   |          |         |        |                       |              |          |            |            |             |                       |       |                        |          |        |                                  |   |                   |
|  |               |             |           |                |                                     | · ····-                                 |          | L       |        |                       |              |          |            |            |             |                       |       |                        |          |        |                                  |   |                   |
|  |               |             |           |                |                                     |   |          |         |        |                       |              |          |            |            |             |                       |       |                        | _        |        | -                                |   |                   |
|  |               |             | ···       |                |                                     |   |          |         |        |                       |              |          |            |            |             | +                     |       |                        | _        | +      | -                                |   |                   |
|  |               |             |           |                |                                     |   | -        |         |        |                       |              |          |            |            | _           | +                     | -     |                        |          | +      |                                  |   |                   |
| Turnaround Time Reg  | uested (      | (TAT) (plea | ase circl | e)             | Relinquished                        | i by:                                   |          |         |        |                       |              | 4        | Date       |            | Time        | R                     | eceiv | ed by                  | 1        |        |                                  | Date  | Time              |
| STD. TAT   | 72 hour       | 4           | 8 hour    | ~              | Relinguished                        | i by:                                   | -        |         |        |                       |              |          | Date       |            | -30<br>Time |                       | eceiv | ed by                  |          | 0110   | an gart                          | Date  | Time              |
| 24 nour 4 day 5 day  |               |             |           |                | A                                   | ~ ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~ | ~~~      |         | $\sim$ | נ                     | 13,          | API      | 212        | 1          | 545         | 54/5 a. Aulge         |       |                        |          |        | er 13,                           | PPR12   | 154               |
| Data Package Options (please circle if required)                         |               |             |           |                |                                     | i by:<br>Frilm                          | <u> </u> | _       |        |                       | 134          | An       | Date       | 1          | Time        |                       | eceiv | ed by                  | י<br>רעו | FY     | /                                | Date  | Time              |
| QC Summary Type   - Full Type Vi (Raw Data) Coelt Deliverable not needed |               |             |           |                | Relinquished by Commercial Carrier: |   |          |         |        | ar                    | Received by: |          |            |            | 1           |                       | Date  | Time                   |          |        |                                  |   |                   |
| WIP (RWQCB)  |               |             |           |                | UPS FeetEx Other                    |   |          |         |        | _                     | - Yelling    |          |            | yliihr     | loor        |                       |       |                        |          |        |                                  |   |                   |
| Disk   |               |             |           |                | Temperature                         | Upon Rec                                | ceipt    | v 7     | ~2     | 3_0                   | °            |          |            |            |             | ¢                     | ustod | y Sea                  | als In   | thicl? | Jes No                           |   |                   |

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3460 Rev. 10/04/01

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🔅 eurofins

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### **Explanation of Symbols and Abbreviations**

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

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

- < less than The number following the sign is the <u>limit of quantitation</u>, the smallest amount of analyte which can be reliably determined using this specific test.
- > greater than
- **ppm** parts per million One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.
- **ppb** parts per billion

### Data Qualifiers:

C – result confirmed by reanalysis.

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

U.S. EPA CLP Data Qualifiers:

### **Organic Qualifiers**

- **A** TIC is a possible aldol-condensation product
- **B** Analyte was also detected in the blank
- **C** Pesticide result confirmed by GC/MS
- **D** Compound quantitated on a diluted sample
- E Concentration exceeds the calibration range of the instrument
- **N** Presumptive evidence of a compound (TICs only)
- P Concentration difference between primary and confirmation columns >25%
- U Compound was not detected
- **X,Y,Z** Defined in case narrative

### **Inorganic Qualifiers**

- **B** Value is <CRDL, but  $\ge$ IDL
- E Estimated due to interference
- **M** Duplicate injection precision not met
- **N** Spike sample not within control limits
- S Method of standard additions (MSA) used for calculation
- U Compound was not detected
- W Post digestion spike out of control limits
  - \* Duplicate analysis not within control limits
- + Correlation coefficient for MSA < 0.995

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

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

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

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

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL LANCASTER LABORATORIES BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF LANCASTER LABORATORIES AND (B) WHETHER LANCASTER LABORATORIES HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Lancaster Laboratories which includes any conditions that vary from the Standard Terms and Conditions, and Lancaster hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

**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.

### ATTACHMENT B

### DEGRADATION RATE CALCULATIONS

|      |         |                                    | · 01                            |                      | ·                                   |                                      |
|------|---------|------------------------------------|---------------------------------|----------------------|-------------------------------------|--------------------------------------|
| Well | Analyte | Maximum<br>Concentration<br>(ug/L) | Current Concentration<br>(ug/L) | Half-Life<br>(years) | Approximate<br>Date to Reach<br>WQO | Approximate<br>Years to Reach<br>WQO |
| MW-1 | TPHg    | 4,200                              | 1,500                           | 2.01                 | Sep 2020                            | 7.0                                  |
| MW-1 | MTBE    | 9,800                              | 38                              | 3.42                 | Nov 2019                            | 6.1                                  |

### Table A - Summary of Degradation Rate Calculations Former Chevron Service Station 93600, 2200 Telegraph Avenue, Oakland, California

Notes and Abbreviations:

TPHg = Total Petroleum Hydrocarbons as Gasoline MTBE = Methyl Tertiary Butyl Ether

μg/L = Micrograms per liter WQO = Water Quality Objective.

### Predicted Time to Reach Water Quality Objectives (WQO) in Well MW-1

|                                 | $y = b e^{ax}$                                 | ===>                 | $x = \ln(y/b) / a$                                       |  |                |  |
|---------------------------------|--|----------------------|--|--|----------------|--|
|                                 | where:<br>ł                                    | o = concentration    | at time (x)  | a = decay constant<br>x = time (x) in days |                |  |
| Given                           |  | Constituent          | Total Petroleum<br>Hydrocarbons<br>as Gasoline<br>(TPHg) | 1  |                |  |
| Starting date for cur           | WQO:<br>Constant:<br>Constant:<br>rrent trend: | y<br>b<br>a          | 100<br>1.32E+20<br>-9.46E-04<br>7/22/2010                |  |                |  |
| Calculate<br>Attenuation Half I | Life (years):                                  | (-ln(2)/a)/365.25    | 2.01   | ]  |                |  |
| Estimated Date to Re            | each WQO:                                      | $(x = \ln(y/b) / a)$ | September 2020   |  |                |  |
| 10,000                          | — <b>■</b> — TPHg                              | TPHg: y = 1.32E+2    | Groundwater Elevat<br>20e <sup>-9,46E-04x</sup>          | ion  | 8              |  |
| tion (µg/L)                     | ╺╼╼┙╲┥   |                      |  |  | tion (ft-amsl) |  |

Former Chevron Service Station 93600, 2200 Telegraph Avenue, Oakland, California



### Predicted Time to Reach Water Quality Objectives (WQO) in Well MW-1

 $v = b e^{ax}$  $x = \ln(y/b) / a$ where: a = decay constant b = concentration at time (x)x = time(x) in daysMethyl Tertiary Butyl Ether (MTBE) Constituent Given WQO: 5 y 1.79E+11 Constant: b Constant: -5.55E-04 а Starting date for current trend: 10/8/2002 Calculate Attenuation Half Life (years):  $(-\ln(2)/a)/365.25$ 3.42 Estimated Date to Reach WQO:  $(x = \ln(y/b) / a)$ November 2019 Groundwater Elevation 10,000.0 9 The high concentration is considered an outlier and is excluded from the trend line. 1,000.0 8 MTBE:  $y = 1.79E + 11e^{-5.55E - 04x}$ 100.0 7

Former Chevron Service Station 93600, 2200 Telegraph Avenue, Oakland, California



ATTACHMENT C

### SWRCB LOW-THREAT UST CASE CLOSURE POLICY EVALUATION

### ATTACHMENT 1: COMPLIANCE WITH STATE WATER BOARD POLICIES AND STATE LAW

The site complie with the State Water Resources Control Board policies and state law. Section 25296.10 of the Health and Safety Code requires that sites be cleaned up to protect human helath, safety, and the environment. Based on available information, any residual petroleum constituents at the site do not pose significant risk to human health, safety, or the environment.

### The site complies with the requirements of the Low-Threat Underground Storage Tank (UST) Case Closure Policy as described below.

|  | ✓ Yes | No No |      |
|--|-------|-------|------|
| Is corrective action consistent with Chapter 6.7 of the Health and Safety Code and implementing    |       |       |      |
| regulations?   |       |       |      |
| The corrective action provisions contained in Chapter 6.7 of the Health and Safety Code and the    |       |       |      |
| implementing regulations govern the entire corrective action process at leaking UST site. If it is |       |       |      |
| determined, at any stage in the corrective action process, that UST case closure is appropriate,   |       |       |      |
| further compliance with corrective action requirements is not necessary. Corrective action at this |       |       |      |
| site has been consistent with Chapter 6.7 of the Health and Safety Code and implementing           |       |       |      |
| regulations and, since this case meets applicable case-closure requirements, further corrective    |       |       |      |
| action is not necessary, unless the activitiy is necessary for case clsoure.                       |       |       |      |
| Have waste discharge requirements or any other orders issued pursuant to Division 7 of the         | Yes   | ✓ No  |      |
| Water Code been issued at this site?   |       |       |      |
|  | Yes   | No No | ✓ NA |
| If so, was the corrective action performed consistent with any order? There                        |       |       |      |
| was an order issued for this site. The corrective action performed in the past is consistent with  |       |       |      |
| that order. Since this case meets applicable case-closure requirements, further corrective         |       |       |      |
| action under the order that is not necessary, unless the activity is necessary for case closure.   |       |       |      |
| General Criteria   |       |       |      |
| General criteria that must be satisfied by all candidate sites:                                    |       |       |      |
|  |       |       |      |
| Is the unauthorized release located within the service area of a public water system?              | ✓ Yes | L No  |      |
| Does the unauthorized release consist only of petroleum?   | Ves   |       |      |
| bes the undefinitized release consist only of perforeum.   |       |       |      |
| Has the unauthorized ("primary") release from the UST system been stopped?                         | ✓ Yes | No No |      |
|  |       |       |      |
| Has free product been removed to the maximum extent practicable?                                   | 🗸 Yes | No No |      |
|  |       |       |      |
| Has a conceptual site model that assesses the nature, extent, and mobility of the release been     | V fes |       |      |
| developed?   |       |       |      |
| Has secondary source been removed to the extent practicable?                                       | ✓ Yes | No No |      |
|  |       |       |      |
| Has the soil or groundwater been tested for MIBE and results reported in accordance with Health    | 🗸 Yes | No No |      |
| and Safety Code Section 25296.15?  |       |       |      |
| Nuisance as defined by Water Code section 13050 does not exist at the site?                        | ✓ Yes | No No |      |
|  |       |       |      |
| Are there unique site attributes or site-specific conditions that demonstrably increase the risk   | L Yes | I No  |      |
| associated with residual petroleum constituents?   |       |       |      |
| Media-Specific Criteria  |       |       |      |
| Candidate sites must satisfy all three of these media-specific criteria:                           |       |       |      |
| 1 Groundwater  |       |       |      |
| To satisfy the media-specific criteria for groundwater, the contaminant plume that exceeds water   |       |       |      |
| quality objectives must be stable or decreasing in areal extent, and meet all of the additional    |       |       |      |
| characteristics of one of the five classes of sites:   |       |       |      |
|  |       |       |      |
| Is the contaminant plume that exceeds water quality objectives stable or decreasing in areal       | Ves   |       |      |
| extent?  |       |       |      |

| Does the contaminant plume that exceeds water quality objectives meet all of the additional characteristics of one of the five classes of sites?  | ✓ Yes | No No | 🗌 NA |
|---|-------|-------|------|
| If YES, check applicable class: 1 2 3 4 5 Do site soils<br>contain insufficient mobile constituents (leachate, vapors, or light non-aqueous phase<br>liquids) to threaten groundwater?  | Yes   | 🗌 No  | ✓ NA |
| <b>2. Petroleum Vapor Intrusion to Indoor Air:</b><br>The site considered low-threat for vapor intrusion to indoor air if site-specific conditions satisfy all of<br>the characteristics of one of the three classes of sites (a through c) or if the exception for active<br>commercial fueling facilities applies.                                      |       |       |      |
| Is the site an active commercial petroleum fueling facility?<br>Exception: Satisfaction of the media-specific criteria for petroleum vapor intrusion to indoor air is<br>not required at active commercial petroleum fueling facilities, except in cases where release<br>characteristics can be reasonably believed to pose an unacceptable health risk. | ✓ Yes | No    |      |
| <ul> <li>a. Do site-specific conditions at the the release site satisfy all of the applicable characteristics and criteria of scenarios 1 through 3 or all of applicable characteristics and criteria of scenario 4?</li></ul>  | Yes   | 🗌 No  | √ NA |
| b. Has a site-specific risk assessment for the vapor intrusion pathway been conducted and<br>demonstrates that human health is protected to the satisfaction of the regulatory agency?  | Yes   | 🗌 No  | ✓ NA |
| c. As a result of controlling exposure through the use of mitigation measures or through the<br>use of institutional or engineering controls, has the regulatory agency determined that<br>petroleum vapors migrating from soil or gorundwater will have no significant risk of<br>adversley affecting human health?                                      | Yes   | No No | V NA |
| <b>3. Direct Contact and Outdoor Air Exposure:</b><br>The site is considered low-threat for direct contact and outdoor air exposure if site-specific conditions satisfy one of the three classess of sites (a through c).   |       |       |      |
| a. Are maximum concentrations of petroleum constituents in soil less than or equal to those<br>listed in Table 1 for the specified depth below ground surface (bgs?)  |       | 🗌 No  | 🗌 NA |
| b. Are maximum concentrations of petroleum constituents in soil less than levels that a site<br>specific risk assessment demonstrates will have no significant risk of adversely affecting<br>human health?   | Yes   | 🗌 No  | ✓ NA |
| c. As a result of controlling exposure through the use of mitigation measures or through the<br>use of institutional or engineering controls, has the regulatory agency determined that<br>petroleum constituents in soil will have no significant risk of adversely affecting human<br>health?   | Yes   | No    | V NA |