

Brian Waite Project Manager Marketing Business Unit **Chevron Environmental Management Company** 6101 Bollinger Canyon Road San Ramon, CA 94583 Tel (925) 790-6486 BWaite@Chevron.com

November 15, 2012

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

RECEIVED

2:00 pm, Nov 20, 2012

Alameda County Environmental Health

Re: Chevron Facility # 91583

Address: 5509 Martin Luther King Jr. Way, Oakland, CA

I have reviewed the attached report titled <u>Addendum to Case Closure Request</u> and dated November 15, 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.

Sincerely,

Brian A. Waite

Digitally signed by Brian A. Waite DN: cn=Brian A. Waite, o=Chevron Environmental Management Company, ou=Marketing Business Unit, email=BWaite@chevron.com, c=US Date: 2012.11.5 08:57:02-08'00'

Brian Waite Project Manager

Enclosure: Report



10969 Trade Center Drive Rancho Cordova, California 95670 Telephone: (916) 889-8900 Fax: (916) 889-8999 http://www.craworld.com

November 15, 2012

Reference No. 611960D

Mr. Mark Detterman, P.G., C.E.G. Alameda County Environmental Health (ACEH) 1131 Harbor Bay Parkway, Suite 250 Alameda, California 94502-6577

Re: Addendum to Case Closure Request Former Chevron Service Station 91583 5509 Martin Luther King Jr. Way Oakland, California Case No. RO0000002

Dear Mr. Detterman:

Conestoga-Rovers & Associates (CRA) is submitting this *Addendum to Case Closure Request* for the site referenced above (Figure 1) on behalf of Chevron Environmental Management Company (Chevron). CRA previously submitted the January 13, 2012 *Updated Site Conceptual Model and Case Closure Request* (SCM/Closure) (Attachment A), in which case closure was requested based on low-risk conditions. To date, a response to this request has not been received from ACEH.

The purpose of this addendum is to present the results of our evaluation of current site conditions to the general and media-specific closure criteria included in the recently adopted *Low-Threat Underground Storage Tank Case Closure Policy* (the "policy"). The site meets the stated closure criteria; therefore, we are requesting ACEH concur that the site meets low-threat case closure criteria and grant case closure. A summary of the policy, an evaluation of the site conditions to the policy case closure criteria, and our conclusions and recommendations are presented below.

PURPOSE OF THE LOW THREAT UNDERGROUND STORAGE TANK CASE CLOSURE POLICY

On August 17, 2012, the State Water Resources Control Board (SWRCB) adopted the policy via Resolution 2012-0016. The intent of the 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 specified general and media-specific criteria pose a low threat to human health, safety, or the environment and are appropriate for case closure

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pursuant to Health and Safety Code section 25296.10. The policy further states that those sites that meet the criteria for low-threat closure do not require further corrective action and shall be issued a uniform closure letter. The general and media-specific criteria are described below.

GENERAL CRITERIA

The eight general criteria that must be satisfied by all candidate sites, and the site-specific evaluation for each of these criteria, are presented below.

a. The unauthorized release is located within the service area of a public water system.

<u>Satisfied:</u> Water for the site and surrounding vicinity is provided by the East Bay Municipal Utility District (EBMUD) from distant surface water sources.

b. The unauthorized release consists only of petroleum.

<u>Satisfied</u>: The unauthorized release at the site has been characterized as a release of petroleum-based products (gasoline and related constituents, motor oil).

c. The unauthorized ("primary") release from the UST system has been stopped.

<u>Satisfied</u>: Petroleum storage and handling facilities that were the source of the release (first-generation fuel dispensers, product piping, and USTs) have been removed from the site or replaced.

d. Free product has been removed to the maximum extent practicable.

<u>Satisfied:</u> Light non-aqueous phase liquid (LNAPL) (approximate thickness of 0.24 feet) was observed in well MW-3 in October 1992. Weekly bailing of MW-3 in November and December 1992 removed approximately 270 milliliters of LNAPL, and it has not been observed in MW-3 since third quarter 1993.

e. A conceptual site model that assesses the nature, extent, and mobility of the release has been developed.

Satisfied: The SCM/Closure was submitted on January 13, 2012.

f. Secondary source has been removed to the extent practicable.

<u>Satisfied:</u> Remedial excavation removed approximately 105 cubic yards of impacted soil from the dispenser and used-oil UST areas (Figure 2). It is not known if any soil was removed during



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gasoline UST replacement activities in 1984; however, based on decreasing concentrations in groundwater, there does not appear to be any significant secondary source material in this area.

g. Soil and groundwater has been tested for MTBE and results reported in accordance with Health and Safety Code section 25296.15.

<u>Satisfied</u>: Soil and groundwater samples have been analyzed for MTBE, and reported in accordance with Health and Safety Code section 25296.15.

h. Nuisance as defined by Water Code section 13050 does not exist at the site.

<u>Satisfied:</u> Conditions defined as a "nuisance" in Water Code section 13050 do not exist at the site.

MEDIA-SPECIFIC CRITERIA

Impacts to human health and the environment can occur due to releases from USTs through contact with contaminated media (groundwater, surface water, soil, and soil vapor) via various exposure pathways. In the policy, the most common exposure scenarios have been combined into three media-specific criteria:

- 1. Groundwater
- 2. Vapor Intrusion to Indoor Air
- 3. Direct Contact and Outdoor Air Exposure

Candidate sites must satisfy all three of these criteria, described further below.

Groundwater

It is a fundamental tenet of the policy that if the closure criteria described in the policy are satisfied at an unauthorized petroleum release site, attaining background water quality is not feasible, and applicable water quality objectives (WQOs) will be attained through natural attenuation within a reasonable amount of time, prior to the expected 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, the contaminant plume that exceeds WQOs must be stable or decreasing in areal extent, and meet all of the additional characteristics of one of the five classes of sites listed in the policy as follows:



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- 1. a. The contaminant plume that exceeds WQOs is less than 100 feet in length.
 - b. There is no free product.
 - c. The nearest existing water supply well or surface water body is greater than 250 feet from the defined plume boundary.
- 2. a. The contaminant plume that exceeds WQOs is less than 250 feet in length.
 - b. There is no free product.
 - c. The nearest existing water supply well or surface water body is greater than 1,000 feet from the defined plume boundary.

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- d. The dissolved concentration of benzene is less than 3,000 micrograms per liter $(\mu g/L)$ and the dissolved concentration of MTBE is less than 1,000 $\mu g/L$.
- 3. a. The contaminant plume that exceeds WQOs is less than 250 feet in length.
 - b. Free product may be present below the site but does not extend off-site.
 - c. The plume has been stable or decreasing for a minimum of 5 years.
 - d. The nearest existing water supply well or surface water body is greater than 1,000 feet from the defined plume boundary.
 - e. The property owner is willing to accept a land use restriction if the regulatory agency requires a land use restriction as a condition of closure.
- 4. a. The contaminant plume that exceeds WQOs is less than 1,000 feet in length.
 - b. There is no free product.
 - c. The nearest existing water supply well or surface water body is greater than 1,000 feet from the defined plume boundary.
 - d. The dissolved concentration of benzene is less than 1,000 μ g/L and the dissolved concentration of MTBE is less than 1,000 μ g/L.
- 5. a. The regulatory agency determines, based on an analysis of site specific conditions, that under current and reasonably anticipated near-term future scenarios, the contaminant plume poses a low threat to human health and safety and to the environment and WQOs will be achieved within a reasonable time frame.

Satisfied: The applicable WQOs for the site are the Environmental Screening Levels (ESLs), established by the San Francisco Bay Regional Water Quality Control Board (RWQCB) in 2008. Shallow groundwater is not a current, and in all likelihood, not a potential future source of drinking water. As presented in the SCM/Closure, there are no monitoring or sample points downgradient (northwest) of the site as until recently the groundwater flow direction was calculated to the southeast due to incorrect survey data. However, based on the most recent monitoring data, the only constituent in groundwater that exceeds the ESLs is total petroleum hydrocarbons as motor oil (TPHmo) in well MW-7 (1,100 μ g/L in September 2012;



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ESL of 210 μ g/L) located on the downgradient side of the site (Figure 2). Given the limited mobility of heavier-end hydrocarbons such as motor oil in the environment, the TPHmo plume is not expected to extend significantly downgradient of the site. The length of the TPHmo plume likely does not exceed 100 feet but can conservatively be assumed to not exceed 250 feet.

Given this information regarding the plume length, the site satisfies the characteristics of Class 2 listed above. There is no LNAPL at the site, no water supply wells were identified within 1,000 feet in the downgradient direction, and the nearest surface water body is greater than 1,000 feet from the site. Benzene is no longer detected in groundwater and the maximum MTBE concentration is $2 \mu g/L$. A copy of the most recent groundwater monitoring report is included as Attachment B.

Petroleum Vapor Intrusion to Indoor Air

The low-threat vapor intrusion criteria described below apply to sites where the release originated and impacted or potentially impacted adjacent parcels when: (1) existing buildings are occupied or may be reasonably expected to be occupied in the future, or (2) buildings for human occupancy are reasonably expected to be constructed in the future.

Petroleum release sites will satisfy the media-specific screening criteria for petroleum vapor intrusion if:

- a. Site-specific conditions at the release site satisfy all of the characteristics and criteria of scenarios 1 through 3 as applicable, or all of the characteristics and criteria of scenario 4 as applicable; or,
- b. A site-specific risk assessment for vapor intrusion is conducted and demonstrates that human health is protected to the satisfaction of the regulatory agency; or,
- c. The regulatory agency determines there is no significant risk of adversely affecting human health through the use of institutional or engineering controls.

Scenarios 1-4 of criteria (a) (existing building or future construction) are described below.

Scenario 1: Unweathered* LNAPL in Groundwater

- Depth to groundwater with unweathered* LNAPL is ≥30 feet below building foundation.
- Total TPH (TPHg + TPHd) in soil within 30 feet below building foundation is <100 milligrams per kilogram (mg/kg).



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Scenario 2: Unweathered* LNAPL in Soil

- Unweathered* LNAPL in soil is ≥30 feet from building foundation in all directions, and depth to groundwater is >30 feet below building foundation.
- Total TPH in soil within 30 feet of building foundation in all directions is <100 mg/kg.

Scenario 3A: No LNAPL, dissolved phase benzene in groundwater

- Depth to groundwater is \geq 5 feet below building foundation.
- Dissolved benzene in groundwater is <100 µg/L.
- Total TPH in soil within 5 feet below building foundation is <100 mg/kg.
- Oxygen (O₂) concentration in soil within 5 feet below building foundation is <4%, or no O₂ data.

Scenario 3B: No LNAPL, dissolved phase benzene in groundwater

- Depth to groundwater is ≥ 10 feet below building foundation.
- Dissolved benzene in groundwater is $\geq 100 \,\mu g/L$ and $< 1,000 \,\mu g/L$.
- Total TPH in soil within 10 feet below building foundation is <100 mg/kg.
- O_2 concentration in soil within 10 feet below building foundation is <4%, or no O_2 data.

Scenario 3C: No LNAPL, dissolved phase benzene in groundwater

- Depth to groundwater is \geq 5 feet below building foundation.
- Dissolved benzene in groundwater is <1,000 μg/L.
- Total TPH in soil within 5 feet below building foundation is <100 mg/kg.
- O_2 concentration in soil within 5 below building foundation is $\geq 4\%$.

Scenario 4A: Direct soil gas measurements at least 5 feet below grade or foundation at sites without bioattenuation zone**

	Benzene µg/m³	Ethylbenzene µg/m³	Naphthalene µg/m³
Residential	<85	<1,100	<93
Commercial	<280	<3,600	<310

µg/m³ – micrograms per cubic meter



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Scenario 4B: Direct soil gas measurements at least 5 feet below grade or foundation at sites with bioattenuation zone**

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	Benzene µg/m³	Ethylbenzene µg/m ³	Naphthalene µg/m³
Residential	<85,000	<1,100,000	<93,000
Commercial	<280,000	<3,600,000	<310,000

*Unweathered LNAPL is comparable to recently dispensed fuel where product has not been subjected to significant volatilization or solubilization.

**Bioattentuation zone = total TPH <100 mg/kg in upper 5' of soil, and \geq 4% oxygen in soil at 5' sample depth; a 1,000-fold bioattenuation of petroleum vapors is assumed for the zone.

Petroleum release sites shall satisfy the media-specific criteria for petroleum vapor intrusion to indoor air and be considered low-threat for the vapor intrusion to indoor air pathway if any of the above criteria are met. However, for active commercial petroleum fueling facilities, satisfaction of these criteria is not required, except in cases where release characteristics can be reasonably believed to pose an unacceptable health risk.

<u>Satisfied</u>: As the site is an active commercial fueling station (Super Stop), satisfaction of the media-specific criteria for petroleum vapor intrusion to indoor air is not required.

However, to further support the conclusion of no unacceptable health risk, no benzene or ethylbenzene was detected in the soil vapor samples collected in 2008 (see Table 3 of Attachment A). The laboratory reporting limits were below the most conservative soil gas criteria outlined in the policy (scenario 4A above; residential land use, no bioattenuation zone).

Direct Contact and Outdoor Air Exposure

The policy describes conditions where direct contact with contaminated soil or inhalation of contaminants volatized to outdoor air poses a low threat to human health. Release sites where human exposure may occur satisfy the media-specific criteria for direct contact and outdoor air exposure and shall be considered low-threat if they meet any one of the following:

a. Maximum concentrations of petroleum constituents in soil are less than or equal to those listed in the table below for the specified depth below ground surface. The limits from 0 to 5 feet below grade (fbg) protect from ingestion, dermal contact, and outdoor inhalation of volatile and particulate emissions. The 5 to 10 fbg limits protect from inhalation of volatile emissions only; the ingestion and dermal contact pathways are not considered significant. In addition, if exposure to construction



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workers or utility trench workers is reasonably anticipated, the concentration limits for Utility Worker shall also be satisfied.

	Residential		Commercial/Industrial		Utility Worker
Constituent	0–5 fbg (mg/kg)	Volatilization to outdoor air (5–10 fbg) (mg/kg)	0–5 fbg (mg/kg)	Volatilization to outdoor air (5–10 fbg) (mg/kg)	0–10 fbg (mg/kg)
Benzene	1.9	2.8	8.2	12	14
Ethylbenzene	21	32	89	134	314
Naphthalene	9.7	9.7	45	45	219
PAH*	0.063	NA	0.68	NA	4.5

* Based on the seven carcinogenic polycyclic aromatic hydrocarbons (PAHs) as benzo(a)pyrene toxicity equivalent [BaPe]. The PAH screening level is only applicable where soil is affected by either waste oil and/or Bunker C fuel.

NA = not applicable

- b. Maximum concentrations of petroleum constituents in soil are less than levels that a site-specific risk assessment demonstrates will have no significant risk of adversely affecting human health.
- c. As a result of controlling exposure through the use of mitigation measures or through the use of institutional or engineering controls, the regulatory agency determines that the concentrations of petroleum constituents in soil will have no significant risk of adversely affecting human health.

Satisfied: The site meets criteria (a) above. No benzene or ethylbenzene were detected between 0 and 10 fbg in soil remaining at the site (see Table 2 of Attachment A). The depth of sample SS-1 collected in 1989 is unknown, but the detected benzene and ethylbenzene concentrations did not exceed the screening levels listed above. No naphthalene or PAHs were detected in the sample collected at 7.5 fbg beneath the hoist/clarifier. No samples collected at 10.5 and 11 fbg beneath the former used-oil UST contained no naphthalene or PAHs and soil above 10 fbg in the area of the UST was excavated and removed.



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CONCLUSIONS AND RECOMMENDATIONS

Based on the information presented in this and previous reports, site conditions meet the general and media-specific criteria of a low-threat UST release case established in the policy, and therefore pose a low threat to human health, safety, and the environment. A completed SWRCB low-threat checklist is included as Attachment C. The site satisfies the case closure requirements of Health and Safety Code section 25296.10, and case closure is consistent with Resolution 92-49 that requires cleanup goals be met within a reasonable time frame. Therefore, on behalf of Chevron, CRA respectfully requests ACEH grant case closure.

As the impacted groundwater poses no significant threat to human health or the environment, effective immediately, Chevron shall cease groundwater monitoring and sampling activities pending a response and further direction from ACEH.



Reference No. 611960D

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

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Sincerely,

CONESTOGA-ROVERS & ASSOCIATES

Benjamin R. Summersett

BS/de/12 Encl.

Figure 1	Vicinity Map
Figure 2	Site Plan

Attachment AJanuary 13, 2012 Updated Site Conceptual Model and Case Closure RequestAttachment BSecond Semi-Annual 2012 Groundwater Monitoring and Sampling ReportAttachment CLow-Threat Checklist

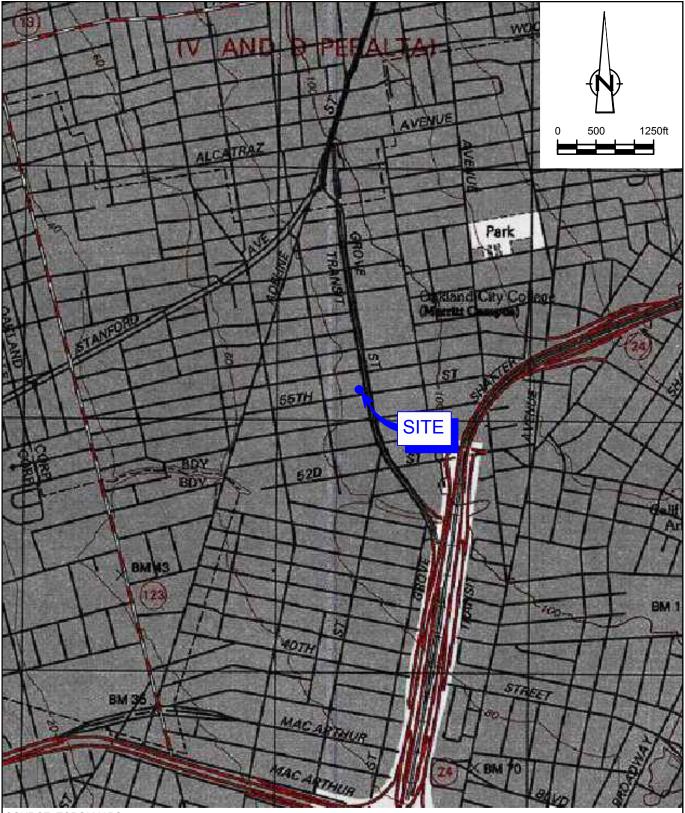
cc: Mr. Brian Waite, Chevron *(electronic copy)* Evelyn Schlichting Trust c/o Mr. Ben Shimek, Petroleum Sales, Inc.

k



James P. Kiernan, P.E.

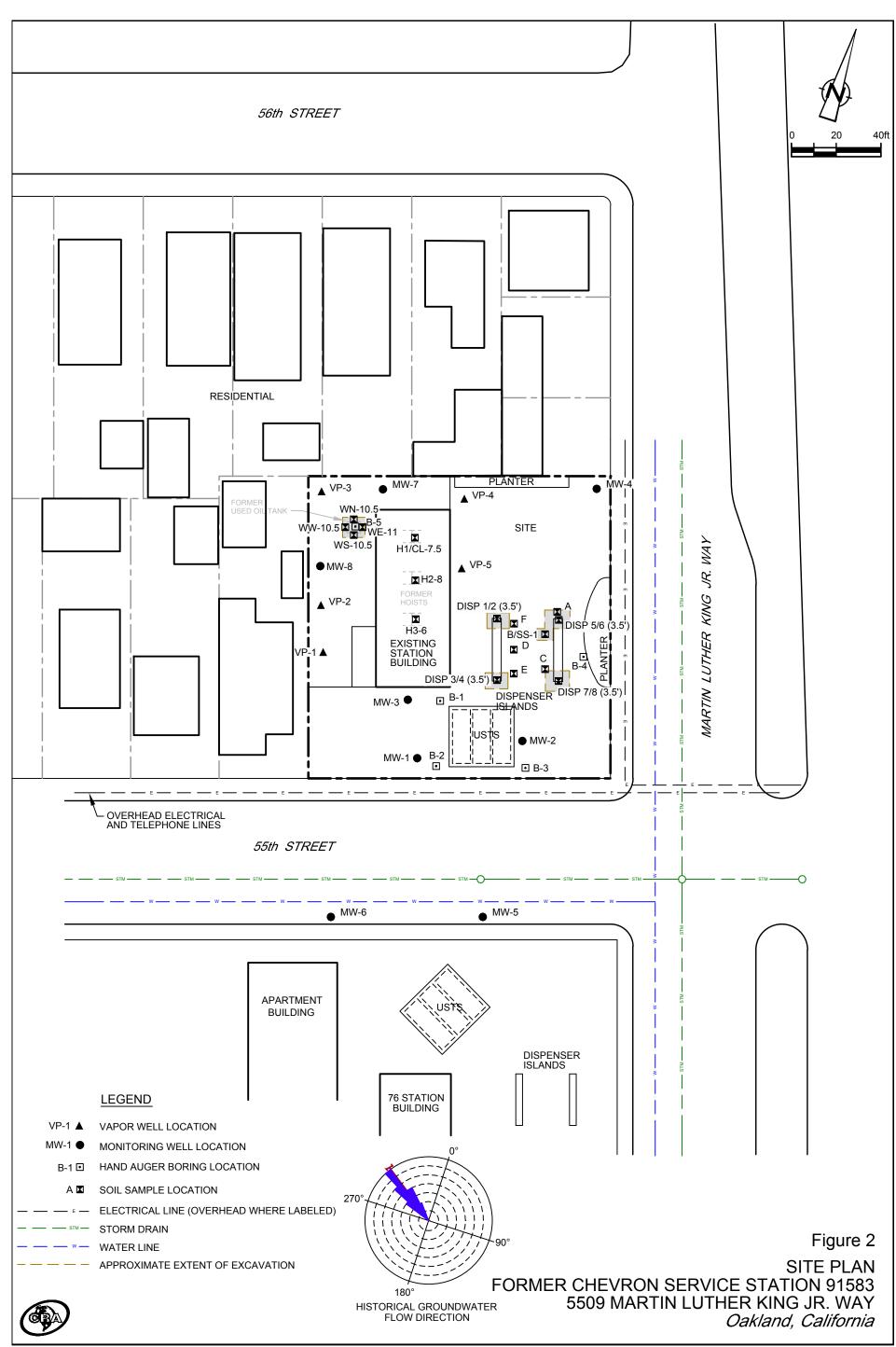
FIGURES



SOURCE: TOPO! MAPS.

Figure 1

VICINITY MAP FORMER CHEVRON SERVICE STATION 91583 5509 MARTIN LUTHER KING JR. WAY Oakland, California



611960D-00(012)GN-WA002 OCT 26/2012

ATTACHMENT A

JANUARY 13, 2012 UPDATED SITE CONCEPTUAL MODEL AND CASE CLOSURE REQUEST



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

January 13, 2012

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

Re: Chevron Facility # 9-1583

Address: 5509 Martin Luther King Jr. Way, Oakland, California

I have reviewed the attached report titled <u>Updated Site Conceptual Model and Case Closure Request</u> and dated <u>January 13, 2012</u>.

I agree with the conclusions and recommendations presented in the referenced report. The information in this report is accurate to the best of my knowledge and all local Agency/Regional Board guidelines have been followed. This report was prepared by Conestoga-Rovers & Associates, upon whose assistance and advice I have relied.

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

I declare under penalty of perjury that the foregoing is true and correct.

Sincerely,

Olivia Skance Project Manager

Enclosure: Report



10969 Trade Center Drive, Suite 107 Rancho Cordova, California 95670 Telephone: (916) 889-8900 Fax: (916) 889-8999 www.CRAworld.com

TRANSMITTAL

DATE: _]	January 13, 2012	REFERENCE NO.:	611960		
		PROJECT NAME:	Former Chevron 9-1583 (RO2)		
To:	Mr. Mark Detterman, PG, CEG				
	Alameda County Environmental H	Iealth			
	1131 Harbor Bay Parkway, Suite 25				
	Alameda, CA 94502-6577				
Please find e	enclosed: Draft Originals Prints	⊠ Final □ Other			
Sent via:	MailOvernight Courier	Same Day Cou	urier bad to ftp site		
QUANTI 1		DESCRIPT			
1	Updated Site Conceptual I	viouer and Case Close	ne Request		
	As Requested Image: For Review and Comment For Your Use Image: Final reports				
COMMEN	TS:				
Copy to:	Evelyn Schlichting Trust c/o Mr. Ben Shimek Petroleum Sales, Inc.		A 17		
Completed	by: James Kiernan [Please Print]	Signed:	4 m		

Filing: Correspondence File



UPDATED SITE CONCEPTUAL MODEL AND CASE CLOSURE REQUEST

FORMER CHEVRON STATION 9-1583 5509 MARTIN LUTHER KING JR. WAY OAKLAND, CALIFORNIA CASE NO. RO000002

Prepared For:

Mr. Mark Detterman, P.G., C.E.G. Alameda County Environmental Health 1131 Harbor Bay Parkway, Suite 250 Alameda, California 94502-6577

> Prepared by: Conestoga-Rovers & Associates

10969 Trade Center Drive, Suite 107 Rancho Cordova, California U.S.A. 95670

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

web: http://www.CRAworld.com

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UPDATED SITE CONCEPTUAL MODEL AND CASE CLOSURE REQUEST

FORMER CHEVRON STATION 9-1583 5509 MARTIN LUTHER KING JR. WAY OAKLAND, CALIFORNIA CASE NO. RO000002

David W. Herzog, P.G

James P. Kiernan, P.E.



Prepared by: Conestoga-Rovers & Associates

10969 Trade Center Drive, Suite 107 Rancho Cordova, California U.S.A. 95670

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

web: http://www.CRAworld.com

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1.0 INTRODUCTION

Conestoga-Rovers & Associates (CRA) has prepared this *Updated Site Conceptual Model and Case Closure Request* on behalf of Chevron Environmental Management Company (Chevron) for former Chevron service station 9-1583 located at 5509 Martin Luther King Jr. Way in Oakland, California. Based on our review of the site background and conditions, the site meets the San Francisco Bay Regional Water Quality Control Board (RWQCB) criteria for closure as a low-risk groundwater case as described in their January 5, 1996 memorandum entitled *Interim Guidance on Required Cleanup at Low-Risk Fuel Sites*. Presented below are the site description and background, site conditions and discussion of remaining impacts, an evaluation of potential risk, the rationale for closure based on the low-risk criteria, and our conclusions and recommendations.

2.0 <u>SITE DESCRIPTION AND BACKGROUND</u>

The site is located on the northwest corner of the intersection of Martin Luther King Jr. Way (formerly Grove Street) and 55th Street (Figure 1), and is currently occupied by a Super Stop gas station. Existing station facilities include three 10,000-gallon fuel underground storage tanks (USTs), four dispenser islands, and a station building. The site is bounded by Martin Luther King Jr. Way to the east, 55th Street to the south, a single-family residential property to the west, and single- and multi-family residential properties to the north.

The site was occupied by a Chevron service station from approximately 1968, when Chevron first leased the property, through 1998. In addition to the existing facilities, a 1,000-gallon used-oil UST, three hydraulic hoists, and an oil-water clarifier were also present at the site. The four USTs reportedly were installed in 1984; no information regarding previous USTs is known. Since that time, the product piping has been upgraded (1989), the used-oil UST removed (1995), the hydraulic hoists and clarifier removed (1998), and the dispensers upgraded (1998). Chevron sold the station facilities in November 1998. The site has been occupied by the Super Stop station since 2003. The USTs appear to have been reconfigured sometime after 2003, as three grades of gasoline and diesel are currently dispensed at the site. Current and former site features are shown on Figure 2.

Environmental work has been ongoing since 1983 and has included the installation of monitoring wells MW-1 through MW-8 and soil vapor wells VP-1 through VP-5, the drilling of borings B-1 through B-5, and confirmation sampling during UST and fueling system removal/upgrade work. Remedial activities have consisted of over-excavation

during product piping upgrade work and used-oil UST removal (approximately 105 cubic yards); and removal of a small volume of light non-aqueous phase liquid (LNAPL) from MW-3 via hand bailing in 1992. A summary of the environmental work is presented in Appendix A. The approximate well, boring, and soil sample locations, and the excavation extents, are shown on Figure 2. The historical soil, groundwater, and soil vapor analytical results are presented in Tables 1 through 3, respectively.

Land use in the vicinity of the site is mixed commercial and residential. A 76 service station is present to the south of the site across 55th Street. This facility was a fuel release case that was closed in 2010 (former BP #11127 at 5425 Martin Luther King Jr. Way; ACEH Case No. RO0000241).

3.0 <u>SITE CHARACTERISTICS</u>

3.1 <u>REGIONAL GEOLOGY AND HYDROGEOLOGY</u>

The site is located in the East Bay Plain groundwater sub-basin¹, approximately 1.5 miles east of San Francisco Bay, and 2 miles north of Lake Merritt. The basin is an elongated, northwest-trending, flat alluvial plain occupying approximately 115 square miles. The bottom of the basin is the contact between the consolidated and unconsolidated sediments, which can occur at maximum depths of 1,000 feet. The Oakland Sub-area consists of a series of alluvial fan deposits. There are no well-defined estuarine mud units that act as aquitards for groundwater migration². Designated beneficial uses for groundwater according to the basin plan include municipal, industrial, and agricultural uses.

The site elevation is approximately 85 feet above mean sea level and local topography slopes gently to the west-southwest toward San Francisco Bay. Soil in the site vicinity consists of Holocene-age, medium-grained alluvium consisting of unconsolidated, moderately sorted, fine sand, silt, and clayey silt with a few thin beds of coarse sand³. These materials are underlain by late Pleistocene-age alluvium consisting of weakly consolidated, slightly weathered, poorly sorted, interbedded clay, silt, sand, and gravel.

¹. RWQCB, 2007, San Francisco Bay Basin (Region 2) Water Quality Control Plan (Basin Plan), January 18.

². Department of Water Resources Bulletin 118 (Basin Number 2-9.04).

³. Helley E. J., et al., 1979, Flatland Deposits of the San Francisco Bay Region, California: U.S. Geological Survey Professional Paper 943.

3.2 <u>SITE GEOLOGY AND HYDROGEOLOGY</u>

Soil encountered beneath the site has predominantly been clay with some silt and trace sand to the maximum explored depth of 26.5 feet below grade (fbg). South of the site, soil has included minor discontinuous clayey to silty sand and sand bedding. Copies of the historical site boring logs are presented in Appendix B. Geologic cross-sections depicting the best available information on the shallow subsurface are presented on Figures 3 and 4.

Groundwater was encountered during drilling at depths ranging from approximately 10 to 18 fbg. Depth to groundwater in the site wells has ranged from approximately 6.5 to 16 feet below top of casing (TOC), but typically fluctuates between 8 and 13 feet below TOC. The historical range of groundwater elevations measured in the wells is shown on the cross-sections (Figures 3 and 4).

Prior to 1995, the calculated groundwater flow direction was consistently to the north-northwest toward San Francisco Bay. Following the installation of wells MW-7 and MW-8 in the northwest portion of the site, the flow direction appeared to shift approximately 180 degrees to the east-southeast. CRA reviewed historic monitoring data to evaluate why the flow direction appeared to shift away from the expected direction, and concluded that the apparent shift was due to differences in well elevation Wells MW-1 through MW-6 were surveyed in 1990 using the survey data. National Vertical Geodetic Datum (NVGD 1929) as the reference datum, while wells MW-7 and MW-8 were surveyed in 1994 using the North American Vertical Datum of 1988 (NAVD 88) as the reference datum. The measured groundwater elevations in MW-7 and MW-8 were consistently 1 to 2 feet higher than those in the remaining wells, resulting in the calculated flow direction being to the southeast. There reportedly is a difference between NVGD 1929 and NAVD 88 of approximately 0.835 meters (2.74 feet). CRA had all the site wells resurveyed in 2009 using the same reference datum, and corrected the previous groundwater elevations in MW-7 and MW-8 with the new data, resulting in a groundwater flow direction to the northwest (see rose diagram on The updated survey data along with the well construction details are Figure 2). presented in Table 4.

3.3 NEARBY WELLS AND SENSITIVE RECEPTORS

Nearby Wells

In 2002, Delta Environmental Consultants, Inc. (Delta) reviewed California Department of Water Resources (DWR) and Alameda County Public Works Agency (ACPWA) files to identify any water-supply wells within 2,000 feet of the site. One well was identified within the search radius: an industrial well approximately 1,400 feet northwest (downgradient). Delta also identified a cathodic protection well as being within the radius; however, this well was mapped incorrectly and was not within 2,000 feet of the site. A copy of Delta's August 1, 2002 Sensitive Receptor Survey report is presented in Appendix C.

A well survey conducted in 2010 by ARCADIS for the former BP facility identified one irrigation and two industrial wells within ½-mile, along with numerous non-water supply wells. Details were not available, however, the irrigation well was located upgradient, and the wells located downgradient were approximately ½-mile from the facility and predominantly monitoring wells (Appendix C).

Sensitive Receptors

Also in 2010, ARCADIS performed an internet search to identify any sensitive receptors within 2,500 feet of the former BP facility. Three schools were identified; however, all were located at least 1,200 feet southwest (crossgradient).

As previously mentioned, residential properties are located to the north and west of the site (Figure 2). In 2011, CRA also performed an internet search to identify any potential sensitive receptors within ½-mile of the site and identified the following:

- VAT Daycare 900 feet southwest
- Santa Fe Elementary School 1,200 feet southwest
- Children's Hospital & Research Center 1,400 feet south-southeast
- Oakland High School 1,700 feet southwest
- Grace Children's Center 2,400 feet southwest

As shown above, all the identified potential sensitive receptors are located up- or crossgradient of the site.

Local Water Supply

The local water supply is provided by East Bay Municipal Utility District (EBMUD); the source is the Mokelumne River Basin in the Sierra Nevada range. Shallow groundwater in the site area is not likely to be used as a drinking water source in the foreseeable future.

Nearest Surface Water Body

The nearest surface water body appears to be Temescal Creek approximately 1,400 feet south (up- to crossgradient). However, the creek in this area is shown as an underground culvert. A map showing the creek location is presented in Appendix C.

3.4 **PREFERENTIAL PATHWAYS**

Underground utilities identified within the streets to the east and south of the site included storm drain, sanitary sewer, electric, telephone, and water lines buried at depths of 4 to 22 fbg; however, these utilities are in the upgradient direction and thus not likely preferential pathways of concern.

4.0 <u>CONSTITUENTS OF CONCERN</u>

4.1 <u>SOIL</u>

Based on the historical data, the primary constituent of concern (COC) in remaining soil (i.e. not excavated) is total petroleum hydrocarbons as gasoline (TPHg). However, TPHg was only detected in one onsite soil sample (SS-1) (670 milligrams per kilogram [mg/kg]). As shown in Table 1, TPHg was also detected in two of the soil samples collected from the borings for wells MW-5 and MW-6; however, these wells are upgradient of the site and therefore the detections are likely attributable to the former BP facility. Benzene, toluene, ethylbenzene, and xylenes (BTEX) are less significant COCs in soil, as they were only detected at low concentrations in two samples (benzene only in one sample at 0.7 mg/kg).

Total recoverable petroleum hydrocarbons (TRPH) were detected in the four soil samples collected from the used-oil UST excavation. This excavation was subsequently deepened to below groundwater and thus no additional samples were collected. Regardless, heavier-end hydrocarbons such as TRPH exhibit characteristics of low mobility and low toxicity in the environment and would not be expected to significantly migrate vertically or horizontally away from the tank area. Therefore, TRPH does not appear to be a COC in soil.

TPH as diesel (TPHd), methyl tertiary butyl ether (MTBE) and other fuel oxygenates, volatile organic compounds (VOCs), and semi-VOCs generally were not detected in any of the soil samples analyzed with the exception of low TPHd and trace MTBE in one sample each (Table 1); therefore, none of these constituents appear to be COCs in soil.

4.2 <u>GROUNDWATER</u>

Based on the historical data, the primary COCs remaining in groundwater are TPHg and MTBE. However, TPHg only remains in well MW-8, and only at a low concentration (120 micrograms per liter [μ g/L]). Only low concentrations of MTBE (up to 5 μ g/L) remain in four of the wells. BTEX have not been detected since at least 2008 and ethanol was not detected in any of the wells. Other fuel oxygenates, 1,2-dichloroethane (1,2-DCA) and 1,2-dibromoethane (EDB) were not detected in groundwater samples collected in 2007 (Table 2). Only low concentrations of TPHd historically were detected. Therefore, these constituents are not COCs in groundwater.

TPH as motor oil (TPHmo) is present in wells MW-7 and MW-8. However, as mentioned above, heavier-end hydrocarbons are not a significant concern with regards to potential risk to human health or the environment. Therefore, TPHmo is not a primary COC in groundwater.

5.0 PETROLEUM HYDROCARBON SOURCES AND DISTRIBUTION

5.1 <u>RELEASE SOURCE AND VOLUME</u>

Based on previous investigations and UST/piping removal confirmation sampling, the primary source(s) of the released petroleum hydrocarbons appears to be the former USTs and dispensers. Although the volume of released hydrocarbons is unknown, approximately 100 cubic yards of impacted soil was excavated and removed. This remedial action has adequately mitigated the release as evidenced by decreasing hydrocarbon concentrations in groundwater and lack of dissolved-phase BTEX.

5.2 <u>POTENTIAL OFFSITE SOURCES</u>

The upgradient former BP facility may potentially be contributing to the impacts at the site. Wells MW-5 and MW-6 are located just downgradient of the former BP facility. While petroleum hydrocarbons generally have not been detected in MW-5, MW-6 historically contained MTBE. As low concentrations of MTBE are present beneath the subject site, the MTBE may, at least partially, have originated from this offsite facility.

5.3 <u>PETROLEUM HYDROCARBONS IN SOIL</u>

As described above, the COCs were only detected in two onsite soil samples. The trace concentration of toluene detected in the soil sample collected at 3 fbg from boring B-1 just downgradient of the fuel USTs is insignificant. Therefore, based on the analytical results, the COCs in soil primarily remain only in the area of the northeast dispenser (sample SS-1). The exact depth of this sample is unknown, but it reportedly was collected from the base of the excavation just above groundwater. As such, the COCs in soil are not expected to extend a significant depth below the water table; therefore, the vertical extent of hydrocarbons in soil in this area appears adequately defined. Based on the results of surrounding samples and borings, the lateral extent is limited and adequately defined. As this sample was collected in 1989, concentrations likely have decreased due to natural attenuation processes. Therefore, no further investigation is warranted.

5.4 <u>PETROLEUM HYDROCARBONS IN GROUNDWATER</u>

Groundwater has been monitored since 1990. Wells MW-7 and MW-8 are currently sampled semi-annually during the first and third quarters, and wells MW-1 through MW-6 are sampled annually during the first quarter. A copy of the most recent (second semi-annual 2011) groundwater monitoring report is presented in Appendix D.

As mentioned above, TPHg is only detected in MW-8; concentrations in this well have significantly decreased and only low concentrations remain. TPHg has not been detected in the remaining wells since at least 2007. Low concentrations (maximum of $5 \mu g/L$) of MTBE remain in MW-1, MW-3, MW-7, and MW-8; the MTBE concentrations in these wells have also significantly decreased. MTBE is no longer detected in MW-6 and generally has not been detected in the remaining wells. A groundwater concentration map is presented on Figure 5.

A comparison of the historical maximum and most recent TPHg, benzene, and MTBE concentrations in the wells is presented in Table A below.

TABLE A COMPARISON OF MAXIMUM AND MOST RECENT CONCENTRATIONS IN						
COMPARISON OF MAXIMUM AND MOST RECENT CONCENTRATIONS IN GROUNDWATER						
	(concentrations in µg/L)					
ТРНд			Benzene		MTBE ^a	
Well ID	Max Conc.	Most Recent Conc.	Max Conc.	Most Recent Conc.	Max Conc.	Most Recent Conc.
MW-1	14,000,00 0 (1-8-93)	<50 (1-25-11)	12,000 (1-8-93)	<0.5 (1-25-11)	61 (1-12-04)	5 (1-25-11)
MW-2	4,600 (2-8-91)	<50 (1-25-11)	1,200 (10-5-92)	<0.5 (1-25-11)	2 (7-22-08)	<0.5 (1-25-11)
MW-3	250,000 (1-8-93)	<50 (1-25-11)	5,000 (1-8-93)	<0.5 (1-25-11)	43 (7-14-03)	4 (1-25-11)
MW-4	65 (5-8-91)	<50 (1-25-11)	17 (2-8-91)	<0.5 (1-25-11)	<0.5 (all)	<0.5 (1-25-11)
MW-5	880 (7-17-92)	<50 (1-25-11)	2.6 (7-17-92)	<0.5 (1-25-11)	<0.5 (all)	<0.5 (1-25-11)
MW-6	56 (5-8-91)	<50 (1-25-11)	4 (1-5-94)	<0.5 (1-25-11)	25 (1-12-04)	<0.5 (1-25-11)
MW-7	1,200 (3-8-94)	<50 (7-12-11)	440 (3-8-94)	<0.5 (7-12-11)	44 (7-27-04)	2 (7-12-11)
MW-8	28,000 (3-8-94)	120 (7-12-11)	3,000 (8-4-94)	<0.5 (7-12-11)	110 (1-12-04)	3 (7-12-11)
a Only results obtained using EPA Method 8260 reported						
< Not detected at or above stated laboratory reporting limit						

TADIE A

In January 2007, grab-groundwater samples were collected from borings B-1 through B-4 advanced adjacent to the fuel USTs and dispensers. As shown in Table 2, up to $4,500 \mu g/L$ TPHg and $5 \mu g/L$ MTBE were detected in B-1 and B-2. These results are consistent with historical monitoring data from nearby wells MW-1 and MW-3. However, the detected concentrations likely were greater than actual conditions due to the presence of sediment in the grab samples.

With the exception of TPHmo in MW-7 and TPHg in MW-8, all other constituents in groundwater do not exceed the most conservative environmental screening levels (ESLs⁴) established by the RWQCB in May 2008. Degradation trend analysis estimates that TPHg in MW-8 will reach the ESL ($100 \mu g/L$) by November 2013 (Appendix E). Although not a significant concern, an estimate was also performed for TPHmo in MW-7, and indicated it would reach the ESL (also $100 \mu g/L$) by February 2057; note that

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⁴. San Francisco Bay Region RWQCB, Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater, interim final-November 2007 (revised May 2008); Table A: Shallow Soil (<3 m bgs) – Water is a current or potential source of drinking water.

the data indicates a change in groundwater conditions in 2007, thus, the data after 2006 was used to represent the current trend. Given the municipal water supply, the lack of nearby receptors, the limited extent of impact, and the location of the site in the City of Oakland, these timeframes are reasonable.

5.4.1 EXTENT OF DISSOLVED HYDROCARBONS

The extent of dissolved petroleum hydrocarbons in groundwater is adequately defined in all directions except downgradient (northwest). However, historical monitoring data indicate that hydrocarbon migration downgradient of the site is likely not significant and does not pose a significant threat to human health or the environment given the lack of nearby groundwater receptors, and no additional assessment is warranted, as further discussed below.

The Domenico multi-dimensional advection-dispersion model for contaminant transport⁵ was used to predict the extent of petroleum hydrocarbons in groundwater downgradient of the site. The Domenico model requires site-specific input for the groundwater seepage velocity and constituent degradation constant. For groundwater seepage velocity, a flow rate was calculated using the following equation⁶:

 $v_s = Ki/n_e$

Where;

- v_s = seepage velocity
- K = hydraulic conductivity (0.0283 feet per day⁷ for clay with silt and sand)
- i = gradient (0.01 site specific)
- n_e = average effective porosity (0.02³)

Given these values, the calculated groundwater seepage velocity is approximately 0.014 feet per day.

As petroleum hydrocarbons migrate in groundwater, concentrations decline through natural mechanical and biological processes. At this site, recent concentrations in groundwater downgradient would not be expected to exceed maximum concentrations

⁵. Domenico, P.A., 1987, An analytical model for multidimensional transport of a decaying contaminant species: Journal of Hydrology, 91; pp. 49-58.

Kuo, J., 1999, Practical Design Calculations for Groundwater and Soil Remediation: CRC Press LLC, Boca Raton FL.

⁷. Fetter, C.W., 1994, Applied Hydrogeology: Macmillan College Publishing Company, Inc., New York.

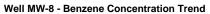
observed in MW-8, located at the downgradient boundary of the site. Since shallow groundwater in the site area is not a potential source of drinking water, the only significant potential concern to downgradient receptors is inhalation risk via vapor intrusion. Table B below presents a comparison of the historical maximum concentrations detected in MW-8 with the respective groundwater ESLs associated with vapor intrusion concerns at residential sites.

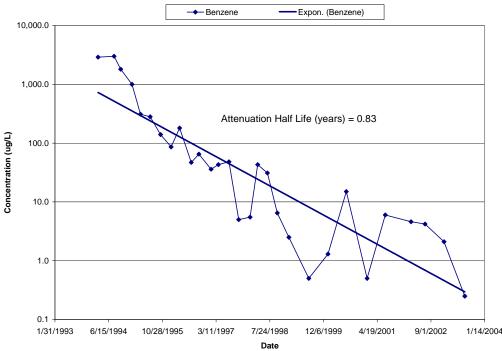
TABLE B COMPARISON OF HISTORICAL MAXIMUM GROUNDWATER CONCENTRATIONS IN MW-8 TO ENVIRONMENTAL SCREENING LEVELS

Constituent of Concern	Historical Maximum Concentration (µg/L)	Residential Groundwater ESL for Potential Vapor Intrusion Concerns ⁸ (µg/L)
TPHg	28,000	(Use Soil Gas)
Benzene	3,000	540
Toluene	1,300	380,000
Ethylbenzene	1,200	170,000
Xylenes	6,800	160,000
MTBE	110	24,000

As shown above, the only constituent that historically exceeded the respective ESL is benzene; all other constituents were at least two orders of magnitude below the ESLs and thus appear to pose no significant inhalation risk to downgradient receptors. TPHg does not have a corresponding ESL and requires direct screening of soil gas. TPHg in soil vapor is discussed below in Section 5.5. Although benzene is no longer detected in MW-8, it was generally detected from the start of monitoring in 1994 through 2003. The attenuation rate of benzene in MW-8 (using the historical maximum of $3,000 \,\mu\text{g/L}$ from 1994) is shown below.

San Francisco Bay Region RWQCB, Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater, interim final-November 2007 (revised May 2008); Table E-1: Groundwater Screening Levels for Evaluation of Potential Vapor Intrusion Concerns.





The calculated rate of benzene degradation in MW-8 gives a first-order attenuation half-life of 0.83 years (303 days). Constituent half-life in days is equivalent to the degradation constant times 0.6931, which results in a benzene degradation constant of 0.00229 per day. The Domenico calculation predicting the extent of benzene migration downgradient of MW-8 is presented in Appendix F. According to the model, the benzene concentration in groundwater 15 feet downgradient of MW-8 is 268 μ g/L, which is below the ESL of 540 μ g/L for potential vapor intrusion concerns. Based on this information and the building configuration and use on adjacent properties, there does not appear to be a significant vapor intrusion risk as no habitable structures are present within this distance downgradient of the site. The Domenico model also predicts that benzene in groundwater will attenuate within 55 feet of MW-8. Based on the modeling results, no further downgradient assessment is warranted.

5.5 <u>PETROLEUM HYDROCARBONS IN SOIL VAPOR</u>

In September 2008, soil vapor samples were collected from wells VP-1 through VP-5 to evaluate potential vapor intrusion concerns for site workers and offsite receptors. As seen in Table 3, TPHg was detected in all the wells at concentrations ranging from 550 to 330,000 micrograms per cubic meter ($\mu g/m^3$). The highest concentration was detected in VP-2 located on the west side of the site. TPHd was detected in VP-2 (6,900 $\mu g/m^3$) and VP-4 (920 $\mu g/m^3$), but the concentrations did not exceed the

residential (most conservative) ESL of $10,000 \,\mu\text{g/m}^3$. Benzene, considered the primary risk driver for vapor intrusion as it is a known human carcinogen, was not detected in any of the wells.

The detected TPHg concentrations in VP-2 (330,000 μ g/m³), VP-4 (38,000 μ g/m³), and VP-5 (46,000 μ g/m³) exceeded both the commercial/industrial (29,000 μ g/m³) and residential (10,000 μ g/m³) ESLs associated with vapor intrusion concerns. As stated by the RWQCB, the ESLs are considered to be conservative and are based on hydrocarbon composition typical of freshly dispensed fuel that has not been degraded and still has a significant aromatic (carcinogenic) component. The TPHg results reported by the laboratory incorporate many different compounds. Therefore, to further evaluate the components that comprise the detected TPHg in VP-2, VP-4, and VP-5, the laboratory reported the top 20 tentatively identified compounds (TICs) in each sample and also provided a breakdown of the percentage of aliphatic and aromatic compounds. A copy of the laboratory analytical report including the TIC results is presented in Appendix G. Based on the TIC results, the TPHg range compounds in soil vapor consisted of 92 to 100 percent aliphatic hydrocarbons, which are non-carcinogenic. The only identified aromatic compound (tris[trimethylsilyl]este-arsenous-acid [C₉H₂₇AsO₃Si₁₃]) was in the sample from VP-5 and is an herbicide compound, and thus not related to the case. None of the identified aliphatic compounds have associated ESLs. Based on this information, it does not appear that TPHg range petroleum hydrocarbons in soil vapor beneath and downgradient of the site pose a significant vapor intrusion risk.

6.0 LOW-RISK GROUNDWATER CRITERIA

The site appears to meet the RWQCB criteria for classification as a low-risk groundwater case. As described in the January 5, 1996 memorandum, a low-risk groundwater case has the following general characteristics:

- The leak has been stopped and ongoing sources, including LNAPL, have been removed or remediated.
- The site has been adequately characterized.
- The dissolved hydrocarbon plume is stable, decreasing, and not migrating.
- No water wells, deeper drinking water aquifers, surface water, or other sensitive receptors are likely to be impacted.
- The site presents no significant risk to human health or the environment.

Each low-risk groundwater case criteria, as it relates to the site, is discussed below.

6.1 THE LEAK HAS BEEN STOPPED AND ONGOING SOURCES, INCLUDING LNAPL, HAVE BEEN REMOVED OR REMEDIATED

All original potential sources of the petroleum hydrocarbon release(s) (former USTs, dispensers, and product piping) were removed. The site is currently an active station with three USTs. Remedial excavation was performed to remove hydrocarbon mass. Based on the decreasing concentrations in groundwater, any residual impacted soil is not acting as a continuing source of hydrocarbons to groundwater that would reverse these trends.

In October 1992, LNAPL (approximate thickness of 0.24 feet) was observed in MW-3. Weekly bailing was subsequently performed in November and December 1992 and approximately 270 milliliters of LNAPL were removed. The bailing was discontinued when only sheen was observed, and LNAPL has not been observed in MW-3 since third quarter 1993 (0.01 foot). Based on this information, the leak has been stopped and ongoing sources have been removed.

6.2 <u>THE SITE HAS BEEN ADEQUATELY CHARACTERIZED</u>

Soil sample analytical results indicate that residual impact is limited and the lateral and vertical extents have been adequately defined. Groundwater monitoring has been performed since 1990. Declining hydrocarbon concentration trends in groundwater indicate that the plume is shrinking, and based on degradation rates does not pose a threat to onsite or downgradient receptors and is adequately characterized. Concentrations are expected to continue to decrease over time due to natural attenuation. The soil vapor analytical results indicate that the constituents detected do not appear to pose a significant vapor intrusion risk. Based on this information, the extent of impact has been defined to the degree necessary to demonstrate that the site does not present a significant threat to human health or the environment.

6.3 THE DISSOLVED HYDROCARBON PLUME IS STABLE, DECREASING, AND NOT MIGRATING

Petroleum hydrocarbon concentrations in groundwater have been steadily decreasing since the start of monitoring, which is indicative of a shrinking plume. Although some migration of dissolved hydrocarbons likely occurred historically, gasoline plumes do not tend to detach and the documented declining trends indicate that the plume is shrinking. Natural attenuation is expected to continue to reduce the remaining concentrations to background levels. The remaining TPHmo and TPHg concentrations in groundwater are estimated to reach the ESLs by 2085 and 2013, respectively.

6.4 NO WATER WELLS, DEEPER DRINKING WATER AQUIFERS, SURFACE WATER, OR OTHER SENSITIVE RECEPTORS ARE LIKELY TO BE IMPACTED

The recent well survey did not identify any water supply wells within 2,000 feet of the site in the downgradient direction. An industrial well was previously identified approximately 1,400 feet northwest of the site; if this well remains, based on this distance it is not likely to be impacted by dissolved hydrocarbons from the site. The nearest surface water body is located upgradient and is not at risk. With the exception of the downgradient residential properties, no sensitive receptors were identified within ¹/₂-mile downgradient. With regards to the residential properties, the water supply is municipal, and based on the modeling results the concentrations of fuel constituents downgradient will not exceed ESLs associated with potential vapor intrusion concerns. Therefore, there does not appear to be a significant risk to these receptors.

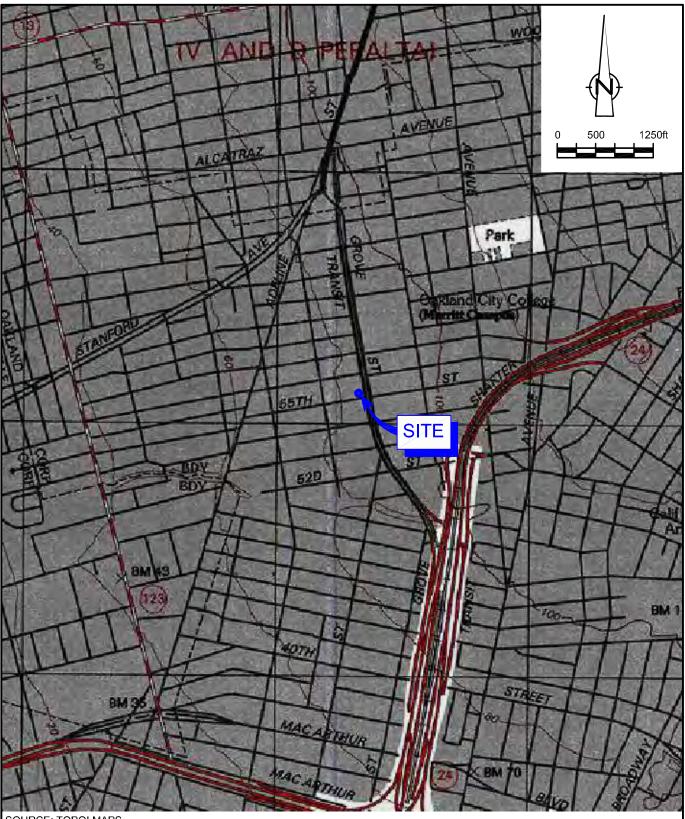
6.5 THE SITE PRESENTS NO SIGNIFICANT RISK TO HUMAN HEALTH OR THE ENVIRONMENT

Little to no residual petroleum hydrocarbon impact was identified in remaining soil beneath the site. Additionally, as the site is generally capped with the existing development, potential exposure to any residual impacted soil by the general public is precluded. As the site is an active gas station, the remaining hydrocarbons in groundwater and soil vapor do not appear to pose a significant risk to site workers. The TIC analysis indicated no significant vapor intrusion risk. The modeling results indicate no significant risk to downgradient residential receptors. Based on this information, the site does not pose a significant risk to human health or the environment under the current and expected continued future land use scenario.

7.0 CONCLUSIONS AND RECOMMENDATIONS

Based on the site conditions and analytical data, the site satisfies the RWQCB criteria for classification as a low-risk groundwater case. No further assessment appears warranted. Remaining petroleum hydrocarbons in soil, groundwater, and soil vapor do not appear to pose a significant risk to human health or the environment under the current land use scenario. The site is expected to remain a gas station for the foreseeable future. Therefore, on behalf of Chevron, CRA respectfully requests the site be considered for low-risk case closure.

FIGURES

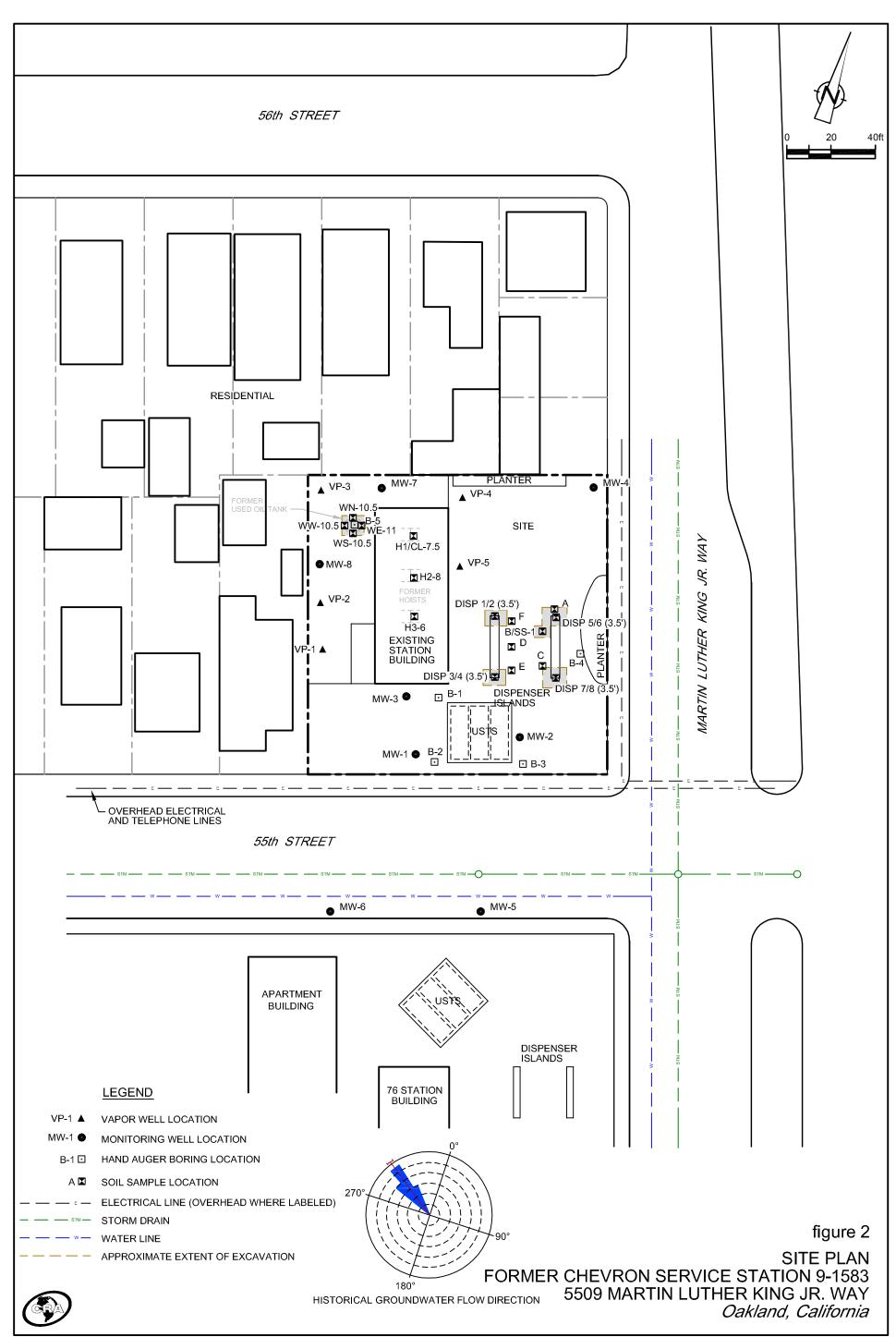


SOURCE: TOPO! MAPS.

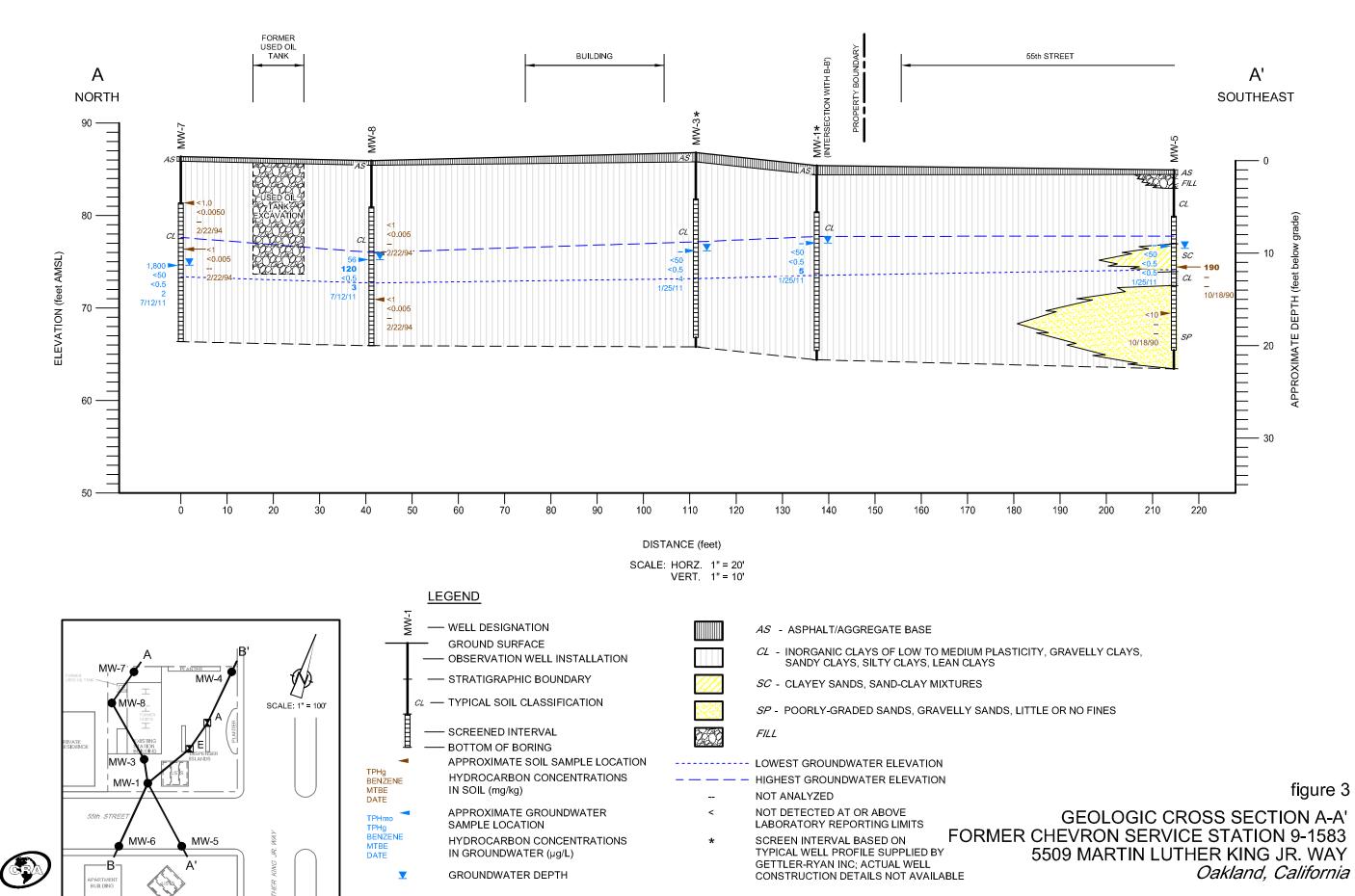
figure 1



VICINITY MAP FORMER CHEVRON SERVICE STATION 9-1583 5509 MARTIN LUTHER KING JR. WAY Oakland, California

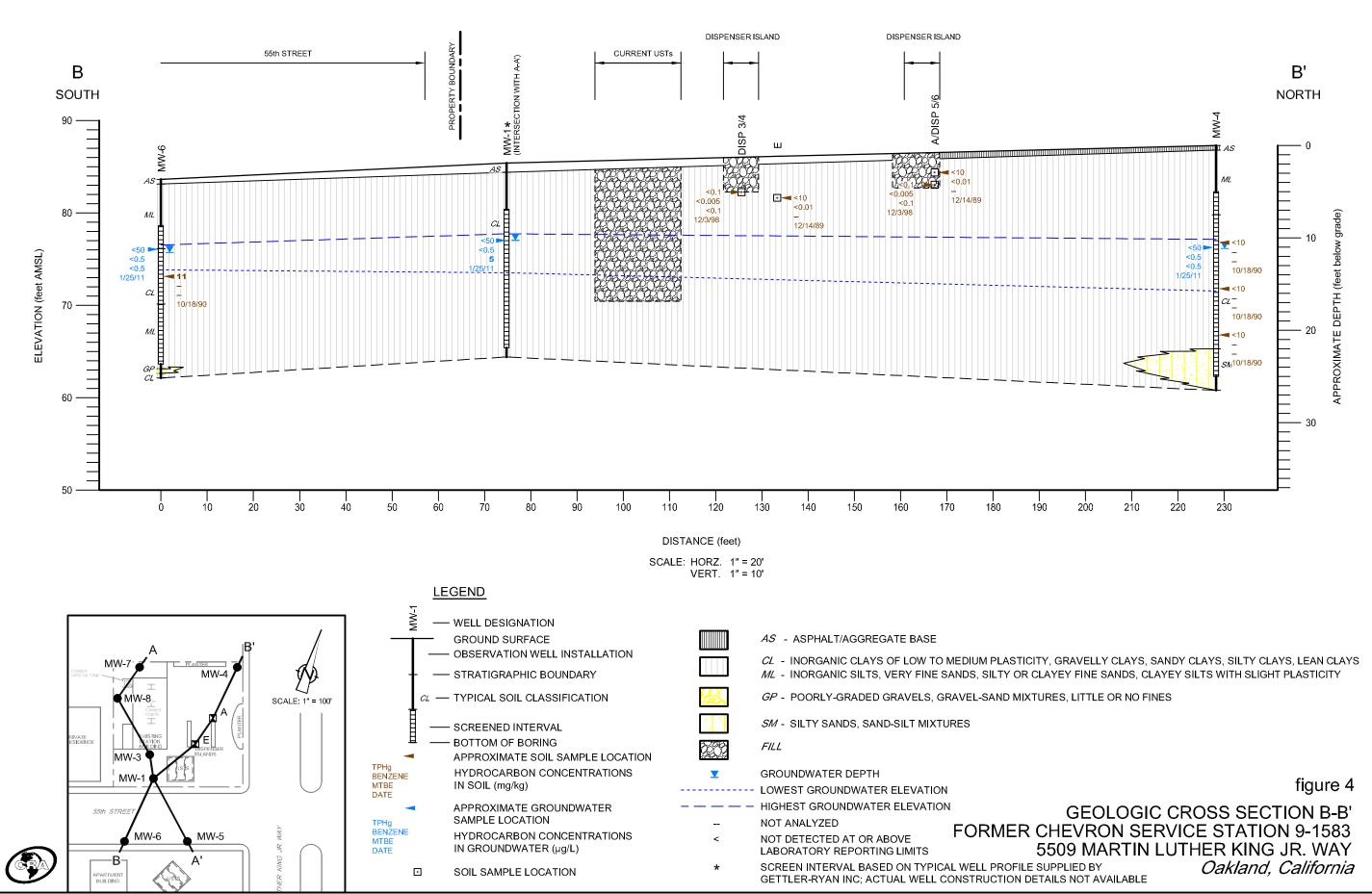


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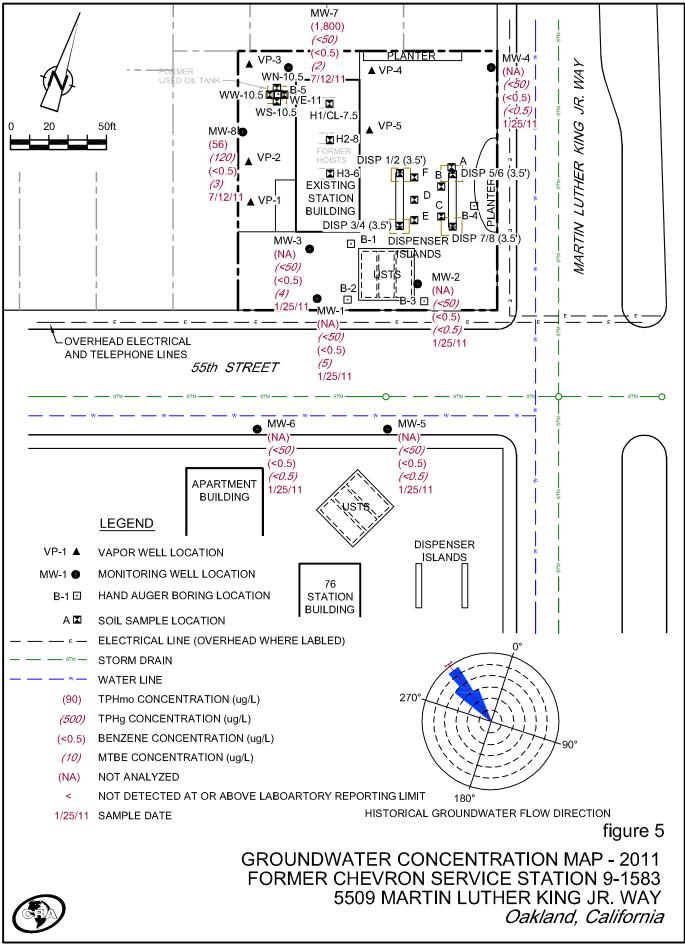


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611960-499(004)GN-WA005 AUG 29/2011



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SOIL SAMPLE ANALYTICAL RESULTS FORMER CHEVRON SERVICE STATION 9-1583 5509 MARTIN LUTHER KING JR. WAY OAKLAND, CALIFORNIA

Sample/Boring ID	Sample Depth	Date Sampled	TPHd	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE							1,2 - DCA		HVOCs	Semi- VOCs	Cadmium	Chromium	Lead	Nickel	Zinc
	(fbg)									Concent	rations	reported	in millig	grams p	er kilogri	am (mg/kg	<u>y</u>)							
Piping Upgrade S	Sampling																							
A	2	12/14/89		<10	< 0.01	< 0.01	< 0.05	< 0.05																
В	3	12/14/89		1,700	0.14	9.7	14	180																
C C	3.5	12/14/89		<10	< 0.01	< 0.01	< 0.05	< 0.05																
D	4.5	12/14/89		<10	< 0.01	< 0.01	< 0.05	< 0.05																
F	4.5	12/14/89		<10	<0.01	< 0.01	<0.05	< 0.05																
E	3.5	12/14/89		<10	<0.01	<0.01	<0.05	<0.05																
SS-1	Unknown	12/15/89		670	0.7	1.2	0.96	1.5																
N.C *	D																							
Monitoring Well		10/19/00		-10																				
MW-4	10.5	10/18/90		<10																				
	15.5	10/18/90		<10																				
	20.5	10/18/90		<10																				
MW-5	10.5	10/18/90		190																				
	15.5	10/18/90		<10																				
MW-6	10.5	10/18/90		11																				
MW-7	5	2/22/94		<1	<0.005	<0.005	<0.005	< 0.015																
	15	2/22/94		<1	<0.005	< 0.005	< 0.005	<0.015 <0.015																
	15	2/22/94		~ 1	<0.005	<0.005	<0.005	<0.015																
MW-8	10	2/22/94		<1	< 0.005	< 0.005	< 0.005	< 0.015																
	15	2/22/94		<1	< 0.005	< 0.005	< 0.005	< 0.015																
Used-Oil Tank R	emoval																							
WE-11	11.0	4/17/95	75	<1.0	< 0.005	< 0.005	< 0.005	< 0.005		770								ND	ND	0.6	45	<5.0	55	72
WW-10.5	10.5	4/17/95	<1.0	<1.0	< 0.005	< 0.005	< 0.005	< 0.005		220								ND	ND	0.53	46	<5.0	61	68
WN-10.5	10.5	4/17/95			-0.000					2,700												-0.0		
WS-10.5	10.5	4/17/95								76														
Hoist/Clarifier R	omoval																							
H/CLR-7.5	7.5	11/5/98	<5.0	~1.0	<0.00F	<0.00F		<0.010		<00 0	~10							NTD		<1.0	20.1		10.0	4.4
				<1.0	< 0.005	< 0.005	< 0.005	< 0.010	< 0.025	<33.3	<10							ND	ND	<1.0	32.1	<7.5	40.8	44
H2-8 H3-8	8 8	11/5/98									<10													
113-0	0	11/5/98									<10													
Dispenser Upgra																								
Disp 1/2 (3.5')	3.5	12/3/98		< 0.1	< 0.005	< 0.005	< 0.005	< 0.005	< 0.1															
Disp 3/4 (3.5')	3.5	12/3/98		< 0.1	< 0.005	< 0.005	< 0.005	< 0.005	< 0.1															
Disp 5/6 (3.5')	3.5	12/3/98		< 0.1	< 0.005	< 0.005	< 0.005	< 0.005	< 0.1															
Disp 7/8 (3.5')	3.5	12/3/98		< 0.1	< 0.005	< 0.005	< 0.005	< 0.005	<0.1															
Exploratory Borin	ngs																							
B-1	3	1/4/07		<1.0	< 0.0005	0.001	< 0.001	< 0.001	< 0.0005			<0.001	<0.001	<0.001	< 0.020	< 0.001	< 0.001							
- 1	6	1/4/07		<1.0 <1.0	< 0.0005	< 0.001	<0.001	<0.001 <0.001	< 0.0005				< 0.001			<0.001 <0.001	< 0.001							
	9	1/4/07											< 0.001			<0.001 <0.001								
	7	1/4/0/		<1.0	< 0.0005	\U.UU1	< 0.001	< 0.001	0.0006			~ 0.001	\U.UU1	~ 0.001	∼0.020	NU.001	< 0.001							

SOIL SAMPLE ANALYTICAL RESULTS FORMER CHEVRON SERVICE STATION 9-1583 5509 MARTIN LUTHER KING JR. WAY OAKLAND, CALIFORNIA

Sample/Boring ID	Sample Depth	Date Sampled	TPHd	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes			-					1,2-DCA		HVOCs	Semi- VOCs	Cadmium	Chromium	Lead	Nicke	Zinc
	(fbg)									Concent	trations 1	reported	in milli	grams p	er kilogr	am (mg/kg)							
B-2	3	1/4/07		<1.0	< 0.0005	< 0.001	< 0.001	<0.001	<0.0005			<0.001	<0.001	<0.001	< 0.020	< 0.001	< 0.001							
	6	1/4/07		<1.0	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.0005					< 0.001		< 0.001	< 0.001							
	9	1/4/07		<1.0	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.0005					< 0.001		< 0.001	< 0.001							
B-3	3	1/3/07		<1.0	< 0.0005	< 0.001	< 0.001	<0.001	<0.0005			<0.001	<0.001	<0.001	< 0.020	< 0.001	< 0.001							
	6	1/3/07		<1.0	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.0005					< 0.001	< 0.020	< 0.001	< 0.001							
	9	1/3/07		<1.0	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.0005					< 0.001		< 0.001	< 0.001							
B-4	3	1/3/07		<1.0	< 0.0005	< 0.001	< 0.001	< 0.001	<0.0005			< 0.001	< 0.001	< 0.001	< 0.020	< 0.001	< 0.001							
	6	1/3/07		<1.0	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.0005					< 0.001		< 0.001	< 0.001							
	8	1/3/07		<1.0	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.0005					< 0.001	< 0.020	< 0.001	< 0.001							
B-5	3	1/4/07		<1.0	< 0.0005	< 0.001	< 0.001	< 0.001	<0.0005			< 0.001	< 0.001	< 0.001	< 0.020	< 0.001	< 0.001							
	5	1/4/07		<1.0	< 0.0005	< 0.001	<0.001	<0.001	< 0.0005					< 0.001	< 0.020		< 0.001							
Soil Vapor Well I	Borings																							
VP-1	3	8/26/08	<4.0	<1.0	< 0.0005	< 0.001	< 0.001	<0.001	< 0.0005						< 0.020	< 0.001	<0.001							
VP-2	3	8/26/08	<4.0	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005						<0.020	< 0.001	<0.001							
VP-3	3	8/26/08	<4.0	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005						<0.021	<0.001	<0.001							
VP-4	3	8/26/08	<4.0	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005						<0.020	<0.001	<0.001							
VP-5	3	8/26/08	<4.0	<1.0	<0.0005	<0.001	<0.001	< 0.001	<0.0005						<0.020	< 0.001	<0.001							

Abbreviations/Notes:

fbg = feet below grade

mg/kg = miligrams per kilogram

TPHd and TPHg = Total petroleum hydrocarbons as diesel and gasoline, respectively MTBE = Methyl tertiary butyl ether

TRPH = Total recoverable petroleum hydrocarbons TPHhf = Total petroleum hydrocabons as hydraulic fluid

DIPE = Di-isopropyl ether

ETBE = Ethyl tertiary butyl ether

TAME = Tertiary amyl methyl ether

TBA = Tertiary butyl alcohol

1,2-DCA = 1,2-Dichloroethane

EDB = 1,2-Dibromoethane

HVOCs = Halogenated volatile organic compounds

Semi-VOCs = Semi-volatile organic compounds

<x = Indicates constituent not detected at or above the stated laboratory reporting limit

-- = Not analyzed

ND = Not detected; reporting limits vary

Note: shaded samples were collected from soil that was later excavated

GRAB-GROUNDWATER SAMPLE ANALYTICAL RESULTS FORMER CHEVRON 9-1583 5509 MARTIN LUTHER KING JR. WAY OAKLAND , CALIFORNIA

Boring ID	Date Sampled	TPHg	Benzene	Toluene	Ethyl- benzene	Xylenes	MTBE	DIPE	ETBE	TAME	TBA	1,2 - DCA	EDB
				Со	oncentrati	ons repor	ted in n	nicrogra	ams per	liter (µ	g/L)		
B-1	1/4/07	2,600	<0.5	<0.5	0.9	<0.5	2	<0.5	<0.5	<0.5	<2	<0.5	<0.5
B-2	1/4/07	4,500	<0.5	<0.5	<0.5	<0.5	5	<0.5	<0.5	<0.5	<2	<0.5	<0.5
B-3	1/3/07	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<0.5
B-4	1/3/07	<50	< 0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<0.5

Abbreviations/Notes:

TPHg = Total petroleum hydrocarbons as gasoline

MTBE = Methyl tertiary butyl ether

DIPE = Di-isopropyl ether

ETBE = Ethyl tertiary butyl ether

TAME = Tertiary amyl methyl ether

TBA = Tertiary butyl alcohol

1,2 DCA= 1,2-dichloroethane

EDB= 1,2-dibromoethane

<x = Not detected at or above stated laboratory reporting limits

SOIL VAPOR SAMPLE ANALYTICAL RESULTS FORMER CHEVRON SERVICE STATION 9-1583 5509 MARTIN LUTHER KING JR. WAY OAKLAND, CALIFORNIA

Sample ID	Sample Date	TPHd	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	TBA	1,2-DCA	EDB	Ethanol	Iso-octane	Helium	Oxygen	Carbon dioxide
	•	ŀ			C	Concentrations rep	orted in micr	ograms per cu	ubic meter (µg	g/m ³) —				<−−-Rep	orted in per	rcent
VP-1	9/11/08	<170	550	<7.5	<8.9	<10	<10	<8.5	<28	<9.5	<18	<18	<11	<0.24	14	6.8
VP-2	9/11/08	6,900	330,000	<52	<62	<71	<71	<59	<200	<66	<130	<120	17,000	<0.12	16	8.7
VP-3	9/11/08	<180	540	<3.9	<4.6	<5.4	<5.4	<4.4	<15	<5.0	<9.5	<9.3	<5.8	<0.12	17	4.7
VP-4	9/11/08	920	38,000	<18	<21	<24	<24	<20	<67	<22	<42	<41	5,400	<0.11	11	10
VP-5	9/11/08	<160	46,000	<7.1	<8.4	<9.6	<9.6	<8.0	<27	<9.0	<17	<17	<10	<0.22	10	14
Commer	cial ESL	29,000	29,000	280	180,000	3,300	58,000	31,000	NE	310	14	NE	NE			
Residen	tial ESL	10,000	10,000	84	63,000	980	21,000	9,400	NE	94	4.1	NE	NE			

Abbreviations/Notes:

Total petroleum hydrocarbons as diesel (TPHd) by EPA Method TO-17.

Total petroleum hydrocarbons as gasoline (TPHg) by EPA Method TO-3.

Benzene, toluene, ethylbenzene, xylenes (BTEX) by EPA Method TO-15.

Methyl tertiary butyl ether (MTBE) by EPA Method TO-15.

Tertiary butyl alcohol (TBA) by EPA Method TO-15.

1,2-Dichloroethane (1,2-DCA) by EPA Method TO-15.

1,2 Dibromoethane (EDB) by EPA Method TO-15.

Ethanol and iso-octane (2,2,4-Trimethylpentane) by EPA Method TO-15

Oxygen, carbon dioxide and helium by modified ASTM D-1946.

<x = Not detected at or above stated laboratory reporting limit.

ESL = Shallow soil gas environmental screening level associated with vapor intrusion concerns, RWQCB-May 2008 (Table E)

NE = Not established

Bold Indicates concentration exceeds commercial and/or residential ESL

WELL CONSTRUCTION DETAILS FORMER CHEVRON SERVICE STATION 9-1583 5509 MARTIN LUTHER KING JR. WAY OAKLAND, CALIFORNIA

Well ID	Drilling Date	Well Depth (fbg)	Well Diameter (inches)	Well Screen Top (fbg)	Well Screen Bottom (fbg)	Well Screen Length (fbg)	Top of Casing Elevation (ft. msl)
MW-1*	12/22/83	20	2	5	20	15	85.41 ¹
MW-2*	12/22/83	20	2	5	20	15	86.04 ¹
MW-3*	12/22/83	20	2	5	20	15	86.80 ¹
MW-4	10/18/90	26.5	2	5	25	20	87.29 ¹
MW-5	10/18/90	21.5	2	5	20	15	84.93 ¹
MW-6	10/18/90	21.5	2	5	20	15	83.63 ¹
MW-7	2/22/94	20	2	5	20	15	86.36 ¹
MW-8	2/22/94	20	2	5	20	15	85.95 ¹

Abbreviations:

fbg = feet below grade

ft. msl = feet above mean sea level

* Assumed well screen intervals based on typical well profile;

actual well construction diagrams do not exist

¹ Wells re-surveyed in October 2009

APPENDIX A

SUMMARY OF ENVIRONMENTAL INVESTIGATION AND REMEDIATION

SUMMARY OF ENVIRONMENTAL INVESTIGATION AND REMEDIATION FORMER CHEVRON SERVICE STATION 9-1583 5509 MARTIN LUTHER KING JR. BLVD, OAKLAND, CALIFORNIA

December 1983 Well Installations

Gettler-Ryan Inc. (G-R) installed onsite monitoring wells MW-1 through MW-3. No soil samples were collected for laboratory analysis from the well borings. The work was documented in a letter from G-R to Chevron dated January 5, 1984.

December 1989 Product Piping Upgrade Sampling

Geotest collected soil samples A through F at depths ranging from 2 to 4.5 feet below grade (fbg) from the piping trenches during upgrade work. Limited over-excavation (approximately 25 cubic yards) was performed in the area of sample B collected at 3 fbg adjacent to the northeast dispenser, and additional soil sample SS-1 collected from the bottom of the excavation. The sample depth is unknown; however, it reportedly was collected just above groundwater. A report documenting the details of this work is not available; the analytical data was provided to ACEH in a letter from Chevron dated July 30, 1993.

March 1990 Well Redevelopment and Sampling

Geraghty & Miller, Inc. (G&M) redeveloped and sampled wells MW-1 through MW-3. Details were presented in G&M's April 2, 1990 *Results of Groundwater Sampling Activities* letter report.

October 1990 Well Installations

G&M installed onsite monitoring well MW-4 and offsite wells MW-5 and MW-6 and collected soil samples from the well borings at depths ranging from 10.5 to 20.5 fbg. Details were presented in G&M's December 15, 1990 *Site Assessment Report*.

1992 Light Non-Aqueous Phase Liquid (LNAPL) Removal

During the October 1992 monitoring event, LNAPL (approximately 0.24 feet) was observed in MW-3. The tanks and product lines reportedly tested tight in September 1992 and a 90-day inventory audit did not indicate any loss of product. Weekly LNAPL bailing was initiated in November 1992 by Groundwater Technology, Inc. (GTI). Approximately 270 milliliters of LNAPL were removed from MW-3 in November and December 1992. The bailing was discontinued when only a sheen was observed in the well.

February 1994 Well Installations

GTI installed wells MW-7 and MW-8 near the used-oil underground storage tank (UST). Four soil samples were collected from the well borings at depths ranging from 5 to 15 fbg. Details were presented in GTI's April 8, 1994 *Additional Soil and Groundwater Assessment Report*.

April 1995 Used-Oil Tank Removal and Over-Excavation

Touchstone Developments (TD) observed the removal of a 1,000-gallon used-oil UST. Four soil samples were collected from the base of the excavation at depths of 10.5 or 11 fbg. The excavation was subsequently deepened to 12.5 fbg (groundwater encountered at approximately 12 fbg). Approximately 80 cubic yards of impacted soil was removed and disposed offsite. Details were presented in TD's June 12, 1995 *Used Oil Tank Removal Report*.

November 1998 Hydraulic Hoist and Clarifier Removal

TD observed the removal of three hydraulic hoists and an oil-water clarifier. Soil samples were collected beneath each of the hoists at 7.5 or 8 fbg. Details were presented in TD's January 19, 1999 *Hoist/Clarifier Removal and Sampling Report*.

December 1998 Dispenser Upgrade Soil Sampling

Geo-Logic collected a soil sample at approximately 3.5 fbg from excavations beneath each of the four dispensers during upgrade work. This work was documented in Geo-Logic's December 7, 1998 *Report of Soil Sampling Below Fuel Dispensers*.

January 2007 Subsurface Investigation

Cambria Environmental Technology, Inc. (Cambria [now CRA]) advanced exploratory borings B-1 through B-5 and collected soil samples at various depths from the borings. Grabgroundwater samples were also collected from borings B-1 through B-4. Details were presented in Cambria's February 28, 2007 *Subsurface Investigation Report*.

August 2008 Soil Vapor Survey

CRA installed and sampled shallow soil vapor wells VP-1 through VP-5. Soil samples were collected from each well boring at approximately 3 fbg. Details were presented in CRA's November 21, 2008 *Soil Vapor Assessment Report*.

APPENDIX B

HISTORICAL BORING LOGS

Gotiler - Ryan Inc.

	LOCATION:	5509 GRO	VE SE.	DATE: 12-22-83
	CITY:	OAKLAND		WELL \$:
	DEPTH	SAMPLE NO.		SOIL DESCRIPTION
<u></u>	0 <u>ft</u> -			
	3"		A.C. PAVING	
			BASEROCK	
	-2'			LAY & FILLS
	-8'		/	1 - DAMP
	-9'			CLAY - DAMP
	-12'			ILTY (LAY - MOIST.
	_17 ⁻	•	BROWN SILTY	Par Man 1115
	-21		DARK (TRAY CL	AY - BAY MUD - WET
1				
			<u></u>	
		·	•	42
			· ·	
			,	
		•		
		·		

FOREMAN: DAVID BYROAD SHEET: _____OF ___

Gottler - Ryan Inc.

•	COMPANY :	CHEURON	U.S.A. #1583	
	LOCATION:	5509 GA	POUE SE	DATE: 12.22.83
	CITY:	OAKLAND		WELL =: 2
	DEPTH	SAMPLE NO.		SOIL DESCRIPTION
	0 <u>ft.</u>			· · · · · · · · · · · · · · · · · · ·
	· _3 "	•	A.C. PAUING	-
	-1'		BASEROCK Dague Room	CLAY & Fices
	-21/2		BROWN CLA	4 - DAMP
	-7'		DARK BROWN	CLAY - DAMP
	-13:			SILTY CLAY - MOIST .
	-16'	<u> </u>		Y CLAY - WET
	-21		JARK LIRAY C	LAY - BAY MUD - WET
				· ·
			·	· · · · · · · · · · · · · · · · · · ·
		· · · · · · · · · · · · · · · · · · ·		
		-		
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FOREMAN: DAVID BYRON_____SHEET: ____OF /

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'Catilor	-	Ryan	Ino
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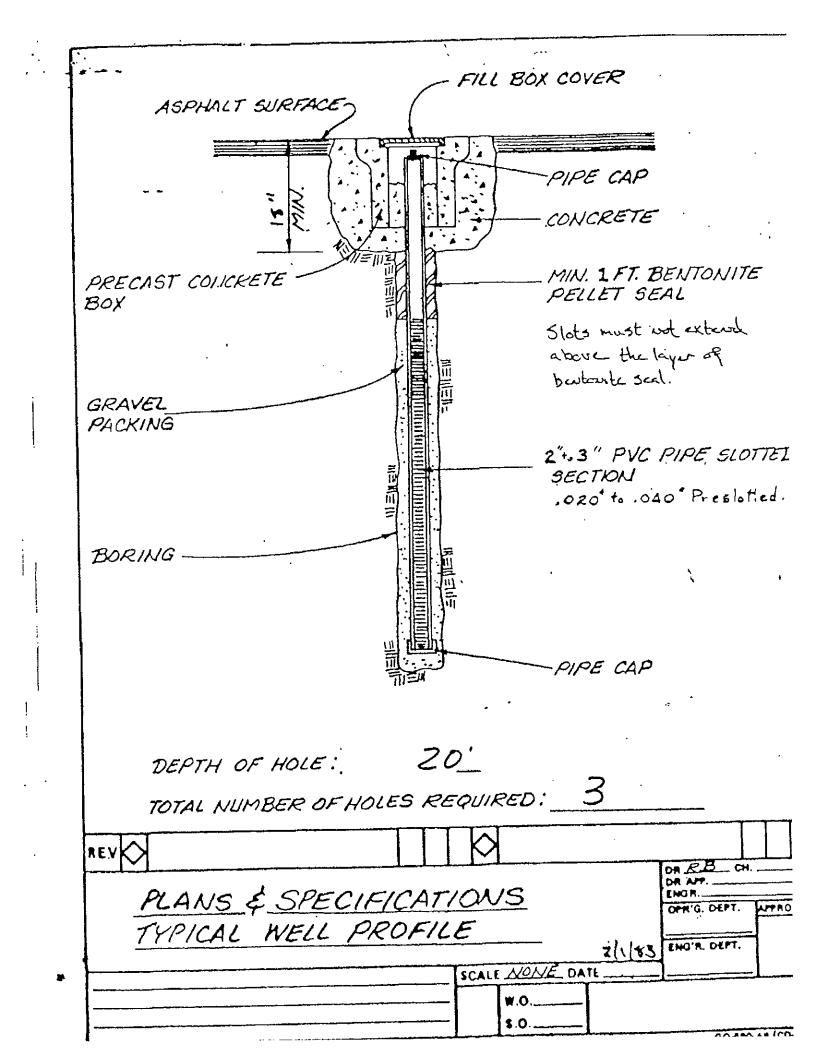
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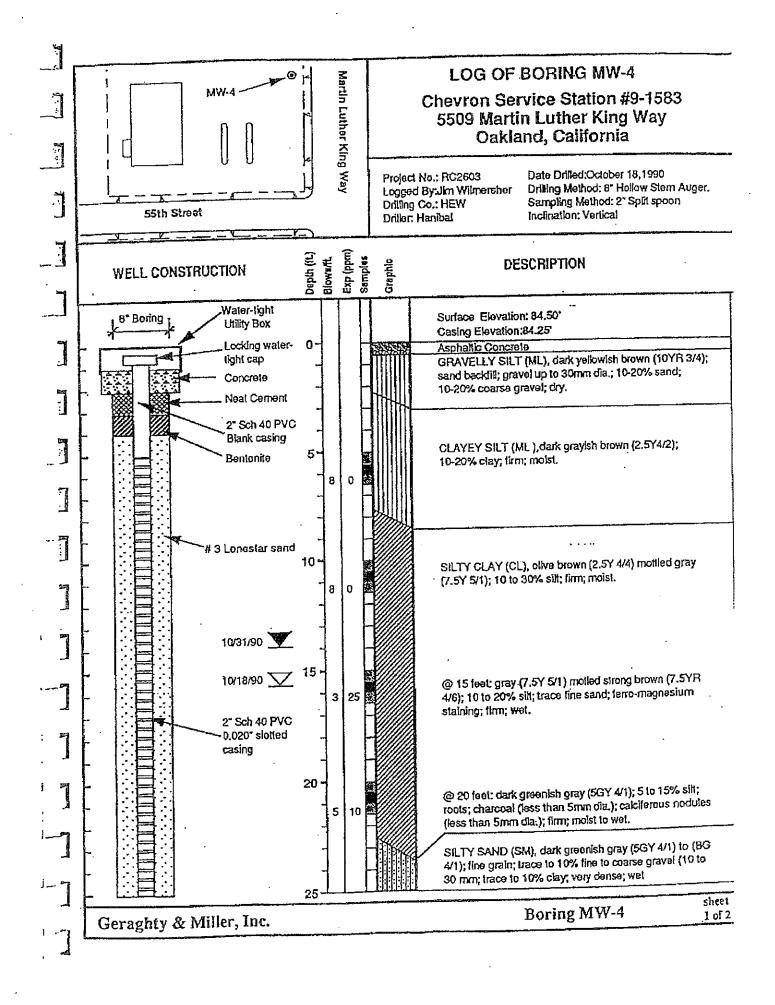
SINIPAL CONTRACTORS

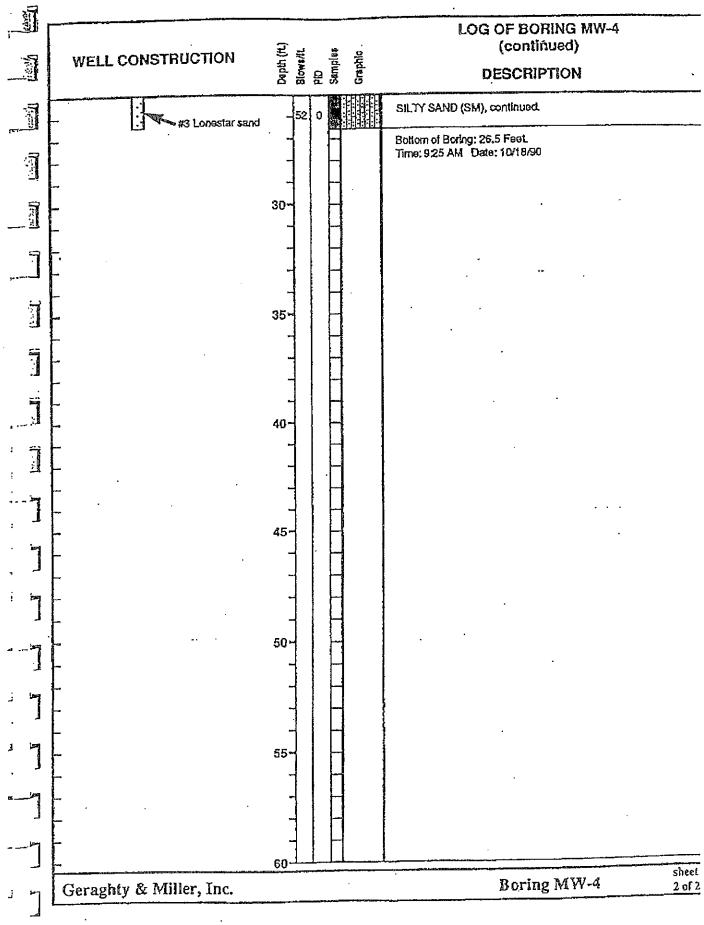
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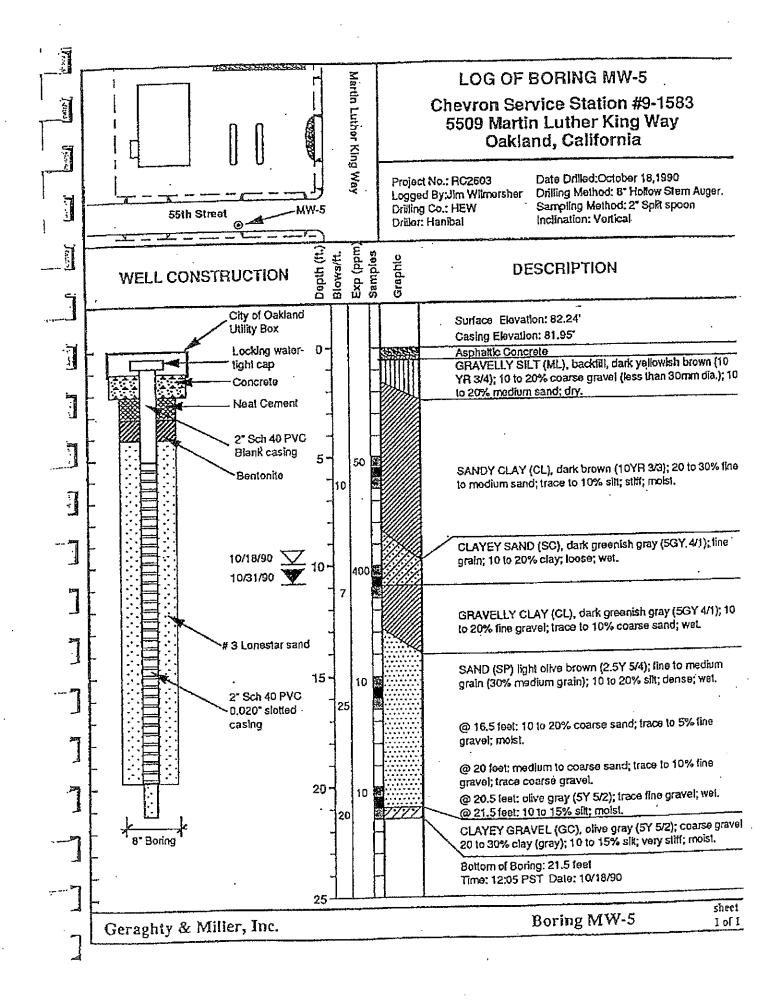
				-
•	COMPANY:	CAEURON L	1.S.A #1583	JOB NO: OR - 5111
	LOCATION:_	5509 GR	OVE SE.	DATE: 12.22.83
	CITY:	OAKLAND		WELL =:3
			· · ·	
	DEPTH	SAMPLE NO.	, SO	IL DESCRIPTION
	0 <u>ft.</u>			2
			A.C. PAVING	· · · · · · · · · · · · · · · · · · ·
	-8"	· ·	BASEROCK	····
	· · · ·		DARK BROWN CL	Ay & FILLS
	-2'		BROWN CLAY	- DAmp
	- <i>I</i> 0			UAY - STIFF
•				ILTY CLAY - MOIST
	-14 '		REDWA SILTY	CLAY - WET
	-78	·	DARIE GRAY CLA	4 - BAY MUD - WET
	-0		· · · · ·	
		•	- -	. • .
			-	
			•	•

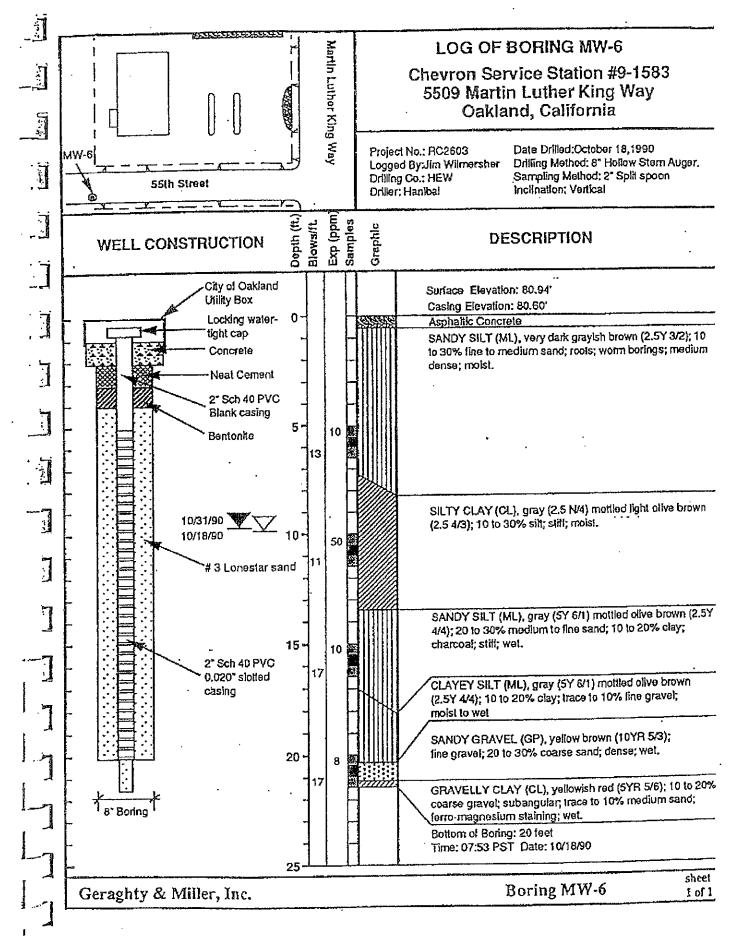
FOREMAN: DAVID BYRON SHEET: 1 OF 1











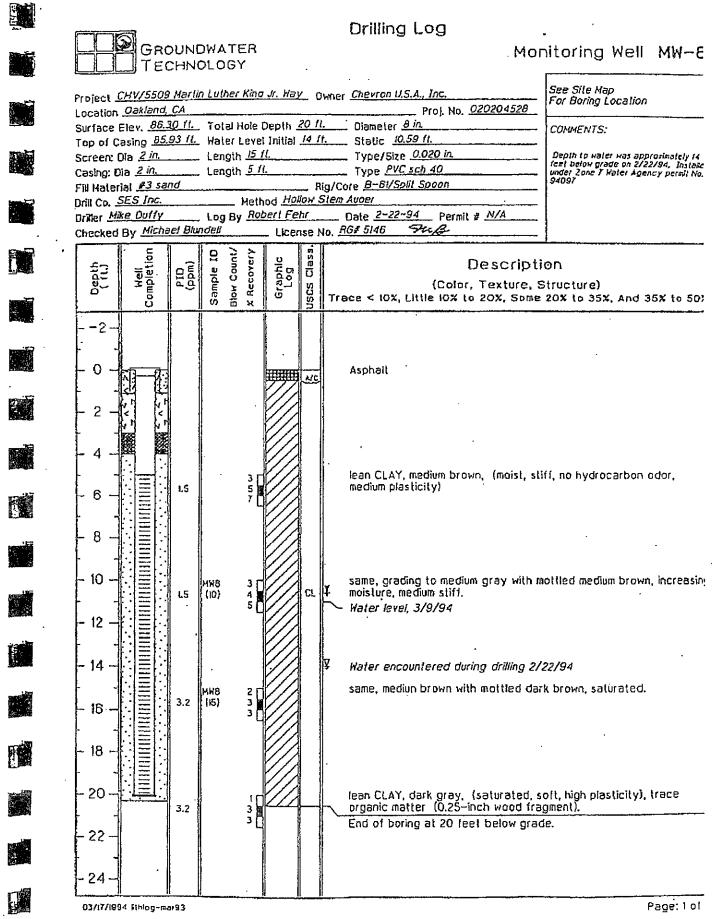
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	Drilling Log	
	GROUNDWATER MOI	hitoring Well MW-7
	Project <u>CHV/5509 Martin Luther King Jr. Hay</u> Dwner <u>Chevron U.S.A., Inc.</u> Location <u>Oakland. CA</u> Proj. No. <u>020204528</u>	See Site Map For Boring Location
	Location Oakland. CA Proj. No. 020204528 Surface Elev. 88.59 fl. Total Hole Depth 20 fl. Diameter 8 in. Top of Casing 85.36 fl. Water Level Initial 14 fl. Static 11.05 fl.	COMMENTS:
1	Screen: Dia <u>2 in.</u> Length <u>15 fl.</u> Type/Size <u>0.020 in.</u>	Depth to water was approximately 14 (set below grade on 2/22/94. Instated under Zone 7 Hater Agency, permit No. 94097
	Fill Material <u>#3 sand</u> Rig/Core <u>B-80/Split Spoon</u> Dem Co. SES IOC. Method Hollow Stem Auger	
	Driller <u>Mike Dufly</u> Log By <u>Robert Fehr</u> Date <u>2-22-94</u> Permit # <u>N/A</u> Checked By <u>Michael Blundell</u> License No. <u>RG# 5146</u>	
	Descript Descript Color, Texture, Color, Color, Texture, Color, Color,	Structure)
	2-	
	- 0 - Asphali	
	ean CLAY, dark brown, about 5% m hydrocarbon odor, medium plasticil	edium sand (moist, stiff, no y)
	- 10	mollied medium brown, increasir
	6 Water level, 3/9/94	
	- 14 - 14 - 14	
	- 18 - 15 - 35.4 HW7 1 same, trace organic matter, (satu odor)	rated, soft,slight hydrocarbon
	20 Lean CLAY, dark gray. (no hydroc 1.9 7 End of boring at 20 feel below gr	
	03/17/1984 i1hlog-rear93	Page: 1 o

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Conestoga-Rovers & Associates 2000 Opportunity Drive, Suite 110 Roseville, CA Telephone: 916-677-3407 Fax: 916-677-3687

BORING/WELL LOG

CLIENT NAME Chevron Environmental Management Co. BORING/WELL NAME B-1	
JOB/SITE NAME 9-1583 DRILLING STARTED 04-Jan-07	
LOCATION 5509 Martin Luther King Bivd., Oakland DRILLING COMPLETED 04-Jan-07	
PROJECT NUMBER 61H-1960 WELL DEVELOPMENT DATE (YIELD) NA	
DRILLER Cambria GROUND SURFACE ELEVATION Not Surveyed	
DRILLING METHOD Hand Auger TOP OF CASING ELEVATION Not Surveyed	
BORING DIAMETER 3 Inches SCREENED INTERVAL NA	
LOGGED BY L. Gearhart DEPTH TO WATER (First Encountered) 12.0 fbg (04-Jan-D	17) <u>V</u>
REVIEWED BY D. Herzog, PG# 7211 DEPTH TO WATER (Stalic) NA	<u>v</u>

•

PID (ppm)	BLOW COUNTS	SAMPLE (D	EXTENT	DEPTH (tbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	L DIAGRAM
0	-	8-1@3			СН		Asphalt Fill <u>CLAY:</u> dark brown; damp; 60% clay, 30% silt, 10% sand; high plasticity; low estimated permeability.	-0.5 2.0 4.0	Concrete
0		B-1@6		- 5 -			CLAY: brown; moist; 70% clay, 30% silt; high plasticity; low estimated permeability. @ 6 fbg: dark brown.	4.0	≪ Portland Typ I/II
0 [.]		В-1Ф9		 	сн				
					СН		CLAY with sand: grey; wet; 60% clay, 25% silt, 15% sand; high plasticity; low estimated permeability.	11.0 12.0	Bottom of Boring @ 12 fbg
							· · ·	-	
					•				



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BORING/WELL LOG

CLIENT NAME	Chevron Environmental Management Co.	BORINGWELL NAMEB-2	
JOB/SITE NAME	9-1583	DRILLING STARTED04-Jan-07	
LOCATION	5509 Martin Luther King Blvd., Oakland	DRILLING COMPLETED 04-Jan-07	
PROJECT NUMBER	81H-1960	WELL DEVELOPMENT DATE (YIELD) NA	
DRILLER	Cambria	GROUND SURFACE ELEVATIONNot Surveyed	· · · · · · · · · · · · · · · · · · ·
DRILLING METHOD	Hand Auger	TOP OF CASING ELEVATION Not Surveyed	
BORING DIAMETER	3 inches	SCREENED INTERVAL NA	
LOGGED BY	J. Bostick	DEPTH TO WATER (First Encountered) 11.0 fbg (04	-Jan-07) 🗸
REVIEWED BY	D. Herzog, PG# 7211	DEPTH TO WATER (Static) NA	<u> </u>

	(mqq) Olq	BLOW COUNTS	SAMPLE (D	EXTENT	DEPTH (lbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	L DIAGRAM
	0		B-2∰3			CL		Fill <u>CLAY with sand:</u> brown; dry; 60% clay, 20% silt, 20% sand; medium plasticity; moderate estimated permeability.	2.0	< Concrete
	0		B-2@6		- 5 -	СН		<u>CLAY:</u> brown with red mottling; dry; fine grained sand; 75% clay, 15% silt, 10% sand; high plasticity; low estimated permeability. <u>CLAY:</u> dark brown; dry; firm; 80% clay, 15% silt, 5% sand; high plasticity; low estimated permeability.	7.0	≪ Portland Type VII
	0		B-2@9		 	сн			Z 11.0	Bottom of Boring @ 11
	• .					•				fbg
HEVROND-1583 OAKLANDIGINTID-1583.GPJ DEFAULT.GDT 021/08										
-1563.GPJ DEFA										
ORKLANDIGINTIO										
EVROM9-1583										
WELL LOG (PID) MROCKLIN.C										
VELL LOG (PIL			:							PAGE 1 OF

	Conestoga-Rovers & Associates 2000 Opportunity Drive, Suite 110 Roseville, CA Telephone: 916-677-3407 Fax: 916-677-3687		BORING/WELL LOG
CLIENT NAME	Chevron Environmental Management Co.	BORING/WELL NAME	B-3
JOB/SITE NAME	8-1583	DRILLING STARTED	03-Jan-07
		BRULING COMPLETED	02 las 07

JOB/SITE NAME	9-1583	DRILLING STARTED 03-Jan-07
LOCATION	5509 Martin Luther King Blvd., Oakland	DRILLING COMPLETED 03-Jan-07
PROJECT NUMBER	61H-1960	WELL DEVELOPMENT DATE (YIELD) NA
DRILLER	Cambria	GROUND SURFACE ELEVATION Not Surveyed
DRILLING METHOD	Hand Auger	TOP OF CASING ELEVATION Not Surveyed
BORING DIAMETER	3 Inches	SCREENED INTERVAL NA
LOGGED BY	L. Gearhart	DEPTH TO WATER (First Encountered) 11.0 fbg (03-Jan-07)
REVIEWED BY	D. Herzog, PG# 7211	DEPTH TO WATER (Static) NA

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL	DIAGRAM
0		B-3@3			сн		Asphalt Base Rock CLAY: brown; moist; 60% clay, 30% silt, 10% sand; high plasticity; low estimated permeability.	-0.5 1.0		Concrete
o		9- 3@ 8		- 5 	сн		<u>CLAY:</u> brown; dry; 70% clay, 25% silt, 5% sand; high plasticity; low estimated permeability. @ 7 fbg: dark brown; moist. @ 8 fbg: gray with brown mottling; moist.	_5.0		Portland Type I/II
C		В-3@8		 10			· · · · · · · · · · · · · · · · · · ·	11.0	1	Bottom of Boring @ 11 ſog
		-								
	0 0	0	0 B-3@3 0 9-3@8	0 B-3@3 0 B-3@8	0 B-3@8	0 Б-3@3 С	0 B-3693 CH 0 B-3693 CH 0 B-3693 CH 0 B-3698 CH CH 0 B-3698 CH CH	0 E-363 -	0 Bage Rock 0.5 0 Bage Rock CLAY: brown; moist; 60% clay, 30% silt, 10% sand; high plasticity; low estimated permeability. 0 Bage Rock 10 CH 0 Bage Rock 0 Bage Rock 10 CH 0 Bage Rock 10 CH 0 Bage Rock 10 CH 11.0	0 B-363 - CH CLAYL brown; molst; 60% clay, 30% sill, 10% sand; high plasticity; low estimated permeability. 0 B-363 - CH 0 B-366 - CH 0 B-367 - CH 0 B-368 - CH 0 B-368 - CH

	đ	Ð	Cones 2000 (Rosev Telepl Fax: \$	Opp /ille.	a-Rove ortunit CA e: 916 677-30	y Drive	e, Suit	ates e 110		BOR	RINC	G/WEI	L LOG
	CLIENT JOB/SIT LOCATIO	E NAME ON		9-158 5509	33 Martin	Luther	King E	lanagement Co. Slvd., Oakland	DRILLING STARTED DRILLING COMPLETED	03-Jan-07 03-Jan-07			
•		२		Cam	bria				GROUND SURFACE ELEVATION			urveyed	·····
	BORING LOGGEI	DIAMET DBY _ EDBY_	rer <u>· </u>	3 inc J. Bo	hes stick				SCREENED INTERVAL	NA Encountered)	13.		
	(mad) Old	BLOW 6	SAMPLE ID	EXTENT	DEPTH (lbg)	U.S.C.S.	GRAPHIC LOG	LITH(DLOGIC DESCRIPTION		CONTACT DEPTH (fbg)	WEL	LDIAGRAM
						SP		Concrete SAND CLAY: dark brown w	ith black mottling; moist; 6	0% clay,	0.5 1.0		Concrete
	0		Б-1@3		 	сн		30% silt 10% sand;	high plasticity; low estimate noist; 70% clay, 25% silt, 5 stimated permeability.	ď	3.0		
	D		8-4@8		5	CL			rown; moist; fine grained s 6 sill; medium plasticity; me		5.0		≪ Portland Type
	0		B∔age			сн		<u>CLAY:</u> dark brown w 20% silt, 10% send; permeability.	, ith red mottling; moist; 709 high plasticity; low estimat	6 clay, ed	8.0 10.0		iut
	J				- 10-	CL		CLAY with sand: or	ay with red mottling; moist; medium plasticity; modera lity.	50% clay, te	10.0		
		•							•	<u>7</u>	13.0		Bottom of Boring @ 13 fbg
NT 8/21/06												·	
DEFAULT.GD													
P-1583.GPJ													
ILANDIGINTI				-								•.	
NO 2831-91													
IN.CHEVRON													
D) EROCKLI		·											
Well Log (PID) 1:1ROCKLIN.CHEVRONE-1583 0AKLANDIGINTI9-1583.GPJ DEFAULT.GDT 8/21/09													PAGE 1.0

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PAGE 1 OF 1



Conestoga-Rovers & Associates 2000 Opportunity Drive, Suite 110 Roseville, CA Telephone: 916-677-3407 Fax: 916-677-3687

BORING/WELL LOG

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CLIENT NAME	Chevron Environmental Management Co.	BORING/WELL NAME	8-5	
JOB/SITE NAME	9-1583	DRILLING STARTED	04-Jan-07	
LOCATION	5509 Marlin Luther King Blvd., Oakland	DRILLING COMPLETED _	04-Jan-07	
PROJECT NUMBER	61H-1960	WELL DEVELOPMENT DA	ATE (YIELD) NA	
DRILLER	Cambria	GROUND SURFACE ELEV	ATION Not Surveyed	
DRILLING METHOD	Hand Auger	TOP OF CASING ELEVAT	ION Not Surveyed	
BORING DIAMETER	3 inches	SCREENED INTERVAL	NA	
LOGGED BY	J. Bostick	DEPTH TO WATER (First	Encountered) (04-Jan-07)) <u> </u>
REVIEWED BY	D. Herzog, PG# 7211	DEPTH TO WATER (Statio	=) <u>NA</u>	<u>¥</u>

(mqq) (Ji9	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	u.s.c.s,	GRAPHIC LOG			. DIAGRAM
0		8-5@3 B-5@5					Asphalt <u>FILL</u> : brown; dry; medium to large grained sands; 40% sand, 35% gravel, 15% slit, 10% clay; high estimated permeability. @ 5 fog: Refusal	5.5	Concrete Portland Type I/II Bottom of Boring @ 5.5
		· ·							ībg
33.GPJ DEFAULT.GDT 821.00									
WELL LOG (PID) I:IROCKLIN CHEVRONG-1583 OAKLANDIGINTG-1583 GPJ									
WELL LOG (PID) EROCKLIN CHE									PAGE 1 OF

			Cones 2000 (Rosev Telepł Fax: §	Opp ville, none	ortunit CA e: 916	y Driv -677∹	e, Sui	lates te 110		BOF	RING	G/WE	LL LOG
121108	LOCATI PROJEC DRILLE DRILLIN BORING LOGGE	IE NAME ON CT NUME R IG METH G DIAMET D BY VED BY _	9 ER <u>6</u> <u>0</u> OD <u>1</u> FER <u>3</u>	-158 509 119 /&W land -incl 0, Ya	33 Oaki Martin 60 Drilling Auger h	and Luther	King J	fanagement Co.	DRILLING COMPLETED	26-Aug-08 26-Aug-08 ATE (YIELD) VATION TION Not Sur 5 to 5.5 Encountered)	Not S veyed fbg		
DEFAULT.GDT 10	PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHO	DLOGIC DESCRIPTION		CONTACT DEPTH (fbg)	WEL	LL DIAGRAM
WELL LUG (FID) 1:KUCKLIN,CHEVKUNB119B11960 - 5-1583 UAKLANUB11960-REPORTSI611960-RP11-SOIL VAPOR ASSESSMENT RP119-1683 VAPOR PROBES 2008.GPJ	0.3		VP-1- 3'			GC		25% sand, 25% clay plasticity; high estim CLAY with sand: br	th sand: brown; moist; 50%; fine to medium grained sa ated permeability. own; moist; 70% clay, 15% city; low estimated permeab	nd; low silt, 15% illity.	0.5 1.0		 Concrete 1/4"-inner diam. Nylaflow® tubing Hydrated Bentonite Gel Dry granular bentonite Monterey Sand #2/16 1"-diam., 0.010" Slotted Schedule 40 PVC Bottom of Boring @ 6 fbg

WELL LOG (PID) I:ROCKLIN CHEVRON6119-1611960 - 5-1583 OAKLAND1611960-REPORTS1611960-RPT1-SOIL VAPOR ASSESSMENT RPT19-1583 VAPOR PROBES 2008.GPJ DEFAULT.GDT 10/21/08

			2000 Ros Tele) Op eville phor	ga-rcov portuni e, CA ne: 916 5-677-3	ity Driv 6-677-	/e, Sui	ciates ite 110		BO	rin	G/WE	ELL LOG
	JOB/SI LOCAT PROJE DRILLE DRILLI BORINE LOGGE	ECT NUM ER NG MET G DIAME ED BY WED BY	BER HOD TER	9-15 5500 6119 V&V Han 3-ind O, Y	583 Oak 9 Martin 960 V Drillin d Auger ch	land Luthe g	r King .		DRILLING STARTED 26-Aug-08 DRILLING COMPLETED 26-Aug-08 WELL DEVELOPMENT DATE (YIELD) NA GROUND SURFACE ELEVATION Not Surveyed TOP OF CASING ELEVATION Not Surveyed SCREENED INTERVAL 5 to 5.5 fbg				
U DEFAULT.GDT 1	PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHC	PLOGIC DESCRIPTION		CONTACT DEPTH (fbg)	WE	ELL DIAGRAM
10/21/08 APOR ASSESSMENT RPD8-1583 VAPOR PROBES 2008.GPJ DEFAULT.GDT 10/21/08	0.2		VP-2- 3'			GC		gravel, 25% sand, 25 low plasticity; high es	n sand: dark brown; moist; % clay; fine to medium gra timated permeability. rk brown; moist; 75% clay, ity; low estimated permeab	ined sand; 25% ility.	0.5		Concrete 1/4"-inner diam. Nylaflow® tubing Hydrated Bentonite Gel Dry granular bentonite Monterey Sand #2/16 1"-diam., 0.010" Slotted Schedule 40 PVC Bottom of Boring @ 6 fbg

WELL LOG (PID) I:NOCKLIN CHEVRON6119-1611960 - 9-1563 OAKLAND/611960-REPORTS/611960-RPT1-SOIL VAPOR ASSESSMENT RPT/9-1583 VAPOR PROBES 2008 GPJ DEFAULT GOT 10/21/08

(The second seco		Conesi 2000 C Rosevi Teleph Fax: 9)pp ille, ione	ortunity CA e: 916	y Driv -677-3	e, Suit	ates e 110	RO	KING	J/WELL LUG	
	IAME IUMBE IETHO AMETE Y	9. 55 6. V D <u>H</u> R <u>3.</u> O	-158 509 119 2&W and -incl 0. Ya	33 Oakla Martin 60 Drilling Auger h	Drilling Auger			DRILLING STARTED <u>26-Aug-08</u> DRILLING COMPLETED <u>26-Aug-08</u> WELL DEVELOPMENT DATE (YIELD) <u>NA</u> GROUND SURFACE ELEVATION <u>Not Surveyed</u>			
PID (ppm) BI OW	COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHO	DLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM	
WELL LOG (PID) I:ROCKLIN.CHEVRON6119611960 -9-1583 OAKLAND/611960-REPORTS/611960-RPTI-SOIL VAPOR ASSESSMENT RPTI-9-1583 VAPOR PROBES 2008 GPJ DEFAULT.GDT 102-1109 UNV 18 10 VAPOR PROBES 2008 GPJ DEFAULT.GDT 107-1109 UNV 18 10 VAPOR PROPERTIES AND VAPOR PROPER		VP-3- 3'			GC		gravel, 25% sand, 2 low plasticity; high e CLAY: dark grey; m	h sand: dark brown; moist; 50% 5% clay; fine to medium grained sand; stimated permeability. oist; 70% clay, 20% silt, 10% sand; w estimated permeability.	0.5	 Concrete 1/4"-inner diam. Nylaflow® tubing Hydrated Bentonite Gel Dry granular bentonite Monterey Sand #2/16 1"-diam., 0.010" Slotted Schedule 40 PVC Bottom of Boring @ 6 fbg 	

WELL LOG (PID) 1:ROCKLIN.CHEVRONI6119--611950 - 9-1583 OAKLANDI611960-REPORTS/611960-REPT+-SOIL VAPOR ASSESSMENT RPT9-1583 VAPOR PROBES 2008 GPJ DEFAULT.GDT 10/21/08

			2000 Opportunity Drive, Suite 110 Roseville, CA Telephone: 916-677-3407 Fax: 916-677-3687						В	UKIN	GIVVELL LUG
_	DRILLING METHOD Hand Auger BORING DIAMETER 3-inch LOGGED BY O. Yan REVIEWED BY James Kiernan, PE						King J	Ir Way	DRILLING STARTED 26-Aug-08 DRILLING COMPLETED 26-Aug-08 WELL DEVELOPMENT DATE (YIELD) NA GROUND SURFACE ELEVATION Not Sur TOP OF CASING ELEVATION Not Surveyed SCREENED INTERVAL 5 to 5.5 fbg DEPTH TO WATER (First Encountered) NA		а <u>7</u>
DEFAULT.GDT 10	(mqq) QI4	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	u.s.c.s.	GRAPHIC LOG	LITH	DLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
WELL LOG (PID) I: NOCKLIN CHEVRON6119811960 - 8-1583 OAKLAND/611960-REPORTS/60-RPT-SOIL VAPOR ASSESSMENT RPT9-1583 VAPOR PROBES 2008.GPJ DEFAULT.GDT 10/21/08	0.3		VP-4- 3'			GC CL		gravel, 25% sand, 2 low plasticity; high e <u>Sandy CLAY:</u> dark 20% silt; low plastici CLAY: dark brown;	h sand: dark brown; moist; 50% 5% clay; fine to medium grained san stimated permeability. prown; moist; 50% clay, 30% sand, ty; moderate estimated permeability. moist; 70% clay, 20% silt, 10% city; low estimated permeability.	1.2	Concrete 1/4"-inner diam. Nylaflow® tubing Hydrated Bentonite Gel Dry granular bentonite Monterey Sand #2/16 1"-diam. 0.010" Slotted Schedule 40 PVC Bottom of Boring @ 6 fbg

WELL LOG (PID) i/ROCKLIN CHEVRON(6119–1611960 - 9-1583 OAKLAND/611960-REPORTS/611960-RPT1-SOIL VAPOR ASSESSMENT RPT9-1583 VAPOR PROBES 2008.GPJ DEFAULT.GDT 10/21/08

	C	B	Cones 2000 (Rosev Telept Fax: 9	Opp ille, ion	ortunit CA e: 916	y Driv -677-3	e, Sui	iates te 110	BO	RIN	G/WELL LOG
	CLIENT	NAME	C	hev	ron En	vironm	ental N	fanagement Co.	BORING/WELL NAME VP-5		, ,
	JOB/SI1	IE NAME			83 Oakl				DRILLING STARTED		
		ION CT NUMB		509 119		Luther	King .	Ir Way	DRILLING COMPLETED <u>26-Aug-08</u> WELL DEVELOPMENT DATE (YIELD)		
	DRILLE					 7		· · · · · · · · · · · · · · · · · · ·			Surveyed
										Jrveyed	· · · · · · · · · · · · · · · · · · ·
		G DIAMET	-						SCREENED INTERVAL 5 to 5		
			C			ian DE			DEPTH TO WATER (First Encountered DEPTH TO WATER (Static)	3) <u>N/</u> N/	
108	REMAR				55 ///611	iaii, r 1	•	·····			
J DEFAULT.GDT 10/21	(mqq) Olq	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHO	DLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
OCKLIN. CHEVRON6113-1611960 - 9-1583 0AKLAND/611960-REPORTS/611960-RP11-SOIL VAPOR ASSESSMENT RPT9-1583 VAPOR PROBES 2008.GPJ D	0.3		VP-5-3'			GC		gravel, 25% sand, 29 low plasticity; high es CLAY; dark grey; m	th sand: dark brown; moist; 50% 5% clay; fine to medium grained sand; stimated permeability. oist; 70% clay, 20% silt, 10% sand; w estimated permeability.	0.5 1.0	 Concrete 1/4"-inner diam. Nylaflow® tubing Hydrated Bentonite Gel Dry granular bentonite Monterey Sand #2/16 1"-diam., 0.010" Slotted Schedule 40 PVC Bottom of Boring @ 6 fbg
WELL LOG (MU)											PAGE 1 OF

WELL LOG (PID) 1:ROCKLIN CHEVRONI6119-1611960 - 9-1583 OAKLAND/611960-REPORTSI611950-RPT1-SOIL VAPOR ASSESSMENT RPT9-1583 VAPOR PROBES 2008.GPJ DEFAULT.GDT 10/21/08

APPENDIX C

NEARBY WELL AND SENSITIVE RECEPTOR INFORMATION



3164 Gold Camp Drive Suite 200 Rancho Cordova, CA 95670-6021 U.S.A. 916/638-2085 FAX: 916/638-8385

August 1, 2002

Ms. Karen Streich Chevron Products Company 6001 Bollinger Canyon Road, Room L4050 San Ramon, CA 94502-6577

Subject: Sensitive Receptor Survey Chevron Service Station No. 9-1583 5509 Martin Luther King Way Oakland, California Delta Project No. DG91-583

Dear Ms. Streich:

Delta Environmental Consultants, Inc. (Delta) has been authorized by Chevron Products Company (Chevron) to conduct a sensitive receptor survey in the vicinity of Chevron Service Station No. 9-1583, located at 5509 Martin Luther King Way, Oakland, Alameda County, California. The location of the site is presented in Figure 1 and a site map is presented as Figure 2. Photographs of the site were taken in April 2002 and are presented in Enclosure A. The purpose of this survey was to identify potential sensitive receptors of the residual petroleum hydrocarbons in soil and groundwater at the site.

Project Background Information

Petroleum hydrocarbons in soil and groundwater related to the operation of product storage and dispensing systems at the site were first reported in December 1989. During a product line upgrade it was discovered that gasoline had been released from a product line located near the dispenser islands. The piping was replaced and an investigation of the extent of gasoline release was initiated. Petroleum hydrocarbons were detected in one soil sample collected from the product line trenches in December 1989.

Between December 1983 and March 1994, eight groundwater monitoring wells were installed to define the extent of petroleum hydrocarbons in soil and groundwater. Quarterly groundwater monitoring was initiated in March 1990. Groundwater monitoring wells are currently sampled on a semi-annual and annual basis. In general, groundwater beneath the site flows toward the east-southeast.

In April 1995, the used oil underground storage tanks (USTs) was removed from the northwest corner of the site. Soil samples were collected from the base of the excavation at a depth of approximately 11 feet below surface grade (bsg). Petroleum hydrocarbons and trace metals were detected in soil samples collected. The former UST basin was overexcavated to approximately 12.5 feet bsg. In May 1995, approximately 80 cubic yards of used oil-impacted soil was transported and disposed of at BFI Waste Systems in Livermore, CA.

Ms. Karen Streich Chevron Products Company August 1, 2002 Page 2

In November 1998, Musco Excavators removed two single-post, semi-hydraulic hoists and one dual-post, hydraulic hoist with a clarifier from the site. Soil samples were collected beneath each of the hoists at depths ranging from 7.5 to 8 feet bsg. Trace metals were detected in a soil sample collected beneath the dual-post hoist and clarifier.

Property Boundary and Land Use

The subject is currently operated as retail fueling station. Martin Luther King Way borders the site to the east, 55th Street to the south, and commercial businesses and residential housing to the north and west. The site consists of a station building, two dispenser islands, and three USTs that share a common pit near the southern site boundary. Pertinent site features are shown on Figure 2. Site photographs, with descriptions, are included in Enclosure A.

Site Sketch

A site map is presented in Figure 2. The following information is provided in the site map:

- Site property lines
- Existing UST locations
- Existing monitoring wells
- Street names

- Buildings on site and adjacent properties
- Drains
- Utility vaults and lines

<u>Topography</u>

The land surrounding the site is relatively flat. Regionally, the topography slopes gently to the west. A USGS topographic map with the site centered on the map is presented in Figure 1.

Distance To Surface Water Bodies

There are no surface water bodies within a one-mile radius of the site. The nearest surface water body identified is Glen Echo Creek, located approximately 7,400 feet southeast of the subject site.

Local Water Supply

The Alameda County Water District supplies water to Alameda County from three sources: treated surface water, purchased San Francisco water, and blended water. The treated surface water is imported from the Sacramento/San Joaquin Delta and/or Lake Del Valle via the South Bay Aqueduct. This water is purified at the local water treatment plants. Purchased San Francisco water is surface water, which originates in either Hetch Hetchy Reservoir in Yosemite National Park, or locally in Calaveras or San Antonio Reservoirs in the Alameda Creek watershed. Blended water consists of purchased San Francisco water and local groundwater. The groundwater supply comes from the Niles Cone Groundwater Basin and is replenished through infiltrations from local rainwater, runoff from the Alameda Creek watershed, and water from the South Bay Aqueduct.

Municipal Water Wells

Based on a review of available public records and reconnaissance in the vicinity of the site, there are no municipal water supply wells present within 2,000 feet of the site. Delta confirmed this by telephone with the County of Alameda Public Works Agency in May 2001. Ms. Karen Streich Chevron Products Company August 1, 2002 Page 3

Private Water Wells

On April 24, 2002, Delta conducted a search of Department of Water Resources (DWR) files for domestic, municipal, and irrigation supply wells within 2,000 feet of the subject site. Two well sites were identified from the DWR search and were listed as active. One of the well sites was listed as an industrial well and the other as a cathodic protection well. The industrial well is located approximately 1,200 feet northwest of the subject site. An inventory of wells identified within 2,000 feet of the subject site is presented in Table 1. The well locations are presented on Figure 3.

Utilities and Vaults

During the site visit conducted by Delta on April 26, 2002, there were no man-sized utility vaults identified within the search area. However, several minor utility vaults were identified that included Pacific Bell and PG&E. Utilities identified adjacent to the site included: storm drains, sanitary sewer, TV cable, and water buried at depths between 4 and 22 feet bsg. Historical depth to groundwater at the site has ranged between 6.70 and 13.99 feet bsg. Storm drains were located throughout the site and were measured at approximately 3.0 feet bsg. Their trenches could act as a potential pathway of dissolved and vapor phase hydrocarbons. Locations of utilities are shown on Figure 2.

Photographs of the vault boxes are presented in Enclosure A as photographs 7 through 10. Photographs 7 and 8 depict electrical vault boxes along the east property boundary, photograph 9 depicts two electrical vault boxes and a telephone vault box along the east property boundary, and photograph 10 depicts an electrical vault box along the south property boundary.

Basements and Tunnels

There were no basements or tunnels identified a 250-foot radius of the site.

Aquifer Information

The water-bearing material beneath the site has not been classified as a potential source of drinking water. Delta confirmed this in a telephone conversation with the County of Alameda Public Works Agency in May 2002.

<u>Remarks/Signatures</u>

The interpretations contained in this report represent our professional opinions and are based, in part, on information supplied by the client. These opinions are based on currently available information and are arrived at in accordance with currently accepted hydrogeologic and engineering practices at this time and location. Other than this, no warranty is implied or intended.

Ms. Karen Streich Chevron Products Company August 1, 2002 Page 4

If you have any questions regarding this document, please contact Ben Heningburg at 916-536-2623.

Sincerely,

DELTA ENVIRONMENTAL CONSULTANT, INC.

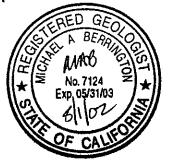
Brett a. Bardeley

Brett A. Bardsley Staff Geologist

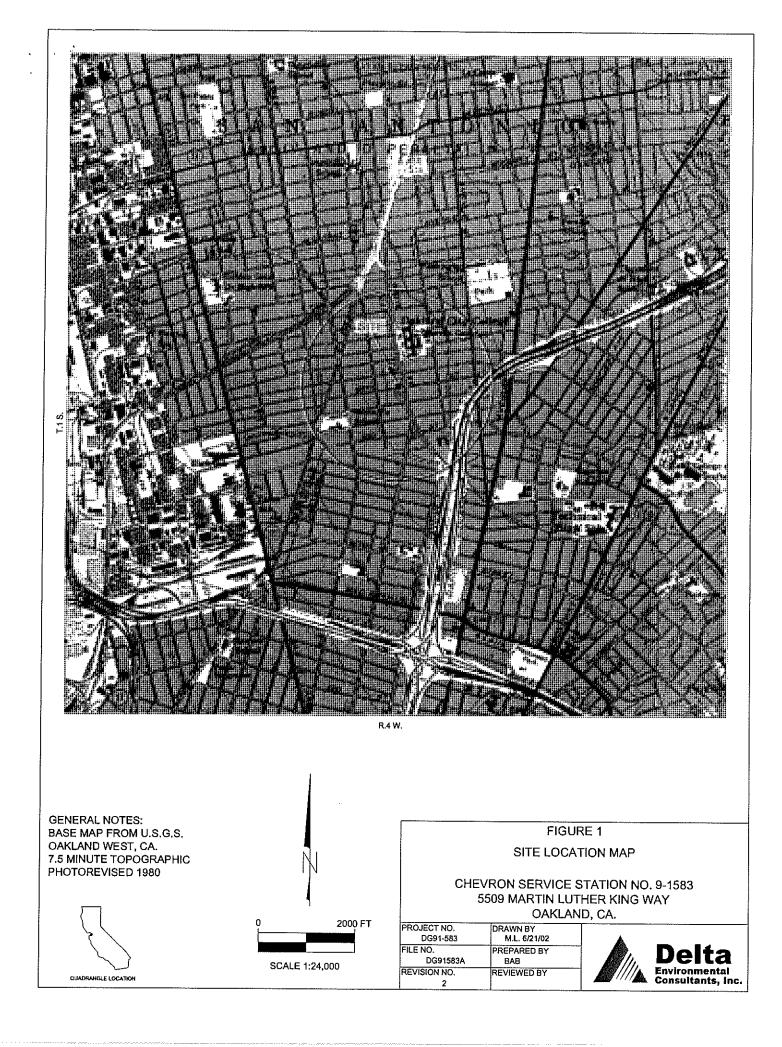
Benjamin F. Herlingburg Project Manager

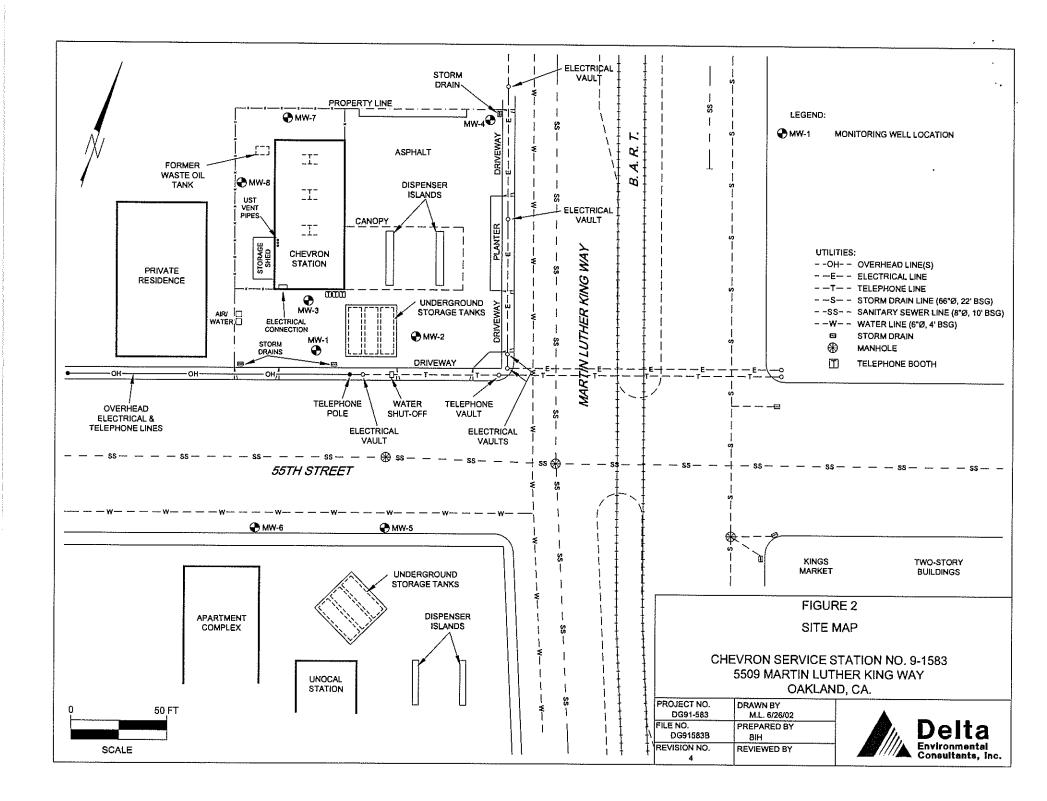
Mike A. Berrington, R.G. California Registered Geologist No. 7124

BAB (LRP001.9-1583) Enclosure



cc: Mr. Jim Brownell – Delta Environmental Consultants Ms. Donna Drogos - Alameda County Health Care Services





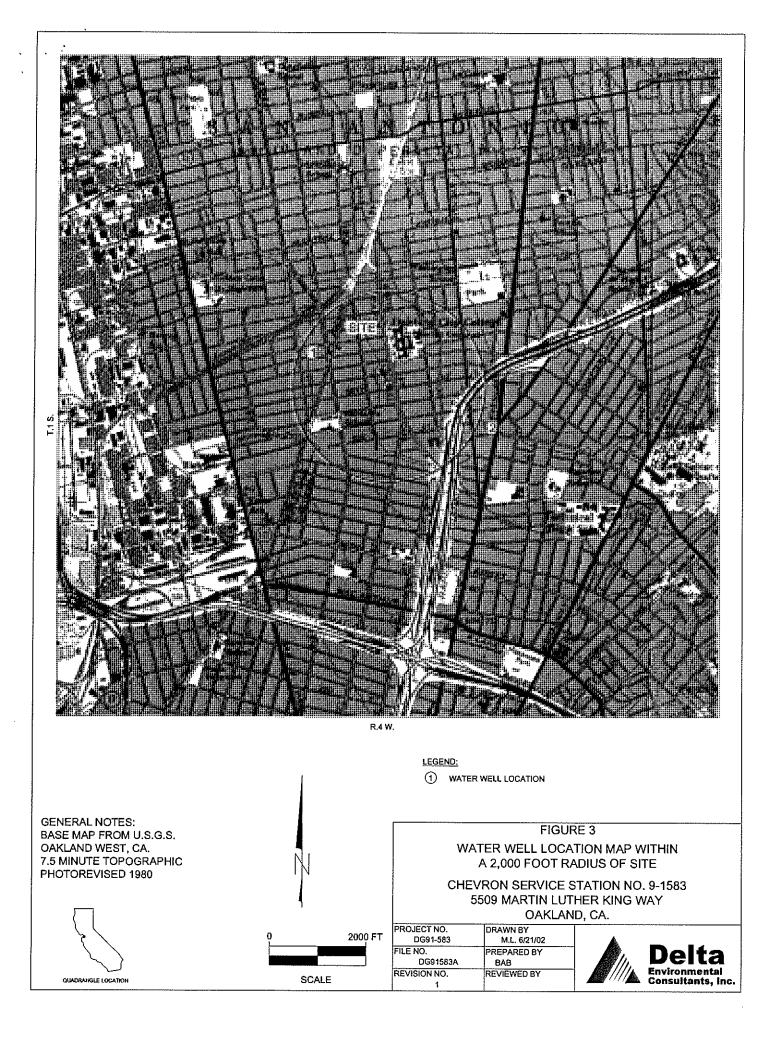


TABLE 1

INVENTORY OF WATER WELLS WITHIN 2,000 FEET OF SITE

Chevron Service Station No. 9-1583 5509 Martin Luther King Way, Oakland, California

Site Map Location	DWR Well I.D.	Well Location	Date Drilled	Proposed Use	Total Depth (ft)	Screened Interval(s) (ft)	Sanitary Seal Depth	Status
1	1S/4W 14L1	5702 B Adeline Street	07/26/77	Industrial	92	42-88	20	Active
2	1S/4W 14P1	4801 Oakport Street	04/11/74	Cathodic	120	None	93	Active

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ARCADIS

Case Closure Summary Report

Former British Petroleum Station #11127

3. Beneficial Uses

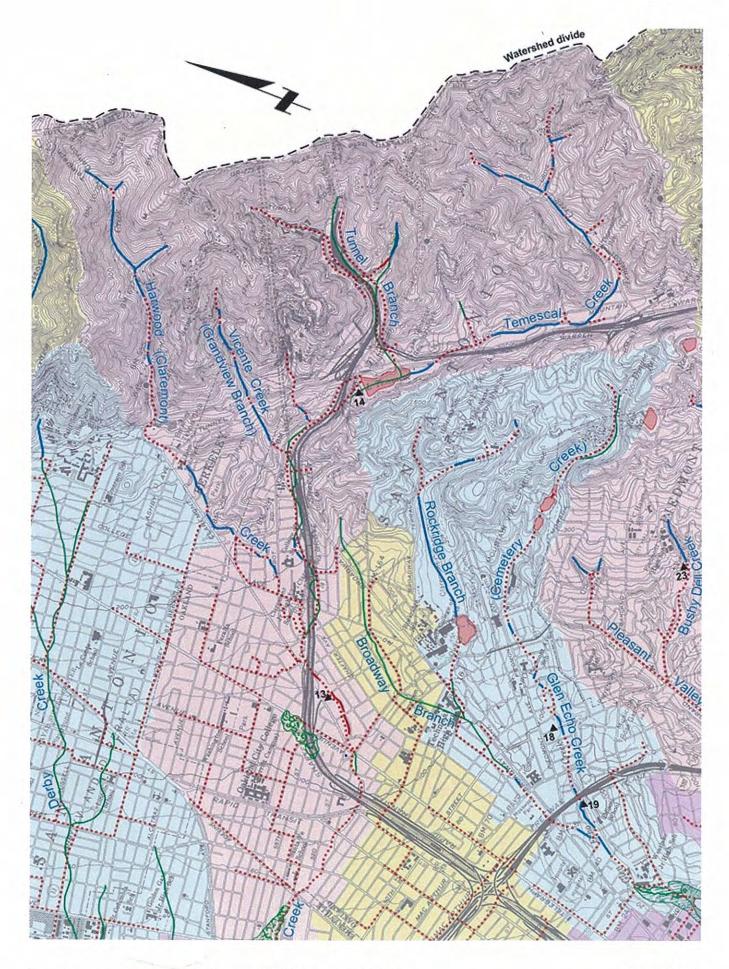
3.1 San Francisco Bay RWQCB Basin Plan

Existing and potential beneficial uses for groundwater are presented in the *San Francisco Bay Basin (Region 2) Water Quality Control Plan* (Basin Plan; Regional Water Quality Board [RWQCB] 2007). According to the Basin Plan (RWQCB 2007), the site is situated in the East Bay Plain groundwater sub-basin (basin number 2-9.04). Water supply uses, including municipal and domestic, industrial process, industrial service and agricultural, are identified in the Basin Plan (RWQCB 2007) as existing beneficial uses, based on best available information. The nearest surface-water body is the San Francisco Bay, located approximately 1.5 miles west of the site.

3.2 Sensitive Receptor Survey and Potential Exposure Pathways

To address the potentially complete exposure pathways (groundwater, soil and soil vapor), ARCADIS conducted a sensitive receptor survey (SRS) in January 2010. The objective of the SRS was to identify potential downgradient and aboveground risk receptors within 2,500 feet of the site. Potential risk receptors included water-producing wells, schools, hospitals and surface-water bodies and aquatic environments. The Alameda County Public Works Agency (ACPWA) was contacted for a survey of all subsurface wells within 2,500 feet (0.5 miles) of the site. An email reply from the ACPWA indicated that 1 irrigation well, 2 industrial wells, 58 monitoring wells, 5 wells for geotechnical investigations, 3 extraction/vapor wells, 4 test wells, and no municipal wells are present within 2,500 feet of the site. Results of the well survey are confidential and therefore are not presented in this report. However, many of the wells are located at the furthest extent of the 0.5 mile radius and are predominantly monitoring wells. The lone irrigation well is located approximately 0.2 miles (approximately 1,050 feet) southeast of the site.

A local internet search of the area surrounding the site yielded the presence of three schools within 2,500 feet of the site: Santa Fe Elementary School located approximately 1,200 feet southwest of the site; Oakland High School located approximately 1,700 feet southwest of the site, and Grace Children's Center located approximately 2,400 feet southwest of the site. The nearest surface-water body is the San Francisco Bay, located approximately 1.5 miles west of the site.



http://museumca.org/creeks/images/OMTemescal700.jpg

APPENDIX D

SECOND SEMI-ANNUAL 2011 GROUNDWATER MONITORING REPORT



August 10, 2011 G-R #386506

- TO: Mr. James Kiernan Conestoga-Rovers & Associates 10969 Trade Center Drive, Suite 107 Rancho Cordova, CA 95670
- FROM: Deanna L. Harding Project Coordinator Gettler-Ryan Inc. 6747 Sierra Court, Suite J Dublin, California 94568

RE: Former Chevron Service Station #9-1583 (MTI) 5509 Martin Luther King Way Oakland, California RO 0000002

WE HAVE ENCLOSED THE FOLLOWING:

COPIES	DATED	DESCRIPTION
1	August 4, 2011	Groundwater Monitoring and Sampling Report Second Semi-Annual Event of July 12, 2011

COMMENTS:

Pursuant to your request, we are providing you with copies of the above referenced report for <u>your</u> <u>use and distribution to the following (including PDF submittal of the entire report to</u> <u>GeoTracker):</u>

	Ms. Olivia Skance, Chevron Environmental Management Company, 6101 Bollinger Canyon Road,
	San Ramon, CA 94583
cc:	Mr. Mark Detterman, Alameda County Health Care Services, Dept. of Environmental Health,
	1131 Harbor Bay Parkway, Suite 250, Alameda, CA 94502-6577
	(No Hard Copy-CRA UPLOAD TO ALAMEDA CO.)
	Mr. Ben Shimek, (Owner), 31 Industrial Way, Greenbrae, CA 94904
Enclos	sures

trans/9-1583-OS

WELL CONDITION STATUS SHEET

Client/Facility #:	Chevror	<u>#9-1583</u>					Job #:	386506			
Site Address:	5509 Ma	rtin Luthe	r King Way	y		-	Event Date:	M	/12	/ 11	-
City:	Oakland	I, CA				• •	Sampler:	HA		KEVORK	_
WELL ID	Vauit Frame Condition	Gasket/ O-Ring (M)missing	BOLTS (M) Missing (R) Replaced	Bolt Flanges B= Broken S= Stripped R=Retap	APRON Condition C=Cracked B=Broken G=Gone	Grout Seai (Deficient) inches from TOC	Casing (Condition prevents tight cap seal)	REPLACE LOCK Y / N	REPLACE CAP Y / N	WELL VAULT Manufacture/Size/ # of Bolts	Pictures Taken Yes / No
MW-1	OK	N/A	NIA	N/A	oK	OK	OK	N	N	CHRISTY BOX	NO
MW-2											
MW-3		V	V	V		V	V				
MW-7	OK	OK	oK	2-5	OK	oK	οK			MORRISON - MII/2	
MW-8	OK	OK	OK	2-5	OK	oK	oK	\checkmark	\checkmark	EMCO - 12"/2	V
	2										
						-					
					2						
Comments											



August 4, 2011 G-R Job #386506

Ms. Olivia Skance Chevron Environmental Management Company 6101 Bollinger Canyon Road San Ramon, CA 94583

RE: Second Semi-Annual Event of July 12, 2011 Groundwater Monitoring & Sampling Report Former Chevron Service Station #9-1583 5509 Martin Luther King Way Oakland, California

Dear Ms. Skance:

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

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

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

No. 6882

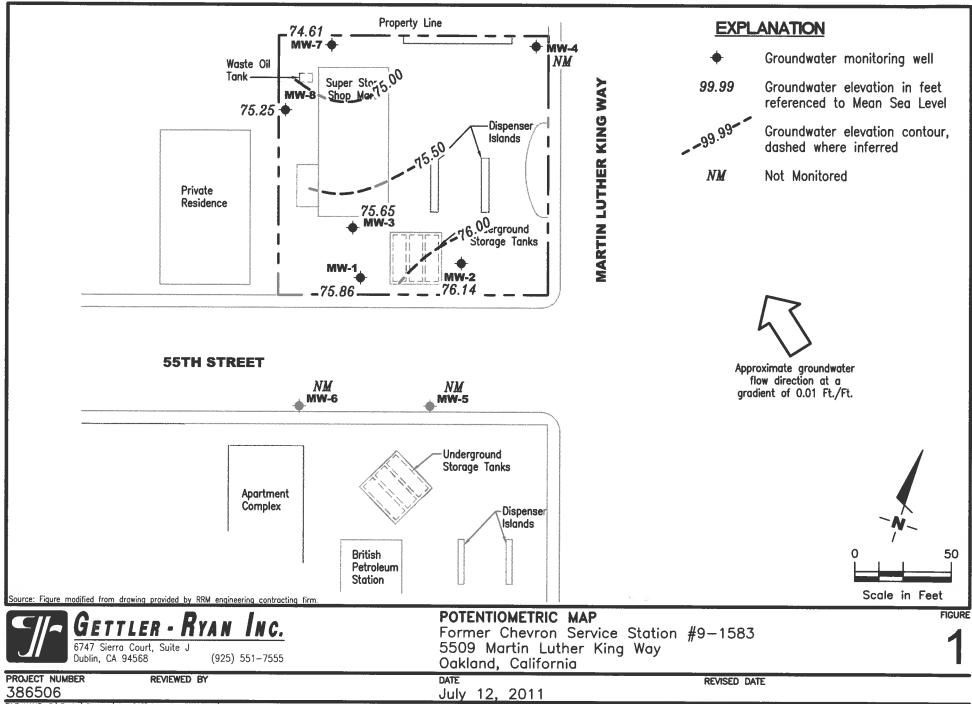
OFCAL

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

Sincerely,

Deanna L. Harding Project Coordinator Douglas J. Lee Senior Geologist, P.G. No. 6882 Figure 1: Potentiometric Map

Figure 1:Potentiometric MapTable 1:Groundwater Monitoring Data and Analytical ResultsTable 2:Groundwater Analytical Results - Oxygenate CompoundsAttachments:Standard Operating Procedure - Groundwater Sampling
Field Data Sheets
Chain of Custody Document and Laboratory Analytical Reports



FILE NAME: P:\Envira\Chevron\9-1583\Q11-9-1583.dwg | Layout Tab: Pot2

Table 1 Groundwater Monitoring Data and Analytical Results Former Chevron Service Station #9-1583

5509 Martin Luther King Way

Oakland, California

							and, Camornia						
WELL ID/	TOC	GWE	DTW	SPHT	TPH-DRO	TPH-MO	TPH-GRO	В	T	E	X	MTBE	TOG
DATE	(ft.)	(msl)	(ft.)	(ft.)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
MW-1													
12/22/83	81.97	71.72	10.25										
12/30/83	81.97	72.80	9.17										
03/12/90	81.97	71.89	10.08				50,000	3,000	7,300	1,900	18,000		
03/25/90	82.42	71.51	10.46										
10/18/90	82.42												
10/31/90	82.42												
11/16/90	82.42	70.84	11.58										
02/08/91	82.42	72.31	10.11				100,000	4,200	8,400	16,000	2,600		
05/08/91	82.42	71.97	10.45				31,000	200	66	670	2,000		
08/12/91	82.42	71.19	11.23				17,000	81	7.2	270	710		
11/07/91	82.42	71.72	10.70				7,100	24	6.0	130	170		
02/05/92	82.42	72.05	10.37				110,000	8,900	14,000	2,700	12,000		
05/13/92	82.42	71.84	10.58				19,000	450	85	480	870		
07/17/92	82.42	71.37	11.05				8,500	170	<10	360	600		
10/05/92	82.42	71.01	11.41				22,000	4,300	5,100	570	2,900		
11/11/92	82.42										_,		
11/17/92	82.42												
11/24/92	82.42												
12/01/92	82.42												
12/29/92	82.42												
01/05/93	82.42												
01/08/93	82.42	74.31	8.11				14,000,000	12,000	79,000	270,000	1,300,000		
02/02/93	82.42										-,		
04/14/93	82.42	72.57	9.85				48,000	670	1,100	1,600	6,300		
08/06/93	82.42	71.59	10.83				44,000	660	990	1,600	6,100		
10/21/93	82.42	71.52	10.90				18,000	270	460	1,300	4,700		
01/05/94	82.42	72.09	10.33				22,000	160	160	630	2,300		
04/08/94	82.42	72.24	10.18				21,000	37	110	570	1,400		
07/06/94	82.42	71.78	10.64				28,000	210	100	540	1,200		
08/04/94	82.42	71.91	10.51								-,		
10/05/94	82.42	71.51	10.91				120,000	39	22	320	900		
01/18/95	82.42	73.80	8.62				12,000	<20	<20	130	160		
04/07/95	82.42	72.89	9.53				2,500	<2.5	<2.5	71	38		
07/06/95	82.42	72.03	10.39				5,700	<0.5	<0.5	110	110		
10/11/95	82.42	70.54	11.88				2,700	13	<5.0	13	5.7	650	
01/17/96	82.42	73.14	9.28				4,200	12	<5.0	43	24	300	
							,		210		~ 1	200	

Table 1Groundwater Monitoring Data and Analytical ResultsFormer Chevron Service Station #9-1583

5509 Martin Luther King Way Oakland, California

							and, California						
WELL ID/	TOC	GWE	DTW	SPHT	TPH-DRO	TPH-MO	TPH-GRO	В	T	E	X	MTBE	TOG
DATE	(fl.)	(mst)	(ft.)	(fl.)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
MW-1 (cont)												
04/05/96	82.42	72.82	9.60				1,300	<1.2	<1.2	7.6	2.8	220	
07/23/96	82.42	72.19	10.23				700	<1.0	<1.0	7.0	4.8	240	
10/02/96	82.42	71.67	10.75				1,700	<2.5	9.8	10	13	610	
01/23/97	82.42	74.75	7.67				1,300	21	<10	<10	<10	2,700	
04/01/97	82.42	72.22	10.20				670	<2.0	<2.0	4.1	3.6	1,200	
07/09/97	82.42	72.12	10.30				460	<1.0	<1.0	<1.0	<1.0	440	
10/07/97	82.42	71.73	10.69				1,100	8.5	<2.0	<2.0	2.0	250	
01/22/98	82.42	74.20	8.22				460	1.4	5.8	<0.5	< 0.5	150	
04/02/98	82.42	72.89	9.53				220	2.5	1.2	<1.0	1.9	260	
07/02/98	82.42	72.08	10.34				270	<0.5	0.82	<0.5	<0.5	140	
10/02/98	82.42	71.70	10.72				170	1.3	<0.5	<0.5	<1.5	320	
01/18/99	82.42	72.87	9.55				416	<2.5	<2.5	<2.5	<2.5	316/295 ²	
07/22/99	82.42	71.61	10.81				186	<0.5	3.94	1.46	2.37	63.7	
01/17/00	82.42	72.21	10.21				248	1.6	< 0.5	<0.5	<0.5	41.0	
07/05/00	82.42	72.12	10.30	0.00			76 ³	< 0.50	< 0.50	< 0.50	0.79	69	
01/15/01	82.42	73.01	9.41	0.00			66.6	< 0.500	< 0.500	<0.500	0.585	22.5	
07/03/01	82.42	72.13	10.29	0.00			<50	< 0.50	< 0.50	<0.50	< 0.50	8.8	
02/28/02	82.42	72.74	9.68	0.00			58	< 0.50	<0.50	<0.50	<1.5	21	
07/08/02	82.42	72.14	10.28	0.00			<50	< 0.50	<0.50	<0.50	<1.5	23	
01/01/03	82.42	74.28	8.14	0.00			<50	< 0.50	< 0.50	<0.50	<1.5	15	
07/14/03 ⁸	82.42	72.12	10.30	0.00			<50	<0.5	<0.5	<0.5	<0.5	5	
01/12/04 ⁸	82.42	73.40	9.02	0.00			<50	<0.5	<0.5	<0.5	<0.5	61	
07/27/04 ⁸	82.42	72.10	10.32	0.00			<50	<0.5	<0.5	<0.5	<0.5	54	
01/25/058	82.42	74.24	8.18	0.00			<50	<0.5	<0.5	<0.5	<0.5	5	
07/26/05 ⁸	82.42	72.40	10.02	0.00			<50	<0.5	<0.5	<0.5	<0.5	25	
01/24/06 ⁸	82.42	74.22	8.20	0.00			<50	<0.5	<0.5	<0.5	<0.5	25	
07/25/06 ⁸	82.42	72.30	10.12	0.00			<50	<0.5	<0.5	<0.5	<0.5	14	
01/23/07 ⁸	82.42	72.57	9.85	0.00			<50	<0.5	<0.5	<0.5	<0.5	17	
07/24/07 ⁸	82.42	70.59	11.83	0.00			<50	<0.5	<0.5	<0.5	<0.5	7	
01/22/088	82.42	73.12	9.30	0.00			<50	<0.5	<0.5	<0.5	<0.5	8	
07/22/08 ⁸	82.42	71.69	10.73	0.00			<50	<0.5	<0.5	<0.5	<0.5	<0.5	
01/13/09 ⁸	82.42	72.41	10.01	0.00			<50	<0.5	<0.5	<0.5	<0.5	2	
07/14/09	82.42	71.52	10.90	0.00	SAMPLED AN	NUALLY							
01/12/10 ⁸	85.41	76.70	8.71	0.00			<50	<0.5	<0.5	<0.5	<0.5	15	

							Table 1						
					Groundwat		ing Data and	Analytical R	esults				
							Service Static		C2545				
							in Luther King						
							and, California						
WELL ID/	тос	GWE	DTW	SPHT	TPH-DRO	ТРН-МО	TPH-GRO	В	Ţ	E	x	МТВЕ	TOG
DATE	(ft.)	(msl)	(ft,)	(ft.)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
MW-1 (cont)											···· · · · · · · · · · · · · · · · · ·		
07/13/10	85.41	75.09	10.32	0.00	SAMPLED A	THILL I V							
01/25/118	85.41	77.03	8.38	0.00	SAMPLED A	NINUALL I	<50						
07/12/11	85.41	75.86	9.55	0.00	SAMPLED A	NNTIATTY		<0.5	<0.5	<0.5	<0.5	5	
0//12/11	05.41	/3.00	7.55	0.00	SAMPLED A	INNUALLY	-					-	-
MW-2													
12/22/83	83.48	72.98	10.50		-						100	-	1.2.1
12/30/83	83.48	73.56	9.92		-	<u></u>						-	
03/12/90	83.48	72.46	11.02	-	-	1	800	400	22	18	55		
03/25/90	83.48	72.15	11.33									2	
10/18/90	83.48	71.17	12.31				-			<u></u>		-	
10/31/90	83.48				-			i i i			-		
11/16/90	83.48				-	14	-					-	-
02/08/91	83.48	72.43	11.05				4,600	820	440	720	210		2
05/08/91	83.48	72.12	11.36				<50	5.0	<0.5	<0.5	<0.5	1	
08/12/91	83.48	71.51	11.97				<50	<0.5	<0.5	<0.5	< 0.5	_	
11/07/91	83.48	71.98	11.50			4	<50	< 0.5	<0.5	<0.5	<0.5		
02/05/92	83.48	72.29	11.19				1,700	390	170	60	200	22	2
05/13/92	83.48	71.99	11.49				74	9.3	<0.5	<0.5	<0.5		
07/17/92	83.48	71.63	11.85	1.00	1		<50	2.0	<0.5	<0.5	<0.5	-	
10/05/92	83.48	71.48	12.00		5 a 2		3,500	1,200	530	86	220		-
11/11/92	83.48			-	1.2	4							
11/17/92	83.48	-	144	1.1	-						÷+	-	
11/24/92	83.48						1.0	-	-	-	-		
12/01/92	83.48						-		-				
12/29/92	83.48		-		-				-				
01/05/93	83.48			-									
01/08/93	83.48	74.65	8.83	-			390	140	0.8	7.7	26		
02/02/93	83.48				-							223	
04/14/93	83.48	72.69	10.79	4			<50	5.0	<0.5	< 0.5	< 0.5		
08/06/93	83.48	71.77	11.71		1.1		<50	1.0	< 0.5	<0.5	<0.5		2
10/21/93	83.48	71.74	11.74	-			<50	1.0	<0.5	9.0	< 0.5		
01/05/94	83.48	72.30	11.18				<50	0.7	< 0.5	< 0.5	0.9	-	4
04/08/94	83.48	72.42	11.06				<50	<0.5	< 0.5	< 0.5	<0.5		1
07/06/94	83.48	71.80	11.68	-	0.44		<50	<0.5	< 0.5	< 0.5	<0.5	.	
08/04/94	83.48	72.29	11.19	-								-	

Former Chevron Service Station #9-1583

5509 Martin Luther King Way Oakland, California

						Oakl	and, California						
WELL ID/	TOC	GWE	DTW	SPHT	TPH-DRO	TPH-MO	TPH-GRO	В	T	E	X	MTBE	TOG
DATE	(ft.)	(msl)	(ft.)	(fl.)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
MW-2 (cont)												
10/05/94	83.48	71.79	11.69				<50	< 0.5	< 0.5	<0.5	< 0.5		
01/18/95	83.48	74.26	9.22				<50	<0.5	< 0.5	<0.5	<0.5		
04/07/95	83.48	73.62	9.86				<50	<0.5	< 0.5	<0.5	< 0.5		
07/06/95	83.48	72.74	10.74				<50	< 0.5	<0.5	<0.5	< 0.5		
10/11/95	83.48	72.26	11.22				<50	< 0.5	<0.5	<0.5	< 0.5	<2.5	
01/17/96	83.48	73.74	9.74				<50	< 0.5	<0.5	<0.5	<0.5	<2.5	
04/05/96	83.48	73.52	9.96				<50	< 0.5	< 0.5	<0.5	< 0.5	<2.5	
07/23/96	83.48	72.57	10.91				<50	<0.5	<0.5	<0.5	< 0.5	<2.5	
10/02/96	83.48	72.41	11.07				<50	< 0.5	<0.5	<0.5	< 0.5	<2.5	
01/23/97	83.48	75.18	8.30				<50	<0.5	< 0.5	<0.5	< 0.5	3.4	
04/01/97	83.48	72.90	10.58				<50	< 0.5	<0.5	<0.5	< 0.5	<2.5	
07/09/97	83.48	72.58	10.90				<50	<0.5	< 0.5	<0.5	<0.5	<2.5	
10/07/97	83.48	72.52	10.96				<50	<0.5	<0.5	<0.5	<0.5	<2.5	
01/22/98	83.48	74.73	8.75				<50	<0.5	< 0.5	<0.5	<0.5	<2.5	
04/02/98	83.48	73.66	9.82				89	3.0	5.4	4.1	21	<2.5	
07/02/98	83.48	72.74	10.74				<50	< 0.5	< 0.5	<0.5	<0.5	<2.5	
10/02/98	83.48	72.43	11.05				<50	< 0.5	<0.5	<0.5	<1.5	<2.5	
01/18/99	83.48	73.09	10.39				<50	<0.5	<0.5	<0.5	< 0.5	<2.0	
07/22/99	83.48	72.61	10.87				<50	<0.5	<0.5	<0.5	< 0.5	<2.0	
01/17/00	83.48	72.89	10.59				<50	<0.5	<0.5	<0.5	<0.5	<2.5	
07/05/00	83.48	72.84	10.64	0.00			<50	< 0.50	< 0.50	< 0.50	<0.50	<2.5	
01/15/01	83.48	73.77	9.71	0.00			555 ⁶	< 0.500	< 0.500	< 0.500	< 0.500	<2.50	
07/03/01	83.48	73.02	10.46	0.00			<50	<0.50	<0.50	< 0.50	< 0.50	<2.5	
02/28/02	83.48	73.49	9.99	0.00			<50	< 0.50	< 0.50	< 0.50	<1.5	<2.5	
07/08/02	83.48	72.98	10.50	0.00			<50	< 0.50	< 0.50	< 0.50	<1.5	<2.5	
01/01/03	83.48	75.33	8.15	0.00			<50	< 0.50	< 0.50	< 0.50	<1.5	<2.5	
07/14/03 ⁸	83.48	72.96	10.52	0.00			<50	<0.5	<0.5	< 0.5	<0.5	<0.5	
01/12/04 ⁸	83.48	74.31	9.17	0.00			<50	< 0.5	<0.5	<0.5	<0.5	<0.5	
07/27/04 ⁸	83.48	72.85	10.63	0.00			<50	<0.5	<0.5	< 0.5	<0.5	<0.5	
01/25/05 ⁸	83.48	74.36	9.12	0.00			<50	<0.5	<0.5	< 0.5	<0.5	< 0.5	
07/26/05 ⁸	83.48	73.56	9.92	0.00			<50	<0.5	<0.5	<0.5	<0.5	<0.5	
01/24/068	83.48	74.33	9.15	0.00			<50	< 0.5	<0.5	<0.5	<0.5	<0.5	
07/25/06 ⁸	83.48	73.03	10.45	0.00			<50	<0.5	<0.5	<0.5	<0.5	< 0.5	
01/23/078	83.48	73.37	10.11	0.00			<50	<0.5	<0.5	<0.5	<0.5	< 0.5	
07/24/07 ⁸	83.48	72.90	10.58	0.00			<50	<0.5	<0.5	<0.5	<0.5	< 0.5	
01/22/088	83.48	73.85	9.63	0.00			<50	<0.5	<0.5	<0.5	<0.5	<0.5	
												010	

Table 1 Groundwater Monitoring Data and Analytical Results Former Chevron Service Station #9-1583

5509 Martin Luther King Way Oakland California

						Oakl	and, California						
WELL ID/	ТОС	GWE	DTW	SPHT	TPH-DRO	TPH-MO	TPH-GRO	В	T	E	x	MTBE	TOG
DATE	(ft.)	(msl)	(ft.)	(ft.)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
MW-2 (cont)	i i												
07/22/088	83.48	73.08	10.40	0.00			<50	<0.5	<0.5	<0.5	<0.5	2	
01/13/098	83.48	73.10	10.38	0.00			<50	<0.5	<0.5	<0.5	<0.5	<0.5	
07/14/09	83.48	72.93	10.55	0.00	SAMPLED	ANNUALLY	-						-
01/12/108	86.04	76.38	9.66	0.00			<50	<0.5	<0.5	<0.5	<0.5	<0.5	-
07/13/10	86.04	76.09	9.95	0.00	SAMPLED	ANNUALLY	-					-0.5	
01/25/118	86.04	76.68	9.36	0.00		44	<50	<0.5	<0.5	<0.5	<0.5	<0.5	
07/12/11	86.04	76.14	9.90	0.00	SAMPLED A	NNUALLY	-			-	-010	-0.5	
										10	-	-	-
MW-3													
12/22/83	84.36	72.78	11.58		.1.			-			-		
12/30/83	84.36	73.19	11.17	1									-
)3/12/90	84.36	72.22	12.14	-			47,000	1,000	9,900	1,700	9,800	4	
)3/25/90	84.38	71.81	12.55		- 2	-							-
0/18/90	84.38				-					-		-	
0/31/90	84.38						-			- 2			
1/16/90	84.38	70.76	13.62		-	-						-	-
)2/08/91	84.38	72.20	12.18		22		58,000	4,900	5,200	9,500	2,000		2
05/08/91	84.38	71.86	12.52				50,000	2,100	1,400	2,000	2,000 9,400	-	
08/12/91	84.38	71.11	13.27			-	15,000	1,300	160	920	1,900		
1/07/91	84.38	71.57	12.81	-	1		26,000	1,000	310	1,900	5,900	- C - C	
)2/05/92	84.38	71.91	12.47			4	35,000	2,800	1,300	1,500	4,700		
5/13/92	84.38	71.76	12.62		- <u>-</u>	-	47,000	1,500	1,200	1,100	4,800		
7/17/92	84.38	71.25	13.13				15,000	120	1,200	88	140	1	
0/05/92	84.38	70.95	13.62	0.24		-							
1/11/92	84.38	71.63	12.89	0.17		-		2	-		- 25	-	
1/17/92	84.38	71.54	12.89	0.06	1.2			-		-		2	-
1/24/92	84.38	71.56	12.86	0.05	1.22							-	
2/01/92	84.38	71.48	12.92	0.03								2	-
2/29/92	84.38	73.14	11.24	Sheen		1						-	
1/05/93	84.38	73.23	11.15	Sheen	- 4							-	
1/08/93	84.38	74.28	10.10		- 4	-	250,000	5,000	17,000	5,500	28,000		-
2/02/93	84.38					4							
4/14/93	84.38	72.48	11.91	0.01		1						-	-
8/06/93	84.38	71.49	12.90	0.01		-	150,000	3,800	6,600	3,700	17,000	-	
0/21/93	84.38	71.41	12.97				22,000	2,300	1,700	1,400	5,100		
							22,000	2,500	1,700	1,400	5,100	-	

Former Chevron Service Station #9-1583

5509 Martin Luther King Way

Oakland, California

							and, California						
WELL ID/	ТОС	GWE	DTW	SPHT	TPH-DRO	ТРН-МО	TPH-GRO	B	Т	•••••• E ••••••	X	MTBE	TOG
DATE	(ft.)	(msl)	(ft.)	(ft.)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
MW-3 (cont)													
01/05/94	84.38	71.96	12.42				37,000	1,600	1,100	1,300	6,500		
04/08/94	84.38	72.51	11.87				16,000	250	310	500	2,500		
07/06/94	84.38	71.64	12.74				43,000	660	320	1,900	6,400		
08/04/94	84.38	71.71	12.67										
10/05/94	84.38	71.43	12.95				12,000	280	90	480	370		
01/18/95	84.38	73.72	10.66				20,000	200	230	700	3,500		
04/07/95	84.38	72.84	11.54				22,000	120	120	810	4,400		
07/06/95	84.38	71.99	12.39				15,000	110	<50	630	2,100		
10/11/95	84.38	72.07	12.31				8,600	24	<10	360	560	1,100	
01/17/96	84.38	73.68	10.70				9,300	<50	<50	230	1,100	2,300	
04/05/96	84.38	73.35	11.03				8,700	16	<10	110	650	990	
07/23/96	84.38	72.38	12.00				5,400	20	<5.0	190	480	2,300	
10/02/96	84.38	72.20	12.18				6,200	43	<20	130	140	2,800	
01/23/97	84.38	75.12	9.26				5,600	<5.0	<5.0	39	160	550	
04/01/97	84.38	72.75	11.63				6,900	17	<10	150	330	3,900	
07/09/97	84.38	72.38	12.00				5,300	31	<5.0	100	180	2,300	
10/07/97	84.38	72.27	12.11				2,400	15	<2.0	30	15	900	
01/22/98	84.38	74.73	9.65				3,200	2.5	7.9	70	220	660	
04/02/98	84.38	73.49	10.89				1,300	14	9.7	25	63	430	
07/02/98	84.38	72.69	11.69				750	6.9	<5.0	18	9.1	370	
10/02/98	84.38	72.23	12.15				1,400	5.3	0.73	18	6.6	900	
01/18/99	84.38	74.05	10.33				1,270	<1.0	<1.0	7.95	<1.0	100/99.7 ²	
07/22/99	84.38	72.08	12.30				2,240	<1.0	<1.0	29.4	13.7	189	
01/17/00	84.38	72.78	11.60				848	6.72	2.53	5.02	2.49	90	
07/05/00	84.38	72.67	11.71	0.00			90 ³	5.3	<0.50	0.70	< 0.50	770	
01/15/01	84.38	73.93	10.45	0.00			206	< 0.500	< 0.500	< 0.500	1.09	4.04	
07/03/01	84.38	72.62	11.76	0.00			<50	0.53	< 0.50	< 0.50	1.1	20	
02/28/02	84.38	73.29	11.09	0.00			170	<1.0	<1.0	<1.0	1.6	45	
07/08/02	84.38	71.38	13.00	0.00			430	0.60	<0.50	0.79	<1.5	42	
01/01/03	84.38	74.89	9.49	0.00			140	< 0.50	< 0.50	<0.50	<1.5	6.1	
07/14/03 ⁸	84.38	71.36	13.02	0.00			<50	<0.5	<0.5	<0.5	< 0.5	43	
01/12/04 ⁸	84.38	74.00	10.38	0.00			<50	<0.5	<0.5	<0.5	< 0.5	2	
07/27/04 ⁸	84.38	72.60	11.78	0.00			<50	<0.5	<0.5	<0.5	<0.5	41	
01/25/05 ⁸	84.38	73.96	10.42	0.00			<50	<0.5	<0.5	<0.5	< 0.5	27	
07/26/05 ⁸	84.38	72.17	12.21	0.00			<50	<0.5	<0.5	<0.5	<0.5	12	
01/24/06 ⁸	84.38	73.99	10.39	0.00			<50	< 0.5	<0.5	<0.5	<0.5	0.8	
										0.0	-0.0	0.0	

Table 1 Groundwater Monitoring Data and Analytical Results Former Chevron Service Station #9-1583

5509 Martin Luther King Way

						Oakla	and, California						
WELL ID/	ТОС	GWE	DTW	SPHT	TPH-DRO	TPH-MO	TPH-GRO	В	T	E	x	MTBE	TOG
DATE	(fl.)	(msl)	(ft.)	(ft.)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
MW-3 (cont)													
07/25/068	84.38	72.76	11.62	0.00	- 44	-	<50	<0.5	<0.5	<0.5	<0.5	23	
01/23/07 ⁸	84.38	73.44	10.94	0.00			130	<0.5	<0.5	<0.5	<0.5	2	
07/24/07 ⁸	84.38	74.10	10.28	0.00			210	<0.5	<0.5	<0.5	<0.5	20	
01/22/088	84.38	73.83	10.55	0.00			<50	<0.5	<0.5	<0.5	<0.5	<0.5	
07/22/08 ⁸	84.38	72.40	11.98	0.00	*		<50	<0.5	<0.5	<0.5	<0.5	7	
01/13/09 ⁸	84.38	72.82	11.56	0.00		-	<50	<0.5	<0.5	<0.5	<0.5	10	
07/14/09	84.38	72.25	12.13	0.00	SAMPLED A	ANNUALLY				1.0		-	
01/12/108	86.80	75.93	10.87	0.00			<50	<0.5	<0.5	<0.5	<0.5	14	
07/13/10	86.80	75.37	11.43	0.00	SAMPLED A	ANNUALLY		++		-		-	-
01/25/118	86.80	76.19	10.61	0.00	÷-		<50	<0.5	<0.5	<0.5	<0.5	4	
07/12/11	86.80	75.65	11.15	0.00	SAMPLED A	NNUALLY	-	-	-	-		÷	-
MW-4													
10/18/90	84.25	68.50	15.75	2		-							
10/31/90	84.25	70.35	13.90				<50	<0.5	< 0.5	< 0.5	1.0		÷.
11/16/90	84.25	70.00	14.25	1		-		-0.5	-0.5	-0.5		-	
02/08/91	84.25	71.93	12.32			4	60	17	2.0	12	< 0.5		
05/08/91	84.25	72.02	12.23			2	65	<0.5	<0.5	< 0.5	<0.5 <0.5	N es	
08/12/91	84.25	70.32	13.93	14			<50	<0.5	< 0.5	<0.5	<0.5 <0.5	-	
11/07/91	84.25	70.83	13.42			1	<50	< 0.5	< 0.5	<0.5	<0.5 <0.5		
02/05/92	84.25	71.42	12.83	-		4	<50	< 0.5	< 0.5	<0.5	<0.5		-
05/13/92	84.25	70.97	13.28				<50	<0.5	< 0.5	<0.5	<0.5		
07/17/92	84.25	70.27	13.98	1	-	4	<50	<0.5	<0.5	<0.5	<0.5		
10/05/92	84.25	70.02	14.23				<50	< 0.5	< 0.5	<0.5	<0.5	-	-
11/11/92	84.25											-	-
11/17/92	84.25	-	-				÷	-	-	2	-		2
11/24/92	84.25		-			4		2	-		1		
12/01/92	84.25	4		-	1.2		-	-			-		7
2/29/92	84.25					4							-
)1/05/93	84.25			-		- <u>.</u>					-		
)1/08/93	84.25	74.09	10.16	-		2	<50	< 0.5	< 0.5	<0.5	<0.5		1
02/02/93	84.25					2	-50		-0.5	-0.5	-0.5	2	1
04/14/93	84.25	72.21	12.04				<50	< 0.5	<0.5	<0.5	<0.5		
08/06/93	84.25	70.34	13.91	-	1		<50	<0.5	<0.5 <0.5	<0.5	<0.5	-	-
10/21/93	84.25	70.26	13.99		12	-	<50	<0.5	<0.5	<0.5	1.0		-
	51145	/ 0.20	13.77	-22	3		~50	~0.5	~0.5	~0.3	1.0		

Former Chevron Service Station #9-1583

5509 Martin Luther King Way Oakland, California

						Oakl	and, Californi	a					
WELL ID/	ТОС	GWE	DTW	SPHT	TPH-DRO	TPH-MO	TPH-GRO	В	Т	E	x	MTBE	TOG
DATE	(ft.)	(msl)	(ft.)	(ft.)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
MW-4 (cont)													
01/05/94	84.25	71.30	12.95				<50	< 0.5	<0.5	<0.5	<0.5		
04/08/94	84.25	71.31	12.94				<50	< 0.5	<0.5	<0.5	<0.5		
07/06/94	84.25	70.57	13.68				<50	<0.5	<0.5	<0.5	<0.5		
08/04/94	84.25	70.71	13.54						-0.5	-0.5	-0.5		
10/05/94	84.25	70.65	13.60				<50	<0.5	< 0.5	< 0.5	< 0.5		
01/18/95	84.25	74.77	9.48				<50	<0.5	<0.5	<0.5	<0.5		
04/07/95	84.25	72.70	11.55				<50	< 0.5	<0.5	<0.5	<0.5		
07/06/95	84.25	71.25	13.00				<50	<0.5	<0.5	<0.5	<0.5		
10/11/95	84.25	70.27	13.98	·			<50	<0.5	<0.5	<0.5	<0.5	<2.5	
01/17/96	84.25	73.17	11.08				<50	<0.5	<0.5	<0.5	< 0.5	<2.5	
04/05/96	84.25	72.65	11.60				<50	<0.5	<0.5	<0.5	<0.5	<2.5	
07/23/96	84.25	70.86	13.39				<50	<0.5	< 0.5	<0.5	<0.5	<2.5	
10/02/96	84.25	70.27	13.98				<50	< 0.5	< 0.5	<0.5	<0.5	<2.5	
01/23/97	84.25	74.72	9.53				<50	<0.5	<0.5	<0.5	<0.5	<2.5	
04/01/97	84.25	71.68	12.57				<50	< 0.5	<0.5	<0.5	<0.5	<2.5	
07/09/97	84.25	70.64	13.61				<50	<0.5	<0.5	<0.5	<0.5	<2.5	
10/07/97	84.25	70.51	13.74				<50	<0.5	< 0.5	<0.5	<0.5	<2.5	
01/22/98	84.25	74.90	9.35				<50	<0.5	<0.5	<0.5	<0.5	<2.5	
04/02/98	84.25	73.00	11.25				<50	<0.5	<0.5	<0.5	<0.5	<2.5	
07/02/98	84.25	71.84	12.41				<50	<0.5	<0.5	<0.5	<0.5	<2.5	
10/02/98	84.25	71.00	13.25				<50	<0.5	< 0.5	<0.5	<1.5	<2.5	
01/18/99	84.25	72.65	11.60				<50	<0.5	<0.5	<0.5	<0.5	<2.0	
07/22/99	84.25	70.70	13.55				<50	<0.5	<0.5	<0.5	<0.5	<2.0	
01/17/00	84.25	71.32	12.93				<50	< 0.50	< 0.50	< 0.50	< 0.50	<2.5	
07/05/00	84.25	MONITORE	ED/SAMPLEI	O ANNUALLY	7								
01/15/01	84.25	72.73	11.52	0.00			<50.0	< 0.500	< 0.500	< 0.500	< 0.500	<2.50	
07/03/01	84.25	71.30	12.95	0.00									
02/28/02	84.25	72.54	11.71	0.00			<50	< 0.50	< 0.50	< 0.50	<1.5	<2.5	
07/08/02	84.24	MONITORE	ED/SAMPLE	O ANNUALLY	r								
01/01/03	84.24	INACCESSI	BLE - VEHI	CLE PARKED	OVER WELL								
07/14/03	84.24	MONITORE	ED/SAMPLEI	O ANNUALLY	r								
01/12/048	84.24	73.23	11.01	0.00			<50	<0.5	<0.5	<0.5	<0.5	<0.5	
01/25/05 ⁸	84.24	73.28	10.96	0.00			<50	<0.5	<0.5	<0.5	<0.5	<0.5	
07/26/05	84.24		ED/SAMPLEI	O ANNUALLY	,								
01/24/068	84.24	73.36	10.88	0.00			<50	<0.5	<0.5	<0.5	<0.5	<0.5	- 65
07/25/06	84.24	MONITORE	ED/SAMPLEI	O ANNUALLY	r								

Former Chevron Service Station #9-1583

5509 Martin Luther King Way

	_					Oakl	and, California						
WELL ID/	TOC	GWE	DTW	SPHT	TPH-DRO	TPH-MO	TPH-GRO	В	r	E	×	MTBE	TOG
DATE	(ft.)	(msl)	(ft.)	(ft.)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
MW-4 (cont)													
01/23/078	84.24	71.85	12.39	0.00			<50	<0.5	<0.5	<0.5	<0.5	<0.5	
07/24/07	84.24	MONITORI	ED/SAMPLE	D ANNUALLY	Y	-	-						
01/22/088	84.24	72.77	11.47	0.00		44.	<50	<0.5	<0.5	<0.5	<0.5	<0.5	
07/22/08	84.24	MONITORI	ED/SAMPLE	D ANNUALLY	Y	-	-	3.5					
01/13/098	84.24	71.56	12.68	0.00	-	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5	-
07/14/09	84.24	MONITORI	ED/SAMPLE	D ANNUALLY	(-						2
01/12/108	87.29	76.14	11.15	0.00		144	<50	<0.5	<0.5	<0.5	<0.5	<0.5	-
07/13/10	87.29	MONITORI	ED/SAMPLE	D ANNUALLY	C		-						2
01/25/118	87.29	76.21	11.08	0.00			<50	<0.5	<0.5	<0.5	<0.5	<0.5	
07/12/11	87.29	MONITOR		ED ANNUALI		-				-	-0.5		
										-		-	-
MW-5													
10/18/90	81.95	71.17	10.78			l c èc l l							-
10/31/90	81.95	71.32	10.63		- C		110	<0.5	<0.5	<0.5	< 0.5		
11/16/90	81.95	71.27	10.68	-								-	-
02/08/91	81.95	72.78	9.17			ee:	<50	<0.5	<0.5	<0.5	< 0.5		-
05/08/91	81.95	73.27	8.68		- 		<50	<0.5	<0.5	<0.5	< 0.5		
08/12/91	81.95	71.62	10.33		-		<50	<0.5	<0.5	<0.5	< 0.5		
11/07/91	81.95	72.19	9.76			-	<50	<0.5	<0.5	<0.5	< 0.5		
02/05/92	81.95	72.48	9.47		(***		69	<0.5	< 0.5	<0.5	< 0.5		1
05/13/92	81.95	72.25	9.70				74	<0.5	<0.5	<0.5	< 0.5		
07/17/92	81.95	71.74	10.21	-			880	2.6	<1.2	4.6	11	<u>a</u>	
10/05/92	81.95	71.34	10.61				120	<0.5	<0.5	0.6	4.9		-
11/11/92	81.95											-	_
11/17/92	81.95	-	-		-							1440	
11/24/92	81.95	-								-			
12/01/92	81.95				-		12		-			-	
12/29/92	81.95			÷÷+									
01/05/93	81.95				-					_			
01/08/93	81.95	74.61	7.34	-	-	4	61	<0.5	< 0.5	< 0.5	<0.5		-
02/02/93	81.95				-	- <u>4</u> -11					-0.5		
04/14/93	81.95			-	12	100							
08/06/93	81.95	71.99	9.96				<50	< 0.5	< 0.5	< 0.5	<0.5		
10/21/93	81.95	71.89	10.06	-		-	<50	<0.5	<0.5	2.0	4.0	2	

Former Chevron Service Station #9-1583

5509 Martin Luther King Way

Oakland, California

		• • • • • • • <u></u>					and, California						
WELL ID/ DATE	TOC (ft.)	GWE	DTW	SPHT	TPH-DRO	ТРН-МО	TPH-GRO	B	T	E	X	MTBE	TOG
		(msl)	(ft.)	(ft.)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
MW-5 (cont)													
01/05/94	81.95	72.52	9.43				<50	<0.5	<0.5	<0.5	< 0.5		
04/08/94	81.95	72.56	9.39				<50	<0.5	<0.5	<0.5	<0.5		
07/06/94	81.95	72.19	9.76				<50	0.6	<0.5	<0.5	< 0.5		
08/04/94	81.95	72.13	9.82										
10/05/94	81.95	71.89	10.06				<50	< 0.5	<0.5	<0.5	<0.5		
01/18/95	81.95	INACCESSI	BLE										
04/07/95	81.95	73.31	8.64				<50	<0.5	<0.5	<0.5	<0.5		
07/06/95	81.95	72.52	9.43				<50	<0.5	< 0.5	<0.5	<0.5		
10/11/95	81.95	72.12	9.83				<50	<0.5	<0.5	<0.5	<0.5	<2.5	
01/17/96	81.95	73.63	8.32				<50	<0.5	< 0.5	<0.5	<0.5	<2.5	
04/05/96	81.95	73.23	8.72				<50	<0.5	<0.5	<0.5	<0.5	<2.5	
07/23/96	81.95	72.25	9.70				<50	< 0.5	< 0.5	<0.5	<0.5	<2.5	
10/02/96	81.95	72.06	9.89				<50	< 0.5	<0.5	<0.5	<0.5	<2.5	
01/23/97	81.95	74.72	7.23				<50	<0.5	< 0.5	<0.5	<0.5	<2.5	
04/01/97	81.95	INACCESSI	BLE										
07/09/97	81.95	72.27	9.68				<50	< 0.5	<0.5	< 0.5	<0.5	<2.5	
10/07/97	81.95	72.14	9.81				<50	< 0.5	<0.5	< 0.5	<0.5	<2.5	
01/22/98	81.95	74.80	7.15				<50	<0.5	< 0.5	< 0.5	<0.5	<2.5	
04/02/98	81.95	INACCESSI	BLE									-2.0	
07/02/98	81.95	72.43	9.52				<50	<0.5	<0.5	< 0.5	<0.5	<2.5	
10/02/98	81.95	72.14	9.81				<50	<0.5	<0.5	<0.5	<1.5	<2.5	
01/18/99	81.95	73.11	8.84				<50	<0.5	<0.5	<0.5	<0.5	<2.0	
07/22/99	81.95	72.01	9.94				<50	<0.5	<0.5	<0.5	<0.5	<2.0	
01/17/00	81.95	72.70	9.25				<50	<0.5	<0.5	< 0.5	<0.5	<2.5	
07/05/00	81.95	MONITORE		D ANNUALL	Y						-0.5	-2.5	
01/15/01	81.95	73.41	8.54	0.00			423 ⁶	< 0.500	< 0.500	< 0.500	< 0.500	<2.50	
07/03/01	81.95	72.62	9.33	0.00								-2.50	
02/28/02	81.95	73.24	8.71	0.00			270	<0.50	< 0.50	< 0.50	<1.5	<2.5	
07/08/02	81.95	MONITORE		D ANNUALL	Y						-1.5		
01/01/03	81.95				D OVER WELL	,							
07/14/03	81.95			D ANNUALL									
01/12/04 ⁸	81.95	73.91	8.04	0.00			<50	<0.5	< 0.5	< 0.5	<0.5	<0.5	
01/25/05 ⁸	81.95	73.94	8.01	0.00			<50	<0.5	<0.5	<0.5 <0.5	<0.3 <0.5	<0.5 <0.5	
07/26/05	81.95			D ANNUALL					<0.5 	~0.5 	<0.5		
01/24/06 ⁸	81.95	73.89	8.06	0.00			<50	<0.5	<0.5				
01/27/00	01170	10.00	0.00	0.00			~30	~0.5	NU.3	<0.5	<0.5	<0.5	

Table 1 Groundwater Monitoring Data and Analytical Results Former Chevron Service Station #9-1583

5509 Martin Luther King Way

						Oakl	and, California						
WELL ID/	ТОС	GWE	DTW	SPHT	TPH-DRO	ТРН-МО	TPH-GRO	В	T	E	x	MTBE	TOG
DATE	(ft.)	(msl)	(ft.)	(ft.)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
MW-5 (cont)													
07/25/06	81.95	MONITORI	ED/SAMPLET	ANNUALLY			1.		24			1.0	
01/23/07	81.95			LE PARKED						-	1.44		-
07/24/07	81.95			ANNUALLY		-						_	1
01/22/088	81.95	73.50	8.45	0.00			<50	<0.5	<0.5	< 0.5	<0.5	< 0.5	
07/22/08	81.95		ED/SAMPLEE	ANNUALLY									-
01/13/09 ⁸	81.95	71.69	10.26	0.00	-		<50	<0.5	<0.5	<0.5	<0.5	< 0.5	
07/14/09	81.95	MONITORI		ANNUALLY									
01/12/108	84.93	76.45	8.48	0.00	122		<50	<0.5	<0.5	<0.5	< 0.5	< 0.5	-
07/13/10	84.93	MONITORI	ED/SAMPLEE	ANNUALLY									
01/25/118	84.93	76.69	8.24	0.00			<50	< 0.5	<0.5	<0.5	<0.5	< 0.5	<u> </u>
07/12/11	84.93	MONITOR	ED/SAMPLE	D ANNUALL	Y								-
MW-6													
10/18/90	80.60	70.81	9.79	- 12	11.44								
10/31/90	80.60	70.91	9.69		1.54		<50	< 0.5	< 0.5	< 0.5	3.0		
11/16/90	80.60	70.86	9.74	24									
02/08/91	80.60				-							-	
05/08/91	80.60	71.06	9.54	-		-	56	<0.5	< 0.5	< 0.5	< 0.5		<u>a</u> .
08/12/91	80.60	71.10	9.50				<50	<0.5	< 0.5	< 0.5	< 0.5		-
11/07/91	80.60	71.71	8.89				<50	<0.5	<0.5	< 0.5	< 0.5		
02/05/92	80.60	72.01	8.59				<50	<0.5	< 0.5	< 0.5	< 0.5		
05/13/92	80.60				-								
07/17/92	80.60					-	0.42						
10/05/92	80.60			-		-	4						-
11/11/92	80.60									-	. .		
11/17/92	80.60					-	- en 1	-			44	1.000	
11/24/92	80.60					i de la				44			
12/01/92	80.60	-							+		(Ben		
12/29/92	80.60						64 C						
01/05/93	80.60						-			· · · · ·			
01/08/93	80.60												
02/02/93	80.60	72.89	7.71	ter .	-		<50	2.1	<0.5	<0.5	2.2		
04/14/93	80.60	72.41	8.19		-		<50	1.0	<0.5	<0.5	<0.5		
08/06/93	80.60	71.52	9.08		-		<50	< 0.5	<0.5	<0.5	<0.5		-
10/21/93	80.60	71.46	9.14				<50	< 0.5	< 0.5	< 0.5	< 0.5		

Former Chevron Service Station #9-1583

5509 Martin Luther King Way Oakland, California

						Oakl	and, Californi	a					
WELL ID/	TOC	GWE	DTW	SPHT	TPH-DRO	TPH-MO	TPH-GRO	В	T	£	x	MTBE	TOG
DATE	(fl.)	(mst)	(ft.)	(ft.)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
MW-6 (cont)													
01/05/94	80.60	72.06	8.54				<50	4.0	<0.5	<0.5	<0.5		
04/08/94	80.60										-		
07/06/94	80.60	INACCESSIB	LE										
08/04/94	80.60	71.66	8.94				<50	<0.5	<0.5	<0.5	<0.5		
10/05/94	80.60	INACCESSIB	LE										
01/18/95	80.60	73.50	7.10				<50	0.69	< 0.5	<0.5	0.57		
04/07/95	80.60	72.77	7.83				<50	1.8	<0.5	<0.5	<0.5		
07/06/95	80.60	72.03	8.57				<50	<0.5	< 0.5	<0.5	<0.5		
10/11/95	80.60	71.54	9.06				<125	<1.2	<1.2	<1.2	<1.2	540	
01/17/96	80.60	73.20	7.40				<50	<0.5	< 0.5	<0.5	<0.5	180	
04/05/96	80.60	72.70	7.90				<125	1.4	<1.2	<1.2	<1.2	700	
07/23/96	80.60	71.86	8.74				<500	<5.0	<5.0	<5.0	<5.0	540	
10/02/96	80.60	71.62	8.98				<100	<1.0	<1.0	<1.0	1.8	910	
01/23/97	80.60	INACCESSIB	LE										
04/01/97	80.60	72.22	8.38				<250	<2.5	<2.5	<2.5	<2.5	640	
07/09/97	80.60	INACCESSIB	LE										
10/07/97	80.60	71.71	8.89				<50	<0.5	<0.5	< 0.5	<0.5	640	
01/22/98	80.60	73.90	6.70				<50	<0.5	< 0.5	< 0.5	<0.5	200	
04/02/98	80.60	72.79	7.81				<250	<2.5	<2.5	<2.5	<2.5	480	
07/02/98	80.60	71.62	8.98				<50	<0.5	<0.5	< 0.5	< 0.5	420	
10/02/98	80.60	71.68	8.92				<50	<0.5	<0.5	<0.5	<1.5	270	
01/18/99	80.60	INACCESSIB	LE										
07/22/99	80.60	INACCESSIB	LE										
01/17/00	80.60	INACCESSIB	LE										
07/05/00	80.60	MONITORED	SAMPLE	D ANNUALL	Y								
01/15/01	80.60	INACCESSIB	LE - CAR	PARKED OV	ER WELL								
07/03/01	80.60	INACCESSIB	LE - CAR	PARKED OVI	ER WELL								
02/28/02	80.60	72.70	7.90	0.00			<50	<0.50	<0.50	< 0.50	<1.5	55	
07/08/02	80.60	MONITORED	SAMPLE	D ANNUALL	Y								
01/01/03	80.60	INACCESSIB	LE - VEHI	CLE PARKEI	OVER WELL	,							
07/14/03	80.60	MONITORED	SAMPLE	D ANNUALL	Y								
01/12/048	80.60	73.23	7.37	0.00			<50	<0.5	<0.5	<0.5	<0.5	25	
01/25/05 ⁸	80.60	73.17	7.43	0.00			<50	<0.5	<0.5	<0.5	<0.5	3	
07/26/05	80.60	MONITORED	SAMPLE	D ANNUALL	Y								
01/24/06 ⁸	80.60	73.20	7.40	0.00			<50	<0.5	<0.5	<0.5	<0.5	<0.5	
07/25/06	80.60	MONITORED	SAMPLE	D ANNUALL	Y								

Table 1 Groundwater Monitoring Data and Analytical Results Former Chevron Service Station #9-1583

5509 Martin Luther King Way Oakland California

						Oakl	and, California						
WELL ID/	ТОС	GWE	DTW	SPHT	TPH-DRO	ТРН-МО	TPH-GRO	B	T	E	x	MTBE	TOG
DATE	(ft.)	(msl)	(ft.)	(ft.)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
MW-6 (cont)													
01/23/078	80.60	72.53	8.07	0.00	1		<50	<0.5	<0.5	<0.5	<0.5	8	
07/24/07	80.60			D ANNUALLY	Y								-
01/22/08 ⁸	80.60	73.07	7.53	0.00			<50	<0.5	<0.5	1	2	4	
07/22/08	80.60			D ANNUALLY		-	-			<u>.</u>	<u> </u>		-
01/13/09 ⁸	80.60	70.73	9.87	0.00			<50	<0.5	<0.5	<0.5	<0.5	6	
07/14/09	80.60			D ANNUALLY		-						-	-
01/12/10 ⁸	83.63	75.71	7.92	0.00			<50	<0.5	<0.5	<0.5	<0.5	<0.5	-
07/13/10	83.63			D ANNUALLY	Y								-
01/25/118	83.63	76.05	7.58	0.00			<50	<0.5	<0.5	<0.5	<0.5	<0.5	-
07/12/11	83.63	MONITOR		ED ANNUAL		-	-		_	_	-		
MW-7													
03/08/94	86.36	74.99	11.37		<10	4,100	1,200	440	31	73	200		
07/06/94	86.36												1.00
08/04/94	86.36	73.86	12.50				120	15	<0.5	3.8	1.8	-	
10/05/94	86.36	73.99	12.37				150	1.2	<0.5	1.2	1.7		
01/18/95	86.36	74.82	11.54			**	260	11	<1.0	17	6.8		
04/07/95	86.36	75.63	10.73				230	<0.5	<0.5	25	0.93	1.00	
07/06/95	86.36	74.36	12.00				320	<1.0	<1.0	<1.0	<1.0		6,900
10/11/95	86.36	73.56	12.80			$2,300^{1}$	<50	<0.5	<0.5	<0.5	<0.5	120	
01/17/96	86.36	75.90	10.46	÷-	**	1,700	<50	<0.5	<0.5	< 0.5	< 0.5	460	4
04/05/96	86.36	76.56	9.80	1. H.		590	130	<0.5	<0.5	<0.5	<0.5	120	
07/23/96	86.36	74.57	11.79			820	<500	<5.0	<5.0	<5.0	< 0.5	1,200	
10/02/96	86.36	73.10	13.26			1,500	<100	<1.0	<1.0	<1.0	<1.0	360	
01/23/97	86.36	77.64	8.72			<500	<100	<1.0	<1.0	<1.0	<1.0	490	
04/01/97	86.36	75.09	11.27	-		1,600	<250	<2.5	<2.5	<2.5	<2.5	1,200	
07/09/97	86.36	73.92	12.44			5,700	<250	5.9	<2.5	<2.5	<2.5	1,200	
10/07/97	86.36	73.44	12.92			<500	<50	< 0.5	<0.5	<0.5	<0.5	240	
01/22/98	86.36	75.14	11.22		1.000	<500	<50	<0.5	<0.5	<0.5	<0.5	400	
04/02/98	86.36	75.67	10.69			<500	56	<0.5	<0.5	< 0.5	<0.5	290	
07/02/98	86.36	75.94	10.42		1 m	<500	<50	<0.5	<0.5	< 0.5	<0.5	380	
10/02/98	86.36	74.14	12.22	-		1,700	<50	<0.5	<0.5	<0.5	<1.5	660	-
01/18/99	86.36	75.36	11.00			543	<100	<1.0	<1.0	<1.0	<1.0	281/296 ²	
07/22/99	86.36	74.06	12.30				<50	<0.5	<0.5	<0.5	<0.5	155	20
01/17/00	86.36	75.84	10.52		256 ¹	1,040	<50	<0.5	<0.5	< 0.5	< 0.5	104	

Former Chevron Service Station #9-1583

5509 Martin Luther King Way Oakland, California

<i>k</i>						Oakl	and, California	L					
WELL ID/	ТОС	GWE	DTW	SPHT	TPH-DRO	TPH-MO	TPH-GRO	В	T	E	x	MTBE	TOG
DATE	(fl.)	(msl)	(ft,)	(ft.)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
MW-7 (cont)	ł												
07/05/00	86.36	74.23	12.13	0.00		1,400 ⁴	<50	<0.50	< 0.50	<0.50	< 0.50	110	
01/15/01	86.36	75.23	11.13	0.00		2,700	<50.0	< 0.500	< 0.500	< 0.500	< 0.500	84.3	
07/03/01	86.36	74.47	11.89	0.00		760 ⁷	<50	< 0.50	<0.50	< 0.50	<0.50	27	
02/28/02	86.36	75.26	11.10	0.00		<1,000	<50	< 0.50	< 0.50	<0.50	<1.5	66	
07/08/02	86.36	74.05	12.31	0.00		1,400	<50	< 0.50	< 0.50	< 0.50	<1.5	49	
01/01/03	86.36	76.65	9.71	0.00		1,300	<50	< 0.50	< 0.50	< 0.50	<1.5	35	
07/14/03 ⁸	86.36	74.01	12.35	0.00		130	<50	< 0.5	<0.5	<0.5	<0.5	20	
01/12/04 ⁸	86.36	75.66	10.70	0.00		250	<50	<0.5	<0.5	<0.5	<0.5	23	
07/27/04 ⁸	86.36	74.08	12.28	0.00		730	<50	<0.5	<0.5	<0.5	< 0.5	44	
01/25/058	86.36	75.56	10.80	0.00		980	<50	< 0.5	<0.5	<0.5	<0.5	34	
07/26/05 ⁸	86.36	73.69	12.67	0.00		1,100	<50	< 0.5	<0.5	< 0.5	<0.5	19	-
01/24/068	86.36	75.60	10.76	0.00		230	<50	< 0.5	<0.5	<0.5	<0.5	18	
07/25/068	86.36	74.17	12.19	0.00		160	<50	< 0.5	<0.5	<0.5	<0.5	19	
01/23/078	86.36	74.60	11.76	0.00		2,100	<50	< 0.5	<0.5	<0.5	<0.5	15	
07/24/07 ⁸	86.36	73.91	12.45	0.00		3,100	<50	<0.5	<0.5	<0.5	<0.5	24	
01/22/088	86.36	75.36	11.00	0.00		4,400	<50	< 0.5	<0.5	<0.5	<0.5	12	
07/22/08 ⁸	86.36	73.38	12.98	0.00		200	<50	<0.5	<0.5	<0.5	<0.5	25	
01/13/09 ⁸	86.36	73.85	12.51	0.00		1,400	<50	<0.5	<0.5	<0.5	<0.5	7	
07/14/09 ⁸	86.36	73.18	13.18	0.00		1,000	<50	<0.5	<0.5	< 0.5	<0.5	10	
01/12/10 ⁸	86.36	75.01	11.35	0.00		1,500	<50	<0.5	<0.5	<0.5	<0.5	5	
07/13/10 ⁸	86.36	73.72	12.64	0.00		1,100	<50	<0.5	<0.5	<0.5	<0.5	4	
01/25/118	86.36	75.30	11.06	0.00		2,300	<50	<0.5	<0.5	< 0.5	<0.5	2	
07/12/11 ⁸	86.36	74.61	11.75	0.00		1,800	<50	<0.5	<0.5	<0.5	<0.5	2	
M337 O													
MW-8 03/08/94	85.93	75.06	10.97		~10	-100	00 000						
03/08/94	85.93		10.87		<10	<100	28,000	2,900	1,300	1,200	6,800		
08/04/94	85.93 85.93												
10/05/94	85.93 85.93	73.77	12.16				22,000	3,000	260	870	4,400		
01/18/95		72.71	13.22				12,000	1,800	34	4.6	890		
01/18/95	85.93	75.51	10.42				19,000	1,000	65	1,100	3,500		
04/07/95	85.93	75.48	10.45			20	14,000	310	<25	720	1,700		
	85.93	74.30	11.63				19,000	280	<50	1,200	2,600		<u></u>
10/11/95 01/17/96	85.93	73.51	12.42				6,100	140	5.5	320	280	1,200	
01/1//96 04/05/96	85.93	75.95	9.98			<500	12,000	86	<20	590	1,400	1,100	
04/03/90	85.93	75.60	10.33			<500	7,500	180	23	410	480	560	

Table 1 Groundwater Monitoring Data and Analytical Results

Former Chevron Service Station #9-1583

5509 Martin Luther King Way

							in Luther King and, California	Way					
WELL ID/	ТОС	GWE	DTW	SPHT	TPH-DRO	TPH-MO	TPH-GRO	B		Ē	x	MTBE	TOG
DATE	(ft.)	(msl)	(ft,)	(ft.)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
MW-8 (cont))												
07/23/96	85.93	74.56	11.37			<500	3,800	47	<5.0	350	84	1,800	
10/02/96	85.93	73.90	12.03			<500	4,400	65	<5.0	140	28	1,500	
01/23/97	85.93	77.73	8.20			<500	3,800	36	5.9	140	36	910	
04/01/97	85.93	75.80	10.13			<500	6,100	43	<20	380	76	1,800	
07/09/97	85.93	73.77	12.16			<500	7,300	48	<25	120	<25	2,400	
10/07/97	85.93	73.77	12.16			<500	3,100	<10	<10	67	<10	1,400	
01/22/98	85.93	75.83	10.10			<500	1,900	5.5	8.3	120	17	780	
04/02/98	85.93	75.55	10.38			<500	2,900	43	19	110	<10	800	
07/02/98	85.93	74.78	11.15			<500	5,000	31	<10	120	15	780	
10/02/98	85.93	74.03	11.90			$1,200^{1}$	2,200	6.5	<0.5	21	2.6	140	
01/18/99	85.93	75.12	10.81		554	<250	2,870	<5.0	<5.0	9.02	<5.0	476/478 ²	
07/22/99	85.93	74.38	11.55				2,190	<1.0	<1.0	3.51	1.61	228	
01/17/00	85.93	75.06	10.87		955 ¹	<500	1,220	1.3	1.56	1.56	1.87	344	
07/05/00	85.93	74.55	11.38	0.00		260 ⁵	$1,900^{3}$	15	6.6	<5.0	<5.0	170	
01/15/01	85.93	75.59	10.34	0.00		<250	2,820	<1.00	<1.00	5.13	3.90	110	
07/03/01	85.93	74.77	11.16	0.00		<250	$1,900^{3}$	6.0	<5.0	<5.0	<5.0	46	
02/28/02	85.93	75.26	10.67	0.00		<1,000	1,500	4.6	<2.0	0.80	2.2	56	
07/08/02	85.93	74.30	11.63	0.00		<400	2,500	4.2	0.85	0.68	2.5	46	
01/01/03	85.93	76.01	9.92	0.00		<400	1,300	2.1	0.66	1.1	2.1	45	
07/14/03 ⁸	85.93	74.27	11.66	0.00		160	1,900	< 0.5	<0.5	<0.5	<0.5	58	
01/12/04 ⁸	85.93	75.92	10.01	0.00		<40	1,400	<0.5	<0.5	<0.5	<0.5	110	
07/27/04 ⁸	85.93	74.33	11.60	0.00		<40	1,100	< 0.5	<0.5	<0.5	<0.5	89	
01/25/05 ⁸	85.93	75.96	9.97	0.00		130	900	<0.5	<0.5	<0.5	<0.5	52	
07/26/05 ⁸	85.93	74.08	11.85	0.00		99	580	<0.5	<0.5	<0.5	<0.5	23	
01/24/06 ⁸	85.93	76.06	9.87	0.00		69	620	<0.5	<0.5	<0.5	< 0.5	31	
07/25/06 ⁸	85.93	74.77	11.16	0.00		<40	420	<0.5	<0.5	<0.5	<0.5	20	
01/23/07 ⁸	85.93	74.78	11.15	0.00		200	710	<0.5	<0.5	<0.5	<0.5	26	
07/24/07 ⁸	85.93	74.15	11.78	0.00		730	560	<0.5	<0.5	<0.5	<0.5	30	
01/22/088	85.93	75.59	10.34	0.00		500	520	<0.5	<0.5	<0.5	<0.5	27	
0 - 10 - 10 - 8	05.03	72.07	10.05	0.00									

85.93

85.93

85.93

85.95

85.95

85.95

85.95

73.86

74.35

73.68

75.50

74.33

75.88

75.25

12.07

11.58

12.25

10.45

11.62

10.07

10.70

0.00

0.00

0.00

0.00

0.00

0.00

0.00

07/22/08⁸

01/13/09⁸

07/14/09⁸

01/12/10⁸

07/13/10⁸

01/25/118

07/12/11⁸

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21

14

10

8

6

4

3

< 0.5

< 0.5

< 0.5

< 0.5

< 0.5

< 0.5

<0.5

330

360

500

370

260

200

120

< 0.5

< 0.5

< 0.5

< 0.5

< 0.5

< 0.5

<0.5

< 0.5

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< 0.5

<0.5

90

62

90

100

73

<40

56

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Former Chevron Service Station #9-1583

5509 Martin Luther King Way Oakland California

						Oakl	and, California	1					
WELL ID/	ТОС	GWE	DTW	SPHT	TPH-DRO	TPH-MO	TPH-GRO	В	Т	E	X	MTBE	TOG
DATE	(ft.)	(msl)	(ft.)	(ft.)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
TRIP BLAN	к												
03/12/90							<50	< 0.3	< 0.3	< 0.3	<0.6		
02/08/91							<50	< 0.5	<0.5	<0.5	<0.5		
05/08/91							<50	<0.5	<0.5	<0.5	<0.5		
08/12/91							<50	<0.5	<0.5	<0.5	<0.5		
11/07/91							<50	<0.5	<0.5	<0.5	<0.5		
02/05/92							<50	<0.5	<0.5	<0.5	<0.5		
05/13/92							<50	<0.5	<0.5	<0.5	<0.5		
07/17/92							<50	<0.5	<0.5	< 0.5	<0.5		
10/05/92							<50	<0.5	<0.5	<0.5	<0.5		
11/11/92													
11/17/92													
11/29/92													
12/01/92													
12/29/92													
01/05/93													
01/08/93							<50	<0.5	< 0.5	<0.5	<0.5		
02/02/93													
04/14/93							<50	<0.5	<0.5	<0.5	<0.5		
08/06/93							<50	<0.5	<0.5	<0.5	<0.5		
10/21/93							<50	<0.5	<0.5	<0.5	<0.5		
01/05/94							<50	<0.5	<0.5	<0.5	<0.5		
04/08/94							<50	<0.5	<0.5	<0.5	<0.5		
07/06/94							<50	<0.5	< 0.5	<0.5	<0.5		
08/04/94							<50	<0.5	<0.5	<0.5	<0.5		
10/05/94							<50	<0.5	<0.5	<0.5	<0.5		
01/18/95							<50	<0.5	<0.5	<0.5	<0.5		
04/07/95							<50	<0.5	<0.5	<0.5	<0.5		
07/06/95							<50	<0.5	< 0.5	<0.5	< 0.5		
10/11/95							<50	<0.5	<0.5	< 0.5	<0.5	<2.5	
01/17/96							<50	< 0.5	<0.5	<0.5	<0.5		
04/05/96							<50	<0.5	<0.5	<0.5	<0.5	<2.5	
07/23/96							<50	<0.5	<0.5	< 0.5	<0.5	<2.5	
10/02/96							<50	<0.5	<0.5	< 0.5	<0.5		
01/23/97							<50	<0.5	<0.5	< 0.5	<0.5	<2.5	
04/01/97							<50	<0.5	<0.5	< 0.5	<0.5	<2.5	
07/09/97							<50	<0.5	<0.5	< 0.5	<0.5	<2.5	

Table 1 Groundwater Monitoring Data and Analytical Results Former Chevron Service Station #9-1583

5509 Martin Luther King Way

	_					Oakl	and, California						
WELL ID/	тос	GWE	DTW	SPHT	TPH-DRO	TPH-MO	TPH-GRO	В	T	E	X	MTBE	TOG
DATE	(ft.)	(msl)	(ft.)	(ft.)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
TRIP BLANK	K (cont)												
10/07/97					- See	-	<50	<0.5	<0.5	<0.5	<0.5	<2.5	
01/22/98	**	-		1.÷			<50	<0.5	<0.5	<0.5	<0.5	<2.5	÷*.
04/02/98			-				<50	<0.5	<0.5	<0.5	<0.5	<2.5	
07/02/98	44	-					<50	<0.5	<0.5	<0.5	<0.5	<2.5	-
10/02/98							<50	<0.5	<0.5	<0.5	<1.5	<2.5	
01/18/99			44	-	1 mar.	-	<50	<0.5	<0.5	<0.5	<0.5	<2.0	
07/05/00		1.52					<50	< 0.50	<0.50	<0.50	<0.50	<2.5	
01/15/01			-			-	<50.0	<0.500	< 0.500	<0.500	< 0.500	<2.50	
07/03/01							<50	<0.50	<0.50	<0.50	< 0.50	<2.5	-
QA													
02/28/02			÷		1	-	<50	<0.50	<0.50	<0.50	<1.5	<2.5	
07/08/02							<50	<0.50	<0.50	<0.50	<1.5	<2.5	
01/01/03	÷	÷+-					<50	<0.50	<0.50	<0.50	<1.5	<2.5	-
07/14/03 ⁸	-	-					<50	<0.5	<0.5	<0.5	<0.5	<0.5	
01/12/048	-						<50	<0.5	<0.5	<0.5	<0.5	<0.5	
07/27/048	-		**				<50	<0.5	<0.5	<0.5	<0.5	<0.5	
01/25/058		(m)	-	-		*	<50	<0.5	<0.5	<0.5	<0.5	<0.5	-
07/26/058	-	-			10 - 1	÷.	<50	<0.5	<0.5	<0.5	<0.5	<0.5	
01/24/068		֥.		- 6		÷	<50	<0.5	<0.5	<0.5	<0.5	<0.5	
07/25/068	÷						<50	<0.5	<0.5	<0.5	<0.5	<0.5	
01/23/078	-						<50	<0.5	<0.5	<0.5	<0.5	<0.5	
07/24/078	-	<u>~</u>	1.000				<50	<0.5	<0.5	<0.5	<0.5	<0.5	
01/22/088		-		80		-99	<50	<0.5	<0.5	<0.5	<0.5	<0.5	
07/22/088							<50	<0.5	<0.5	<0.5	<0.5	<0.5	
01/13/09 ⁸				÷.			<50	<0.5	<0.5	<0.5	<0.5	<0.5	-
07/14/09 ⁸ DESTROYED		-	-	÷	÷	*	<50	<0.5	<0.5	<0.5	<0.5	<0.5	

EXPLANATIONS:

Groundwater monitoring data and laboratory analytical results prior to July 5, 2000, were compiled from reports prepared by Blaine Tech Services, Inc.

TOC = Top of Casing	DRO = Diesel Range Organics
(ft.) = Feet	MO = Motor Oil
GWE = Groundwater Elevation	GRO = Gasoline Range Organics
(msl) = Mean sea level	B = Benzene
DTW = Depth to Water	T = Toluene
SPHT = Separate Phase Hydrocarbon Thickness	E = Ethylbenzene
TPH = Total Petroleum Hydrocarbons	X = Xylenes

MTBE = Methyl Tertiary Butyl Ether TOG = Total Oil & Grease (μg/L) = Micrograms per liter -- = Not Measured/Not Analyzed QA = Quality Assurance/Trip Blank

- * TOC elevations were surveyed on October 27, 2009, by Virgil Chavez Land Surveying. The benchmark for this survey was a cut square on top of easterly curb of Broadway, opposite 5718 Broadway. Benchmark Elevation = 180.06 feet. Vertical Datum is NGVD 29 from GPS observations.
- ¹ Laboratory report indicates an unidentified hydrocarbon.

² Confirmation run.

- ³ Laboratory report indicates gasoline C6-C12.
- ⁴ Laboratory report indicates motor oil C16-C36.
- ⁵ Laboratory report indicates unidentified hydrocarbons C9-C24.
- ⁶ Laboratory report indicates hydrocarbon pattern is present in the requested fuel quantitation range but does not resemble the pattern of the requested fuel. The pattern more closely resembles that of a heavier fuel.
- ⁷ Laboratory report indicates unidentified hydrocarbons >C16.
- ⁸ BTEX and MTBE by EPA Method 8260.

Table 2 Groundwater Analytical Results - Oxygenate Compounds Former Chevron Service Station #9-1583

5509 Martin Luther King Way Oakland, California											
WELL ID	DATE	ETHANOL (µg/L)	ТВА (µg/L)	МТВЕ (µg/L)	DIPE (µg/L)	ЕТВЕ (µg/L)	ТАМЕ (µg/L)				
MW-1	07/14/03	<50	(5	-	-					
	01/12/04	<50		61							
	07/27/04	<50	*	54							
	01/25/05	<50	. 	5		14					
	07/26/05	<50		25	- 22						
	01/24/06	<50	1946 (L. 1946)	25							
	07/25/06	<50		14		<u></u>					
	01/23/07	<50		17		1.44					
	07/24/07	<50		7		-	φ.				
	01/22/08	<50		8	-	-					
	07/22/08	<50		<0.5							
	01/13/09	<50	-	2							
	01/12/10		+-	15	1000		-				
	01/25/11			5			1. mar 1				
4W-2	07/14/03	<50		<0.5	0 .1		-				
	01/12/04	<50	-	<0.5			· · · ·				
	07/27/04	<50		<0.5	-		-				
	01/25/05	<50	-	<0.5	÷		<u>.</u>				
	07/26/05	<50		<0.5		-					
	01/24/06	<50		<0.5							
	07/25/06	<50		<0.5							
	01/23/07	<50		<0.5		(m)					
	07/24/07	<50		<0.5			-				
	01/22/08	<50		<0.5	1 (<u>1</u>						
	07/22/08	<50		2							
	01/13/09	<50	1.14	<0.5	<u>.</u>		-				
	01/12/10			<0.5							
	01/25/11			<0.5							
TW-3	07/14/03	<50	-	43	1						
	01/12/04	<50		2							
	07/27/04	<50		41		(1	-				
	01/25/05	<50		27	-	-					
	07/26/05	<50	-	12		••					

	Groundwater Analytical Results - Oxygenate Compounds Former Chevron Service Station #9-1583 5509 Martin Luther King Way Oakland, California											
WELL ID	DATE	ETHANOL (µg/L)	ΤΒΑ (μg/L)	, МТВЕ (µg/L)	DIPE (µg/L)	ЕТВЕ (µg/L)	TAME (µg/L)					
MW-3 (cont)	01/24/06	<50	-	0.8								
	07/25/06	<50		23								
	01/23/07	<50		2		- 6 .						
	07/24/07	<50		20		(m)						
	01/22/08	<50	÷- 0	<0.5		-						
	07/22/08	<50	44.11	7			-					
	01/13/09	<50		10								
	01/12/10	2		14	-	- 1						
	01/25/11	-		4	÷.	- 1 1 1	-					
	0.511.410.0											
MW-4	07/14/03	SAMPLED ANNUALLY					C ++-					
	01/12/04	<50	12	<0.5	-							
	01/25/05	<50		<0.5		÷.						
	01/24/06	<50		<0.5			0.00					
	01/23/07	<50		<0.5	-							
	01/22/08	<50		<0.5	-	-						
	01/13/09	<50		<0.5	-							
	01/12/10			<0.5								
	01/25/11	-		<0.5		÷.	1. 1 .					
MW-5	07/14/03	SAMPLED ANNUALLY			2	- 2-						
	01/12/04	<50		<0.5	-							
	01/25/05	<50		<0.5								
	01/24/06	<50		<0.5	-	2.						
	01/23/07	INACCESSIBLE - VEHICLE	PARKED OVER W			-						
	01/22/08	<50		<0.5								
	01/13/09	<50		<0.5			-					
	01/12/10			<0.5		-						
	01/25/11			<0.5	-	-						
MW-6	07/14/03	SAMPLED ANNUALLY					÷					
	01/12/04	<50	44 -	25		-0						
	01/25/05	<50		3			-					
	01/24/06	<50		<0.5	-	()	-					

Table 2

Former Chevron Service Station #9-1583 5509 Martin Luther King Way Oakland, California											
WELL ID	DATE	ETHANOL (µg/L)	ТВА (µg/L)	МТВЕ (µg/l.)	DIPE (µg/L)	ETBE (µg/L)	ТАМЕ (µg/L)				
MW-6 (cont)	01/23/07	<50		8	-						
	01/22/08	<50		4	÷-						
	01/13/09	<50	+	6		0 9 111	0.00				
	01/12/10		8	<0.5							
	01/25/11		- - -	<0.5		1					
MW- 7	07/14/03	<50	-	20		-					
	01/12/04	<50	-	27	<u> </u>	-					
	07/27/04	<50	÷-0	44		<u> </u>					
	01/25/05	<50		34	<u>.</u>	144					
	07/26/05	<50		19							
	01/24/06	<50		18		4.0					
	07/25/06	<50		19	4						
	01/23/07	<50	-	15							
	07/24/07	<50		24							
	01/22/08	<50	-	12		<u> </u>					
	07/22/08	<50	÷	25		44					
	01/13/09	<50		7							
	07/14/09			10							
	01/12/10	-		5	61						
	07/13/10			4	- (- Cali				
	01/25/11			2	- 40 M	-					
	07/12/11	-	-	2	-	.	÷				
MW-8	07/14/03	<50		58	4	2	1.15				
	01/12/04	<50		110							
	07/27/04	<50		89	(++)						
	01/25/05	<50	144.0	52	-	-					
	07/26/05	<50		23							
	01/24/06	<50		31							
	07/25/06	<50		20	-						
	01/23/07	<50		26	-						
	07/24/07	<50		30	Gu						
	01/22/08	<50	-	27		-					
	07/22/08	<50	-	21		-					

 Table 2

 Groundwater Analytical Results - Oxygenate Compounds

Groundwater Analytical Results - Oxygenate Compounds Former Chevron Service Station #9-1583 5509 Martin Luther King Way Oakland, California										
WELL ID	DATE	ETHANOL (µg/L)	ТВА (µg/L)	МТВЕ <i>(µg/L)</i>	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)			
MW-8 (cont)	01/13/09	<50		14						
	07/14/09	(m)		10	-	1.000				
	01/12/10		· · · ·	8						
	07/13/10	÷.	÷.	6						
	01/25/11			4						
	07/12/11		-	3	-	<u></u>				

EXPLANATIONS:

TBA = t-Butyl alcohol MTBE = Methyl Tertiary Butyl Ether DIPE = di-Isopropyl ether ETBE = Ethyl t-butyl ether

TAME = t-Amyl methyl ether (μ g/L) = Micrograms per liter -- = Not Analyzed

ANALYTICAL METHODS:

EPA Method 8260 for Oxygenate Compounds

STANDARD OPERATING PROCEDURE -GROUNDWATER SAMPLING

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

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

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

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

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

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



Client/Facility#:	Chevron #9	-1583		Job Number:	386506	
Site Address:	5509 Martin	Luther I	King Way	Event Date:	M/12/1	(inclusive)
City:	Oakland, C			Sampler:	HAIG K.	(
Well ID	MW-		[Date Monitored:	7/12/11	
Well Diameter	2 <i>1</i> (3) i	n.	Volum	ne 3/4"= 0.(0.00]
Total Depth	19.131	t.	Factor		-	= 0.38 = 5.80
Depth to Water	9.551	t. 🗋	Check if water colum	n is less then 0.5		
Depth to Mater	10.18	_xVF	=	x3 case volume j	Estimated Purge Volume:	A gal.
Depth to vvater	w/ 80% Recharg	e [(Height of	Water Column x 0.20) +	+ DTW]:N	Time Started:	
Purge Equipment:			Sampling Equipment:		Time Completed:	(2400 hrs) (2400 hrs)
Disposable Bailer			Disposable Bailer		Depth to Product:	(2100 ft
Stainless Steel Baile			ressure Bailer		Depth to Water:	ft
Stack Pump	/		Discrete Bailer		Hydrocarbon Thickness: Visual Confirmation/Descrip	
Suction Pump			Peristaltic Pump		visual Contirmation/Descrip	puon:
Grundfos			ED Bladder Pump		Skimmer / Absorbant Sock	(circle one)
Peristaltic Pump)ther:		Amt Removed from Skimme	
QED Bladder Pump			A. /		Amt Removed from Well: Water Removed:	gal
Other:			M / O		Product Transferred to:	
Start Time (purge Sample Time/Da Approx. Flow Ra Did well de-water	te: N/A /	_gpm. yes, Time	Weather Cor Water Color: Sediment De	scription:	CLOUDY Odor: Y / N gal. DTW @ Sampling:	N/A
Time (2400 hr.)	Volume (gal.)	рН	Conductivity (μmhos/cm - μS)	Temperature (C/F)	D.O. ORP (mg/L) (mV)	ę a
	\leq					
			/			
F			ABORATORY IN	FORMATION		
SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES	
MW-	x voa vial x 1 liter ambers	YES	HCL NP	LANCASTER	TPH-GRO(8015)/BTEX+MTBE(82	60)
	A Tinter ampers	100	NP	LANCASTER	ТРН-МО (8015)	
		4				
<u>├</u>						
COMMENTS:	M /	0	·			

Add/Replaced Bolt:



Client/Facility#:	Chevron #9-1583	Job Number:	386506
Site Address:	5509 Martin Luther King Way	Event Date:	12/12 (inclusive)
City:	Oakland, CA	Sampler:	HAIG K.
Well ID Well Diameter Total Depth Depth to Water Depth to Water w Purge Equipment: Disposable Bailer Stainless Steel Bailer Stack Pump Suction Pump Grundfos Peristaltic Pump QED Bladder Pump Other:	xVF = w/ 80% Recharge [(Height of Water Column x) Sampling Equip Disposable Bailer Pressure Bailer Discrete Bailer Peristaltic Pump QED Bladder Pu Other:	oment:	5"= 1.02 6"= 1.50 12"= 5.80 ft.
Start Time (purge) Sample Time/Dat Approx. Flow Rate Did well de-water Time (2400 hr.)	e: ////////////////////////////////////	Color:(ent Description: Volume:ga	Ddor: Y / N al. DTW @ Sampling: D.O. ORP (mg/L) (mV)

SAMPLE ID	(#) CONTAINER	REEDIO	ABORATORY IN		
		REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-	x voa vial	YES	HCL	LANCASTER	TPH-GRO(8015)/BTEX+MTBE(8260)
	x 1 liter ambers	TES	NP	LANCASTER	TPH-MO (8015)
100					
	AA LA				
MMENTS:					

Add/Replaced Lock: _____

Add/Replaced Bolt: _____



Client/Facility#	Chevron #	9-1583		Job Number:	386506
Site Address:	5509 Martin	Luther	King Way	Event Date:	7/12/11 (inclusive)
City:	Oakland, C			Sampler:	HAIG K.
Well ID Well Diameter Total Depth Depth to Water Depth to Water Purge Equipment: Disposable Bailer Stainless Steel Bailer Stack Pump Suction Pump Grundfos Peristaltic Pump QED Bladder Pump	19.48 11.15 8.33 w/ 80% Recharg	XVF Je [(Height of [[[[F C C C	Check if water colui	or (VF) 4"= 0. nn is less then 0.5 _ x3 case volume + DTW]:	02 1"= 0.04 2"= 0.17 3"= 0.38 66 5"= 1.02 6"= 1.50 12"= 5.80 50 ft. = Estimated Purge Volume: N/A gal. A Time Started: (2400 hrs) Time Completed: (2400 hrs) Depth to Product: ft Depth to Water: ft Hydrocarbon Thickness: ft Visual Confirmation/Description: ft Skimmer / Absorbant Sock (circle one) Amt Removed from Skimmer: gal
Other:			M /	0	Water Removed: Product Transferred to:
Start Time (purge Sample Time/Da Approx. Flow Ra Did well de-wate		_gpm. f yes, Time	Weather Co Water Color Sediment D :Volu	escription:	CLOUDY Odor: Y / N gal. DTW @ Sampling:
Time (2400 hr.)	Volume (gal.)	рН	Conductivity (µmbos/cm - µS)	Temperature (C/F)	D.O. ORP (mg/L) (mV)
•			ABORATORY	FORMATION	
SAMPLE ID	(#) CONTAINER	REFRIG.	BRESERV. TYPE	LABORATORY	ANALYSES
MW-	x voa vial	YES	HCL	LANCASTER	TPH-GRO(8015)/BTEX+MTBE(8260)
	x 1 liter ambers	YES	NP	LANCASTER	TPH-MO (8015)
<u>├</u> ───					
				l	

COMMENTS:

_

Add/Replaced Bolt: _____



Client/Facility#:	Chevron #9-1583	Job Number:	386506
Site Address:	5509 Martin Luther King Way	- Event Date:	7/12/11 (inclusive)
City:	Oakland, CA	- Sampler:	HAIG-K.
Well ID Well Diameter Total Depth Depth to Water Depth to Water Depth to Water Purge Equipment: Disposable Bailer Stainless Steel Bailer Stack Pump Suction Pump Grundfos Peristaltic Pump QED Bladder Pump Other:	19.46 ft. Factor 11.75 ft. Check if water colu xVF 1.74 = 1.33 w/ 80% Recharge [(Height of Water Column x 0.20] Sampling Equipment Disposable Bailer) + DTW]:	5"= 1.02 6"= 1.50 12"= 5.80
Start Time (purge Sample Time/Dat Approx. Flow Rat Did well de-water (2400 hr.)	te: 09257 1/12/11 Water Colo re:gpm. Sediment D	r: <u>CLOUD</u>	CLOUD Odor: () N <u>MODERATIE</u> SILT al. DTW @ Sampling: <u>12.62</u> D.O. ORP (mg/L) (mV)

		Ļ	ABORATORY IN	FORMATION	
SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-	6 x voa vial		HCL	LANCASTER	TPH-GRO(8015)/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	NP	LANCASTER	TPH-MO (8015)
/*					

COMMENTS:

Add/Replaced Lock: _____

Add/Replaced Bolt: _____



Client/Facility#:	Chevron #9-1583		Job Number:	386506	
Site Address:	5509 Martin Luther	r King Way	Event Date:	M/12/11	(inclusive)
City:	Oakland, CA		Sampler:	HAIG K.	(**********************************
Well ID Well Diameter Total Depth Depth to Water Depth to Water v Purge Equipment: Disposable Bailer Stainless Steel Bailer Stack Pump Suction Pump Grundfos Peristaltic Pump QED Bladder Pump Other:		Check if water column	VF) 4"= 0.66 is less then 0.50 x3 case volume = 1	5 5"= 1.02 6"= 1.50 12"= 5 ft.	gal. (2400 hrs) (2400 hrs) ft ft ft ft ft ft ft gal
Start Time (purge) Sample Time/Dat Approx. Flow Rate Did well de-water Time (2400 hr.) 0951 0951	e: 1010/1/12 e:gpm.	Sediment Des		CLOUDY Odor: ON MODE al. DTW @ Sampling: D.O (mg/L) ORP (mV)	RATE 1.36

LABORATORY INFORMATION											
(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES							
	YES	HCL	LANCASTER	TPH-GRO(8015)/BTEX+MTBE(8260)							
ax 1 liter ambers	YES	NP	LANCASTER	TPH-MO (8015)							
	(#) CONTAINER	(#) CONTAINER REFRIG.	(#) CONTAINER REFRIG. PRESERV. TYPE	(#) CONTAINER REFRIG. PRESERV. TYPE LABORATORY							

COMMENTS:

Add/Replaced Lock: _____ Add/Replaced Plug: _____ Add/Replaced Bolt: _____

Chevror	n Calitoi	rnic	a Re	g	<i>i</i> 0ľ	n A	Anc	aly	'SİS	; Re	eq	IUE	est/	'Cł	nain	of	Cu	stoc
Lancaster \$71211-2	RA MTI Proje		Acct. # 61 H-19		120	099		mple	#_6	aster 3 42 Requ	330	09-	les us /0	e only	Group	, <u>#</u> _0 ₹ <i>55</i>		708 ′3
Facility #: SS#9-1583 G-R#386506 Global ID#1060010 5509 MARTIN LUTHER KING WAY, OAKLAN Site Address: MTI CRA Chevron PM: G-R, inc., 6747 Lead Consultant: Consultant/Office:	ND, CA KJ Kiernan blin, CA 94568 om) 1-7899	Dotable	Trix	Number of Containers	+ MTBE 8260 🗙 8021 🗆 🕂	PRO 1	D DRO [_] Silica Gel Cleanup	attes	Method	Method /0.0	CINEN AV	3		N 9	$= HCI$ $= HNO_{2}$ $= H_{2}SO$ $J value r$	B B O O O O O O O O O O O O O O O O O O	= Thio: = NaO = Othe needed t detect comport mation hit by 8	sulfate PH er d tion iimits ounds 260
		Sol	vate Oil	OCOCTOTAI N	BTEX+A		17PH 8015 MO	ð	Total Lead	Dissolved Lead					Run	_ oxy's (_ oxy's (on high on all hi	est hit
Turnaround Time Requested (TAT) (please circle) STD_TAT 72 hour 4 day 5 day Data Package Options (please circle if required) EDF/EDD QC Summary Type I - Full Type VI (Raw Data) Coelt Deliverable not needed	Relinquished by: Relinquished by: Relinquished by: Relinquished by:	Comme							ime 1139 ime	Rec		by:	Jen Kar	2			Date Date	Time Time Time Time
WIP (RWQCB) Disk	UPS PI	on Rece		ther.	23.	3. 1	-			Qus	tody :	Seals	Intact?	>	fes No		1360	6460

Lancaster Laboratories, Inc., 2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 (717) 656-2300 Copies: White and yellow should accompany samples to Lancaster Laboratories. The pink copy should be retained by the client.

4804.01 (north) Rev. 10/12/06



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ANALYTICAL RESULTS

Prepared by:

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

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

July 21, 2011

Project: 91583

Submittal Date: 07/13/2011 Group Number: 1255943 PO Number: 91583 Release Number: MTI State of Sample Origin: CA RECEIVED

JUL 2 2 2011

GETTLER-RYAN INC. GENERAL CONTRACTORS

Client Sample Description MW-7-W-110712 Grab Water MW-8-W-110712 Grab Water Lancaster Labs (LLI) # 6342309 6342310

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

ELECTRONIC Gettler-Ryan, Inc. COPY TO ELECTRONIC Chevron c/o CRA COPY TO ELECTRONIC Chevron COPY TO Attn: Rachelle Munoz Attn: Report Contact Attn: Anna Avina





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

Respectfully Submitted,

Valena L. Tomayka Valeria L. Tomayka Principal Specialist



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Page 1 of 1

Sample Description: MW-7-W-110712 Grab Water LLI Sample # WW 6342309 Facility# 91583 Job# 386506 MTI# 61H-1960 GRD LLI Group # 1255943 5509 Martin Luther-Oakland T0600100348 MW-7 Account # 12099

Project Name: 91583

Collected: 07/12/2011 09:25 by HK

Submitted: 07/13/2011 09:50 Reported: 07/21/2011 16:51

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

15837

CAT No. Analysis Name		CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	SW-846	8260B	ug/l	ug/l	
10943 Benzene		71-43-2	N.D.	0.5	1
10943 Ethylbenzene		100-41-4	N.D.	0.5	1
10943 Methyl Tertiary E	utyl Ether	1634-04-4	2	0.5	1
10943 Toluene		108-88-3	N.D.	0.5	1
10943 Xylene (Total)		1330-20-7	N.D.	0.5	1
GC Volatiles	SW-846	8015B	ug/l	ug/l	
01728 TPH-GRO N. CA wat	er C6-C12	n.a.	N.D.	50	1
GC Extractable TPH	SW-846	8015B modified	ug/l	ug/l	
02500 Total TPH		n.a.	1,800	39	1
02500 TPH Motor Oil C16	-C36	n.a.	1,800	39	1
TPH quantitation is bas	sed on peak	area comparison of	the sample pattern to		-
that of a hydrocarbon of					

that of a hydrocarbon component mix calibration in a range that includes C8 (n-octane) through C40 (n-tetracontane) normal hydrocarbons.

General Sample Comments

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

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Tim	me	Analyst	Dilution Factor
10943	BTEX/MTBE 8260 Water	SW-846 8260B	1	F111992AA	07/18/2011	05:55	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F111992AA	07/18/2011	05:55	Anita M Dale	1
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	11199A07A	07/18/2011	11:12	Laura M Krieger	1
01146	GC VOA Water Prep	SW-846 5030B	1	11199A07A	07/18/2011	11:12	Laura M Krieger	1
02500	TPH Fuels by GC (Waters)	SW-846 8015B modified	1	111970002A	07/18/2011		Heather E Williams	1
11191	TPH Fuels Waters Extraction	SW-846 3510C	1	111970002A	07/17/2011	11:30	Kathryn I DeHaven	1



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Page 1 of 1

Sample Description: MW-8-W-1	.10712 Grab Water	LLI Sample # WW 6342310
Facility	r# 91583 Job# 386506 MTI# 61H-1960 GRD	LLI Group # 1255943
5509 Mar	tin Luther-Oakland T0600100348 MW-8	Account # 12099

Project Name: 91583

Collected: 07/12/2011 10:10 by HK

Submitted: 07/13/2011 09:50 Reported: 07/21/2011 16:51

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

15838

CAT No. Analysis Name		CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	SW-846	8260B	ug/l	ug/l	
10943 Benzene		71-43-2	N.D.	0.5	1
10943 Ethylbenzene		100-41-4	N.D.	0.5	1
10943 Methyl Tertiary B	utyl Ether	1634-04-4	3	0.5	1
10943 Toluene		108-88-3	N.D.	0.5	1
10943 Xylene (Total)		1330-20-7	N.D.	0.5	1
GC Volatiles	SW-846	8015B	ug/l	ug/l	
01728 TPH-GRO N. CA wat	er C6-C12	n.a.	120	50	1
GC Extractable TPH	SW-846	8015B modified	ug/l	ug/l	
02500 Total TPH		n.a.	56	38	1
02500 TPH Motor Oil C16	-C36	n.a.	56	38	1
TPH quantitation is bas that of a hydrocarbon of	ed on peak	area comparison of	the sample pattern to		*

that of a hydrocarbon component mix calibration in a range that includes C8 (n-octane) through C40 (n-tetracontane) normal hydrocarbons.

General Sample Comments

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

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	B	Analyst	Dilution Factor
10943	BTEX/MTBE 8260 Water	SW-846 8260B	1	F111992AA	07/18/2011 0	06:16	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F111992AA	07/18/2011 0		Anita M Dale	1
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	11199A07A	07/18/2011 1	11:38	Laura M Krieger	1
01146	GC VOA Water Prep	SW-846 5030B	1	11199A07A	07/18/2011 1		Laura M Krieger	1
02500	TPH Fuels by GC (Waters)	SW-846 8015B modified	1	111970002A	07/18/2011 2		Heather E Williams	1
11191	TPH Fuels Waters Extraction	SW-846 3510C	1	111970002A	07/17/2011 1	1:30	Kathryn I DeHaven	1



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Quality Control Summary

Client Name: Chevron c/o CRA Reported: 07/21/11 at 04:51 PM

Group Number: 1255943

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

Laboratory Compliance Quality Control

Analysis Name	Blank <u>Result</u>	Blank <u>MDL</u>	Report <u>Units</u>	LCS <u>%REC</u>	LCSD <u>%REC</u>	LCS/LCSD Limits	RPD	RPD Max
Batch number: F111992AA Benzene	Sample num N.D.	ber(s): 63						
Ethylbenzene	N.D.	0.5	ug/l	94		79-120		
Methyl Tertiary Butyl Ether	N.D.	0.5	ug/l ug/l	90 84		79-120 76-120		
Toluene	N.D.	0.5	ug/l	90		79-120		
Xylene (Total)	N.D.	0.5	ug/l	89		80-120		
Batch number: 11199A07A	Sample num	ber(s): 634	42309-6342	310				
TPH-GRO N. CA water C6-C12	N.D.	50.	ug/l	118	109	75-135	8	30
Batch number: 111970002A	Sample num			310				
Total TPH TPH Motor Oil C16-C36	N.D. N.D.	40. 40.	ug/l ug/l	95	104	60-120	9	20

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 <u>%REC</u>	MSD %REC	MS/MSD Limits	RPD	RPD <u>MAX</u>	BKG <u>Conc</u>	DUP <u>Conc</u>	DUP RPD	Dup RPD Max
Batch number: F111992AA	Sample	number(s): 6342309	-63423	10 UNSP	K: 6342310			
Benzene	96	96	80-126	0	30				
Ethylbenzene	96	95	71-134	1	30				
Methyl Tertiary Butyl Ether	85	85	72-126	0	30				
Toluene	92	92	80-125	0	30				
Xylene (Total)	92	92	79-125	0	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 Batch number: F111992AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene	
6342309	97	103	97	91	
6342310	98	102	98	96	
Blank	99	102	98	92	

*- Outside of specification

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

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





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Page 2 of 2

Quality Control Summary

	Name: Chevron ed: 07/21/11 a			Group	Number: 1255943
LCS MS MSD	97 97 98	104 105 103	Surrogate 97 98 97	Quality 97 101 99	Control
Limits:	80-116	77-113	80-113	78-113	
Analysis Batch nu	Name: TPH-GRO N. mber: 11199A07A Trifluorotoluene-F	CA water C6-C12			
6342309 6342310 Blank LCS LCSD	100 99 102 113 109				
Limits:	63-135		<u> </u>		
Analysis Batch nu	Name: TPH Fuels k mber: 111970002A Chlorobenzene	oy GC (Waters) Orthoterphenyl			
6342309	87	87			
6342310	116	104			
Blank	96	103			
LCS	116	109			
LCSD	103	118			
Limits:	28-152	52-131			

*- Outside of specification

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

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



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	Ĕ	degrees Fahrenheit
meq	milliequivalents	lb.	pound(s)
g	gram(s)	kg	kilogram(s)
ug	microgram(s)	mg	milligram(s)
mi	milliliter(s)	1	liter(s)
m3	cubic meter(s)	ul	microliter(s)

- < less than The number following the sign is the <u>limit of quantitation</u>, the smallest amount of analyte which can be reliably determined using this specific test.
- > greater than
- J estimated value The result is ≥ the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).
- ppm parts per million One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.
- ppb parts per billion
- Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

U.S. EPA CLP Data Qualifiers:

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 ≥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.

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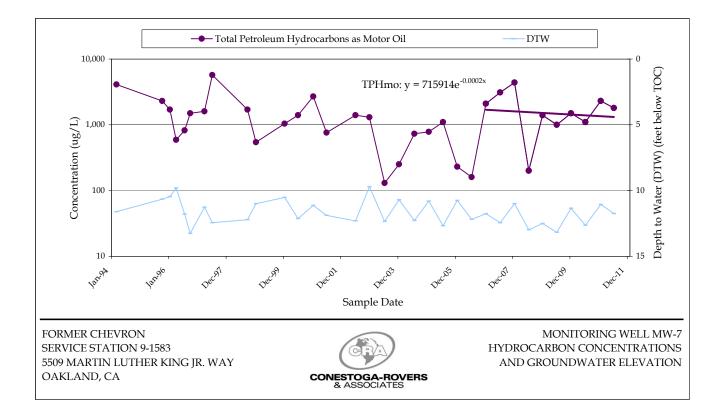
TREND GRAPHS AND DEGRADATION CALCULATIONS

Predicted Time to Reach TPHmo ESL in Well MW-7

$y = b e^{ax} \implies x = \ln(y/b) / a$ where: $y = \text{concentration in } \mu g/L$ a = decay constantb = concentration at time (x) x = time (x) in days

	Constituent	Total Petroleum Hydrocarbons as Motor Oil (TPHmo)
Given		
Environmental Screening Level (ESL):	у	100
Constant:	b	7.16E+05
Constant:	а	-1.55E-04
Starting date for current trend:		1/23/2007
Calculate		
Attenuation Half Life (years):	(-ln(2)/a)/365.25	12.27

Estimated Date to Reach ESL: $(x = \ln(y/b) / a)$



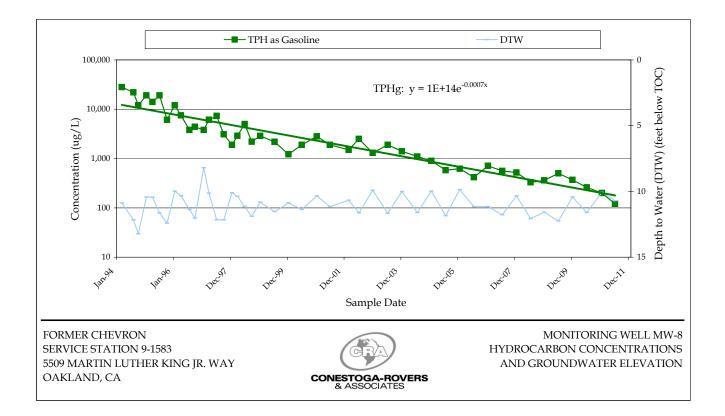
Feb 2057

Former Chevron Service Station 9-1583, 5509 Martin Luther King Jr. Way, Oakland, CA

Predicted Time to Reach TPHg ESL in Well MW-8

$y = b e^{ax}$	===>	$x = \ln(y/b) / a$					
where: $y = \text{concentration in } \mu g/L$ $a = \text{decay constant}$ $b = \text{concentration at time } (x)$ $x = \text{time } (x) \text{ in days}$							
Given	Constituent	Total Petroleum Hydrocarbons as Gasoline (TPHg)					
Environmental Screening Level (ESL): Constant: Constant: Starting date for current trend:	y b a	100 1.13E+14 -6.67E-04 3/8/1994					
Calculate Attenuation Half Life (years):	(-ln(2)/a)/365.25	2.85]				
Estimated Date to Reach ESL:	$(x = \ln(y/b) / a)$	Nov 2013]				

Former Chevron Service Station 9-1583, 5509 Martin Luther King Jr. Way, Oakland, CA



APPENDIX F

DOMENICO MODEL

DOMENICO MULTI-DIMENSIONAL ADVECTION-DISPERSION MODEL FOR BENZENE TRANSPORT¹

FORMER CHEVRON SERVICE STATION 9-1583

5509 MARTIN LUTHER KING JR. WAY, OAKLAND, CALIFORNIA

Source concentration	C_0	3,000	ppb
X axis dispersivity	α _x	0.10	ft
Y axis dispersivity	α _y	0.05	ft
Z axis dispersivity	α_z	0.01	ft
Groundwater seepage velocity	Vs	0.014	ft/day
Source dimension Y	Y	20	
Source dimension Z	Z	5	
First order attenuation rate	λ	0.00229	1/day
$[1-(1+(4\lambda \alpha_x/v_s))^{(1/2)}]$	[]	-0.0322	

Analytical Solution for Steady-State Concentration Along Downgradient Centerline¹:

$$C_{x} = C_{0} \operatorname{*exp} \left(\frac{x}{2a_{x}} \left[1 \cdot \left(1 + \frac{4\lambda a_{x}}{v_{x}} \right)^{1/2} \right] \right) \operatorname{*erf} \left[\frac{Y}{4} \left(a_{y} x \right)^{1/2} \right] \operatorname{*erf} \left[\frac{Z}{4} \left(a_{z} x \right)^{1/2} \right]$$

Distance Traveled from Source - x	<i>C_x</i> Concentration	Travel Time
(feet)	(ppb)	(years)
0	3000	0.0
5	1341	1.0
10	600	2.0
15	268	2.9
20	120	3.9
25	54	4.9
30	24	5.9
35	11	6.8
40	5	7.8
45	2	8.8
50	1	9.8
55	0	10.8
60	0	11.7
65	0	12.7
70	0	13.7
75	0	14.7
80	0	15.6
85	0	16.6
90	0	17.6
95	0	18.6
100	0	19.6

¹Domenico, P.A., 1987, An analytical model for multidimensional transport of a decaying contaminant species: Journal of Hydrology, v. 91; pp. 49-58.

APPENDIX G

SOIL VAPOR ANALYTICAL REPORT



7/7/2009 Ms. Lindsay Marsh Conestoga-Rovers Associates (CRA) 2000 Opportunity Drive Suite 110 Roseville CA 95678

Project Name: 9-1583 Oakland Project #: Workorder #: 0809246AR1

Dear Ms. Lindsay Marsh

The following report includes the data for the above referenced project for sample(s) received on 9/12/2008 at Air Toxics Ltd.

The data and associated QC analyzed by Modified TO-15 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Air Toxics Ltd. for you air analysis needs. Air Toxics Ltd. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Kelly Buettner at 916-985-1000 if you have any questions regarding the data in this report.

Regards,

Killy Butte

Kelly Buettner Project Manager



WORK ORDER #: 0809246AR1

Work Order Summary

CLIENT:	Ms. Lindsay Marsh	BILL TO:	Ms. Lindsay Marsh
	Conestoga-Rovers Associates (CRA)		Conestoga-Rovers Associates (CRA)
	2000 Opportunity Drive		2000 Opportunity Drive
	Suite 110		Suite 110
	Roseville, CA 95678		Roseville, CA 95678
PHONE:	916-677-3407 x123	P.O. #	
FAX:	916-677-3687	PROJECT #	9-1583 Oakland
DATE RECEIVED:	09/12/2008	CONTACT:	Kelly Buettner
DATE COMPLETED:	09/26/2008	connen	Kony Ducturer
DATE REISSUED:	07/07/2009		
			RECEIPT FINAL
FRACTION #	NAME	<u>TEST</u>	VAC./PRES. PRESSURE
01A	VP-5	Modified TO-1	5 2.5 "Hg 15 psi

01A	VP-5	Modified TO-15	2.5 "Hg	15 psi
02A	VP-4	Modified TO-15	2.5 "Hg	15 psi
02AA	VP-4 Lab Duplicate	Modified TO-15	2.5 "Hg	15 psi
03A	VP-1	Modified TO-15	4.0 "Hg	15 psi
04A	VP-2	Modified TO-15	5.5 "Hg	15 psi
05A	VP-3	Modified TO-15	5.5 "Hg	15 psi
06A	Dupe	Modified TO-15	4.0 "Hg	15 psi
07A	Lab Blank	Modified TO-15	NA	NĀ
07B	Lab Blank	Modified TO-15	NA	NA
07C	Lab Blank	Modified TO-15	NA	NA
08A	CCV	Modified TO-15	NA	NA
08B	CCV	Modified TO-15	NA	NA
08C	CCV	Modified TO-15	NA	NA
09A	LCS	Modified TO-15	NA	NA
09B	LCS	Modified TO-15	NA	NA
09C	LCS	Modified TO-15	NA	NA

CERTIFIED BY:

Sinda d. Fruman

DATE: <u>07/07/09</u>

Laboratory Director

Certification numbers: CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763, NJ NELAP - CA004 NY NELAP - 11291, UT NELAP - 9166389892, AZ Licensure AZ0719

Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,

Accreditation number: E87680, Effective date: 07/01/08, Expiration date: 06/30/09

Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

This report shall not be reproduced, except in full, without the written approval of Air Toxics Ltd.

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630 (916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020



LABORATORY NARRATIVE Modified TO-15 Std & Soil Gas Conestoga-Rovers Associates (CRA) Workorder# 0809246AR1

Six 1 Liter Summa Canister (100% Certified) samples were received on September 12, 2008. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the Full Scan mode. The method involves concentrating up to 1.0 liter of air. The concentrated aliquot is then flash vaporized and swept through a water management system to remove water vapor. Following dehumidification, the sample passes directly into the GC/MS for analysis.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

Method modifications taken to run these samples are summarized in the table below. Specific project requirements may over-ride the ATL modifications.

Requirement	TO-15	ATL Modifications
Daily CCV	+- 30% Difference	= 30% Difference with two allowed out up to </=40%.;<br flag and narrate outliers
Sample collection media	Summa canister	ATL recommends use of summa canisters to insure data defensibility, but will report results from Tedlar bags at client request
Method Detection Limit	Follow 40CFR Pt.136 App. B	The MDL met all relevant requirements in Method TO-15 (statistical MDL less than the LOQ). The concentration of the spiked replicate may have exceeded 10X the calculated MDL in some cases

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

The reported LCS from instrument MSD-W has been derived from more than one analytical file.

PER CLIENT REQUEST, THE WORK ORDER WAS RE-ISSUED ON 7/7/09 TO REPORT THE TOP TWENTY TENTATIVELY IDENTIFIED COMPOUNDS (TICS) AND THE PERCENTAGE OF ALIPHATIC AND AROMATIC COMPOUNDS FOR SAMPLES VP-5, VP-4 AND VP-2.

Definition of Data Qualifying Flags

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.



- E Exceeds instrument calibration range.
- S Saturated peak.
- Q Exceeds quality control limits.
- U Compound analyzed for but not detected above the reporting limit.
- UJ- Non-detected compound associated with low bias in the CCV
- N The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue



Summary of Detected Compounds MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: VP-5

Lab ID#: 0809246AR1-01A

TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount (ppbv)
Arsenous acid, tris(trimethylsilyl) este	55429-29-3	56%	47 N J
Cyclotetrasiloxane, octamethyl-	556-67-2	43%	980 N J
3-HYDROXYMANDELIC ACID ETHYL ESTER DITMS	0-00-0	72%	260 N J

Client Sample ID: VP-4

Lab ID#: 0809246AR1-02A

Compound	Rpt. Limit	Amount	Rpt. Limit	Amount
	(ppbv)	(ppbv)	(ug/m3)	(ug/m3)
2,2,4-Trimethylpentane	5.5	1100	26	5400

TENTATIVELY IDENTIFIED COMPOUNDS

			Amount
Compound	CAS Number	Match Quality	(ppbv)
Pentane, 2,4-dimethyl-	108-08-7	91%	260 N J
Pentane, 2,3-dimethyl-	565-59-3	59%	93 N J
Hexane, 2,5-dimethyl-	592-13-2	70%	110 N J
Hexane, 1-(hexyloxy)-2-methyl-	74421-17-3	64%	260 N J
Pentane, 2,2,3-trimethyl-	564-02-3	64%	130 N J
Pentane, 2,3,4-trimethyl-	565-75-3	91%	550 N J
Pentane, 2,3,3-trimethyl-	560-21-4	90%	850 N J
Hexane, 2,2,4-trimethyl-	16747-26-5	83%	2700 N J
Hexane, 2,3,3-trimethyl-	16747-28-7	78%	220 N J
Heptane, 2,3,5-trimethyl-	20278-85-7	83%	68 N J
Octane, 3-methyl-	2216-33-3	53%	130 N J
3-Heptene, 3-ethyl-	74764-46-8	78%	85 N J
Decane, 2,2,6-trimethyl-	62237-97-2	64%	130 N J
Unknown	NA	NA	130 J
Decane, 2,2,7-trimethyl-	62237-99-4	64%	220 N J
Octane, 3,3-dimethyl-	4110-44-5	83%	100 N J
Unknown	NA	NA	63 J
Octane, 2,2,6-trimethyl-	62016-28-8	83%	110 N J
Cyclotetrasiloxane, octamethyl-	556-67-2	86%	220 N J
3-HYDROXYMANDELIC ACID ETHYL ESTER DITMS	0-00-0	81%	100 N J



Summary of Detected Compounds MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: VP-4 Lab Duplicate

Lab ID#: 0809246AR1-02AA

Compound	Rɒt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
2,2,4-Trimethylpentane	5.5	1100	26	5000
т	ENTATIVELY IDEN	TIFIED COMPOUNDS		
				Amount
Compound		CAS Number	Match Quality	(ppbv)
Pentane, 2,4-dimethyl-		108-08-7	91%	250 N J
Pentane, 2,3-dimethyl-		565-59-3	91%	91 N J
Hexane, 2,5-dimethyl-		592-13-2	70%	110 N J
Hexane, 1-(hexyloxy)-2-methyl-		74421-17-3	64%	260 N J
Pentane, 2,2,3-trimethyl-		564-02-3	40%	120 N J
Pentane, 2,3,4-trimethyl-		565-75-3	91%	540 N J
Pentane, 2,3,3-trimethyl-		560-21-4	90%	830 N J
Hexane, 2,2,4-trimethyl-		16747-26-5	83%	2600 N J
Hexane, 2,3,3-trimethyl-		16747-28-7	78%	220 N J
Heptane, 2,3,5-trimethyl-		20278-85-7	64%	66 N J
Octane, 3-methyl-		2216-33-3	43%	130 N J
3-Heptene, 3-ethyl-		74764-46-8	72%	84 N J
Decane, 2,2,6-trimethyl-		62237-97-2	64%	130 N J
Unknown		NA	NA	130 J
Decane, 2,2,7-trimethyl-		62237-99-4	78%	210 N J
Octane, 3,3-dimethyl-		4110-44-5	74%	100 N J
Unknown		NA	NA	62 J
Octane, 2,2,6-trimethyl-		62016-28-8	72%	110 N J
Cyclotetrasiloxane, octamethyl-		556-67-2	47%	220 N J
3-HYDROXYMANDELIC ACID ETHYL ESTER DITMS		0-00-0	72%	100 N J

Client Sample ID: VP-1

Lab ID#: 0809246AR1-03A

No Detections Were Found.

Client Sample ID: VP-2

Lab ID#: 0809246AR1-04A

Compound	Rpt. Limit	Amount	Rpt. Limit	Amount
	(ppbv)	(ppbv)	(ug/m3)	(ug/m3)
2,2,4-Trimethylpentane	16	3700	77	17000



Summary of Detected Compounds MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: VP-2

Lab ID#: 0809246AR1-04A

TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount (ppbv)
Pentane, 2,4-dimethyl-	108-08-7	91%	1300 N J
Pentane, 2,3-dimethyl-	565-59-3	80%	2000 N J
Hexane, 2,5-dimethyl-	592-13-2	70%	2300 N J
Hexane, 1,1'-oxybis-	112-58-3	78%	2900 N J
Cyclopentane, 1,2,4-trimethyl-, (1.alpha	4850-28-6	91%	1300 N J
Pentane, 2,3,4-trimethyl-	565-75-3	87%	4000 N J
Pentane, 2,3,3-trimethyl-	560-21-4	80%	7000 N J
Hexane, 3,4-dimethyl-	583-48-2	64%	2800 N J
Hexane, 2,2,5-trimethyl-	3522-94-9	83%	7800 N J
Unknown	NA	NA	860 J
Heptane, 2,5-dimethyl-	2216-30-0	90%	1000 N J
Unknown	NA	NA	690 J
Unknown	NA	NA	510 J
Hexane, 2,3,4-trimethyl-	921-47-1	78%	1000 N J
Decane, 2,5-dimethyl-	17312-50-4	72%	820 N J
Decane, 2,2,6-trimethyl-	62237-97-2	59%	680 N J
Heptane, 3,3,5-trimethyl-	7154-80-5	64%	630 N J
Heptane, 2,3,4-trimethyl-	52896-95-4	50%	710 N J
Nonane, 3-methyl-	5911-04-6	72%	510 N J
Nonane, 2-methyl-	871-83-0	64%	1000 N J

Client Sample ID: VP-3

Lab ID#: 0809246AR1-05A

No Detections Were Found.

Client Sample ID: Dupe

Lab ID#: 0809246AR1-06A

Compound	Rɒt. Limit	Amount	Rpt. Limit	Amount
	(ppbv)	(ppbv)	(ug/m3)	(ug/m3)
2,2,4-Trimethylpentane	24	4300	110	20000



Client Sample ID: VP-5 Lab ID#: 0809246AR1-01A MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name: Dil. Factor:	t092508R1 4.44	Date of Collection: 9/11/08 10:14:00 AM Date of Analysis: 9/25/08 12:53 PM		
Compound	Rot. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Methyl tert-butyl ether	2.2	Not Detected	8.0	Not Detected
Benzene	2.2	Not Detected	7.1	Not Detected
Toluene	2.2	Not Detected	8.4	Not Detected
Ethyl Benzene	2.2	Not Detected	9.6	Not Detected
m,p-Xylene	2.2	Not Detected	9.6	Not Detected
o-Xylene	2.2	Not Detected	9.6	Not Detected
tert-Butyl alcohol	8.9	Not Detected	27	Not Detected
1,2-Dibromoethane (EDB)	2.2	Not Detected	17	Not Detected
1,2-Dichloroethane	2.2	Not Detected	9.0	Not Detected
2,2,4-Trimethylpentane	2.2	Not Detected	10	Not Detected
Ethanol	8.9	Not Detected	17	Not Detected

TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount ((ppbv))
Arsenous acid, tris(trimethylsilyl) este	55429-29-3	56%	47 N J
Cyclotetrasiloxane, octamethyl-	556-67-2	43%	980 N J
3-HYDROXYMANDELIC ACID ETHYL ESTER DITMS	0-00-0	72%	260 N J

92% Aliphatic 8% Aromatic Container Type: 1 Liter Summa Canister (100% Certified)

		Method	
Surrogates	%Recovery	Limits	
Toluene-d8	96	70-130	
1,2-Dichloroethane-d4	86	70-130	
4-Bromofluorobenzene	105	70-130	



Client Sample ID: VP-4 Lab ID#: 0809246AR1-02A MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name: Dil. Factor:	t092424R1 11.0	Date of Collection: 9/11/08 10:56:00 AM Date of Analysis: 9/25/08 01:27 AM		
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Methyl tert-butyl ether	5.5	Not Detected	20	Not Detected
Benzene	5.5	Not Detected	18	Not Detected
Toluene	5.5	Not Detected	21	Not Detected
Ethyl Benzene	5.5	Not Detected	24	Not Detected
m,p-Xylene	5.5	Not Detected	24	Not Detected
o-Xylene	5.5	Not Detected	24	Not Detected
tert-Butyl alcohol	22	Not Detected	67	Not Detected
1,2-Dibromoethane (EDB)	5.5	Not Detected	42	Not Detected
1,2-Dichloroethane	5.5	Not Detected	22	Not Detected
2,2,4-Trimethylpentane	5.5	1100	26	5400
Ethanol	22	Not Detected	41	Not Detected

TENTATIVELY IDENTIFIED COMPOUNDS

			Amount
Compound	CAS Number	Match Quality	((ppbv))
Pentane, 2,4-dimethyl-	108-08-7	91%	260 N J
Pentane, 2,3-dimethyl-	565-59-3	59%	93 N J
Hexane, 2,5-dimethyl-	592-13-2	70%	110 N J
Hexane, 1-(hexyloxy)-2-methyl-	74421-17-3	64%	260 N J
Pentane, 2,2,3-trimethyl-	564-02-3	64%	130 N J
Pentane, 2,3,4-trimethyl-	565-75-3	91%	550 N J
Pentane, 2,3,3-trimethyl-	560-21-4	90%	850 N J
Hexane, 2,2,4-trimethyl-	16747-26-5	83%	2700 N J
Hexane, 2,3,3-trimethyl-	16747-28-7	78%	220 N J
Heptane, 2,3,5-trimethyl-	20278-85-7	83%	68 N J
Octane, 3-methyl-	2216-33-3	53%	130 N J
3-Heptene, 3-ethyl-	74764-46-8	78%	85 N J
Decane, 2,2,6-trimethyl-	62237-97-2	64%	130 N J
Unknown	NA	NA	130 J
Decane, 2,2,7-trimethyl-	62237-99-4	64%	220 N J
Octane, 3,3-dimethyl-	4110-44-5	83%	100 N J
Unknown	NA	NA	63 J
Octane, 2,2,6-trimethyl-	62016-28-8	83%	110 N J
Cyclotetrasiloxane, octamethyl-	556-67-2	86%	220 N J
3-HYDROXYMANDELIC ACID ETHYL ESTER DITMS	0-00-0	81%	100 N J

100% Aliphatic

Container Type: 1 Liter Summa Canister (100% Certified)



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Client Sample ID: VP-4 Lab ID#: 0809246AR1-02A MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

1

File Name: Dil. Factor: Surrogates	t092424R1 11.0		ion: 9/11/08 10:56:00 AM is: 9/25/08 01:27 AM
		%Recovery	Method Limits
Toluene-d8		102	70-130
1,2-Dichloroethane-d4		107	70-130
4-Bromofluorobenzene		105	70-130



Client Sample ID: VP-4 Lab Duplicate Lab ID#: 0809246AR1-02AA MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name: Dil. Factor:	t092425R1 11.0	Date of Collection: 9/11/08 10:56:00 AM Date of Analysis: 9/25/08 02:06 AM		
Compound	Rɒt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Methyl tert-butyl ether	5.5	Not Detected	20	Not Detected
Benzene	5.5	Not Detected	18	Not Detected
Toluene	5.5	Not Detected	21	Not Detected
Ethyl Benzene	5.5	Not Detected	24	Not Detected
m,p-Xylene	5.5	Not Detected	24	Not Detected
o-Xylene	5.5	Not Detected	24	Not Detected
tert-Butyl alcohol	22	Not Detected	67	Not Detected
1,2-Dibromoethane (EDB)	5.5	Not Detected	42	Not Detected
1,2-Dichloroethane	5.5	Not Detected	22	Not Detected
2,2,4-Trimethylpentane	5.5	1100	26	5000
Ethanol	22	Not Detected	41	Not Detected

TENTATIVELY IDENTIFIED COMPOUNDS

			Amount
Compound	CAS Number	Match Quality	((ppbv))
Pentane, 2,4-dimethyl-	108-08-7	91%	250 N J
Pentane, 2,3-dimethyl-	565-59-3	91%	91 N J
Hexane, 2,5-dimethyl-	592-13-2	70%	110 N J
Hexane, 1-(hexyloxy)-2-methyl-	74421-17-3	64%	260 N J
Pentane, 2,2,3-trimethyl-	564-02-3	40%	120 N J
Pentane, 2,3,4-trimethyl-	565-75-3	91%	540 N J
Pentane, 2,3,3-trimethyl-	560-21-4	90%	830 N J
Hexane, 2,2,4-trimethyl-	16747-26-5	83%	2600 N J
Hexane, 2,3,3-trimethyl-	16747-28-7	78%	220 N J
Heptane, 2,3,5-trimethyl-	20278-85-7	64%	66 N J
Octane, 3-methyl-	2216-33-3	43%	130 N J
3-Heptene, 3-ethyl-	74764-46-8	72%	84 N J
Decane, 2,2,6-trimethyl-	62237-97-2	64%	130 N J
Unknown	NA	NA	130 J
Decane, 2,2,7-trimethyl-	62237-99-4	78%	210 N J
Octane, 3,3-dimethyl-	4110-44-5	74%	100 N J
Unknown	NA	NA	62 J
Octane, 2,2,6-trimethyl-	62016-28-8	72%	110 N J
Cyclotetrasiloxane, octamethyl-	556-67-2	47%	220 N J
3-HYDROXYMANDELIC ACID ETHYL ESTER DITMS	0-00-0	72%	100 N J

100% Aliphatic

Container Type: 1 Liter Summa Canister (100% Certified)



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Client Sample ID: VP-4 Lab Duplicate Lab ID#: 0809246AR1-02AA MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

1

File Name: Dil. Factor: Surrogates	t092425R1 11.0		ion: 9/11/08 10:56:00 AN is: 9/25/08 02:06 AM
		%Recovery	Method Limits
Toluene-d8		103	70-130
1,2-Dichloroethane-d4		102	70-130
4-Bromofluorobenzene		105	70-130



Client Sample ID: VP-1 Lab ID#: 0809246AR1-03A MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name: Dil. Factor:	t092507 4.71	Date of Collection: 9/11/08 11:41:00 AM Date of Analysis: 9/25/08 12:16 PM		
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Methyl tert-butyl ether	2.4	Not Detected	8.5	Not Detected
Benzene	2.4	Not Detected	7.5	Not Detected
Toluene	2.4	Not Detected	8.9	Not Detected
Ethyl Benzene	2.4	Not Detected	10	Not Detected
m,p-Xylene	2.4	Not Detected	10	Not Detected
o-Xylene	2.4	Not Detected	10	Not Detected
tert-Butyl alcohol	9.4	Not Detected	28	Not Detected
1,2-Dibromoethane (EDB)	2.4	Not Detected	18	Not Detected
1,2-Dichloroethane	2.4	Not Detected	9.5	Not Detected
2,2,4-Trimethylpentane	2.4	Not Detected	11	Not Detected
Ethanol	9.4	Not Detected	18	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

		Method
Surrogates	%Recovery	Limits
Toluene-d8	97	70-130
1,2-Dichloroethane-d4	84	70-130
4-Bromofluorobenzene	106	70-130



Client Sample ID: VP-2 Lab ID#: 0809246AR1-04A MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name: Dil. Factor:			of Collection: 9/11/08 1:32:00 PM of Analysis: 9/25/08 03:28 AM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Methyl tert-butyl ether	16	Not Detected	59	Not Detected
Benzene	16	Not Detected	52	Not Detected
Toluene	16	Not Detected	62	Not Detected
Ethyl Benzene	16	Not Detected	71	Not Detected
m,p-Xylene	16	Not Detected	71	Not Detected
o-Xylene	16	Not Detected	71	Not Detected
tert-Butyl alcohol	66	Not Detected	200	Not Detected
1,2-Dibromoethane (EDB)	16	Not Detected	130	Not Detected
1,2-Dichloroethane	16	Not Detected	66	Not Detected
2,2,4-Trimethylpentane	16	3700	77	17000
Ethanol	66	Not Detected	120	Not Detected

TENTATIVELY IDENTIFIED COMPOUNDS

			Amount
Compound	CAS Number	Match Quality	((ppbv))
Pentane, 2,4-dimethyl-	108-08-7	91%	1300 N J
Pentane, 2,3-dimethyl-	565-59-3	80%	2000 N J
Hexane, 2,5-dimethyl-	592-13-2	70%	2300 N J
Hexane, 1,1'-oxybis-	112-58-3	78%	2900 N J
Cyclopentane, 1,2,4-trimethyl-, (1.alpha	4850-28-6	91%	1300 N J
Pentane, 2,3,4-trimethyl-	565-75-3	87%	4000 N J
Pentane, 2,3,3-trimethyl-	560-21-4	80%	7000 N J
Hexane, 3,4-dimethyl-	583-48-2	64%	2800 N J
Hexane, 2,2,5-trimethyl-	3522-94-9	83%	7800 N J
Unknown	NA	NA	860 J
Heptane, 2,5-dimethyl-	2216-30-0	90%	1000 N J
Unknown	NA	NA	690 J
Unknown	NA	NA	510 J
Hexane, 2,3,4-trimethyl-	921-47-1	78%	1000 N J
Decane, 2,5-dimethyl-	17312-50-4	72%	820 N J
Decane, 2,2,6-trimethyl-	62237-97-2	59%	680 N J
Heptane, 3,3,5-trimethyl-	7154-80-5	64%	630 N J
Heptane, 2,3,4-trimethyl-	52896-95-4	50%	710 N J
Nonane, 3-methyl-	5911-04-6	72%	510 N J
Nonane, 2-methyl-	871-83-0	64%	1000 N J

100% Aliphatic

Container Type: 1 Liter Summa Canister (100% Certified)



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Client Sample ID: VP-2 Lab ID#: 0809246AR1-04A MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name: Dil. Factor: Surrogates	t092426R1 32.9		ion: 9/11/08 1:32:00 PM is: 9/25/08 03:28 AM
		%Recovery	Method Limits
Toluene-d8		100	70-130
1,2-Dichloroethane-d4		105	70-130
4-Bromofluorobenzene		107	70-130



Client Sample ID: VP-3 Lab ID#: 0809246AR1-05A MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name: Dil. Factor:	t092427 2.47	Date of Collection: 9/11/08 12:26:00 PM Date of Analysis: 9/25/08 04:36 AM		
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Methyl tert-butyl ether	1.2	Not Detected	4.4	Not Detected
Benzene	1.2	Not Detected	3.9	Not Detected
Toluene	1.2	Not Detected	4.6	Not Detected
Ethyl Benzene	1.2	Not Detected	5.4	Not Detected
m,p-Xylene	1.2	Not Detected	5.4	Not Detected
o-Xylene	1.2	Not Detected	5.4	Not Detected
tert-Butyl alcohol	4.9	Not Detected	15	Not Detected
1,2-Dibromoethane (EDB)	1.2	Not Detected	9.5	Not Detected
1,2-Dichloroethane	1.2	Not Detected	5.0	Not Detected
2,2,4-Trimethylpentane	1.2	Not Detected	5.8	Not Detected
Ethanol	4.9	Not Detected	9.3	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

		Method
Surrogates	%Recovery	Limits
Toluene-d8	96	70-130
1,2-Dichloroethane-d4	86	70-130
4-Bromofluorobenzene	106	70-130



Client Sample ID: Dupe Lab ID#: 0809246AR1-06A MODIFIED EPA METHOD TO-15 GC/MS

File Name: Dil. Factor:	w092408 4.78	Date of Collection: 9/11/08 1/1/1990 Date of Analysis: 9/24/08 03:17 PM		
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
tert-Butyl alcohol	96	Not Detected	290	Not Detected
Ethanol	96	Not Detected	180	Not Detected
Methyl tert-butyl ether	24	Not Detected	86	Not Detected
2,2,4-Trimethylpentane	24	4300	110	20000
Benzene	24	Not Detected	76	Not Detected
1,2-Dichloroethane	24	Not Detected	97	Not Detected
Toluene	24	Not Detected	90	Not Detected
1,2-Dibromoethane (EDB)	24	Not Detected	180	Not Detected
Ethyl Benzene	24	Not Detected	100	Not Detected
m,p-Xylene	24	Not Detected	100	Not Detected
o-Xylene	24	Not Detected	100	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

		Method
Surrogates	%Recovery	Limits
1,2-Dichloroethane-d4	96	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	100	70-130



Client Sample ID: Lab Blank Lab ID#: 0809246AR1-07A MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name: Dil. Factor:	t092410 1.00	Date of Collection: NA Date of Analysis: 9/24/08 02:25 PM		
Compound	Rɒt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Methyl tert-butyl ether	0.50	Not Detected	1.8	Not Detected
Benzene	0.50	Not Detected	1.6	Not Detected
Toluene	0.50	Not Detected	1.9	Not Detected
Ethyl Benzene	0.50	Not Detected	2.2	Not Detected
m,p-Xylene	0.50	Not Detected	2.2	Not Detected
o-Xylene	0.50	Not Detected	2.2	Not Detected
tert-Butyl alcohol	2.0	Not Detected	6.1	Not Detected
1,2-Dibromoethane (EDB)	0.50	Not Detected	3.8	Not Detected
1,2-Dichloroethane	0.50	Not Detected	2.0	Not Detected
2,2,4-Trimethylpentane	0.50	Not Detected	2.3	Not Detected
Ethanol	2.0	Not Detected	3.8	Not Detected

Surrogates	%Recovery	Method Limits
Toluene-d8	98	70-130
1,2-Dichloroethane-d4	84	70-130
4-Bromofluorobenzene	107	70-130



Client Sample ID: Lab Blank Lab ID#: 0809246AR1-07B MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name: Dil. Factor:	t092506 1.00	Date of Collection: NA Date of Analysis: 9/25/08 11:33 AM		
Compound	Rɒt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Methyl tert-butyl ether	0.50	Not Detected	1.8	Not Detected
Benzene	0.50	Not Detected	1.6	Not Detected
Toluene	0.50	Not Detected	1.9	Not Detected
Ethyl Benzene	0.50	Not Detected	2.2	Not Detected
m,p-Xylene	0.50	Not Detected	2.2	Not Detected
o-Xylene	0.50	Not Detected	2.2	Not Detected
tert-Butyl alcohol	2.0	Not Detected	6.1	Not Detected
1,2-Dibromoethane (EDB)	0.50	Not Detected	3.8	Not Detected
1,2-Dichloroethane	0.50	Not Detected	2.0	Not Detected
2,2,4-Trimethylpentane	0.50	Not Detected	2.3	Not Detected
Ethanol	2.0	Not Detected	3.8	Not Detected

Surrogates	%Recovery	Method Limits
Toluene-d8	98	70-130
1,2-Dichloroethane-d4	82	70-130
4-Bromofluorobenzene	107	70-130



Client Sample ID: Lab Blank Lab ID#: 0809246AR1-07C MODIFIED EPA METHOD TO-15 GC/MS

File Name: Dil. Factor:	w092405 1.00	2.110	of Collection: NA of Analysis: 9/24/	08 01:34 PM
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
tert-Butyl alcohol	20	Not Detected	61	Not Detected
Ethanol	20	Not Detected	38	Not Detected
Methyl tert-butyl ether	5.0	Not Detected	18	Not Detected
2,2,4-Trimethylpentane	5.0	Not Detected	23	Not Detected
Benzene	5.0	Not Detected	16	Not Detected
1,2-Dichloroethane	5.0	Not Detected	20	Not Detected
Toluene	5.0	Not Detected	19	Not Detected
1,2-Dibromoethane (EDB)	5.0	Not Detected	38	Not Detected
Ethyl Benzene	5.0	Not Detected	22	Not Detected
m,p-Xylene	5.0	Not Detected	22	Not Detected
o-Xylene	5.0	Not Detected	22	Not Detected

		Method
Surrogates	%Recovery	Limits
1,2-Dichloroethane-d4	93	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	98	70-130



Client Sample ID: CCV Lab ID#: 0809246AR1-08A MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name: Dil. Factor:	t092409 1.00	Date of Collection: NA Date of Analysis: 9/24/08 01:42 PM
Compound		%Recovery
Methyl tert-butyl ether		99
Benzene		99
Toluene		101
Ethyl Benzene		106
m,p-Xylene		107
o-Xylene		109
tert-Butyl alcohol		81
1,2-Dibromoethane (EDB)		108
1,2-Dichloroethane		98
2,2,4-Trimethylpentane		88
Ethanol		85

		Method
Surrogates	%Recovery	Limits
Toluene-d8	98	70-130
1,2-Dichloroethane-d4	92	70-130
4-Bromofluorobenzene	106	70-130



Client Sample ID: CCV Lab ID#: 0809246AR1-08B MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name: Dil. Factor:	t092502 1.00	Date of Collection: NA Date of Analysis: 9/25/08 08:58 AM	
Compound		%Recovery	
Methyl tert-butyl ether		97	
Benzene		94	
Toluene		100	
Ethyl Benzene		104	
m,p-Xylene		104	
o-Xylene		106	
tert-Butyl alcohol		80	
1,2-Dibromoethane (EDB)		105	
1,2-Dichloroethane		93	
2,2,4-Trimethylpentane		83	
Ethanol		84	

		Method
Surrogates	%Recovery	Limits
Toluene-d8	99	70-130
1,2-Dichloroethane-d4	92	70-130
4-Bromofluorobenzene	107	70-130



Client Sample ID: CCV Lab ID#: 0809246AR1-08C MODIFIED EPA METHOD TO-15 GC/MS

File Name: Dil. Factor:	w092402 1.00	Date of Collection: NA Date of Analysis: 9/24/08 11:16 AM
Compound		%Recovery
tert-Butyl alcohol		94
Ethanol		100
Methyl tert-butyl ether		82
2,2,4-Trimethylpentane		107
Benzene		100
1,2-Dichloroethane		88
Toluene		99
1,2-Dibromoethane (EDB)		101
Ethyl Benzene		100
m,p-Xylene		102
o-Xylene		104

		Method
Surrogates	%Recovery	Limits
1,2-Dichloroethane-d4	93	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	97	70-130



Client Sample ID: LCS Lab ID#: 0809246AR1-09A MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name: Dil. Factor:	t092403 1.00	Date of Collection: NA Date of Analysis: 9/24/08 09:19 AM
Compound		%Recovery
Methyl tert-butyl ether		105
Benzene		103
Toluene		110
Ethyl Benzene		106
m,p-Xylene		106
o-Xylene		109
tert-Butyl alcohol		90
1,2-Dibromoethane (EDB)		106
1,2-Dichloroethane		103
2,2,4-Trimethylpentane		99
Ethanol		92

······································		Method	
Surrogates	%Recovery	Limits	
Toluene-d8	100	70-130	
1,2-Dichloroethane-d4	97	70-130	
4-Bromofluorobenzene	104	70-130	



Client Sample ID: LCS Lab ID#: 0809246AR1-09B MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name: Dil. Factor:	t092504 1.00	Date of Collection: NA Date of Analysis: 9/25/08 10:16 AM
Compound		%Recovery
Methyl tert-butyl ether		102
Benzene		96
Toluene		107
Ethyl Benzene		104
m,p-Xylene		104
o-Xylene		107
tert-Butyl alcohol		81
1,2-Dibromoethane (EDB)		104
1,2-Dichloroethane		97
2,2,4-Trimethylpentane		82
Ethanol		82

		Method		
Surrogates	%Recovery	Limits		
Toluene-d8	99	70-130		
1,2-Dichloroethane-d4	89	70-130		
4-Bromofluorobenzene	107	70-130		



Client Sample ID: LCS Lab ID#: 0809246AR1-09C MODIFIED EPA METHOD TO-15 GC/MS

File Name: Dil. Factor:	w092403 1.00	Date of Collection: NA Date of Analysis: 9/24/08 12:01 PM					
Compound		%Recovery					
tert-Butyl alcohol		102					
Ethanol		108					
Methyl tert-butyl ether		86					
2,2,4-Trimethylpentane		99					
Benzene		100					
1,2-Dichloroethane		88					
Toluene		99					
1,2-Dibromoethane (EDB)		100					
Ethyl Benzene		100					
m,p-Xylene		102					
o-Xylene		104					

		Method		
Surrogates	%Recovery	Limits		
1,2-Dichloroethane-d4	90	70-130		
Toluene-d8	102	70-130		
4-Bromofluorobenzene	98	70-130		

ATTACHMENT B

SECOND SEMI-ANNUAL 2012 GROUNDWATER MONITORING AND SAMPLING REPORT



TRANSMITTAL

October 19, 2012 G-R #386506

- TO: Mr. James Kiernan Conestoga-Rovers & Associates 10969 Trade Center Drive, Suite 107 Rancho Cordova, CA 95670
- FROM: Deanna L. Harding Project Coordinator Gettler-Ryan Inc. 6747 Sierra Court, Suite J Dublin, California 94568

RE: Former Chevron Service Station #9-1583 (MTI) 5509 Martin Luther King Way Oakland, California RO 0000002

WE HAVE ENCLOSED THE FOLLOWING:

COPIES	DATED	DESCRIPTION
1	October 17, 2012	Groundwater Monitoring and Sampling Report Second Semi-Annual Event of September 14, 2012

COMMENTS:

cc:

Pursuant to your request, we are providing you with copies of the above referenced report for <u>your</u> <u>use and distribution to the following (including PDF submittal of the entire report to</u> <u>GeoTracker):</u>

> Ms. Alexis Fischer, Chevron Environmental Management Company, 6101 Bollinger Canyon Road, San Ramon, CA 94583
> Mr. Mark Detterman, Alameda County Health Care Services, Dept. of Environmental Health, 1131 Harbor Bay Parkway, Suite 250, Alameda, CA 94502-6577
> (No Hard Copy-CRA UPLOAD TO ALAMEDA CO.)

Mr. Ben Shimek, (Owner), 31 Industrial Way, Greenbrae, CA 94904

Enclosures

trans/9-1583

WELL CONDITION STATUS SHEET

Client/Facility #:	Chevror	n #9-158 3					Job #:	386506			
Site Address:	5509 Ma	rtin Luthe	r King Way	/		•	Event Date:	9	/14	- /12	
City:	Oakland, CA Samp									LEVORK	
WELL ID	Vault Frame Condition	Gasket/ O-Ring (M)missIng	BOLTS (M) Missing (R) Replaced	Boit Flanges B= Broken S= Stripped R=Retap	APRON Condition C=Cracked B=Broken G=Gone	Grout Seal (Deficient) inches from TOC	Casing (Condition prevents tight cap seal)		REPLACE CAP Y / N	WELL VAULT Manufacture/Size/ # of Bolts	Pictures Taken Yes / No
MW-1	OK	N/A	N/A	N/A	oK-			N	N	CHRISTY BOX	NO
MW-2		N/A	NIA	N/A	oK-		>	1	1		
MW-3		N/A	N/A	N/A	OK -		>				
Mw-7	OK-		\rightarrow	2-5	OK -		>			MORRISON-114/2	
Mw-8	ok-		\rightarrow	2-5	OK-		~ >	V	V	EMC0-12"/2	
											-
Comments	<u> </u>								l		



October 17, 2012 G-R Job #386506

Ms. Alexis Fischer Chevron Environmental Management Company 6101 Bollinger Canyon Road San Ramon, CA 94583

RE: Second Semi-Annual Event of September 14, 2012 Groundwater Monitoring & Sampling Report Former Chevron Service Station #9-1583 5509 Martin Luther King Way Oakland, California

Dear Ms. Fischer:

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

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

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

No. 6882

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

Sincerely,

Deanna L. Harding

Project Coordinator

Douglas J Lee

Senior Geologist, P.G. No. 6882

Figure 1:Potentiometric MapTable 1:Groundwater Monitoring Data and Analytical ResultsTable 2:Groundwater Analytical Results - Oxygenate CompoundsAttachments:Standard Operating Procedure - Groundwater Sampling
Field Data Sheets
Chain of Custody Document and Laboratory Analytical Reports

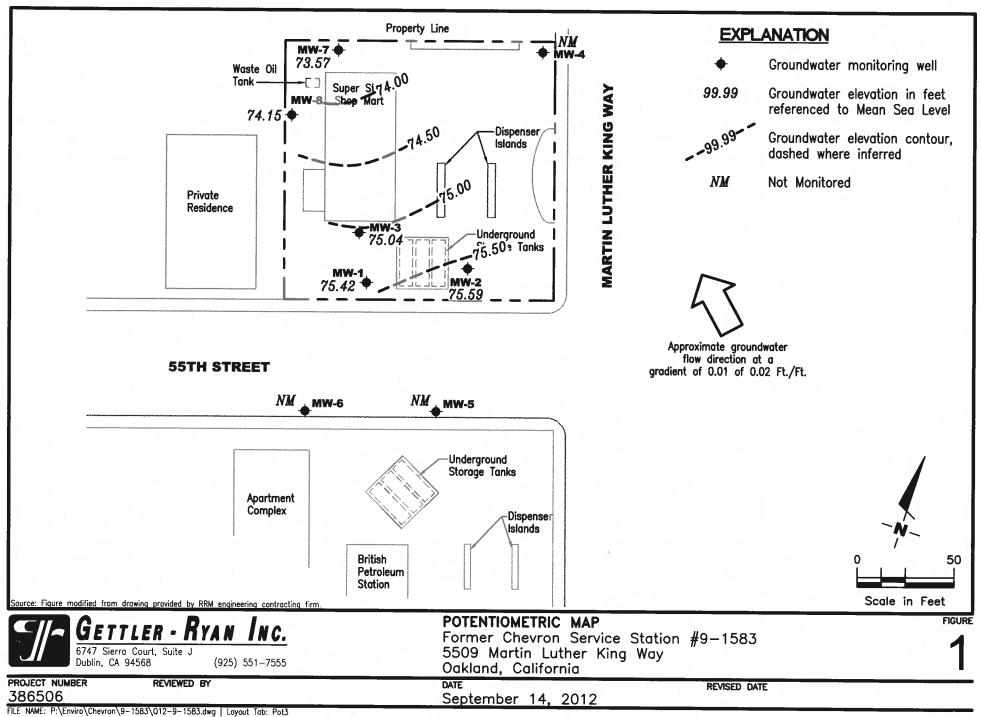


Table 1 Groundwater Monitoring Data and Analytical Results Former Chevron Service Station #9-1583

5509 Martin Luther King Way

Oakland	California	
oununu,	Cumorniu	

WELL ID/	ТОС	GWE	DTW	SPHT	TRU PDA					· · · · · · · · <u>- ·</u> · · · · · ·			
DATE	10C (fl.)	G W E (msl)	ы ж (ft.)	SPH1 (fl)	TPH-DRO (µg/L)	TPH-MO (µg/L)	TPH-GRO (µg/L)	B (µg/L)	Τ	E	X	MTBE	TOG
			04	14	(#8/12)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
MW-1													
12/22/83	81.97	71.72	10.25										
12/30/83	81.97	72.80	9.17										
03/12/90	81.97	71.89	10.08				50,000	3,000	7,300	1,900	18,000		
03/25/90	82.42	71.51	10.46										
10/18/90	82.42												
10/31/90	82.42												
11/16/90	82.42	70.84	11.58										
02/08/91	82.42	72.31	10.11				100,000	4,200	8,400	16,000	2,600		
05/08/91	82.42	71.97	10.45				31,000	200	66	670	2,000		
08/12/91	82.42	71.19	11.23				17,000	81	7.2	270	710		
11/07/91	82.42	71.72	10.70				7,100	24	6.0	130	170		
02/05/92	82.42	72.05	10.37				110,000	8,900	14,000	2,700	12,000		
05/13/92	82.42	71.84	10.58				19,000	450	85	480	870		
07/17/92	82.42	71.37	11.05				8,500	170	<10	360	600		
10/05/92	82.42	71.01	11.41				22,000	4,300	5,100	570	2,900		
11/11/92	82.42												
11/17/92	82.42												
11/24/92	82.42												
12/01/92	82.42												
12/29/92	82.42												
01/05/93	82.42												
01/08/93	82.42	74.31	8.11				14,000,000	12,000	79,000	270,000	1,300,000		
02/02/93	82.42										-,,		
04/14/93	82.42	72.57	9.85				48,000	670	1,100	1,600	6,300		
08/06/93	82.42	71.59	10.83				44,000	660	990	1,600	6,100		
10/21/93	82.42	71.52	10.90				18,000	270	460	1,300	4,700		
01/05/94	82.42	72.09	10.33				22,000	160	160	630	2,300		
04/08/94	82.42	72.24	10.18				21,000	37	110	570	1,400		
07/06/94	82.42	71.78	10.64				28,000	210	100	540	1,200		
08/04/94	82.42	71.91	10.51										
10/05/94	82.42	71.51	10.91				120,000	39	22	320	900		
01/18/95	82.42	73.80	8.62				12,000	<20	<20	130	160		
04/07/95	82.42	72.89	9.53				2,500	<2.5	<2.5	71	38		
07/06/95	82.42	72.03	10.39				5,700	< 0.5	<0.5	110	110		
10/11/95	82.42	70.54	11.88				2,700	13	<5.0	13	5.7	650	
01/17/96	82.42	73.14	9.28				4,200	12	<5.0	43	24	300	
							-,		-210	75	27	300	

	Table 1
Gro	undwater Monitoring Data and Analytical Results
	Former Chevron Service Station #9-1583
	5509 Martin Luther King Way

Oakland	California
Oakialiu.	Camornia

WELL ID/	TOC	GWE	DTW	SPHT	TPH-DRO	TPH-MO	TPH-GRO	B	T ,30000	E	x	МТВЕ	TOG
DATE	(ft.)	(msl)	(ft.)	(ft.)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(μg/L)
MW-1 (cont)					-						<u></u>	<u></u>	
04/05/96	82.42	72.82	9.60				1,300	<1.2	<1.2	7.6	2.8	220	
07/23/96	82.42	72.19	10.23				700	<1.0	<1.0	7.0	4.8	240	
10/02/96	82.42	71.67	10.75				1,700	<2.5	9.8	10	4.8	240 610	
01/23/97	82.42	74.75	7.67				1,300	21	<10	<10	<10	2,700	
04/01/97	82.42	72.22	10.20				670	<2.0	<2.0	4.1	3.6	1,200	
07/09/97	82.42	72.12	10.30				460	<1.0	<1.0	<1.0	<1.0	440	
10/07/97	82.42	71.73	10.69				1,100	8.5	<2.0	<2.0	2.0	250	
01/22/98	82.42	74.20	8.22				460	1.4	5.8	<0.5	<0.5	150	
04/02/98	82.42	72.89	9.53				220	2.5	1.2	<1.0	1.9	260	
07/02/98	82.42	72.08	10.34				270	< 0.5	0.82	<0.5	<0.5	140	
10/02/98	82.42	71.70	10.72				170	1.3	<0.5	<0.5	<1.5	320	
01/18/99	82.42	72.87	9.55				416	<2.5	<2.5	<2.5	<2.5	316/295 ²	
07/22/99	82.42	71.61	10.81				186	< 0.5	3.94	1.46	2.37	63.7	
01/17/00	82.42	72.21	10.21				248	1.6	<0.5	<0.5	<0.5	41.0	
07/05/00	82.42	72.12	10.30	0.00			76 ³	< 0.50	< 0.50	<0.50	0.79	69	
01/15/01	82.42	73.01	9.41	0.00			66.6	< 0.500	<0.500	< 0.500	0.585	22.5	
07/03/01	82.42	72.13	10.29	0.00			<50	< 0.50	<0.50	< 0.50	<0.50	8.8	
02/28/02	82.42	72.74	9.68	0.00			58	< 0.50	< 0.50	< 0.50	<1.5	21	
07/08/02	82.42	72.14	10.28	0.00			<50	< 0.50	<0.50	< 0.50	<1.5	23	
01/01/03	82.42	74.28	8.14	0.00			<50	< 0.50	< 0.50	<0.50	<1.5	15	
07/14/03 ⁸	82.42	72.12	10.30	0.00			<50	<0.5	<0.5	<0.5	<0.5	5	
01/12/04 ⁸	82.42	73.40	9.02	0.00			<50	<0.5	<0.5	<0.5	<0.5	61	
07/27/04 ⁸	82.42	72.10	10.32	0.00			<50	<0.5	<0.5	<0.5	<0.5	54	
01/25/05 ⁸	82.42	74.24	8.18	0.00			<50	<0.5	<0.5	<0.5	<0.5	5	
07/26/05 ⁸	82.42	72.40	10.02	0.00			<50	<0.5	<0.5	<0.5	<0.5	25	
01/24/06 ⁸	82.42	74.22	8.20	0.00			<50	<0.5	<0.5	<0.5	<0.5	25	
07/25/06 ⁸	82.42	72.30	10.12	0.00			<50	<0.5	<0.5	<0.5	<0.5	14	
01/23/07 ⁸	82.42	72.57	9.85	0.00			<50	<0.5	<0.5	<0.5	<0.5	17	
07/24/07 ⁸	82.42	70.59	11.83	0.00			<50	<0.5	<0.5	<0.5	<0.5	7	
01/22/08 ⁸	82.42	73.12	9.30	0.00			<50	<0.5	<0.5	<0.5	<0.5	8	
07/22/08 ⁸	82.42	71.69	10.73	0.00			<50	<0.5	<0.5	<0.5	<0.5	<0.5	
01/13/09 ⁸	82.42	72.41	10.01	0.00			<50	<0.5	<0.5	<0.5	<0.5	2	
07/14/09	82.42	71.52	10.90	0.00	SAMPLED AN	NUALLY							
01/12/10 ⁸	85.41	76.70	8.71	0.00			<50	<0.5	<0.5	<0.5	<0.5	15	
07/13/10	85.41	75.09	10.32	0.00	SAMPLED AN	NUALLY							

Groundwater Monitoring Data and Analytical Results Former Chevron Service Station #9-1583 5509 Martin Luther King Way Oakland, California													
WELL ID/ DATE	TOC (ft.)	GWE (msl)	DTW (ft.)	SPHT (fl)		H-MO ug/L)	TPH-GRO (µg/L)	B (µg/L)	Т (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)	TOG
MW-1 (cont)					·····			(P 5 -)		(με/.L)	με.τ.	(µg/1)	(µg/L)
01/25/118	85.41	77.03	8.38	0.00			<50	<0.5	<0.5	<0.5	<0.5	5	
07/12/11	85.41	75.86	9.55	0.00	SAMPLED ANNU	ALLY							14250
01/10/128	85.41	75.49	9.92	0.00			<50	<0.5	<0.5	<0.5	<0.5	2	
09/14/12	85.41	75.42	9.99	0.00	SAMPLED ANNI	UALLY	-		-	-		-	-
MW-2													
12/22/83	83.48	72.98	10.50						/ <u></u>				1002
12/30/83	83.48	73.56	9.92	00									
03/12/90	83.48	72.46	11.02				800	400	22	18	55		
03/25/90	83.48	72.15	11.33										
10/18/90	83.48	71.17	12.31					-	(1 4				55-
10/31/90	83.48										2 -1		
11/16/90	83.48									244			
02/08/91	83.48	72.43	11.05		3 33 9		4,600	820	440	720	210		
05/08/91	83.48	72.12	11.36				<50	5.0	<0.5	<0.5	<0.5		
08/12/91	83.48	71.51	11.97				<50	<0.5	<0.5	<0.5	<0.5		
11/07/91	83.48	71.98	11.50				<50	<0.5	<0.5	<0.5	<0.5		
02/05/92	83.48	72.29	11.19				1,700	390	170	60	200		
05/13/92	83.48	71.99	11.49				74	9.3	<0.5	<0.5	< 0.5		
07/17/92	83.48	71.63	11.85				<50	2.0	<0.5	<0.5	<0.5		
10/05/92	83.48	71.48	12.00				3,500	1,200	530	86	220		
11/11/92	83.48												
11/17/92	83.48				1 11 13								
11/24/92	83.48	1777											
12/01/92	83.48					<u></u>	100 T						
12/29/92	83.48				2 <u>49</u> 7								
01/05/93	83.48			(-									
01/08/93	83.48	74.65	8.83	3. .	1000		390	140	0.8	7.7	26	122	
02/02/93	83.48												
04/14/93	83.48	72.69	10.79	-			<50	5.0	<0.5	<0.5	<0.5		
08/06/93	83.48	71.77	11.71				<50	1.0	<0.5	<0.5	<0.5		
10/21/93	83.48	71.74	11.74				<50	1.0	<0.5	9.0	<0.5		
01/05/94	83.48	72.30	11.18	 .			<50	0.7	<0.5	<0.5	0.9		2 2 2 2
04/08/94	83.48	72.42	11.06				<50	<0.5	<0.5	<0.5	<0.5		
07/06/94	83.48	71.80	11.68				<50	<0.5	<0.5	<0.5	<0.5		

Table 1

Table 1
Groundwater Monitoring Data and Analytical Results
Former Chevron Service Station #9-1583
5509 Martin Luther King Way

Oakland.	California
Cultinuity,	California

NATE: ON ON OPE-NO PRE-NO	WELL ID/	TOC	GWE	DTW	CDITC	TRUESO								
MW-2 (cont) ($g_{2}, g_{2}, g_{3}, g_{4}, g_{$					SPHT	TPH-DRO	TPH-MO	TPH-GRO	В	T	E	× ×	MTBE	TOG
080494 83.48 72.99 11.19 -			(11431)	<u>(j.6)</u>	<u></u>	(µg/L)	(#8/1.)	(µg/L)	(µg/L)	····· (μg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
100594 83.48 71.79 11.69 -														
01/1895 83.48 74.26 9.22 </td <td></td>														
01/1895 83.48 74.26 9.22 -50 -0.5 -0.5 -0.5 -0.5 -0.5 0470795 83.48 72.74 10.74 - <50			71.79	11.69				<50	<0.5	<0.5	< 0.5	<0.5		
040795 83.48 73.62 9.86 -			74.26	9.22				<50	<0.5	<0.5	<0.5			
07/06/95 81.48 72.74 10.74 -50 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <		83.48	73.62	9.86				<50	<0.5	< 0.5				
10/11/95 83.48 72.26 11.22 -<			72.74	10.74				<50	<0.5	<0.5				
01/1796 83.48 73.74 9.74 - - <50 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <		83.48	72.26	11.22				<50	<0.5	<0.5			<2.5	
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$		83.48	73.74	9.74				<50	<0.5	<0.5	<0.5			
$\begin{array}{cccccccccccccccccccccccccccccccccccc$		83.48	73.52	9.96				<50	<0.5	<0.5	<0.5			
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$		83.48	72.57	10.91				<50	<0.5	< 0.5				
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$		83.48	72.41	11.07				<50	<0.5					
		83.48	75.18	8.30				<50	<0.5	< 0.5				
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$		83.48	72.90	10.58				<50	<0.5					
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$		83.48	72.58	10.90				<50	<0.5	<0.5				
$\begin{array}{cccccccccccccccccccccccccccccccccccc$		83.48	72.52	10.96				<50	<0.5	<0.5				
$\begin{array}{c c c c c c c c c c c c c c c c c c c $		83.48	74.73	8.75				<50	<0.5	<0.5				
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$		83.48	73.66	9.82				89	3.0	5.4				
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$		83.48	72.74	10.74				<50	<0.5					
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	10/02/98	83.48	72.43	11.05				<50						
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	01/18/99	83.48	73.09	10.39				<50						
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	07/22/99	83.48	72.61	10.87				<50	<0.5					
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	01/17/00	83.48	72.89	10.59				<50	<0.5					
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	07/05/00	83.48	72.84	10.64	0.00			<50	< 0.50					
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	01/15/01	83.48	73.77	9.71	0.00			555 ⁶	< 0.500					
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	07/03/01	83.48	73.02	10.46	0.00				<0.50	< 0.50				
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	02/28/02	83.48	73.49	9.99	0.00			<50						
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	07/08/02	83.48	72.98	10.50	0.00			<50	< 0.50					
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	01/01/03	83.48	75.33	8.15	0.00			<50	<0.50					
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	07/14/03 ⁸	83.48	72.96	10.52	0.00			<50	<0.5	<0.5				
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	01/12/048	83.48	74.31	9.17	0.00			<50	<0.5					
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	07/27/04 ⁸	83.48	72.85	10.63	0.00			<50						
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	01/25/058	83.48	74.36	9.12	0.00									
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	07/26/05 ⁸	83.48	73.56	9.92	0.00									
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	01/24/06 ⁸	83.48	74.33	9.15	0.00									
$01/23/07^8$ 83.48 73.37 10.11 0.00 <50 <0.5 <0.5 <0.5 <0.5	07/25/06 ⁸	83.48	73.03	10.45	0.00									
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	01/23/07 ⁸	83.48	73.37	10.11	0.00									
	07/24/07 ⁸	83.48	72.90	10.58	0.00									

Table 1
Groundwater Monitoring Data and Analytical Results
Former Chevron Service Station #9-1583

5509 Martin Luther King Way

Oakland.	California
ouniunu,	Camonna

							and, Californi	a					
WELL ID/	TOC	GWE	DTW	SPHT	TPH-DRO	TPH-MO	TPH-GRO	В	Т	E	x	MTBE	TOG
DATE	(ft.)	(msl)	(ft.)	(fl.)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
MW-2 (cont)													
01/22/088	83.48	73.85	9.63	0.00			<50	<0.5	<0.5	<0.5	<0.5	<0.5	
07/22/088	83.48	73.08	10.40	0.00			<50	<0.5	<0.5	<0.5	<0.5	2	
01/13/09 ⁸	83.48	73.10	10.38	0.00		2 <u>111</u>	<50	<0.5	<0.5	<0.5	<0.5	<0.5	
07/14/09	83.48	72.93	10.55	0.00	SAMPLED A	NNUALLY						~0.5	
01/12/108	86.04	76.38	9.66	0.00			<50	<0.5	<0.5	<0.5	<0.5	<0.5	
07/13/10	86.04	76.09	9.95	0.00	SAMPLED A	NNUALLY							
01/25/118	86.04	76.68	9.36	0.00			<50	<0.5	<0.5	<0.5	<0.5	<0.5	
07/12/11	86.04	76.14	9.90	0.00	SAMPLED A	NNUALLY							
01/10/128	86.04	75.67	10.37	0.00			<50	<0.5	<0.5	<0.5	<0.5	<0.5	
09/14/12	86.04	75.59	10.45	0.00	SAMPLED A	NNUALLY	-	-				-	
MW-3													
12/22/83	84.36	72.78	11.58										
12/30/83	84.36	73.19	11.17										
03/12/90	84.36	72.22	12.14				 47,000	 1,000					
03/25/90	84.38	71.81	12.55				47,000		9,900	1,700	9,800	() -11 ()	
10/18/90	84.38												
10/31/90	84.38							8.000).			
11/16/90	84.38	70.76	13.62										
02/08/91	84.38	72.20	12.18				58,000	4,900					
05/08/91	84.38	71.86	12.52				50,000	2,100	5,200	9,500	2,000		
08/12/91	84.38	71.11	13.27				15,000	1,300	1,400 160	2,000 920	9,400		HU (
11/07/91	84.38	71.57	12.81	14			26,000	1,000	310		1,900		
02/05/92	84.38	71.91	12.47				35,000	2,800	1,300	1,900	5,900		
05/13/92	84.38	71.76	12.62				47,000	1,500	1,300	1,500	4,700		**
07/17/92	84.38	71.25	13.13				15,000	1,500	1,200	1,100 88	4,800		
10/05/92	84.38	70.95	13.62	0.24							140		
11/11/92	84.38	71.63	12.89	0.17									
11/17/92	84.38	71.54	12.89	0.06									1
11/24/92	84.38	71.56	12.86	0.05									
12/01/92	84.38	71.48	12.92	0.03									
12/29/92	84.38	73.14	11.24	Sheen									
01/05/93	84.38	73.23	11.15	Sheen									
01/08/93	84.38	74.28	10.10				250,000	5,000	17,000	5,500			() ()
02/02/93	84.38							5,000			28,000		
						0.002							5 44 9

Table 1
Groundwater Monitoring Data and Analytical Results
Former Chevron Service Station #9-1583

5509 Martin Luther King Way Oakland, California

Oakland, California WELL ID/ TOC GWE DTW SPHT TPH-DRO TPH-MO TPH-CRO B													
DATE	TOC	GWE	DTW	SPHT	TPH-DRO	ТРН-МО	TPH-GRO	B	T	E	×	MTBE	TOG
	(ft.)	(mst)	(ft.)	(fL)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
MW-3 (cont	,												
04/14/93	84.38	72.48	11.91	0.01									
08/06/93	84.38	71.49	12.90	0.01			150,000	3,800	6,600	3,700	17,000		
10/21/93	84.38	71.41	12.97				22,000	2,300	1,700	1,400	5,100		
01/05/94	84.38	71.96	12.42				37,000	1,600	1,100	1,300	6,500		
04/08/94	84.38	72.51	11.87				16,000	250	310	500	2,500		
07/06/94	84.38	71.64	12.74				43,000	660	320	1,900	6,400		
08/04/94	84.38	71.71	12.67										
10/05/94	84.38	71.43	12.95				12,000	280	90	480	370		
01/18/95	84.38	73.72	10.66				20,000	200	230	700	3,500		
04/07/95	84.38	72.84	11.54				22,000	120	120	810	4,400		
07/06/95	84.38	71.99	12.39				15,000	110	<50	630	2,100		
10/11/95	84.38	72.07	12.31				8,600	24	<10	360	560	1,100	
01/17/96	84.38	73.68	10.70				9,300	<50	<50	230	1,100	2,300	
04/05/96	84.38	73.35	11.03				8,700	16	<10	110	650	990	
07/23/96	84.38	72.38	12.00				5,400	20	<5.0	190	480	2,300	
10/02/96	84.38	72.20	12.18				6,200	43	<20	130	140	2,800	
01/23/97	84.38	75.12	9.26				5,600	<5.0	<5.0	39	160	550	
04/01/97	84.38	72.75	11.63				6,900	17	<10	150	330	3,900	
07/09/97	84.38	72.38	12.00				5,300	31	<5.0	100	180	2,300	
10/07/97	84.38	72.27	12.11				2,400	15	<2.0	30	15	900	
01/22/98	84.38	74.73	9.65				3,200	2.5	7.9	70	220	660	
04/02/98	84.38	73.49	10.89				1,300	14	9.7	25	63	430	
07/02/98	84.38	72.69	11.69				750	6.9	<5.0	18	9.1	370	
10/02/98	84.38	72.23	12.15				1,400	5.3	0.73	18	6.6	900	
01/18/99	84.38	74.05	10.33				1,270	<1.0	<1.0	7.95	<1.0	100/99.7 ²	
07/22/99	84.38	72.08	12.30				2,240	<1.0	<1.0	29.4	13.7	189	
01/17/00	84.38	72.78	11.60				848	6.72	2.53	5.02	2.49	90	
07/05/00	84.38	72.67	11.71	0.00			90 ³	5.3	< 0.50	0.70	<0.50	770	
01/15/01	84.38	73.93	10.45	0.00			206	< 0.500	<0.500	< 0.500	1.09	4.04	
07/03/01	84.38	72.62	11.76	0.00			<50	0.53	<0.50	< 0.50	1.1	20	
02/28/02	84.38	73.29	11.09	0.00			170	<1.0	<1.0	<1.0	1.6	45	
07/08/02	84.38	71.38	13.00	0.00			430	0.60	<0.50	0.79	<1.5	42	
01/01/03	84.38	74.89	9.49	0.00			140	<0.50	<0.50	<0.50	<1.5	6.1	
07/14/03 ⁸	84.38	71.36	13.02	0.00			<50	<0.5	<0.5	<0.5	<0.5	43	
01/12/048	84.38	74.00	10.38	0.00			<50	<0.5	<0.5	<0.5	<0.5	2	
07/27/04 ⁸	84.38	72.60	11.78	0.00			<50	<0.5	<0.5	<0.5	<0.5	41	

Table 1 Groundwater Monitoring Data and Analytical Results Former Chevron Service Station #9-1583

5509 Martin Luther King Way

Oakland,	California
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BATE (f) (mail) (f) (ppt) (pp							IS STREET, STRE	and, California						
BATE (R2) (R4) (R4) (R4/2) (R4/2) <th(r4 2)<="" th=""> (R4/2) (R4/2)</th(r4>	WELL ID/	тос	GWE	DTW	SPHT	TPH-DRO	TPH-MO				E	x	MTBE	TOG
MW-3 comp 0129015 84.38 73.87 12.11 12.11 0.00 <50	DATE	(ft.)	(msl)	(ft.)	(ft.)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)		
072605* 84.38 72.17 12.21 0.00 - - <50 40.5	MW-3 (cont)											19 - C. 19 - C		
072605* 84.38 72.17 12.21 0.00 - - <50	01/25/058	84.38	73.96	10.42	0.00			<50	<0.5	<0.5	<0.5	<0.5	27	122
01/2406 ⁴ 84.38 73.99 10.39 0.00 - - <50 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5	07/26/05 ⁸	84.38	72.17	12.21	0.00									
072500 ⁴ 84.38 73.74 11.62 0.00 - - <50 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 0712010 86.80 <th< td=""><td>01/24/068</td><td>84.38</td><td>73.99</td><td>10.39</td><td>0.00</td><td></td><td>10000</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></th<>	01/24/068	84.38	73.99	10.39	0.00		10000							
012307* 84.38 73.44 10.94 0.00 130 -0.5 <0.5 <0.5 <0.5 2 0172407* 84.38 73.40 10.28 0.00 210 <0.5	07/25/06 ⁸	84.38	72.76	11.62	0.00	22								
072407 ³ 84.38 74.10 10.28 0.00 - - 210 <0.5	01/23/07 ⁸	84.38	73.44	10.94	0.00									
012208 ⁸ 84.38 73.83 10.55 0.00 <50	07/24/078	84.38	74.10	10.28	0.00									
07/22/08 ¹ 84.38 72.40 11.98 0.00 - - <50 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5	01/22/088	84.38	73.83	10.55	0.00									
01/13/09 ³ 84.38 72.82 11.56 0.00 - - <50	07/22/08 ⁸	84.38	72.40	11.98	0.00		1212							
07/14/09 84.38 72.25 12.13 0.00 SAMPLED ANNUALLY	01/13/09 ⁸	84.38	72.82	11.56	0.00									
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	07/14/09	84.38	72.25	12.13	0.00	SAMPLED A	ANNUALLY							
07/13/10 86.80 75.37 11.43 0.00 SAMPLED ANNUALLY -	01/12/10 ⁸	86.80	75.93	10.87										
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	07/13/10	86.80	75.37	11.43	0.00	SAMPLED A	ANNUALLY							
07/12/11 86.80 75.65 11.15 0.00 SAMPLED ANNUALLY -	01/25/118	86.80	76.19	10.61	0.00			<50						
01/10/12 ⁴ 86.80 75.18 11.62 0.00 - - 120 <0.5	07/12/11	86.80	75.65	11.15	0.00	SAMPLED A	NNUALLY							
09/14/12 86.80 75.04 11.76 0.00 SAMPLED ANNUALLY - <td>01/10/128</td> <td>86.80</td> <td>75.18</td> <td>11.62</td> <td>0.00</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	01/10/128	86.80	75.18	11.62	0.00									
MW-4 10/18/90 84.25 68.50 15.75 <td< td=""><td>09/14/12</td><td>86.80</td><td>75.04</td><td>11.76</td><td>0.00</td><td>SAMPLED A</td><td>NNUALLY</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>	09/14/12	86.80	75.04	11.76	0.00	SAMPLED A	NNUALLY							
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$														
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	MW-4													
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	10/18/90	84.25	68.50	15.75	2350									
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	10/31/90	84.25	70.35	13.90				<50	<0.5	<0.5	<0.5			
$\begin{array}{cccccccccccccccccccccccccccccccccccc$		84.25	70.00	14.25										
$\begin{array}{cccccccccccccccccccccccccccccccccccc$		84.25	71.93	12.32				60	17	2.0	12	<0.5		
08/12/91 84.25 70.32 13.93 <50		84.25	72.02	12.23		2.55		65	<0.5					
$\begin{array}{cccccccccccccccccccccccccccccccccccc$		84.25	70.32	13.93				<50	<0.5					
02/05/92 84.25 71.42 12.83 <50	11/07/91	84.25	70.83	13.42		5 -		<50						
05/13/92 84.25 70.97 13.28 <50	02/05/92	84.25	71.42	12.83				<50	<0.5					
007/17/92 84.25 70.27 13.98 <-	05/13/92	84.25	70.97	13.28				<50						
10/05/92 84.25 70.02 14.23 <-	07/17/92	84.25	70.27	13.98		0		<50						
11/11/92 84.25	10/05/92	84.25	70.02	14.23	0 44 3			<50						
11/17/92 84.25	11/11/92	84.25				2 44 2								
11/24/92 84.25	11/17/92			2 44 3	1221									
12/01/92 84.25	11/24/92	84.25				19 11								
12/29/92 84.25	12/01/92	84.25							3 3					
01/05/93 84.25	12/29/92	84.25										1090		
	01/05/93	84.25												

Table 1
Groundwater Monitoring Data and Analytical Results
Former Chevron Service Station #9-1583
5509 Martin Luther King Way

Oakland, California

WELL ID/	TOC	GWE	DTW	SPHT	TPH-DRO	ТРН-МО	TPH-GRO	a B	T				
DATE	(fl.)	(msl)	(ft.)	(ft.)	(μg/L)	(μg/L)	ιτη-GRU (μg/L)	в (µg/L)	μg/L)	E (µg/L)	X (µg/L)	MTBE (μg/L)	ΤΟG (μg/L)
MW-4 (cont)						<u> </u>		<u> </u>	17 8 - 1 7	15.11	(µg/L)	μ <u>κ</u> , Γ	(μ <u>β</u> / <i>L</i>)
01/08/93	84.25	74.09	10.16				-50	-0.5	.0.5				
02/02/93	84.25						<50	<0.5	<0.5	<0.5	<0.5		
02/02/93	84.25	72.21											
04/14/93	84.25	72.21	12.04 13.91				<50	<0.5	<0.5	<0.5	<0.5		
10/21/93	84.25 84.25	70.34	13.91				<50	<0.5	<0.5	<0.5	<0.5		
01/05/94	84.25						<50	<0.5	<0.5	<0.5	1.0		
01/03/94 04/08/94	84.25 84.25	71.30	12.95				<50	<0.5	<0.5	<0.5	<0.5		
		71.31	12.94				<50	<0.5	<0.5	<0.5	<0.5		
07/06/94	84.25	70.57	13.68				<50	<0.5	<0.5	<0.5	<0.5		
08/04/94	84.25	70.71	13.54										
10/05/94	84.25	70.65	13.60				<50	<0.5	<0.5	<0.5	<0.5		
01/18/95	84.25	74.77	9.48				<50	<0.5	<0.5	<0.5	<0.5		
04/07/95	84.25	72.70	11.55				<50	<0.5	<0.5	<0.5	<0.5		
07/06/95	84.25	71.25	13.00				<50	<0.5	<0.5	<0.5	<0.5		
10/11/95	84.25	70.27	13.98				<50	<0.5	<0.5	<0.5	<0.5	<2.5	
01/17/96	84.25	73.17	11.08				<50	<0.5	<0.5	<0.5	<0.5	<2.5	
04/05/96	84.25	72.65	11.60				<50	<0.5	<0.5	<0.5	<0.5	<2.5	
07/23/96	84.25	70.86	13.39				<50	<0.5	<0.5	<0.5	<0.5	<2.5	
10/02/96	84.25	70.27	13.98				<50	<0.5	<0.5	<0.5	<0.5	<2.5	
01/23/97	84.25	74.72	9.53				<50	<0.5	<0.5	<0.5	<0.5	<2.5	
04/01/97	84.25	71.68	12.57				<50	<0.5	<0.5	<0.5	<0.5	<2.5	
07/09/97	84.25	70.64	13.61				<50	<0.5	<0.5	<0.5	<0.5	<2.5	
10/07/97	84.25	70.51	13.74				<50	<0.5	< 0.5	<0.5	<0.5	<2.5	
01/22/98	84.25	74.90	9.35				<50	<0.5	<0.5	<0.5	<0.5	<2.5	
04/02/98	84.25	73.00	11.25				<50	<0.5	< 0.5	<0.5	<0.5	<2.5	
07/02/98	84.25	71.84	12.41				<50	<0.5	<0.5	<0.5	<0.5	<2.5	
10/02/98	84.25	71.00	13.25				<50	<0.5	< 0.5	<0.5	<1.5	<2.5	
01/18/99	84.25	72.65	11.60				<50	<0.5	<0.5	<0.5	< 0.5	<2.0	
07/22/99	84.25	70.70	13.55				<50	<0.5	<0.5	<0.5	< 0.5	<2.0	
01/17/00	84.25	71.32	12.93				<50	<0.50	< 0.50	< 0.50	< 0.50	<2.5	
07/05/00	84.25	MONITORE	ED/SAMPLEI	D ANNUALL	Y							-2.5	
01/15/01	84.25	72.73	11.52	0.00			<50.0	< 0.500	<0.500	<0.500	< 0.500	<2.50	
07/03/01	84.25	71.30	12.95	0.00						<0.500 	<0.300 		
02/28/02	84.25	72.54	11.71	0.00			<50	< 0.50	<0.50	<0.50	<1.5	<2.5	
07/08/02	84.24			D ANNUALL				-0.50	~0.50	~0.50			
01/01/03	84.24				D OVER WELL								
07/14/03	84.24			D ANNUALL									
					· •								

							Table 1 ing Data and	· · · · · · · · · · · · · · · · · · ·	Results				
					Fo		n Service Static						
							in Luther King	• • • • • • • • • • • • • • • • • • • •					
WELL ID/	тос	GWE	DTW	SPHT	TPH-DRO	the second s	and, California						
DATE	(ft.)	(msl)	(ft.)	эгп. (<i>ft.</i>)	1FH-DKU (μg/L)	TPH-MO (μg/L)	TPH-GRO (µg/L)	B	Τ	E	X	MTBE	TOG
· · · · · · · · · · · · · · · · · · ·		(()))	U .++)		(P-5')	(#8/1)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
MW-4 (cont)		7 2 22											
01/12/048	84.24	73.23	11.01	0.00		5 -5 -5	<50	<0.5	<0.5	<0.5	<0.5	<0.5	
01/25/05	84.24	73.28	10.96	0.00			<50	<0.5	<0.5	<0.5	<0.5	<0.5	
07/26/05	84.24			D ANNUALLY									
01/24/068	84.24	73.36	10.88	0.00			<50	<0.5	<0.5	<0.5	<0.5	<0.5	
07/25/06	84.24			D ANNUALLY				 :					
01/23/078	84.24	71.85	12.39	0.00	1000	1.000	<50	<0.5	<0.5	<0.5	<0.5	<0.5	
07/24/07	84.24			D ANNUALLY									
01/22/088	84.24	72.77	11.47	0.00	 2		<50	<0.5	<0.5	<0.5	<0.5	<0.5	
07/22/08	84.24			D ANNUALLY									
01/13/09 ⁸	84.24	71.56	12.68	0.00			<50	<0.5	<0.5	<0.5	<0.5	<0.5	
07/14/09	84.24			D ANNUALLY						<u></u> :			
01/12/108	87.29	76.14	11.15	0.00			<50	<0.5	<0.5	<0.5	<0.5	<0.5	
07/13/10	87.29	MONITORI	ED/SAMPLEI	D ANNUALLY									
01/25/118	87.29	76.21	11.08	0.00			<50	<0.5	<0.5	<0.5	<0.5	<0.5	
07/12/11	87.29	MONITORE	ED/SAMPLEI	D ANNUALLY									
01/10/128	87.29	73.94	13.35	0.00			<50	<0.5	<0.5	<0.5	<0.5	<0.5	
09/14/12	87.29	MONITOR	ED/SAMPLI	ED ANNUALL	Y		1000 (1772) 1000 (177		-		(***))	-	
MW-5													
10/18/90	81.95	71.17	10.78		-								()
10/31/90	81.95	71.32	10.63				110	<0.5	<0.5	<0.5	<0.5		
11/16/90	81.95	71.27	10.68									-	
02/08/91	81.95	72.78	9.17				<50	<0.5	<0.5	<0.5	<0.5		
05/08/91	81.95	73.27	8.68			/:	<50	<0.5	<0.5	<0.5	<0.5		
08/12/91	81.95	71.62	10.33				<50	<0.5	<0.5	<0.5	<0.5		0.55
11/07/91	81.95	72.19	9.76	5 6	1000		<50	<0.5	<0.5	<0.5	<0.5 <0.5		
02/05/92	81.95	72.48	9.47				69	<0.5	<0.5	<0.5			
05/13/92	81.95	72.25	9.70				74	<0.5	<0.5	<0.5 <0.5	<0.5		(77)
07/17/92	81.95	71.74	10.21				880	2.6	<0.3	<0.5 4.6	< 0.5		
10/05/92	81.95	71.34	10.61				120	<0.5	<0.5		11		1.
11/11/92	81.95								~ 0.3	0.6	4.9		1 ()
11/17/92	81.95					0702							
11/24/92	81.95			(1225) 1 	2010	0000			to prote	5 3			
12/01/92	81.95		- 296 		1705	0 77 5) 1022-1	di n a ta						5 55 33
12/29/92	81.95		inst Two			1. 	27 37			()	 .		
	01.75								10000				

Table 1
Groundwater Monitoring Data and Analytical Results
Former Chevron Service Station #9-1583
5509 Martin Luther King Way

Oakland,	California

WELL ID/	тос												
DATE		GWE	DTW	SPHT	TPH-DRO	ТРН-МО	TPH-GRO	B	Ţ.	E	X	МТВЕ	TOG
	(ft.)	(msl)	(ft.)	(ft.)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
MW-5 (cont))												
01/05/93	81.95												
01/08/93	81.95	74.61	7.34				61	<0.5	<0.5	<0.5	<0.5		
02/02/93	81.95												
04/14/93	81.95												
08/06/93	81.95	71.99	9.96				<50	<0.5	<0.5	<0.5	<0.5		
10/21/93	81.95	71.89	10.06				<50	<0.5	<0.5	2.0	4.0		
01/05/94	81.95	72.52	9.43				<50	<0.5	<0.5	<0.5	<0.5		
04/08/94	81.95	72.56	9.39				<50	<0.5	<0.5	<0.5	<0.5		
07/06/94	81.95	72.19	9.76				<50	0.6	<0.5	<0.5	< 0.5		
08/04/94	81.95	72.13	9.82										
10/05/94	81.95	71.89	10.06				<50	<0.5	<0.5	<0.5	<0.5		
01/18/95	81.95	INACCESS	IBLE										
04/07/95	81.95	73.31	8.64				<50	<0.5	<0.5	<0.5	<0.5		
07/06/95	81.95	72.52	9.43				<50	<0.5	<0.5	<0.5	<0.5		
10/11/95	81.95	72.12	9.83				<50	<0.5	<0.5	<0.5	< 0.5	<2.5	
01/17/96	81.95	73.63	8.32				<50	<0.5	<0.5	<0.5	<0.5	<2.5	
04/05/96	81.95	73.23	8.72				<50	<0.5	<0.5	<0.5	<0.5	<2.5	
07/23/96	81.95	72.25	9.70				<50	<0.5	<0.5	<0.5	< 0.5	<2.5	
10/02/96	81.95	72.06	9.89				<50	<0.5	< 0.5	<0.5	< 0.5	<2.5	
01/23/97	81.95	74.72	7.23				<50	<0.5	<0.5	<0.5	< 0.5	<2.5	
04/01/97	81.95	INACCESS	IBLE										
07/09/97	81.95	72.27	9.68				<50	<0.5	<0.5	<0.5	<0.5	<2.5	
10/07/97	81.95	72.14	9.81				<50	<0.5	<0.5	<0.5	< 0.5	<2.5	
01/22/98	81.95	74.80	7.15				<50	<0.5	<0.5	<0.5	<0.5	<2.5	
04/02/98	81.95	INACCESS	IBLE										
07/02/98	81.95	72.43	9.52				<50	<0.5	<0.5	<0.5	<0.5	<2.5	
10/02/98	81.95	72.14	9.81				<50	<0.5	<0.5	<0.5	<1.5	<2.5	
01/18/99	81.95	73.11	8.84				<50	<0.5	<0.5	<0.5	<0.5	<2.0	
07/22/99	81.95	72.01	9.94				<50	<0.5	< 0.5	<0.5	<0.5	<2.0	
01/17/00	81.95	72.70	9.25				<50	<0.5	<0.5	<0.5	<0.5	<2.5	
07/05/00	81.95	MONITORE		D ANNUALLY	Y								
01/15/01	81.95	73.41	8.54	0.00			423 ⁶	< 0.500	<0.500	< 0.500	< 0.500	<2.50	
07/03/01	81.95	72.62	9.33	0.00									
02/28/02	81.95	73.24	8.71	0.00			270	< 0.50	<0.50	<0.50	<1.5	<2.5	
07/08/02	81.95			D ANNUALLY									
01/01/03	81.95	INACCESSI	BLE - VEHI	CLE PARKED	OVER WELL								

Table 1 Groundwater Monitoring Data and Analytical Results Former Chevron Service Station #9-1583 5509 Martin Luther King Way

Oakland, California

						Oaki	and, California						
WELL ID/	TOC	GWE	DTW	SPHT	TPH-DRO	TPH-MO	TPH-GRO	В	Ť	E	x	MTBE	TOG
DATE	(ft.)	(msl)	(ft.)	(ft.)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
MW-5 (cont)													
07/14/03	81.95	MONITOR	ED/SAMPLE	D ANNUALLY	(
01/12/048	81.95	73.91	8.04	0.00			<50	<0.5	<0.5	<0.5	<0.5	<0.5	
01/25/058	81.95	73.94	8.01	0.00			<50	<0.5	<0.5	<0.5	<0.5	<0.5	
07/26/05	81.95	MONITORI	ED/SAMPLE	D ANNUALLY	(-0.5		
01/24/068	81.95	73.89	8.06	0.00			<50	<0.5	<0.5	<0.5	<0.5	<0.5	
07/25/06	81.95	MONITORI	ED/SAMPLE	D ANNUALLY	7							-0.5	
01/23/07	81.95			CLE PARKED									
07/24/07	81.95			D ANNUALLY									
01/22/088	81.95	73.50	8.45	0.00			<50	<0.5	<0.5	<0.5	<0.5	<0.5	
07/22/08	81.95	MONITORI	ED/SAMPLEI	D ANNUALLY	7							-0.5	
01/13/09 ⁸	81.95	71.69	10.26	0.00			<50	<0.5	<0.5	<0.5	<0.5	<0.5	
07/14/09	81.95	MONITORI	ED/SAMPLEI	D ANNUALLY	, ,						-0.5	-0.5	
01/12/10 ⁸	84.93	76.45	8.48	0.00			<50	<0.5	<0.5	<0.5	<0.5	<0.5	(177)
07/13/10	84.93	MONITORI	ED/SAMPLEI	D ANNUALLY	7								
01/25/118	84.93	76.69	8.24	0.00			<50	<0.5	<0.5	<0.5	<0.5	<0.5	
07/12/11	84.93	MONITORI		D ANNUALLY	,						-0.5	-0.5	
01/10/128	84.93	75.91	9.02	0.00			<50	<0.5	<0.5	<0.5	<0.5	<0.5	6.3)
09/14/12	84.93	MONITOR		ED ANNUALI	X	<u></u>	_	-	-0.5	-0.5	-0.5		
												-	
MW-6													
10/18/90	80.60	70.81	9.79										
10/31/90	80.60	70.91	9.69									2 2	
11/16/90	80.60	70.86	9.74				<50	<0.5	<0.5	<0.5	3.0		
02/08/91	80.60			22									
05/08/91	80.60	71.06	9.54			1							
08/12/91	80.60	71.00	9.50 9.50	V MA R)	56	< 0.5	<0.5	<0.5	<0.5		
11/07/91	80.60	71.71	8.89				<50	<0.5	<0.5	<0.5	<0.5		
02/05/92	80.60 80.60	72.01	8.59 8.59				<50	<0.5	<0.5	<0.5	<0.5		(1 44)
05/13/92	80.60						<50	<0.5	<0.5	<0.5	<0.5		
07/17/92	80.60												
10/05/92	80.60 80.60										1.00		
10/03/92	80.60 80.60					19 -1							
1 1/1 1/92 1 1/17/92							10-110						
	80.60					1. 1. 1 .							
11/24/92	80.60	1.00			1 								2
12/01/92	80.60								1471.475 14771.7				

Table 1
Groundwater Monitoring Data and Analytical Results
Former Chevron Service Station #9-1583
5509 Martin Luther King Way

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Oakland,	California	

WELL ID/	ТОС	GWE	DTW	SPHT	TPH-DRO	ТРН-МО	TPH-GRO		· · · · · · · · · · · · · · · · · · ·			· · · · <u>· · · · · · · · ·</u> · · · · ·	
DATE	(ft.)	(msl)	(ft.)	эгні (ft.)	(μg/L)	1FH-ΜΟ (μg/L)	1PH-GRO (μg/L)	B (µg/L)	Τ (μg/L)	E (µg/L)	X	MTBE	TOG
MW-6 (cont)				<u></u>						(μ <u>β</u> /L)	(µg/L)	(µg/L)	(µg/L)
12/29/92	80.60												
01/05/93													
01/03/93	80.60												
02/02/93	80.60												
02/02/93 04/14/93	80.60	72.89	7.71				<50	2.1	<0.5	<0.5	2.2		
	80.60	72.41	8.19				<50	1.0	<0.5	<0.5	<0.5		
08/06/93	80.60	71.52	9.08				<50	<0.5	<0.5	<0.5	<0.5		
10/21/93	80.60	71.46	9.14				<50	<0.5	<0.5	<0.5	<0.5		
01/05/94	80.60	72.06	8.54				<50	4.0	<0.5	<0.5	<0.5		
04/08/94	80.60												
07/06/94	80.60	INACCESSI											
08/04/94	80.60	71.66	8.94				<50	<0.5	<0.5	<0.5	<0.5		
10/05/94	80.60	INACCESSI											
01/18/95	80.60	73.50	7.10				<50	0.69	<0.5	<0.5	0.57		
04/07/95	80.60	72.77	7.83				<50	1.8	<0.5	<0.5	<0.5		
07/06/95	80.60	72.03	8.57				<50	<0.5	<0.5	<0.5	<0.5		
10/11/95	80.60	71.54	9.06				<125	<1.2	<1.2	<1.2	<1.2	540	
01/17/96	80.60	73.20	7.40				<50	<0.5	<0.5	<0.5	<0.5	180	
04/05/96	80.60	72.70	7.90				<125	1.4	<1.2	<1.2	<1.2	700	
07/23/96	80.60	71.86	8.74				<500	<5.0	<5.0	<5.0	<5.0	540	
10/02/96	80.60	71.62	8.98				<100	<1.0	<1.0	<1.0	1.8	910	
01/23/97	80.60	INACCESSI											
04/01/97	80.60	72.22	8.38				<250	<2.5	<2.5	<2.5	<2.5	640	
07/09/97	80.60	INACCESSI	BLE										
10/07/97	80.60	71.71	8.89				<50	<0.5	<0.5	<0.5	<0.5	640	
01/22/98	80.60	73.90	6.70				<50	<0.5	<0.5	<0.5	<0.5	200	
04/02/98	80.60	72.79	7.81				<250	<2.5	<2.5	<2.5	<2.5	480	
07/02/98	80.60	71.62	8.98				<50	<0.5	<0.5	<0.5	< 0.5	420	
10/02/98	80.60	71.68	8.92				<50	<0.5	<0.5	<0.5	<1.5	270	
01/18/99	80.60	INACCESSI	BLE										
07/22/99	80.60	INACCESSI	BLE										
01/17/00	80.60	INACCESSI	BLE										
07/05/00	80.60	MONITORE	D/SAMPLEI	O ANNUALLY	7								
01/15/01	80.60	INACCESSI	BLE - CAR F	PARKED OVE	R WELL								
07/03/01	80.60			PARKED OVE									
02/28/02	80.60	72.70	7.90	0.00			<50	< 0.50	<0.50	<0.50	<1.5	55	
07/08/02	80.60	MONITORE	D/SAMPLEI	O ANNUALLY	,								

Table 1 Groundwater Monitoring Data and Analytical Results Former Chevron Service Station #9-1583 5509 Martin Luther King Way

Oakland, California

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WELL ID/	TOC	GWE	DTW		TPH-DRO	ТРН-МО	TPH-GRO	В	T	E	x	MTBE	TOG
DATE	(fl.)	(msl)	(ft.)	(fl.)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
MW-6 (cont)													
01/01/03	80.60	INACCESSI	BLE - VEHI	CLE PARKED	OVER WELL	e X						<u></u>	200
07/14/03	80.60			D ANNUALLY									
01/12/048	80.60	73.23	7.37	0.00			<50	<0.5	<0.5	<0.5	<0.5	25	
01/25/058	80.60	73.17	7.43	0.00			<50	<0.5	<0.5	<0.5	<0.5	3	
07/26/05	80.60	MONITORE	ED/SAMPLE	D ANNUALLY									1153
01/24/068	80.60	73.20	7.40	0.00			<50	<0.5	<0.5	<0.5	<0.5	<0.5	57. 1.
07/25/06	80.60	MONITORE	ED/SAMPLEI	D ANNUALLY									
01/23/078	80.60	72.53	8.07	0.00			<50	<0.5	<0.5	<0.5	<0.5	8	
07/24/07	80.60	MONITORE	ED/SAMPLEI	D ANNUALLY							-0.5		
01/22/088	80.60	73.07	7.53	0.00			<50	<0.5	<0.5	1	2	4	
07/22/08	80.60	MONITORE	D/SAMPLE	D ANNUALLY								4	
01/13/09 ⁸	80.60	70.73	9.87	0.00			<50	<0.5	<0.5	<0.5	<0.5	6	
07/14/09	80.60	MONITORE		D ANNUALLY							-0.5		
01/12/108	83.63	75.71	7.92	0.00			<50	<0.5	<0.5	<0.5	<0.5	<0.5	2 2)
07/13/10	83.63	MONITORE	D/SAMPLEI	D ANNUALLY							-0.5	-0.5	
01/25/118	83.63	76.05	7.58	0.00			<50	<0.5	<0.5	<0.5	<0.5	<0.5	Est.
07/12/11	83.63	MONITORE	D/SAMPLEI	O ANNUALLY						-0.5	-0.5)
01/10/128	83.63	75.99	7.64	0.00			<50	<0.5	<0.5	<0.5	<0.5	<0.5	
09/14/12	83.63			ED ANNUALL				-0.5	-0.5	~0.5	-0.5		
											-		
MW-7													
03/08/94	86.36	74.99	11.37		<10	4,100	1,200	440	31	73	200		
07/06/94	86.36												
08/04/94	86.36	73.86	12.50				120	15	< 0.5	3.8	1.8		1.
10/05/94	86.36	73.99	12.37		()		150	1.2	<0.5	1.2	1.8		
01/18/95	86.36	74.82	11.54	17 21 2			260	112	<1.0	1.2	6.8		
04/07/95	86.36	75.63	10.73				230	<0.5	<0.5	25	0.93		19 44 0
07/06/95	86.36	74.36	12.00				320	<1.0	<0.5 <1.0	<1.0	0.93 <1.0	-	
10/11/95	86.36	73.56	12.80			$2,300^{1}$	<50	<0.5	<0.5	<0.5	<0.5		6,900
01/17/96	86.36	75.90	10.46			1,700	<50	<0.5 <0.5	<0.5 <0.5	<0.3 <0.5	<0.5 <0.5	120	
04/05/96	86.36	76.56	9.80	27 <u>44</u> 0		590	<30 130	<0.5 <0.5	<0.3 <0.5	<0.5 <0.5	<0.5 <0.5	460 120	
07/23/96	86.36	74.57	11.79			820	<500	< <u>5.0</u>	<0.3 <5.0	<0.3 < 5 .0			
10/02/96	86.36	73.10	13.26			1,500	<100	<5.0 <1.0	<3.0 <1.0	<5.0 <1.0	<0.5	1,200	
01/23/97	86.36	77.64	8.72			<500	<100 <100	<1.0 <1.0	<1.0	<1.0	<1.0	360	
04/01/97	86.36	75.09	11.27			1,600	<100 <250	<2.5	<2.5		<1.0	490	
						1,000	~2.50	~2.3	~4.3	<2.5	<2.5	1,200	

Table 1
Groundwater Monitoring Data and Analytical Results
Former Chevron Service Station #9-1583

5509 Martin Luther King Way

							and, California						
WELL ID/	тос	GWE	DTW	SPHT	TPH-DRO	ТРН-МО	TPH-GRO	В	T	E	x	MTBE	TOG
DATE	(ft.)	(msl)	(ft.)	(fL)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
MW-7 (cont)													
07/09/97	86.36	73.92	12.44			5,700	<250	5.9	<2.5	<2.5	<2.5	1 200	
10/07/97	86.36	73.44	12.92			<500	<50	<0.5	<0.5	< <u>2.3</u>	<2.5 <0.5	1,200	
01/22/98	86.36	75.14	11.22			<500	<50	<0.5	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5	240	
04/02/98	86.36	75.67	10.69			<500	56	<0.5	<0.5 <0.5	<0.5 <0.5		400	
07/02/98	86.36	75.94	10.42			<500	<50	<0.5	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5	290	
10/02/98	86.36	74.14	12.22			1,700	<50	<0.5	<0.5 <0.5	<0.5 <0.5	<0.5 <1.5	380	
01/18/99	86.36	75.36	11.00			543	<100	<1.0	<0.5	<0.3 <1.0		660	
07/22/99	86.36	74.06	12.30				<50	<0.5	<0.5	<0.5	<1.0 <0.5	281/296 ²	
01/17/00	86.36	75.84	10.52		256 ¹	1,040	<50 <50	<0.5 <0.5	<0.3 <0.5			155	
07/05/00	86.36	74.23	12.13	0.00		1,400 ⁴	<50 <50	<0.5 <0.50	<0.5 <0.50	<0.5	< 0.5	104	
01/15/01	86.36	75.23	11.13	0.00		2,700	<50.0	<0.500	<0.500	<0.50	< 0.50	110	
07/03/01	86.36	74.47	11.89	0.00		2,700 760 ⁷	<50 <50	<0.500 <0.50	<0.300 <0.50	<0.500	<0.500	84.3	
02/28/02	86.36	75.26	11.10	0.00		<1,000	<50 <50	<0.50 <0.50		<0.50	< 0.50	27	
07/08/02	86.36	74.05	12.31	0.00		1,400	<50	<0.30 <0.50	<0.50 <0.50	<0.50	<1.5	66	
01/01/03	86.36	76.65	9.71	0.00		1,400	<50	<0.30 <0.50		<0.50	<1.5	49	
07/14/03 ⁸	86.36	74.01	12.35	0.00		1,300	<50	<0.30 <0.5	< 0.50	<0.50	<1.5	35	
01/12/04 ⁸	86.36	75.66	10.70	0.00		250	<50	<0.5 <0.5	<0.5	< 0.5	<0.5	20	
07/27/04 ⁸	86.36	74.08	12.28	0.00		730	<50 <50	<0.5 <0.5	<0.5	<0.5	<0.5	27	
01/25/05 ⁸	86.36	75.56	10.80	0.00		980	<50 <50	<0.3 <0.5	< 0.5	<0.5	<0.5	44	
07/26/05 ⁸	86.36	73.69	12.67	0.00		1,100	<50 <50		<0.5	< 0.5	<0.5	34	
01/24/06 ⁸	86.36	75.60	10.76	0.00		230	<50 <50	<0.5	< 0.5	<0.5	<0.5	19	-
07/25/06 ⁸	86.36	74.17	12.19	0.00		160		<0.5	<0.5	<0.5	<0.5	18	
01/23/07 ⁸	86.36	74.60	11.76	0.00		2,100	<50	< 0.5	<0.5	<0.5	<0.5	19	
07/24/07 ⁸	86.36	73.91	12.45	0.00			<50	<0.5	< 0.5	<0.5	<0.5	15	
01/22/08 ⁸	86.36	75.36	11.00	0.00		3,100	<50	<0.5	<0.5	<0.5	<0.5	24	
07/22/08 ⁸	86.36	73.38	12.98	0.00		4,400	<50	<0.5	<0.5	<0.5	<0.5	12	
01/13/09 ⁸	86.36	73.85	12.58	0.00		200	<50	<0.5	<0.5	<0.5	<0.5	25	
07/14/09 ⁸	86.36	73.18	12.51			1,400	<50	<0.5	<0.5	<0.5	<0.5	7	
07/14/09 01/12/10 ⁸	86.36	75.01	11.35	0.00		1,000	<50	< 0.5	<0.5	<0.5	<0.5	10	
01/12/10 ⁸	86.36	73.01	11.35	0.00		1,500	<50	<0.5	<0.5	<0.5	<0.5	5	
	86.36			0.00		1,100	<50	<0.5	< 0.5	<0.5	<0.5	4	
01/25/118	86.36	75.30	11.06	0.00		2,300	<50	<0.5	<0.5	<0.5	<0.5	2	
07/12/11 ⁸		74.61	11.75	0.00		1,800	<50	<0.5	<0.5	<0.5	<0.5	2	
01/10/12 ⁸	86.36	73.77	12.59	0.00		1,900	<50	<0.5	<0.5	<0.5	<0.5	2	
09/14/12 ⁸	86.36	73.57	12.79	0.00		1,100	<50	<0.5	<0.5	<0.5	<0.5	2	

Table 1
Groundwater Monitoring Data and Analytical Results
Former Chevron Service Station #9-1583
5509 Martin Luther King Way

Oakland, California

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WELL ID/ DATE	TOC	GWE	DTW	SPHT	TPH-DRO		TPH-GRO	B	Т	E.	X	MTBE	TOG
	(ft.)	(msl)	(ft.)	(ft.)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
MW-8													
03/08/94	85.93	75.06	10.87		<10	<100	28,000	2,900	1,300	1,200	6,800		
07/06/94	85.93									-,_ • •			
08/04/94	85.93	73.77	12.16				22,000	3,000	260	870	4,400		
10/05/94	85.93	72.71	13.22				12,000	1,800	34	4.6	890		
01/18/95	85.93	75.51	10.42				19,000	1,000	65	1,100	3,500		
04/07/95	85.93	75.48	10.45				14,000	310	<25	720	1,700		
07/06/95	85.93	74.30	11.63				19,000	280	<50	1,200	2,600		
10/11/95	85.93	73.51	12.42				6,100	140	5.5	320	280	1,200	
01/17/96	85.93	75.95	9.98			<500	12,000	86	<20	590	1,400	1,100	
04/05/96	85.93	75.60	10.33			<500	7,500	180	23	410	480	560	
07/23/96	85.93	74.56	11.37			<500	3,800	47	<5.0	350	84	1,800	
10/02/96	85.93	73.90	12.03			<500	4,400	65	<5.0	140	28	1,500	
01/23/97	85.93	77.73	8.20			<500	3,800	36	5.9	140	36	910	
04/01/97	85.93	75.80	10.13			<500	6,100	43	<20	380	76	1,800	
07/09/97	85.93	73.77	12.16			<500	7,300	48	<25	120	<25	2,400	
10/07/97	85.93	73.77	12.16			<500	3,100	<10	<10	67	<10	1,400	
01/22/98	85.93	75.83	10.10			<500	1,900	5.5	8.3	120	17	780	
04/02/98	85.93	75.55	10.38			<500	2,900	43	19	110	<10	800	
07/02/98	85.93	74.78	11.15			<500	5,000	31	<10	120	15	780	
10/02/98	85.93	74.03	11.90			1,200 ¹	2,200	6.5	<0.5	21	2.6	140	
01/18/99	85.93	75.12	10.81		554	<250	2,870	<5.0	<5.0	9.02	<5.0	476/478 ²	
07/22/99	85.93	74.38	11.55				2,190	<1.0	<1.0	3.51	1.61	228	
01/17/00	85.93	75.06	10.87		955 ¹	<500	1,220	1.3	1.56	1.56	1.87	344	
07/05/00	85.93	74.55	11.38	0.00		260 ⁵	1,900 ³	15	6.6	<5.0	<5.0	170	
01/15/01	85.93	75.59	10.34	0.00		<250	2,820	<1.00	<1.00	5.13	3.90	110	
07/03/01	85.93	74.77	11.16	0.00		<250	$1,900^{3}$	6.0	<5.0	<5.0	<5.0	46	
02/28/02	85.93	75.26	10.67	0.00		<1,000	1,500	4.6	<2.0	0.80	2.2	56	
07/08/02	85.93	74.30	11.63	0.00		<400	2,500	4.2	0.85	0.68	2.5	46	
01/01/03	85.93	76.01	9.92	0.00		<400	1,300	2.1	0.66	1.1	2.1	45	
07/14/03 ⁸	85.93	74.27	11.66	0.00		160	1,900	<0.5	<0.5	<0.5	<0.5	58	
01/12/04 ⁸	85.93	75.92	10.01	0.00		<40	1,400	<0.5	<0.5	<0.5	<0.5	110	
07/27/04 ⁸	85.93	74.33	11.60	0.00		<40	1,100	<0.5	<0.5	<0.5	<0.5	89	
01/25/05 ⁸	85.93	75.96	9.97	0.00		130	900	<0.5	<0.5	<0.5	<0.5	52	
07/26/05 ⁸	85.93	74.08	11.85	0.00		99	580	<0.5	<0.5	<0.5	<0.5	23	
01/24/06 ⁸	85.93	76.06	9.87	0.00		69	620	<0.5	<0.5	<0.5	<0.5	31	
07/25/06 ⁸	85.93	74.77	11.16	0.00		<40	420	<0.5	<0.5	<0.5	<0.5	20	

Table 1

Groundwater Monitoring Data and Analytical Results

Former Chevron Service Station #9-1583

5509 Martin Luther King Way

						Oakl	and, California	1					
WELL ID/	TOC	GWE	DTW	SPHT	TPH-DRO	ТРН-МО	TPH-GRO	В	r	E	x	MTBE	TOG
DATE	(ft.)	(msl)	(ft.)	(fl.)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
MW-8 (cont)									2				
01/23/078	85.93	74.78	11.15	0.00	1 24	200	710	<0.5	<0.5	<0.5	<0.5	26	
07/24/07 ⁸	85.93	74.15	11.78	0.00		730	560	<0.5	<0.5	<0.5	<0.5	30	
01/22/088	85.93	75.59	10.34	0.00		500	520	<0.5	<0.5	<0.5	<0.5	27	
07/22/08 ⁸	85.93	73.86	12.07	0.00	5 	90	330	<0.5	<0.5	<0.5	<0.5	27	
01/13/09 ⁸	85.93	74.35	11.58	0.00	11 <u>-12</u> -1	62	360	<0.5	<0.5	<0.5	<0.5		
07/14/09 ⁸	85.93	73.68	12.25	0.00		90	500	<0.5	<0.5	<0.5	<0.5	14 10	
01/12/10 ⁸	85.95	75.50	10.45	0.00		100	370	<0.5	<0.5	<0.5	<0.5		
07/13/10 ⁸	85.95	74.33	11.62	0.00		73	260	<0.5	<0.5	<0.5	<0.5 <0.5	8	
01/25/118	85.95	75.88	10.07	0.00	5 - 2	<40	200	<0.5	<0.5	<0.5		6	
7/12/118	85.95	75.25	10.70	0.00		56	120	<0.5	<0.5	<0.5 <0.5	<0.5	4	
1/10/128	85.95	74.27	11.68	0.00		130	140	<0.5	<0.5	<0.5	<0.5	3	
9/14/128	85.95	74.15	11.80	0.00		72	61	<0.5 <0.5			<0.5	3	
	00000		11.00	0.00		14	01	<0.5	<0.5	<0.5	<0.5	2	
RIP BLANI	к												
3/12/90							<50	<0.3	<0.3	<0.2	-0.(
2/08/91							<50	<0.5	<0.5 <0.5	<0.3 <0.5	<0.6		
5/08/91							<50	<0.5	<0.5 <0.5	<0.3 <0.5	<0.5	3 55 0	
8/12/91							<50	<0.5	<0.5		<0.5		
1/07/91							<50	<0.5	<0.5 <0.5	<0.5	<0.5		
2/05/92							<50	<0.5	<0.5 <0.5	<0.5	< 0.5		
5/13/92							<50	<0.5 <0.5		< 0.5	<0.5		
7/17/92							<50		< 0.5	< 0.5	<0.5		
0/05/92		22	1201				<50	<0.5	<0.5	<0.5	<0.5		
1/11/92								<0.5	<0.5	<0.5	<0.5		
1/17/92						6 00							
1/29/92						2 2					1.55		0 999 0
2/01/92	_								1971a				
2/29/92							2.77						
1/05/93					1000								
l/08/93			100	6 70 3								27 I I I	2. 2
2/02/93							<50	<0.5	<0.5	<0.5	<0.5	3 000	
4/14/93						-							3 44 0
8/06/93							<50	< 0.5	<0.5	<0.5	<0.5		
						(- • •	<50	<0.5	<0.5	<0.5	<0.5		1.77
)/21/93		hire for					<50	<0.5	<0.5	<0.5	<0.5	. 	0 0
1/05/94				00			<50	<0.5	<0.5	<0.5	<0.5		

Table 1 Groundwater Monitoring Data and Analytical Results Former Chevron Service Station #9-1583

5509 Martin Luther King Way Oakland, California

THE BLANK (cont) 0408894 <-								and, Californi	a					
THP BLANK (cent) IPE											••••••••••			TOG
040894 - <th>DATE</th> <th>([1.)</th> <th>(mst)</th> <th>([1,)</th> <th>(ft.)</th> <th>(µg/L)</th> <th>(µg/L)</th> <th>(µg/L)</th> <th>(µg/L)</th> <th>(µg/L)</th> <th>(µg/L)</th> <th>(µg/L)</th> <th>(µg/L)</th> <th>(µg/L)</th>	DATE	([1.)	(mst)	([1,)	(ft.)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
0776094 - </td <td></td> <td>K (cont)</td> <td></td>		K (cont)												
07/0694 - </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td><50</td> <td><0.5</td> <td><0.5</td> <td><0.5</td> <td><0.5</td> <td></td> <td></td>								<50	<0.5	<0.5	<0.5	<0.5		
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01/1895 -50 -0.5 <								<50						
040795								<50	<0.5					
07/06/95 -<								<50	<0.5	<0.5				
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01/17%6								<50	<0.5				<2.5	
04/05/96 -<								<50						
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$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$								<50	<0.50	<0.50	<0.50	<0.50		
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07/25/06 ⁸ <50 <0.5 <0.5 <0.5 <0.5 <0.5								<50	<0.5					
								<50	<0.5	<0.5				
01/23/07 ⁸	01/23/07 ⁸							<50	<0.5					

Table 1 Groundwater Monitoring Data and Analytical Results Former Chevron Service Station #9-1583

5509 Martin Luther King Way Oakland, California

	TOC	GWE	DTW	SPHT	TPH-DRO	TPH-MO	TPH-GRO	В	T	E.	x	MTBE	TOG
DATE	(ft.)	(mst)	(ft.)	(ft.)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
QA (cont)													
07/24/07 ⁸					5-3	0.00	<50	<0.5	<0.5	<0.5	<0.5	<0.5	
01/22/08 ⁸							<50	<0.5	<0.5	<0.5	<0.5	<0.5	
07/22/08 ⁸		1. 25 0					<50	<0.5	<0.5	<0.5	<0.5	<0.5	
01/13/09 ⁸							<50	<0.5	<0.5	<0.5	<0.5	<0.5	
07/14/09 ⁸ DESTROYED		19 <u>11-</u> 19			70		<50	<0.5	<0.5	<0.5	<0.5	<0.5	
09/14/12 ⁸	-	-					<50	<0.5	<0.5	<0.5	<0.5	<0.5	

.

EXPLANATIONS:

Groundwater monitoring data and laboratory analytical results prior to July 5, 2000, were compiled from reports prepared by Blaine Tech Services, Inc.

TOC = Top of Casing	DRO = Diesel Range Organics
$(\mathbf{ft.}) = \mathbf{Feet}$	MO = Motor Oil
GWE = Groundwater Elevation	GRO = Gasoline Range Organics
(msl) = Mean sea level	B = Benzene
DTW = Depth to Water	T = Toluene
SPHT = Separate Phase Hydrocarbon Thickness	E = Ethylbenzene
TPH = Total Petroleum Hydrocarbons	X = Xylenes

MTBE = Methyl Tertiary Butyl Ether TOG = Total Oil & Grease (µg/L) = Micrograms per liter -- = Not Measured/Not Analyzed QA = Quality Assurance/Trip Blank

* TOC elevations were surveyed on October 27, 2009, by Virgil Chavez Land Surveying. The benchmark for this survey was a cut square on top of easterly curb of Broadway, opposite 5718 Broadway. Benchmark Elevation = 180.06 feet. Vertical Datum is NGVD 29 from GPS observations.

¹ Laboratory report indicates an unidentified hydrocarbon.

² Confirmation run.

- ³ Laboratory report indicates gasoline C6-C12.
- ⁴ Laboratory report indicates motor oil C16-C36.
- ⁵ Laboratory report indicates unidentified hydrocarbons C9-C24.

⁶ Laboratory report indicates hydrocarbon pattern is present in the requested fuel quantitation range but does not resemble the pattern of the requested fuel. The pattern more closely resembles that of a heavier fuel.

⁷ Laboratory report indicates unidentified hydrocarbons >C16.

⁸ BTEX and MTBE by EPA Method 8260.

Table 2 Groundwater Analytical Results - Oxygenate Compounds Former Chevron Service Station #9-1583 5509 Martin Luther King Way

Oakland, California

				kland, California			
WELL ID	DATE	ETHANOL	ТВА	MTBE	DIPE	ETBE	TAME
		(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
MW-1	07/14/03	<50		5			
	01/12/04	<50	1949) 	61		3 	
	07/27/04	<50		54			
	01/25/05	<50		5	1211		
	07/26/05	<50		25			
	01/24/06	<50		25			
	07/25/06	<50		14			100.00
	01/23/07	<50		17			
	07/24/07	<50		7			
	01/22/08	<50	22	8			_
	07/22/08	<50		<0.5			
	01/13/09	<50		2			
	01/12/10			15	22		
	01/25/11			5		1002 1 00	-
	01/10/12		22	2			
MW-2	07/14/03	<50		<0.5			
	01/12/04	<50		<0.5			
	07/27/04	<50		<0.5			
	01/25/05	<50	13 333 5	<0.5		<u></u>	
	07/26/05	<50		<0.5			
	01/24/06	<50	20 1	<0.5			
	07/25/06	<50	3. 3	<0.5			
	01/23/07	<50		<0.5			-
	07/24/07	<50	1. 	<0.5		<u></u>	2000)
	01/22/08	<50		<0.5			
	07/22/08	<50	5 1	2			
	01/13/09	<50		<0.5			
	01/12/10			<0.5			
	01/25/11			<0.5			
	01/10/12	()		<0.5	(-		
							-
MW-3	07/14/03	<50		43			_
	01/12/04	<50		2		752	2.5
	07/27/04	<50		41			
				71	3.8.7.4.	50 3	

Table 2 Groundwater Analytical Results - Oxygenate Compounds Former Chevron Service Station #9-1583 5509 Martin Luther King Way

			Oal	kland, California			
WELL ID	DATE	ETHANOL (µg/L)	ТВА (µg/L)	МТВЕ (µg/L)	DIPE (µg/L)	ЕТВЕ (µg/L)	ТАМЕ (µg/L)
MW-3 (cont)	01/25/05	<50		27			in a start and a start
	07/26/05	<50		12			
	01/24/06	<50		0.8			
	07/25/06	<50		23			19 10 0
	01/23/07	<50		2			
	07/24/07	<50		20			
	01/22/08	<50		<0.5			
	07/22/08	<50		7		-	
	01/13/09	<50		10			
	01/12/10			14	-		
	01/25/11			4			
	01/10/12		-	1			
MW-4	07/14/03	SAMPLED ANNUALLY					
	01/12/04	<50		<0.5			
	01/25/05	<50		<0.5			
	01/24/06	<50		<0.5			
	01/23/07	<50		<0.5		55)	
	01/22/08	<50		<0.5			
	01/13/09	<50		<0.5			
	01/12/10			<0.5			
	01/25/11			<0.5		5 5	
	01/10/12			<0.5	375. 776		-
MW-5	07/14/03	SAMPLED ANNUALLY					
·	01/12/04	SAMPLED ANNOALL P <50					
	01/25/05	<50		<0.5			
	01/23/03	<50		<0.5		1	
	01/23/07	NACCESSIBLE - VEHICLE		<0.5			10000 10000
	01/23/07	INACCESSIBLE - VEHICLE	FARKED OVER W	VELL			

01/22/08

01/13/09

01/12/10

01/25/11

01/10/12

<50

<50

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<0.5

<0.5

<0.5

<0.5

< 0.5

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Table 2 Groundwater Analytical Results - Oxygenate Compounds Former Chevron Service Station #9-1583 5509 Martin Luther King Way

Oakland, California

WELL ID	DATE	ETHANOL	ТВА	MTBE	DIPE	ETBE	TAME
		(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
MW-6	07/14/03	SAMPLED ANNUALLY				-	
	01/12/04	<50		25		-	
	01/25/05	<50		3			
	01/24/06	<50		<0.5			1221
	01/23/07	<50		8	122	1 <u></u>	
	01/22/08	<50		4		1000	
	01/13/09	<50		6	50-54		
	01/12/10			<0.5			()
	01/25/11			<0.5			
	01/10/12			<0.5			
MW-7	07/14/03	<50		20			
	01/12/04	<50		27			
	07/27/04	<50		44			
	01/25/05	<50		34			
	07/26/05	<50		19			
	01/24/06	<50		18			
	07/25/06	<50		19			
	01/23/07	<50		15			
	07/24/07	<50		24			
	01/22/08	<50		12		_	8 <u>000</u>
	07/22/08	<50		25			
	01/13/09	<50	7	7			
	07/14/09		1.44	10			
	01/12/10			5			
	07/13/10			4			
	01/25/11	. 77		2	<u></u> :	<u></u>	
	07/12/11		())	2			
	01/10/12			2			
	09/14/12			2	-		
633 7 0	07/14/02	.50					
/IW-8	07/14/03	<50	1 1	58	 3		
	01/12/04	<50		110	(). ()		
	07/27/04	<50	10 -55	89	0	200 - 20 	
	01/25/05	<50		52			

Table 2 Groundwater Analytical Results - Oxygenate Compounds Former Chevron Service Station #9-1583 5509 Martin Luther King Way Oxkland Oxkland

			Oal	kland, California			
WELL ID	DATE	ETHANOL (µg/L)	ТВА (µg/L)	МТВЕ (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)
MW-8 (cont)	07/26/05	<50		23			
	01/24/06	<50		31			
	07/25/06	<50		20			
	01/23/07	<50		26			
	07/24/07	<50		30			
	01/22/08	<50		27			
	07/22/08	<50		21			
	01/13/09	<50		14			
	07/14/09			10			
	01/12/10			8			
	07/13/10			6			
	01/25/11	2 		4			1990 1990
	07/12/11			3			22
	01/10/12	8.000		3			
	09/14/12	-		2	<u></u>		2522
							1.000

 Table 2

 Groundwater Analytical Results - Oxygenate Compounds

 Former Chevron Service Station #9-1583

 5509 Martin Luther King Way

 Oakland, California

EXPLANATIONS:

TBA = t-Butyl alcohol MTBE = Methyl Tertiary Butyl Ether DIPE = di-Isopropyl ether ETBE = Ethyl t-butyl ether

TAME = t-Amyl methyl ether (μ g/L) = Micrograms per liter -- = Not Analyzed

ANALYTICAL METHODS:

EPA Method 8260 for Oxygenate Compounds

STANDARD OPERATING PROCEDURE -GROUNDWATER SAMPLING

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

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

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

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

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

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

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

N;\California\forms\chevron-SOP-Jan. 2012



Client/Facility#: Chevron #9-1583 Job Number: 386506 Site Address: 5509 Martin Luther King Way Event Date: 9 /14 /12 (inclusive)	
Site Address: 5509 Martin Luther King Way Event Date: (inclusive)	
City: Oakland, CA Sampler:	
Well ID MW- Date Monitored: 9/14/12	
Well Diameter 2 (3) in. Volume 3/4"= 0.02 1"= 0.04 2"= 0.17 3"= 0.38	
Total Depth Factor (VF) 4"= 0.66 5"= 1.02 6"= 1.50 12"= 5.80	
Depth to Water 9,99 ft. Check if water column is less then 0.50 ft.	
Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]:	
Depth to Water w/ 00 /0 Recharge [(relight of Water Column x 0.20) + DTW]: Image: Column x 0.20) + DTW]:	
Start Time (purge): V/A / Weather Conditions: CLOUDY Sample Time/Date: V/A / Water Color: Odor: Y / N Approx. Flow Rate: gpm. Sediment Description: Odor: Y / N Did well de-water? If yes, Time: Volume: gal. DTW @ Sampling: V/A	
Time (2400 hr.) Volume (gal.) pH Conductivity (μmhos/cm - μS) Temperature (C / F) D.O. (mg/L) ORP (mV)	

		L	ABORATORY	FORMATION	
SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-	x voa vial	YES	HCL	LANCASTER	TPH-GRO(8015)/BTEX+MTBE(8260)
	x 1 liter ambers	YES	NP	LANCASTER	TPH-MO (8015)
OMMENTS:	·····	M	10		

Add/Replaced Lock: _____

Add/Replaced Plug: _____ Add/Replaced Bolt: _____



Client/Facility#:	Chevron #9-1583	3 Job Number: 386506	
Site Address:	5509 Martin Luth		
City:	Oakland, CA	Sampler:	
Well ID	MW- 2	Date Monitored: 9/14/12	
Well Diameter	2 (3') in.		
Total Depth	18.95 tt.	Volume 3/4"= 0.02 1"= 0.04 2"= 0.17 3"= 0.38 Factor (VF) 4"= 0.66 5"= 1.02 6"= 1.50 12"= 5.80	
Depth to Water	10.45 ft.	Check if water column is less then 0.50 ft.	
Depth to Water w Purge Equipment: Disposable Bailer Stainless Steel Bailer Stack Pump Suction Pump Grundfos Peristaltic Pump QED Bladder Pump Other:			
Start Time (purge)		Weather Conditions: CLOUDY	=
Sample Time/Date		Water Color: Odor: Y / N	
Approx. Flow Rate			
Did well de-water?	? If yes, 1	Time: Volume: gal. DTW @ Sampling:A	
Time (2400 hr.)	Volume (gal.) pH	Conductivity Temperature D.O. ORP (μm/hos/cm - μS) (C / F) (mg/L) (mV)	
SAMPLE ID			

		1	ABORATORY IN	FORMATION	
SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-	x voa vial	YES	HCL	LANCASTER	TPH-GRO(8015)/BTEX+MTBE(8260)
	x 1 liter ambers	YES	NP	LANCASTER	IPH-MO (8015)
<u> </u>					
				······································	
	<u>├</u> ────────────────────────────────────				
COMMENTS.	<u> </u>	$\wedge \wedge$	10	<u> </u>	
COMMENTS:		-/VL	-/-0		

Add/Replaced Lock: _____ Add/Replaced Plug: _____ Add/Replaced Bolt: _____



Client/Facility#:	Chevron #9	-1583		Job Number:	386506
Site Address:	5509 Martin	Luther	King Way	Event Date:	a 111 110
City:	Oakland, C			Sampler:	
Well ID	MW- 🗧	5	i	Date Monitored:	9/14/12
Well Diameter	i	<u>n.</u>	Volun	ne 3/4"= 0.(D2 1"= 0.04 2"= 0.17 3"= 0.38
Total Depth	19.60	<u>t.</u>		r (VF) 4"= 0.6	
Depth to Water	1.76		Check if water colum		
Depth to Water	w/ 80% Recharg	xVF e [(Height of	= Water Column x 0.20)	x3 case volume = + DTW]:	Estimated Purge Volume: N/A gal.
Purge Equipment:		:	Sampling Equipment:	- ()	Time Started:(2400 hrs) Time Completed:(2400 hrs)
Disposable Bailer			Disposable Bailer		Depth to Product:ft
Stainless Steel Bailer			Pressure Bailer		Depth to Water:ft Hydrocarbon Thickness:
Stack Pump		·	Discrete Bailer		Visual Confirmation/Description:
Suction Pump			Peristaltic Pump	\angle	
Grundfos Peristaltic Pump			QED Bladder Pump		Skimmer / Absorbant Sock (circle one) Amt Removed from Skimmer:gal
QED Bladder Pump		(Other:		Amt Removed from Well: gal
Other:			M/D		Water Removed:
Start Time (purge)):		Weather Cor	ditions:	CLOUDY
Sample Time/Dat	e: MAI		Water Color:		Odor: Y / N
Approx. Flow Rat	e: 10(0	gpm.	Sediment De	the second s	
Did well de-water	? If				gal. DTW @ Sampling:
Time					
(2400 hr.)	Volume (gal.)	рН	Conductivity (µmhos/cm - µS)	Temperature (C/F)	D.Q. ORP (mg/L) (mV)
			and the second s		
	<u> </u>				
	$ \rightarrow $				
SAMPLE ID	(#) CONTAINER	REFRIG.	ABORATORY IN PRESERV. TYPE	LABORATORY	ANALYSES
MW-	x voa vial	YES	HCL	LANCASTER	TPH-GRO(8015)/BTEX+MTBE(8260)
	x 1 liter ambers	YES	NP	LANCASTER	TPH-MO (8015)
	\leq				
		-			
COMMENTS:	ΛΛ	11			
	1.				
Add/Replaced Lo		A .1.1/	Replaced Plug:		Add/Replaced Bolt:

=



Client/Facility#:	Chevron #9-1583	Job Number:	386506
Site Address:	5509 Martin Luther King Way	Event Date:	9/14/12 (inclusive)
City:	Oakland, CA	Sampler:	HALG K
Well ID	MW- 7	Date Monitored:	9/14/10
Well Diameter	273 in.	olume 3/4"= 0.02	
Total Depth		actor (VF) 4"= 0.66	
Depth to Water	Check if water co	lumn is less then 0.50	
Depth to Water w	6,96 xVF 0,17 = 1,1 // 80% Recharge [(Height of Water Column x 0.	X x3 case volume = E	Estimated Purge Volume: <u>3 . 5</u> gal.
Purge Equipment:	Sampling Equipme	ent:	Time Completed:(2400 hrs) Depth to Product:ft
Disposable Bailer Stainless Steel Bailer	Disposable Bailer Pressure Bailer		Depth to Water:ft
Stack Pump	Discrete Bailer	<u> </u>	Hydrocarbon Thickness:ft Visual Confirmation/Description:
Suction Pump	Peristaltic Pump		
Grundfos	QED Bladder Pump		Skimmer / Absorbant Sock (circle one) Amt Removed from Skimmer: gal
Peristaltic Pump QED Bladder Pump	Other:		Amt Removed from Well: gal
Other:			Water Removed:
Start Time (purge)	Veather	Conditions: C	LOUDY
Sample Time/Date			Odor: (Y) N MODERATS
Approx. Flow Rate		Description:	MOVERIFIE
Did well de-water?	• If yes, Time: Vo	olume: ga	al. DTW @ Sampling: 13,20
Time (2400 hr.)	Volume (gal.) pH Conductivity (µmhos/em - µS)	Temperature	D.O. ORP
1153	1.5 7.29 229	18.5	
1156	25 7.24 584	- 8.4 -	
1159	315 7.21 28	1 18.8 -	

LABORATORY INFORMATION												
SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES							
MW- 17	6 x voa vial	YES	HCL	LANCASTER	TPH-GRO(8015)/BTEX+MTBE(8260)							
	x 1 liter ambers	YES	NP	LANCASTER	TPH-MO (8015)							
	++											
<u> </u>	· · · · · · · · · · · · · · · · · · ·											
_ <u>~~</u>			l									

COMMENTS:

_____ Add/Replaced Lock: _____ Add/Replaced Plug: _____ Add/Replaced Bolt: _____



Client/Facility#:	Chevron #9-1583	Job Number:	386506
Site Address:	5509 Martin Luther King Way	Event Date:	9/14/12 (inclusive)
City:	Oakland, CA	Sampler:	HARO K
Well ID	<u>8_</u>	Date Monitored:	9/14/19
Well Diameter	(2) 3 in.	olume 3/4"= 0.02	1"= 0.04 2"= 0.17 3"= 0.38
Total Depth		actor (VF) 4"= 0.66	
Depth to Water	4.30 ft. Check if water col	lumn is less then 0.50 3 x3 case volume = E	ft. Eştimated Purge Volume: 2,19 gal.
Depth to Water w	80% Recharge [(Height of Water Column x 0.2	20) + DTWJ:	
Burne Fruitanaut			Time Started:(2400 hrs)
Purge Equipment: Disposable Bailer	Sampling Equipme	ont:	Time Completed:(2400 hrs) Depth to Product:ft
Stainless Steel Bailer	Disposable Bailer Pressure Bailer		Depth to Water:ft
Stack Pump	Discrete Bailer	<u> </u>	Hydrocarbon Thickness:ft Visual Confirmation/Description
Suction Pump	Peristaltic Pump		
Grundfos	QED Bladder Pump		Skimmer / Absorbant Sock (circle one)
Peristaltic Pump	Other:	· _ · _ · _ · _ · _ · _ · _ · _ · _ · _	Amt Removed from Skimmer: gal Amt Removed from Well: gal
QED Bladder Pump Other:			Water Removed:
Other			Product Transferred to:
Start Time (purge):	1232 , Weather (Conditions:	LOUDY
Sample Time/Date	25519/14/12 Water Col		Odor: (Y) N SLIGHT
Approx. Flow Rate	gpm. Sediment	Description:	
Did well de-water?			al. DTW @ Sampling: 11.91
Time (2400 hr.)	Volume (gal.) pH Conductivity (µmhos/cm - yS)	Temperature	D.O ORD
1236	0.75 7.22 270	19.1	
1238	1.5 1.00 246	19.2	
1241	- 7-32 411 - 54G	19.2	

			ABORATORY IN	FORMATION	
SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW- 🛠	O x voa vial	YES	HCL	LANCASTER	TPH-GRO(8015)/BTEX+MTBE(8260)
	x 1 liter ambers	YES	NP	LANCASTER	TPH-MO (8015)
	1				
			l		

COMMENTS:

Add/Replaced Lock: _____ Add/Replaced Plug: _____ Add/Replaced Bolt: _____

	e na setta setta en la composición de l	Chevr	on Ca	alif	ori	nic	$\Im R$?ec	gic	n.	Ar	na	ly:	sis	Re	equ	ue	st/	/Cł	nain	of	Cu	stoc
Lancaste Laborato		09141		IL					100										e only	Group)10	343
			10500.000										-			ested		-		G#1	33	591	64
Facility #:	, 6747 Sierra ^l Codu a L. Harding (de	Rossillent;	AND, CA RAKJ Jublin, CA com)	Kier 9456				L AIT			🗖 Silica Gei Cleanup	P		Wethod		odes			N S	$= HCI$ $= HNO;$ $= H_2SO$ J value r Must me possible 21 MTBE	B B C C C C C C C C C C C C C C C C C C	= Thio = NaC = Other neederst detection 0 componention	sulfate DH ar d tion limits punds
Sample Identification		Date Collected	Time Collected	Grab	Composite	Soi					TPH 8015 MOD DRO	8260 full scan	Oxygenates	Tota Lead	Dissolved Lead					Confirm Confirm Run Run	all hits b _ oxy's (oy 8260 on high	est hit
	w-7 w-8		1210	X		×	Š							·	X					omment	ts / Rer	marks	
			Delies																		<u></u>		
24 hour 4 c	hour 48 hou tay 5 day	r	Relingu Relingu	tished	by	1	K	<u>'U</u>	<u>J</u>	3 143	EF	212_	Ти Г.	ne 36	1	ived by	<u> </u>	<u>k</u> ex		(27 m) -	_\$/2	Date Via Date	Time 1450 Time
Data Package Options (ple QC Summary Type I Type VI (Raw Data) □ Coord WIP (RWQCB) Disk	ase circle if required) I - Full alt Deliverable not nee		Relinqu Relinqu UPS Temper	ished I	by Co			Oth				Pate	Tin	ne 	Rece	ived by	y:	**		(() () () () () () () () () () () () ()	115/	Date	Time Time QQ

Lancaster Laboratories, Inc., 2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 (717) 656-2300 Copies: White and yellow should accompany samples to Lancaster Laboratories. The pink copy should be retained by the client.

4804.01 (north) Rev. 10/12/06

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ANALYTICAL RESULTS

Prepared by:

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

Chevron L4310 6001 Bollinger Canyon Rd. San Ramon CA 94583

October 16, 2012

Project: 91583

Submittal Date: 09/15/2012 Group Number: 1335964 PO Number: 0015110336 Release Number: WAITE State of Sample Origin: CA

Client Sample Description QA-T-120914 NA Water MW-7-W-120914 Grab Water MW-8-W-120914 Grab Water

Lancaster Labs (LLI) # 6790359 6790360 6790361

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

ELECTRONIC COPY TO	CRA c/o Gettler-Ryan	Attn: Rachelle Munoz
ELECTRONIC COPY TO	Chevron c/o CRA	Attn: Report Contact
ELECTRONIC	Chevron	Attn: Anna Avina
ELECTRONIC COPY TO	Conestoga-Rovers & Associates	Attn: James Kiernan

RECEIVED

OCT 1 2 2012

GETTLER-RYAN INC. GENERAL CONTRACTORS



Analysis Report





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Respectfully Submitted,

fiel M. Parker

Jill M. Parker Senior Specialist

(717) 556-7262



Analysis Report

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Page 1 of 1

Sample Description: QA-T-120914 NA Water Facility# 91583 Job# 386506 GRD 5509 Martin Luther King Wa T0600100348 QA

LLI Sample # WW 6790359 LLI Group # 1335964 Account # 10904

Project Name: 91583

Collected: 09/14/2012

Submitted: 09/15/2012 09:50 Reported: 10/16/2012 13:14

MLKTB

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

Chevron L4310

6001 Bollinger Canyon Rd.

San Ramon CA 94583

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX/MTBE 8260 Water	SW-846 8260B	1	F122652AA	09/21/2012 07:	39 Anita M Dale	TACCOL
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F122652AA	09/21/2012 07:		1
01728	TPH-GRO N. CA water C6- C12	SW-846 8015B	1	12263A07A	09/20/2012 00:		1
01146	GC VOA Water Prep	SW-846 5030B	1	12263A07A	09/20/2012 00:	32 Marie D John	1



Analysis Report

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Page 1 of 1

Sample Description:	MW-7-W-120914 Grab Water	LLI Sample	# WW 6790360
	Facility# 91583 Job# 386506 GRD	LLI Group	
	5509 Martin Luther King Wa T0600100348 MW-7	Account	# 10904

Chevron L4310

6001 Bollinger Canyon Rd.

San Ramon CA 94583

Project Name: 91583

Collected: 09/14/2012 12:10 by HK

Submitted: 09/15/2012 09:50 Reported: 10/16/2012 13:14

MLK-7

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS	Volatiles SW-8	46 8260B	ug/l	ug/1	
10943	Benzene	71-43-2	N.D.	0.5	1
10943	Ethylbenzene	100-41-4	N.D.	0.5	1
10943	Methyl Tertiary Butyl Eth	er 1634-04-4	2	0.5	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Vol	atiles SW-8	46 8015B	ug/l	ug/l	
01728	TPH-GRO N. CA water C6-C1	2 n.a.	N.D.	50	1
		46 8015B modified	ug/1	ug/l	
-	arbons				
02500	Total TPH	n.a.	1,100	40	1
02500	TPH Motor Oil C16-C36	n.a.	1,100	40	1
that	uantitation is based on pe of a hydrocarbon component -octane) through C40 (n-te	mix calibration in a	range that includes		

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 Method CAT Analysis Name Trial# Batch# Analysis Analyst Dilution No. Date and Time Factor 10943 BTEX/MTBE 8260 Water 09/21/2012 12:14 09/21/2012 12:14 SW-846 8260B 1 F122651AA Anita M Dale 1 01163 GC/MS VOA Water Prep SW-846 5030B F122651AA 1 Anita M Dale 1 01728 TPH-GRO N. CA water C6-SW-846 8015B 12263A07A 1 09/20/2012 02:14 Marie D John 1 C12 01146 GC VOA Water Prep SW-846 5030B 1 12263A07A 09/20/2012 02:14 Marie D John 1 SW-846 8015B 02500 TPH Fuels by GC (Waters) 1 122630028A 09/21/2012 05:01 Heather E Williams 1 modified 11191 TPH Fuels Waters SW-846 3510C 1 122630028A 09/20/2012 10:00 William H Saadeh 1 Extraction



Analysis Report

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Page 1 of 1

Sample Description:	MW-8-W-120914 Grab Water	LLI Sample	# W1	W 6790361
	Facility# 91583 Job# 386506 GRD	LLI Group		
	5509 Martin Luther King Wa T0600100348 MW~8	Account		

Chevron

Project Name: 91583

Collected: 09/14/2012 12:55 by HK

Submitted: 09/15/2012 09:50 Reported: 10/16/2012 13:14 L4310 6001 Bollinger Canyon Rd. San Ramon CA 94583

MLK-8

CAT No.	Analysis Name		CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor		
GC/MS	Volatiles	SW-846	8260B	ug/l	ug/l			
10943	Benzene		71-43-2	N.D.	0.5	1		
10943	Ethylbenzene		100-41-4	N.D.	0.5	1		
10943	Methyl Tertiary Buty	l Ether	1634-04-4	2	0.5	1		
10943	Toluene		108-88-3	N.D.	0.5	1		
10943	Xylene (Total)		1330-20-7	N.D.	0.5	1		
GC Vol	atiles	SW-846	8015B	ug/l	ug/l			
01728	TPH-GRO N. CA water	C6-C12	n.a.	61	50	1		
		SW-846	8015B modified	ug/l	ug/l			
Hydroc								
	Total TPH	_	n.a.	72	39	1		
02500 TPH Motor Oil C16-C36 n.a. 72 39 1 TPH quantitation is based on peak area comparison of the sample pattern to that of a hydrocarbon component mix calibration in a range that includes C8 (n-octane) through C40 (n-tetracontane) normal hydrocarbons.								

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor			
10943	BTEX/MTBE 8260 Water	SW-846 8260B	1	F122651AA	09/21/2012 12:3	6 Anita M Dale	1			
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F122651AA	09/21/2012 12:3		1			
01728	TPH-GRO N. CA water C6- C12	SW-846 8015B	1	12263A07A	09/20/2012 02:3		1			
01146	GC VOA Water Prep	SW-846 5030B	1	12263A07A	09/20/2012 02:3	9 Marie D John	-			
02500	TPH Fuels by GC (Waters)	SW-846 8015B	1	122630028A			1			
		modified	-	1220300204	09/21/2012 05:4	6 Heather E William	ns 1			
11191	TPH Fuels Waters Extraction	SW-846 3510C	1	122630028A	09/20/2012 10:0	0 William H Saadeh	1			



Analysis Report

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Page 1 of 3

Quality Control Summary

Client Name: Chevron Reported: 10/16/12 at 01:14 PM

Group Number: 1335964

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

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

Laboratory Compliance Quality Control

Analysis Name	Blank <u>Regult</u>	Blank MDL	Report <u>Units</u>	LCS <u>%REC</u>	LCSD <u>%REC</u>	LCS/LCSD <u>Limits</u>	<u>RPD</u>	RPD Max
Batch number: F122651AA	Sample numb	er(s): 679	0360-6790	361				
Benzene	N.D.	0.5	ug/l	92		77-121		
Ethylbenzene	N.D.	0.5	uq/1	92		79-120		
Methyl Tertiary Butyl Ether	N.D.	0.5	ug/l	94		68-121		
Toluene	N.D.	0.5	ug/l	96		79-120		
Xylene (Total)	N.D.	0.5	ug/l	94		77-120		
Batch number: F122652AA	Sample numbe	er(s): 679	0359					
Benzene	N.D.	0.5	ug/l	92		77-121		
Ethylbenzene	N.D.	0.5	ug/l	94		79-120		
Methyl Tertiary Butyl Ether	N.D.	0.5	ug/l	94		68-121		
Toluene	N.D.	0.5	ug/l	94		79-120		
Xylene (Total)	N.D.	0.5	ug/l	96		77-120		
Batch number: 12263A07A	Sample numbe	er(s): 679	0359-6790	361				
TPH-GRO N. CA water C6-C12	N.D.	50.	ug/l	109	109	75-135	0	30
Batch number: 122630028A	Sample numbe	r(s): 679	0360-6790:	361				
Total TPH	N.D.	40.	ug/l	88	90	32-121	2	20
TPH Motor Oil C16-C36	N.D.	40.	ug/l			· 	-	

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

<u>Analysis Name</u>	MS <u>%REC</u>	MSD <u>%REC</u>	MS/MSD <u>Limits</u>	RPD	RPD <u>MAX</u>	BKG <u>Conc</u>	DUP <u>Conc</u>	DUP <u>RPD</u>	Dup RPD <u>Max</u>
Batch number: F122651AA	Sample	number(s)	: 6790360	-679036	1 UNSP	K: P 790395			
Benzene	102	101	72-134	0	30				
Ethylbenzene	98	98	71-134	1	30				
Methyl Tertiary Butyl Ether	100	102	72-126	2	30				
Toluene	102	103	80-125	1	30				
Xylene (Total)	99	99	79-125	0	30				
Batch number: F122652AA	Sample	number(s)	: 6790359	UNSPK:	P7903	56			
Benzene	100 ~	99	72-134	0	30				
Ethylbenzene	104	102	71-134	2	30				
Methyl Tertiary Butyl Ether	96	98	72-126	1	30				
Toluene	101	100	80-125	ī	30				
Xylene (Total)	103	100	79-125	2	30				

*- Outside of specification

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

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





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Quality Control Summary

Client Name: Chevron Reported: 10/16/12 at 01:14 PM

Group Number: 1335964

Surrogate Quality Control

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

Analysis Name: UST VOCs by 8260B - Water Batch number: F122651AA Dibromofluoromethane 12-Dickloroethane dd

Baten nu	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene	
6790360	104	99	97	94	
6790361	106	97	97	94	
Blank	103	97	98	94	
LCS	103	100	98	102	
MS	103	97	98	102	
MSD	104	98	97	101	
Limits:	80-116	77-113	80-113	78-113	
Analysis Batch num	Name: UST VOCs by mber: F122652AA	y 8260B - Water			
	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene	
6790359	109	99	100	96	
Blank	106	99	101	98	
LCS	104	99	99	102	
MS	106	99	100	105	
MSD	106	101	99	106	
	106 80-116	101 77-113	80-113	78-113	
MSD Limits:	80-116	77-113			
MSD Limits: Analysis		77-113			
MSD Limits: Analysis	80-116 Name: TPH-GRO N.	77-113			
MSD Limits: Analysis	80-116 Name: TPH-GRO N. nber: 12263A07A	77-113			
MSD Limits: Analysis Batch num 6790359 6790360	80-116 Name: TPH-GRO N. nber: 12263A07A Trifluorotoluene-F 88 86	77-113			
MSD Limits: Analysis Batch num 6790359 6790360 6790361	80-116 Name: TPH-GRO N. nber: 12263A07A Trifluorotoluene-F 88 86 87	77-113			
MSD Limits: Analysis Batch num 6790359 6790360 6790361 Blank	80-116 Name: TPH-GRO N. nber: 12263A07A Trifluorotoluene-F 88 86 87 85	77-113			
MSD Limits: Analysis Batch num 6790359 6790360 6790361 Blank LCS	80-116 Name: TPH-GRO N. nber: 12263A07A Trifluorotoluene-F 88 86 86 87 85 101	77-113			
MSD Limits: Analysis Batch num 6790359 6790360 6790361 Blank	80-116 Name: TPH-GRO N. nber: 12263A07A Trifluorotoluene-F 88 86 87 85	77-113			
MSD Limits: Analysis Batch num 6790359 6790360 6790361 Blank LCS	80-116 Name: TPH-GRO N. nber: 12263A07A Trifluorotoluene-F 88 86 86 87 85 101	77-113			
MSD Limits: Analysis Batch num 6790359 6790360 6790361 Blank LCS LCS LCSD Limits: Analysis	80-116 Name: TPH-GRO N. nber: 12263A07A Trifluorotoluene-F 88 86 87 85 101 103 63-135 Name: TPH Fuels b	77-113 CA water C6-C12			
MSD Limits: Analysis Batch num 6790359 6790360 6790361 Blank LCS LCS LCSD Limits: Analysis	80-116 Name: TPH-GRO N. nber: 12263A07A Trifluorotoluene-F 88 86 87 101 103 63-135	77-113 CA water C6-C12			
MSD Limits: Analysis Batch num 6790359 6790360 6790361 Blank LCS LCS LCSD Limits: Analysis	80-116 Name: TPH-GRO N. nber: 12263A07A Trifluorotoluene-F 88 86 87 85 101 103 63-135 Name: TPH Fuels b	77-113 CA water C6-C12			
MSD Limits: Analysis Batch num 6790359 6790360 6790361 Blank LCS LCSD LCSD Limits: Analysis Batch num	80-116 Name: TPH-GRO N. nber: 12263A07A Trifluorotoluene-F 88 86 87 85 101 103 63-135 Name: TPH Fuels b ber: 122630028A	77-113 CA water C6-C12 y GC (Waters)			
MSD Limits: Analysis Batch num 6790359 6790360 6790361 Blank LCS LCSD Limits: Analysis Batch num 5790360 5790361	80-116 Name: TPH-GRO N. nber: 12263A07A Trifluorotoluene-F 88 86 87 85 101 103 63-135 Name: TPH Fuels b bber: 122630028A Chlorobenzene	77-113 CA water C6-C12 y GC (Waters) Orthoterphenyl			
MSD Limits: Analysis Batch num 6790359 6790360 6790361 Blank LCS LCSD Limits: Analysis: Batch num 5790360 5790361 Slank	80-116 Name: TPH-GRO N. nber: 12263A07A Trifluorotoluene-F 88 86 87 85 101 103 63-135 Name: TPH Fuels b uber: 122630028A Chlorobenzene 93	77-113 CA water C6-C12 y GC (Waters) Orthoterphenyl 90			
MSD Limits: Analysis Batch num 6790359 6790360 6790361 Blank LCS Blank LCS LCSD Limits: Analysis Batch num	80-116 Name: TPH-GRO N. nber: 12263A07A Trifluorotoluene-F 88 86 87 85 101 103 63-135 Name: TPH Fuels b bber: 122630028A Chlorobenzene 93 94	77-113 CA water C6-C12 y GC (Waters) Orthoterphenyl 90 92			

Limits: 28-152

*- Outside of specification

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

52-131

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





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Quality Control Summary

Group Number: 1335964

Client Name: Chevron Reported: 10/16/12 at 01:14 PM

*- Outside of specification

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

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

🎲 eurofins

Lancaster Laboratories

Explanation of Symbols and Abbreviations

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

syna de and abarena aber a portang toonmour data.				
Reporting Limit	BMQL	Below Minimum Quantitation Level		
none detected	MPN	Most Probable Number		
Too Numerous To Count	CP Units	cobalt-chloroplatinate units		
International Units	NTU	nephelometric turbidity units		
micromhos/cm	ng	nanogram(s)		
degrees Celsius	Ě	degrees Fahrenheit		
milliequivalents	lb.	pound(s)		
gram(s)	kg	kilogram(s)		
microgram(s)	mg	milligram(s)		
milliliter(s)	Ĺ	liter(s)		
cubic meter(s)	μL	microliter(s)		
	pg/L	picogram/liter		
	Reporting Limit none detected Too Numerous To Count International Units micromhos/cm degrees Celsius milliequivalents gram(s) microgram(s)	Reporting Limit none detectedBMQL MPNToo Numerous To CountCP UnitsInternational UnitsNTUmicromhos/cmngdegrees CelsiusFmilliequivalentsIb.gram(s)kgmicrogram(s)mgmilliliter(s)Lcubic meter(s)µL		

< 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.

В

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

Data Qualifiers:

C – result confirmed by reanalysis.

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

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers

- 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 sampleE Concentration exceeds the calibration range of
- the instrument **N** Presumptive evidence of a compound (TICs only)
- N Presumptive evidence of a compound (TICs only) Concentration difference between primary and
- P Concentration difference between primary and confirmation columns >25%
- U Compound was not detected
- X,Y,Z Defined in case narrative

Inorganic Qualifiers

- Value is <CRDL, but ≥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.

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ATTACHMENT C

LOW-THREAT CHECKLIST

Site meets the criteria of the Low-Threat Underground Storage Tank (UST) Case Closure Policy as described below.¹

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 □ No
Does the unauthorized release consist only of petroleum?	⊠ Yes □ No
Has the unauthorized ("primary") release from the UST system been stopped?	⊠ Yes □ No
Has free product been removed to the maximum extent practicable?	⊠ Yes □ No □ NA
Has a conceptual site model that assesses the nature, extent, and mobility of the release been developed?	⊠ Yes □ No
Has secondary source been removed to the extent practicable?	⊠ Yes □ No
Has soil or groundwater been tested for MTBE and results reported in accordance with Health and Safety Code Section 25296.15?	⊠ Yes □ No
Does nuisance as defined by Water Code section 13050 exist at the site?	🗆 Yes 🖾 No
Are there unique site attributes or site-specific conditions that demonstrably increase the risk associated with residual petroleum constituents?	□ Yes ⊠ No
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 extent?	⊠ Yes □ No □ NA
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 □ NA
If YES, check applicable class: \Box 1 \boxtimes 2 \Box 3 \Box 4 \Box 5	

¹ Refer to the Low-Threat Underground Storage Tank Case Closure Policy for closure criteria for low-threat petroleum UST sites.

For sites with releases that have not affected groundwater, do mobile constituents (leachate, vapors, or light non-aqueous phase liquids) contain sufficient mobile constituents to cause groundwater to exceed the groundwater criteria?	□ Yes □ No ⊠ NA
2. Petroleum Vapor Intrusion to Indoor Air: The site is considered low-threat for vapor intrusion to indoor air if site-specific conditions satisfy all of the characteristics of one of the three classes of sites (a through c) or if the exception for active commercial fueling facilities applies.	
Is the site an active commercial petroleum fueling facility? Exception: Satisfaction of the media-specific criteria for petroleum vapor intrusion to indoor air is not required at active commercial petroleum fueling facilities, except in cases where release characteristics can be reasonably believed to pose an unacceptable health risk.	⊠ Yes □ No
a. Do site-specific conditions at the release site satisfy all of the applicable characteristics and criteria of scenarios 1 through 3 or all of the applicable characteristics and criteria of scenario 4?	□Yes □ No ⊠ NA
 If YES, check applicable scenarios: 1 1 2 3 4 b. Has a site-specific risk assessment for the vapor intrusion pathway been conducted and demonstrates that human health is protected to the activity of the manufacture of the m	□ Yes □ No ⊠ NA
 the satisfaction of the regulatory agency? C. As a result of controlling exposure through the use of mitigation measures or through the use of institutional or engineering controls, has the regulatory agency determined that petroleum vapors migrating from soil or groundwater will have no significant risk of adversely affecting human health? 	□ Yes □ No ⊠ NA
3. Direct Contact and Outdoor Air Exposure: The site is considered low-threat for direct contact and outdoor air exposure if site-specific conditions satisfy one of the three classes of sites (a through c).	
a. Are maximum concentrations of petroleum constituents in soil less than or equal to those listed in Table 1 for the specified depth below ground surface (bgs)?	⊠ Yes □ No □ NA
b. Are maximum concentrations of petroleum constituents in soil less than levels that a site specific risk assessment demonstrates will have no significant risk of adversely affecting human health?	□ Yes □ No ⊠ NA
c. As a result of controlling exposure through the use of mitigation measures or through the use of institutional or engineering controls, has the regulatory agency determined that the concentrations of petroleum constituents in soil will have no significant risk of adversely affecting human health?	□ Yes □ No ⊠ NA