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September 4, 2015

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By Alameda County Environmental Health 2:14 pm, Sep 08, 2015

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

Dear Mr. Detterman:

Attached for your review is the *Site Investigation Report* for former Chevron-branded service station 92029, located at 890 West MacArthur Boulevard in Oakland, California (**Case #:** RO0002438). This report was prepared by Stantec Consulting Services Inc. (Stantec), upon whose assistance and advice I have relied. I declare under penalty of perjury that the information and/or recommendations contained in the attached report are true and correct, to the best of my knowledge.

If you have any further questions, please do not hesitate to contact me or the Stantec project manager, Travis Flora, at (408) 356-6124 or <a href="mailto:travis.flora@stantec.com">travis.flora@stantec.com</a>.

Sincerely,

Carryl MacLeod Project Manager

## **Site Investigation Report**

Former Chevron-branded Service Station 92029 890 West MacArthur Boulevard Oakland, California Case #: RO0002438



Prepared for: Chevron Environmental Management Company 6101 Bollinger Canyon Road San Ramon, CA 94583

Prepared by: Stantec Consulting Services Inc. 15575 Los Gatos Blvd., Building C Los Gatos, CA 95032

Former Chevron-branded Service Station 92029, 890 West MacArthur Boulevard, Oakland, California September 4, 2015

# Sign-off Sheet

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Former Chevron-branded Service Station 92029, 890 West MacArthur Boulevard, Oakland, California Introduction
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## 1.0 INTRODUCTION

On behalf of Chevron Environmental Management Company (Chevron), Stantec Consulting Services Inc. (Stantec) is pleased to submit this *Site Investigation Report* for former Chevron-branded service station 92029, which was located at 890 West MacArthur Boulevard, Oakland, Alameda County, California (Site; shown on **Figure 1**).

#### 1.1 PURPOSE

The purpose of this investigation was to evaluate the lateral extent of petroleum hydrocarbons in soil and groundwater and determine if the Site meets the media-specific criteria set forth in the State Water Resources Control Board (SWRCB) Low-Threat Underground Storage Tank (UST) Case Closure Policy (LTCP) (SWRCB, 2012a). Stantec submitted a *Work Plan Addendum* on June 11, 2014 (Stantec, 2014), which was approved by Alameda County Environmental Health (ACEH) in a letter dated July 9, 2014. Additionally, ACEH approved extensions on the site investigation report in correspondence dated August 21 and November 7, 2014, and February 26, April 8, and June 22, 2015. On August 31, 2015, a letter was submitted to ACEH requesting a brief extension to September 4, 2015, to allow additional time for technical peer review. Copies of the ACEH correspondence are included in **Appendix A**.

## 1.2 SCOPE

The scope of work performed during this investigation included advancement of five on-Site soil borings (SB-11 through SB-15) and five off-Site soil borings (SB-17 through SB-21) and collection of soil and grab groundwater samples. Locations of the soil borings are shown on **Figure 2**. An additional off-Site soil boring (SB-16) was proposed in the *Work Plan Addendum*; however, the off-Site property was unresponsive to communication regarding establishment of an access agreement, so boring SB-16 was not advanced. As requested by ACEH in a meeting with Stantec and Chevron on April 22, 2015, an updated sensitive receptor survey was also conducted, which included updated water well, surface water body, conduit, and sensitive population surveys, and a neighborhood survey to locate any sumps, basements, or additional water wells near the Site.



Former Chevron-branded Service Station 92029, 890 West MacArthur Boulevard, Oakland, California Site Background
September 4, 2015

## 2.0 SITE BACKGROUND

## 2.1 SITE DESCRIPTION AND LAND USE

The Site is a former Chevron-branded service station located on the northeast corner at the intersection of West MacArthur Boulevard and Market Street in Oakland, California. The Site is currently a vacant lot. A former Chevron-branded service station operated at the Site from approximately 1956 to 2004. Prior to 1970, Site features consisted of two 5,000-gallon and one 3,000-gallon gasoline USTs located in the eastern portion of the Site, three fuel dispenser islands (one located in the northwestern portion of the Site and two located in the central portion of the Site), associated product piping, a station building with two hydraulic hoists, and a waste oil UST (unknown size) located in the northern portion of the Site. The product piping was replaced in 1970, and the 3,000-gallon UST was replaced with a 10,000-gallon UST sometime before 1978. In 1982, the two 5,000-gallon and one 10,000-gallon USTs were replaced with three 10,000-gallon fiberglass USTs.

In 1984, the service station building was demolished, the hydraulic hoists were removed, and a kiosk was installed near the center of the Site. In addition, the three fuel dispenser islands were removed from the Site and replaced with five fuel dispenser islands (two located in the north-central portion of the Site and three located in the south-central portion of the Site). The fuel dispenser islands were replaced and the USTs were upgraded in 1997. The waste oil UST was removed from the Site sometime between 1984 and 1997. In 2005, the service station was closed and all Site structures, including the three 10,000-gallon fiberglass USTs and fuel dispenser islands, were removed. Extensive over-excavation was performed at that time, and approximately 5,135 tons of impacted soil and 25,500 gallons of groundwater were removed and disposed of off Site (Conestoga-Rovers & Associates [CRA], 2011). A Site Plan is shown on Figure 2.

As discussed in a project meeting with representatives from ACEH, Chevron, Stantec, and the on-Site property owner held on May 8, 2014, the on-Site property owner is pursuing redevelopment of the Site as a residential housing complex. Based on building plans for the proposed redevelopment, the footprint of the proposed building based on foundation dimensions is shown on **Figure 2**. Maximum depths of the foundation in feet below ground surface (bgs) are also shown on this figure.

Land use near the Site consists of a mixture of commercial and residential properties. The Site is currently zoned as RU-5 (Urban Residential Zone – 5). The Site is bounded to the north by a residential area, on the west by Market Street followed by a small grocery store and associated parking, on the south by West MacArthur Boulevard followed by a tire sales and service shop, and to the east by a small hotel.



Former Chevron-branded Service Station 92029, 890 West MacArthur Boulevard, Oakland, California Site Background September 4, 2015

## 2.2 REGIONAL AND SITE GEOLOGY AND HYDROGEOLOGY

Based on previous Site assessment activities and available boring logs, the subsurface beneath the Site outside the limits of excavation consists primarily of clay containing varying amounts of silt, sand, and gravel to approximately 21 to 22 feet bgs, underlain by well and poorly graded sands to the total depth explored of 25 feet bgs. Silt, clay, sand, and gravel mixtures were observed off Site to a total logged depth of 34 feet bgs (Stantec, 2013).

A Site Plan showing cross-section locations is included as **Figure 2**. Generalized geologic cross-sections A-A' and B-B' are shown on **Figure 3** and **Figure 4**, respectively. These cross-sections show Site lithology, first encountered groundwater during drilling, the most recent depth-to-groundwater (DTW) data in Site wells, discrete soil sample depths, photoionization detector (PID) readings measured in parts per million (ppm), and benzene, ethylbenzene, and naphthalene analytical results for select soil and groundwater samples collected during current and historical assessments.

The historical range of DTW measurements is approximately 3 to 13 feet below top of casing (TOC). During Second Quarter 2015, DTW measurements ranged from 7.08 to 11.79 feet below TOC and the direction of groundwater flow at the time of sampling was generally towards the southwest at an average hydraulic gradient of approximately 0.032 feet per foot (ft/ft). This is generally consistent with the historical direction of groundwater flow (Stantec, 2015).

#### 2.3 PREVIOUS INVESTIGATIONS AND REMEDIATION

Current and historical soil analytical data are summarized in **Table 1** and **Table 2**. Current and historical groundwater analytical data are summarized in **Table 3** through **Table 6**. Locations of borings and wells are shown on **Figure 2**.

As reported in CRA's Additional Investigation Report dated March 31, 2011, product piping was replaced in 1970, and a 3,000-gallon gasoline UST was replaced with a 10,000-gallon gasoline UST sometime before 1978 (CRA, 2011). An original report describing these activities could not be found and it is unknown if soil sampling or excavation of impacted soil, if present, was conducted at that time.

As reported in Cambria's Subsurface Investigation Report dated May 25, 2006, in April 1981, Smith & Denison conducted tank integrity tests at the Site. Test results indicated the USTs were corroded; however, no holes were observed along the surface of the tanks. Two on-Site soil borings were advanced to a total depth of 12 feet bgs. Two soil samples were collected from each boring and petroleum hydrocarbons were detected in three of the four soil samples collected. Groundwater was encountered in one boring at approximately 12 feet bgs (Cambria Environmental Technology, Inc. [Cambria], 2006a). An original report describing these activities could not be found.



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As reported in Gettler-Ryan's (G-R) Environmental Investigation Report dated October 31, 2000, and in CRA's Additional Investigation Report dated March 31, 2011, in March and April 1982, product piping, two 5,000 gallon steel gasoline USTs, and one 10,000-gallon fiberglass UST were replaced with three 10,000-gallon fiberglass USTs. The new USTs were installed in the former UST pit, which was extended to the east to accommodate the larger tanks (G-R, 2000; CRA, 2011). An original report describing these activities could not be found, and it is unknown if soil sampling or excavation of impacted soil, if present, was conducted.

As reported in CRA's Additional Investigation Report dated March 31, 2011, in 1984, two hydraulic hoists were removed from the Site and three fuel dispenser islands (one located in the northwestern portion of the Site and two located in the central portion of the Site) were removed and replaced with five fuel dispenser islands (two located in the north-central portion of the Site and three located in the south-central portion of the Site) (CRA, 2011). An original report describing these activities could not be found, and it is unknown if soil sampling or excavation of impacted soil, if present, was conducted.

Between 1984 and 1997, the waste oil UST (unknown size) was removed from the Site (CRA, 2011). An original report describing these activities could not be found, and it is unknown if soil sampling or excavation of impacted soil, if present, was conducted.

In March 1991, a strong petroleum hydrocarbon odor was noticed in the service station building. Subsequently, Environmental Health Consultants conducted ambient air monitoring at the Site. Sampling results indicated that petroleum hydrocarbons were present in air and were entering the service station from the crawl space beneath the building. PID readings averaged between 100 and 150 ppm and the maximum PID reading was reported at 505 ppm. Laboratory analytical results indicated the presence of total petroleum hydrocarbons as gasoline range organics (TPH-GRO) in air at approximately 100 ppm and benzene at less than 1 ppm (CRA, 2011).

In February 1997, G-R oversaw replacement of the fuel dispenser islands and gasoline UST upgrades. During replacement of the fuel dispenser islands, soil in the immediate vicinity of each dispenser island was excavated. Each excavation was approximately 12 feet long, 10 feet wide, and 2.5 feet deep (approximately 11 cubic yards). Five soil samples (\$1 through \$5) were collected from the bottom of the dispenser island excavations at approximately 3 feet bgs. In addition, one soil sample (\$6) was collected from the northern sidewall of the gasoline UST pit at approximately 3 feet bgs. Maximum concentrations of TPH-GRO, benzene, and methyl tertiary-butyl ether (MtBE) in these samples (38 milligrams per kilogram [mg/kg], 0.63 mg/kg, and 0.62 mg/kg, respectively) were detected in soil sample \$5. Approximately 162 cubic yards of soil and 7,800 gallons of groundwater were removed during these activities and disposed of off Site (G-R, 1997).

In October 2000, G-R oversaw advancement of ten on-Site soil borings (B-1 through B-10) to total depths ranging from 16.5 to 19 feet bgs. Petroleum hydrocarbons were not detected above method detection limits (MDLs) in any of the soil samples collected from borings B-4 through B-8.



Former Chevron-branded Service Station 92029, 890 West MacArthur Boulevard, Oakland, California Site Background September 4, 2015

Maximum concentrations of TPH-GRO, benzene, and MtBE in soil collected from the remaining borings (930 mg/kg, 6.7 mg/kg, and 13 mg/kg, respectively) were detected in boring B-3 at 11 feet bgs. Maximum concentrations of TPH-GRO and benzene in grab groundwater (33,000 micrograms per liter [ $\mu$ g/L] and 1,200  $\mu$ g/L, respectively) were detected in the sample collected from boring B-3 at 13.1 feet bgs, while the maximum concentration of MtBE (820  $\mu$ g/L) was detected in boring B-1 at 13.1 feet bgs (G-R, 2000).

In March 2002, G-R oversaw installation of four on-Site groundwater monitoring wells (MW-1 through MW-4) to a total depth of 25 feet bgs. Petroleum hydrocarbons were not detected above MDLs in any of the soil samples collected from boreholes MW-1 and MW-2. Maximum concentrations of TPH-GRO and benzene in soil collected from the remaining boreholes (240 mg/kg and 0.22 mg/kg, respectively) were detected in borehole MW-3 at 4.5 and 14.5 feet bgs, respectively. MtBE was only detected in the sample collected from borehole MW-4 at 4 feet bgs, at a concentration of 0.23 mg/kg (G-R, 2002).

In April 2005, the service station was demolished and the gasoline USTs, fuel dispenser islands, and associated product piping were removed. During removal of the gasoline USTs, five soil samples (EX1 through EX5) were collected from the sidewalls of the gasoline UST excavation at approximately 10 feet bgs. Of these samples, petroleum hydrocarbons were only detected in soil sample EX2, where a TPH-GRO concentration of 1.8 mg/kg was observed. Benzene and MtBE were not detected above MDLs in soil sample EX2. During removal of the fuel dispenser islands and product piping, 17 soil samples (EX6 through EX22) were collected from the bottom of the dispenser island and product piping excavations at approximately 3.5 feet bgs. The maximum concentration of TPH-GRO in these samples (370 mg/kg) was detected in soil sample EX17, while the maximum concentration of benzene (0.35 mg/kg) was detected in soil sample EX22. MtBE was only detected in soil sample EX21, at a concentration of 0.37 mg/kg (Cambria, 2005a).

In April and May 2005, the majority of the Site, including the area around the former USTs and fuel dispenser islands, was over-excavated to a depth of 12 feet bgs. During excavation, 41 confirmation soil samples (EX23 through EX63) were collected from the bottom and sidewalls of the excavation. Soil samples EX23, EX36, EX37, EX39, EX47, EX50, EX51, EX55, EX56, EX59, EX60, EX62, and EX63 were sidewall samples, while the remainder of soil samples were bottom samples. The soil represented by samples collected from the bottom of the excavation at depths shallower than 12 feet bgs was removed during excavation. This includes soil represented by samples EX24 through EX31, EX42, EX43, EX44, EX49, EX52, and EX54. In addition, the soil represented by previously collected samples \$1 through \$5, EX2, EX3, EX4, and EX6 through EX22 and borings B-1, B-2, B-3, B-7, B-9, and B-10 was removed. The maximum concentration of TPH-GRO in soil that wasn't removed (450 mg/kg) was detected in soil sample EX36 at a depth of 9 feet bgs, while maximum concentrations of benzene and MtBE (0.66 mg/kg and 0.21 mg/kg, respectively) were detected in soil sample EX38 at 12 feet bgs. Approximately 5,134 tons of soil and 25,486 gallons of groundwater were removed during excavation activities and disposed of off Site (Cambria, 2005b).



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In March 2006, Cambria advanced seven off-Site borings (SB-1 through SB-7) and two on-Site borings (SB-8 and SB-9) to total depths ranging from 16 to 44 feet bgs. Soil samples were not collected for laboratory analysis during this investigation. Maximum concentrations of TPH-GRO and benzene in grab groundwater (2,700  $\mu$ g/L and 34  $\mu$ g/L, respectively) were detected in boring SB-2 at a depth of 20 feet bgs, while the maximum concentration of MtBE (210  $\mu$ g/L) was detected in boring SB-9 at 23 feet bgs (Cambria, 2006a).

In September 2006, Cambria oversaw the destruction of wells MW-1 through MW-4 to facilitate planned Site redevelopment (Cambria, 2006b). This redevelopment did not occur.

In July 2008, CRA oversaw installation of four off-Site monitoring wells (MW-5 through MW-8) to a total depth of 25 feet bgs. Petroleum hydrocarbons were not detected above MDLs in any of the soil samples collected from borehole MW-8. The maximum concentration of TPH-GRO in soil in the remaining boreholes (260 mg/kg) was detected in borehole MW-5 at 5 feet bgs, the maximum concentration of benzene (0.21 mg/kg) was detected in borehole MW-7 at 10 feet bgs, and the maximum concentration of MtBE (0.07 mg/kg) was detected in borehole MW-6 at 10 feet bgs (CRA, 2008).

In January 2011, CRA advanced one off-Site soil boring (SB-10) to a total depth of 20 feet bgs. TPH-GRO and MtBE were not detected above MDLs in any of the soil samples collected during this investigation. Benzene was only detected in the soil sample collected from 19.5 feet bgs, at a concentration of 0.0006 mg/kg. TPH-GRO and benzene were not detected above MDLs in the groundwater sample collected from the boring (collected by installing a temporary well casing in the boring and using low-flow sampling procedures), while MtBE was detected at a concentration of  $4 \mu g/L$  (CRA, 2011).



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## 3.0 SITE INVESTIGATION

On February 25, 26, 27, and March 5, 2015, Stantec oversaw the advancement of five on-Site soil borings (SB-11 through SB-15) and five off-Site soil borings (SB-17 through SB-21) to further define the lateral extent of petroleum hydrocarbons in soil and groundwater and evaluate whether the Site meets the media-specific criteria set forth in the LTCP. Soil and grab groundwater samples were collected from each soil boring. A Site Plan showing the soil boring locations is included as **Figure 2**.

## 3.1 PRELIMINARY FIELD ACTIVITIES

## 3.1.1 Permitting and Notifications

A drilling permit was obtained from ACEH to advance the soil borings. An encroachment permit was obtained from the City of Oakland Planning and Building Department to perform drilling activities in the public right-of-way. A Traffic Control Plan was prepared and implemented according to the guidelines established in the encroachment permit.

As required by law, Underground Service Alert (USA) - North was notified at least 48 hours prior to any intrusive activities. In addition to notifying USA - North, Stantec retained the service of a private utility locating contractor to determine if underground utilities were located near the proposed soil boring locations.

## 3.1.2 Health and Safety Plan

Stantec generated a Site-specific health and safety plan (HASP) as required by the State of California General Industry Safety Order 5192 and Title 29 of the Code of Federal Regulations, Section 1910.120. The HASP outlined potential hazards to Stantec personnel during the field activities described herein. Job safety analyses (JSAs) for tasks to be performed by Stantec personnel (e.g., driving, oversight of boring advancement, sample collection, etc.) were included. The HASP also included details regarding required personal protective equipment to be worn by all Stantec field personnel for each task. In addition, Stantec produced a Journey Management Plan (JMP) in an attempt to prevent motor vehicle incidents driving to and from the Site. A copy of Stantec's HASP and JMP were available on-Site during all field activities.

Subcontractors also developed Site-specific HASPs and JSAs for tasks applicable to their scope of work (e.g., driving, advancing soil borings, etc.). Appropriate subcontractor HASPs were also available on Site.



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## 3.2 SOIL INVESTIGATION

## 3.2.1 Soil Boring Advancement

Stantec contracted National Exploration, Wells, & Pumps (National), a C-57 California State-licensed drilling company from Richmond, California to advance soil borings SB-11 through SB-15 and SB-17 through SB-21.

The work was performed under the direction of a State of California Professional Geologist. Stantec field personnel recorded details of field activities, such as Site conditions, sampling processes, names of field personnel, and pertinent dates and times.

Each boring was hand augered to 8 feet bgs to clear for potentially undetected subsurface utilities. Borings SB-11, SB-12, SB-14, SB-15, and SB-17 through SB-21 were further advanced to total depths ranging from 9.4 to 12.5 feet bgs using only a hand auger. Boring SB-20 could not be advanced beyond 9.4 feet bgs due to refusal at that depth. Boring SB-13 was advanced beyond 8 feet bgs to a total depth of 16 feet bgs using a direct-push drill rig.

## 3.2.2 Soil Sampling

All soil samples collected from borings SB-11, SB-12, SB-14, SB-15, and SB-17 through SB-21 were collected using a slide hammer fitted with a stainless steel or brass sample sleeve. Soil samples were collected at depths of 2.5, 5, 7.5, and 10 feet bgs from borings SB-11, SB-12, SB-14, SB-15, SB-17, SB-18, SB-19, and SB-21, while samples were only collected at 2.5, 5, and 7.5 feet bgs from boring SB-20 due to refusal at 9.4 feet bgs. The soil sample collected above 8 feet bgs in boring SB-13 (at 2.5 feet bgs) was also collected using a slide hammer fitted with a stainless steel or brass sample sleeve. There was no recovery in boring SB-13 for soil sample collection at depths of 5, 7.5, and 10 feet bgs because the boring was advanced within fill.

Below 8 feet bgs in boring SB-13, soil cores were collected in acetate sleeves, and soil samples were cut at approximately 6 inches from the bottom of the core sleeve and covered with Teflon® end sheets and plastic end caps. Additional soil samples were collected from boring SB-13 at depths of 14 and 14.5 feet bgs.

Following their collection, all soil samples were labeled, placed in an ice-filled cooler, and logged on a chain-of-custody form for transport to the certified analytical laboratory.

Portions of each soil core were logged by Stantec field personnel for lithological content using the Unified Soil Classification System (USCS) as a guide and for relative moisture content, composition, PID readings, and other notable field observations. Portions of the soil cuttings were placed in Ziploc® bags and field-screened using a PID to evaluate the presence of volatile organic compound (VOCs) that may have collected in the headspace of the bag. Boring logs are included in **Appendix B**.



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## 3.2.3 Soil Boring Completion Activities

After each soil boring was advanced to its total depth and representative soil and grab groundwater samples were collected, each soil boring was completed to ground surface with cement grout. The cement grout consisted of approximately 95 percent Portland cement and 5 percent bentonite powder.

#### 3.2.4 Subsurface Conditions

Soils encountered beneath the Site consisted primarily of clay containing varying amounts of silt, sand, and gravel to the total depth explored. This is consistent with materials previously encountered beneath the Site. Groundwater was encountered in all borings advanced during this investigation, and first-encountered DTW levels ranged from approximately 7 feet bgs in borings SB-15 and SB-17 to 10.5 feet bgs in boring SB-19. Static groundwater levels ranged from approximately 5.6 feet bgs in boring SB-12 to 10.65 feet bgs in boring SB-21. Elevated PID readings (above 100 ppm) were only observed in the sample collected from boring SB-18 at 7.5 feet bgs (concentration of 145 ppm). Soil boring logs are included in **Appendix B**.

## 3.2.5 Soil Analytical Results

All soil samples were transported and submitted under chain-of-custody protocol to Eurofins Lancaster Laboratories, Inc. (Lancaster), a State of California-certified analytical laboratory, and analyzed for the following constituents of concern:

- TPH-GRO by United States Environmental Protection Agency (US EPA) Method 8015B modified (SW-846); and
- Benzene, toluene, ethylbenzene, and total xylenes (BTEX compounds), MtBE, di-isopropyl ether (DIPE), ethyl tertiary-butyl ether (EtBE), tertiary-amyl methyl ether (TAME), tertiarybutyl alcohol (TBA), ethanol, and naphthalene by US EPA Method 8260B (SW-846).

Current soil sample analytical results are included in **Table 1**. Complete certified laboratory analysis reports and chain-of-custody documentation are included in **Appendix C**. Soil analytical results are compared to California Regional Water Quality Control Board – San Francisco Bay Region (RWQCB) Environmental Screening Levels (ESLs) for residential land use (RWQCB, 2013).

Soil collected from boring SB-13 exceeded the ESL for MtBE at 14.5 feet bgs; soil collected from boring SB-15 exceeded ESLs for benzene, ethylbenzene, total xylenes, and naphthalene at 10 feet bgs; and soil collected from boring SB-18 exceeded ESLs for TPH-GRO and benzene at 7.5 feet bgs and benzene and ethylbenzene at 10 feet bgs. All other concentrations in borings SB-13, SB-15, and SB-18, and all concentrations in borings SB-11, SB-12, SB-14, SB-17, SB-19, SB-20, and SB-21 were below or equal to MDLs or ESLs.

Historical soil analytical results are included in **Table 2**. Based on current and historical soil analytical data, the lateral extent of petroleum hydrocarbons in soil is defined by petroleum



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hydrocarbon concentrations below MDLs or ESLs in soil that was not previously excavated. The lateral extent appears defined to the north and east by boreholes MW-1 and MW-2, borings B-4, B-5, B-6, and B-8, and soil samples S6, EX1, and EX5; and to the south and west by borehole MW-8 and borings B-10, SB-10, SB-11, SB-12, SB-19, SB-20, and SB-21. The lateral extent of petroleum hydrocarbons in soil appears adequately defined in all directions.

## 3.3 GROUNDWATER INVESTIGATION

## 3.3.1 Grab Groundwater Sampling

Stantec collected grab groundwater samples from each soil boring following advancement and installation of a temporary pre-packed groundwater monitoring well casing. A 3/4-inch diameter Schedule 40 polyvinyl chloride (PVC) casing with 0.010-inch slots was inserted directly into each boring. During groundwater sampling, DTW measurements were collected and used to calculate the three casing volumes that would be removed from each boring prior to collecting grab groundwater samples using disposable bailers. Due to slow recovery, three volumes of groundwater could not be removed from any of the borings prior to collecting grab groundwater samples. During the groundwater purging process, groundwater quality parameters, including temperature, pH, conductivity, and oxidation-reduction potential (ORP) were recorded. With slow recovery, multiple parameter readings were not obtained from all borings. Groundwater samples were collected in sample containers appropriate for the specified analyses, then sealed, labeled, and placed into an ice-filled cooler for preservation. Groundwater sample collection field data sheets are included in **Appendix D**.

#### 3.3.2 Grab Groundwater Analytical Results

All grab groundwater samples were transported and submitted under chain-of-custody protocol to Lancaster and analyzed for the following constituents of concern:

- TPH-GRO by US EPA Method 8015B (SW-846); and
- BTEX compounds, MtBE, DIPE, EtBE, TAME, TBA, ethanol, and naphthalene by US EPA Method 8260B (SW-846).

Current grab groundwater sample analytical results are included in **Table 3**. Complete certified laboratory analysis reports and chain-of-custody documentation are included in **Appendix C**. Groundwater analytical results are compared to RWQCB ESLs for groundwater that is a current or potential source of drinking water (RWQCB, 2013). Concentrations were detected above ESLs for one or more of the constituents analyzed in groundwater samples collected from borings SB-11, SB-12, SB-14, SB-15, SB-17, SB-18, and SB-19.

Historical grab groundwater sample analytical results are included in **Table 4**. Current and historical groundwater analytical results for monitoring wells are included in **Table 5** and **Table 6**. Figures showing the lateral extent of dissolved-phase petroleum hydrocarbon concentrations using combined current and historical data are included for TPH-GRO, benzene, and MtBE on



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**Figure 5**, **Figure 6**, and **Figure 7**, respectively. Each of these figures includes a contour line surrounding most recent detections in active and destroyed monitoring wells and current and historical grab groundwater samples collected from soil borings. This conservative approach in evaluating plume definition and estimating plume length was selected because some of the data from destroyed monitoring wells and historical soil borings is relatively old (as much as 15 years), and many of the samples were collected as grab groundwater samples, which can exhibit concentrations as much as one order of magnitude higher than those from a monitoring well sample. When drawing these contour lines, the collection method and age of the samples were considered.

The dissolved-phase TPH-GRO plume appears to be defined by concentrations below MDLs in well MW-8, former wells MW-1 and MW-2, and borings B-2, B-4, B-5, B-6, B-8, SB-1, SB-3, SB-6, SB-9, SB-10, SB-13, SB-20, and SB-21. The dissolved-phase benzene plume appears to be defined by concentrations below MDLs in well MW-8, former wells MW-1 and MW-2, and borings B-2, B-4 through B-8, SB-1, SB-6, SB-8, SB-10 through SB-13, SB-17, SB-19, SB-20, and SB-21. The dissolved-phase MtBE plume appears to be defined by concentrations below MDLs in wells MW-5 and MW-8, former wells MW-1 and MW-2, and borings SB-1, SB-3, SB-6, SB-11, SB-14, SB-17, SB-19, SB-20, and SB-21.

Although TPH-GRO and MtBE were detected in the grab groundwater sample collected from historical boring SB-5, and benzene was detected in the grab groundwater samples collected from historical borings SB-3 and SB-5 (all collected in 2006), more recent data from well MW-8 are below MDLs, indicating the plume is no longer present in that area. In addition, benzene was most recently detected in well MW-5 at 1  $\mu$ g/L, but this concentration is equal to the ESL for benzene. MtBE was also detected in the historical grab groundwater sample collected from down-gradient boring SB-10 at a concentration of 4  $\mu$ g/L; however, this concentration is below the ESL for MtBE of 5  $\mu$ g/L. Based on the current and historical data, the dissolved-phase petroleum hydrocarbon plume associated with the Site appears adequately delineated in all directions.

The SWRCB LTCP references the Technical Justification for Groundwater Media-Specific Criteria, final dated April 24, 2012 (SWRCB, 2012b), which is used to supplement and provide technical justification on possible dissolved-phase plume lengths. This document provides average, 90th percentile, and maximum dissolved-phase plume lengths for TPH-GRO, benzene, and MtBE at any given site. Plumes using these specified lengths are also shown on **Figure 5**, **Figure 6**, and **Figure 7** for comparison to locations with observed detectable concentrations and to show the extent of the dissolved-phase plume in the absence of down-gradient control points. These hypothetical plumes slightly differ in direction from the observed plumes described above, because they are based on the predominant direction of groundwater flow from the source and not soil boring/well locations and concentrations. Though the plumes slightly differ in direction, it appears that the average plume lengths for TPH-GRO, benzene, and MtBE (248, 198, and 317 feet, respectively) are similar in length to, although slightly shorter, than the plume lengths drawn using soil boring/well locations and concentrations. To be conservative, the 90th



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percentile plume lengths for TPH-GRO, benzene, and MtBE (413, 350, and 545 feet, respectively) will be used in the LTCP evaluation of groundwater (Section 5.2.1).

## 3.4 WASTE MANAGEMENT

Investigation-derived waste (soil cuttings, rinsate water, and purge water) was stored on-Site in Department of Transportation-approved 55-gallon drums. CRA managed the waste profile and arranged for a certified waste contractor to transport and dispose of the waste once profiling was complete. All investigation-derived waste was removed from the Site and disposed at the Waste Management Inc. – Altamont Landfill and Resource Recovery Facility on April 30, 2015. A copy of the waste manifest is included as **Appendix E**.



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## 4.0 SENSITIVE RECEPTOR SURVEY

Stantec conducted an updated sensitive receptor survey in June and July 2015 to evaluate the potential presence of water wells, surface water bodies, conduits, sumps, basements, and sensitive populations near the Site. A summary of the completed scope of work follows.

#### 4.1 WELLS

Stantec conducted a well survey in July 2015 to identify all active, inactive, standby, decommissioned, unrecorded, and abandoned (improperly decommissioned or lost) wells within a 1,000-foot radius of the Site. The survey consisted of reviewing files provided by the California Department of Water Resources (DWR) and Alameda County Public Works (ACPW). All files provided by the DWR and ACPW are confidential in nature and are not provided within this report.

Information provided by the DWR indicated one cathodic protection well and one industrial well within the 1,000-foot radius and one industrial well with an unknown location. The cathodic protection well is located approximately 200 feet north (up- and slightly cross-gradient) of the Site, with a total depth of 120 feet bgs. No other information was provided for the cathodic protection well. The industrial well was located approximately 780 feet north (up- and slightly cross-gradient) of the Site, with a total depth of 108 feet bgs and a screen interval from 58 to 108 feet bgs. The well was installed in 1928 to support a business that no longer exists. The address given for the business no longer exists, and the business could not be located near the address provided. Furthermore, the industrial well was not identified in the well records provided by ACPW (see below); therefore, Stantec believes that this well has been destroyed.

Information provided by ACPW indicated 12 monitoring wells and one cathodic protection well within the 1,000-foot radius and eight monitoring wells or borings with unknown locations. Based on the location and information provided, the cathodic protection well is the same well identified in the DWR well search. Three of the monitoring wells are associated with a property located approximately 530 feet north (up- and slightly cross-gradient) of the Site and nine of the monitoring wells are associated with a property located approximately 730 feet east-southeast (cross-gradient) of the Site.

A map and table with all identified well locations within a 1,000-foot radius of the Site are shown on **Figure 8** and included in **Table 7**, respectively. Based on the predominant direction of groundwater flow (west-southwest), all identified wells are in up- or cross-gradient locations and are unlikely to be impacted by the dissolved-phase petroleum hydrocarbon plume associated with the Site.



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## 4.2 SURFACE WATER BODIES

The United States Geological Survey (USGS) 7.5-minute topographic map for the Oakland West Quadrangle and aerial photos from Google Earth® were reviewed to identify any surface water within a 0.5-mile radius of the Site. The nearest surface water body is Glen Echo Creek, which is located approximately 1 mile southeast (cross-gradient) of the Site and drains into Lake Merritt. Based on the distance to Glen Echo Creek and its location cross-gradient (predominant direction of groundwater flow is west-southwest) of the Site, it is unlikely that Glen Echo Creek will be impacted by the dissolved-phase petroleum hydrocarbon plume associated with the Site.

## 4.3 CONDUIT SURVEY

In 2005, Cambria performed an underground conduit study to determine if there are any preferential migration pathways for groundwater. During this study, several underground utilities were identified in the vicinity of the Site (shown on **Figure 2**) (Cambria, 2005c). Based on the data collected, the depth to flow line in the storm drain and sewer lines ranges from approximately 7 to 15 feet bgs, which means the base of the trench backfill material for these lines is approximately 8 to 16 feet bgs. The historical range of DTW measurements associated with the Site is approximately 3 to 13 feet below TOC; therefore, the storm drain and sewer line trenches are at similar elevations to the groundwater table. Soil and groundwater data collected at boring SB-21, which is off Site in a down-gradient direction along the utility corridor, demonstrate that the utility trenches are not acting as a conduit for the dissolved-phase plume.

#### 4.4 NEIGHBORHOOD SURVEY

Stantec conducted a neighborhood survey of the residences and businesses within approximately 400 feet from the Site in the vicinity of the dissolved-phase petroleum hydrocarbon plume as demonstrated by detectable concentrations of petroleum hydrocarbons in groundwater monitoring wells and grab groundwater samples (detectable plumes are shown on **Figure 5**, **Figure 6**, and **Figure 7**). Questionnaires were mailed to the physical addresses for each of the identified target properties. Survey results are illustrated on **Figure 9**, and the survey procedures and results are summarized below.

Each questionnaire was sent with a self-addressed and stamped envelope. Prior to mailing the questionnaires, Stantec contacted the Alameda County Assessor's Office to obtain property owner information for the parcels within the search area. Although within the search area, a questionnaire was not sent to 921 West MacArthur Boulevard, because the building on this property has an open-air car wash.

Stantec distributed the questionnaires to the physical addresses for each of the identified target properties on July 3, 2015. The recipients were given two weeks to return the questionnaires. On July 17, 2015, Stantec distributed a second copy of the questionnaire to each of the identified target properties that had not responded within the first two weeks. The recipients were given an additional two weeks to respond to Stantec's request. Stantec received two responses of the



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14 total properties to which questionnaires were sent. Copies of the returned questionnaires are included in **Appendix F**. Tenant and property owner personal information has been redacted to protect their privacy.

Of the two responses, one property (3712 Market Street) identified a basement. Neither property identified a sump. Stantec followed up with the tenant at 3712 Market Street via telephone and learned that the basement occupies the entire building footprint and has a maximum depth of approximately 6 feet bgs. The basement primarily has a dirt floor with some areas of concrete pad. The property at 3712 Market Street is outside of the identified extent of dissolved-phase impacts as shown on **Figure 5**, **Figure 6**, and **Figure 7**; therefore, potential vapor and groundwater risk at this location is unlikely.

## 4.5 SENSITIVE POPULATION SURVEY

Stantec conducted a survey to determine if any sensitive populations were located in the vicinity of the Site. Sensitive populations are people who would potentially be more susceptible to risks resulting from exposure to Site-related hydrocarbons such as school-age children, medically-compromised people, and the elderly. The potential sensitive populations located within a 0.5-mile radius of the Site are listed in the following table, and shown on **Figure 8**.

Potential Sensitive Receptor	Address	Distance from Site (miles)	Direction from Site
A. Oakland Military Institute	3877 Lusk St.	0.05	NE
B. Saint Martin de Porres Catholic School	675 41st St.	0.24	NE
C. Avalon Senior Housing	3850 San Pablo Ave.	0.29	W-NW
D. Henderson Residential	4201 West St.	0.30	NE
E. Hoover Elementary and Junior High School	890 Brockhurst St.	0.31	S
F. North Oakland Community Charter	1000 42 <sup>nd</sup> St.	0.33	N-NW
G. Sylvester Rutledge	3255 San Pablo Ave.	0.35	S-SW
H. Anna Yates Elementary School	1070 41st St.	0.36	NW
I. St. Mary's Center	3208 San Pablo Ave.	0.39	S-SW
J. Love Always Child Care Center	3261 Martin Luther King Jr. Way	0.43	S-SE
K. Emeryville Senior Center	4321 Salem St.	0.48	NW



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Based on the predominant groundwater flow direction associated with the Site (west-southwest), two of the identified sensitive populations within a 0.5-mile radius of the Site (Sylvester Rutledge Manor and St. Mary's Center Preschool) are potentially located down-gradient of the Site. Based on their distance from the Site (0.35 and 0.39 miles, respectively) and the maximum extent of the dissolved phase plume, these sensitive receptors are not likely to be at risk from exposure to Site-related petroleum hydrocarbons.



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## 5.0 LOW-THREAT CLOSURE POLICY EVALUATION

This section presents the low-risk general and media-specific criteria defined by the SWRCB's LTCP, effective August 17, 2012, under Resolution No. 2012-0016 (SWRCB, 2012a) and includes an evaluation of the Site compared to these criteria. The completed SWRCB LTCP Checklist is included as **Appendix G**.

#### 5.1 GENERAL CRITERIA

Is the unauthorized release located within the service area of a public water system?

Yes. The Site is located within the service area of the East Bay Municipal Utility District.

• Does the unauthorized release consist only of petroleum?

**Yes.** The constituents of concern (COCs) at the Site are petroleum hydrocarbons associated with gasoline, including TPH-GRO, BTEX compounds, and MtBE.

Has the unauthorized ("primary") release from the UST system been stopped?

**Yes.** In April and May 2005, the service station was demolished and all fueling features were removed.

Dissolved-phase petroleum hydrocarbon concentrations associated with the Site are decreasing or stable, indicating that there is no longer a continuous petroleum hydrocarbon source at the Site.

 Has free product been removed to the maximum extent practicable (per CCR Chapter 16 Section 2655 a-c)?

**Not applicable.** Free product has not been observed in any Site wells to-date; therefore, no free product removal activities have been conducted at any Site wells.

 Has a conceptual Site model (CSM) that assesses the nature, extent, and mobility of the release been developed?

**Yes.** The Site Conceptual Model and Data Gap Work Plan was submitted on August 16, 2013 (Stantec, 2013), and the results of this investigation further refine the CSM.

Has secondary source been removed to the extent practicable?

**Yes.** Historical remedial efforts at the Site have consisted of:



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- Over-excavation and disposal of approximately 162 cubic yards of soil and
   7,800 gallons of groundwater in February 1997; and
- Over-excavation and disposal of approximately 5,134 tons of soil and 25,486 gallons of groundwater in April and May 2005.

Additional active remediation at the Site is not warranted to satisfy this criterion; however, additional targeted excavation in the area of soil borings SB-15 and SB-18 during Site redevelopment may help further support case closure efforts.

 Has soil or groundwater been tested for MtBE and results reported in accordance with Health and Safety Code section 25296.15?

**Yes.** MtBE was analyzed in all soil samples collected in association with the Site. In addition, MtBE was routinely analyzed in groundwater during monitoring and sampling events. Results have been reported to ACEH and uploaded to GeoTracker<sup>TM</sup>.

- Does nuisance as defined by Water Code section 13050 exist at the site?
   A "nuisance" is defined as anything which meets the following (1) Is injurious to health, or is indecent or offensive to the senses, or an obstruction to the free use of property; (2)
   Affects at the same time an entire community or neighborhood;
   (3) Occurs during, or as a result of, the treatment or disposal of wastes.
  - No. The conditions of "nuisance" do not exist at the Site.
- Are there unique site attributes or site-specific conditions that demonstrably increase the risk associated with residual petroleum constituents?

No.

## 5.2 MEDIA-SPECIFIC CRITERIA

The LTCP also contains media-specific criteria for evaluating sites for case closure. Groundwater-specific criteria, petroleum vapor intrusion to indoor air scenarios, and criteria for direct contact and outdoor air exposure are described in the LTCP.

#### 5.2.1 Groundwater-Specific Criteria

Current and historical groundwater quality data indicate that the dissolved-phase petroleum hydrocarbon plume at the Site is generally stable or decreasing in size and concentration.

Media-specific criteria for groundwater have been categorized based on:

- 1. The length of contaminant plume;
- 2. Presence of free product;



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- 3. Distance to nearest existing water supply well or surface water body; and
- 4. Dissolved concentrations of benzene and MtBE.

Based on this, Site conditions satisfy groundwater-specific criteria under scenario #4 of the LTCP. This scenario states the following:

- "The contaminant plume that exceeds water quality objectives is less than 1,000 feet in length."
  - As described in Section 3.3.2, the average plume lengths for TPH-GRO, benzene, and MtBE provided in the Technical Justification for Groundwater Media Specific Criteria (SWRCB, 2012b) (248, 198, and 317 feet, respectively) are similar to the lengths of plumes drawn for the Site using boring/well locations and concentrations (shown on Figure 5, Figure 6, and Figure 7) and are unlikely to be exceeded. However, to be conservative, the 90th percentile plume lengths (413, 350, and 545 feet for TPH-GRO, benzene, and MtBE, respectively) are used for this LTCP evaluation. These lengths are all less than 1,000 feet.
- "There is no free product."
  - Free product has not been observed or documented in any borings or Site wells to-date.
- "The nearest existing water supply well or surface water body is greater than 1,000 feet from the defined plume boundary."
  - During the well survey conducted in 2015, one industrial well was identified approximately 780 feet north of the Site; however, this well is believed to be destroyed. In addition, this well is located in the up- and slightly cross-gradient direction, so is unlikely to be impacted by the dissolved-phase petroleum hydrocarbon plume associated with the Site. No surface water bodies were identified within a 0.5-mile radius of the Site.
- "The dissolved concentration of benzene is less than 1,000 μg/L, and the dissolved concentration of MtBE is less than 1,000 μg/L."
  - O During Second Quarter 2015, benzene and MtBE were detected at maximum concentrations of 24 μg/L and 3 μg/L, respectively, in well MW-7. In addition, MtBE was below 1,000 μg/L in all grab groundwater samples collected during the 2015 investigation. Benzene was detected at 1,200 μg/L in the recent grab groundwater sample collected from soil boring SB-18 during the 2015 investigation; however, grab groundwater samples can exhibit concentrations as much as one order of magnitude higher than those collected from a monitoring well. Monitoring well MW-6 is in close proximity to boring SB-18 and exhibited a



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benzene concentration of 19  $\mu$ g/L during Second Quarter 2015; therefore, the concentration of benzene detected in SB-18 is not likely representative of groundwater conditions.

## 5.2.2 Petroleum Vapor Intrusion to Indoor Air

On-Site conditions do not currently satisfy any of the petroleum vapor intrusion to indoor air criteria scenarios. The on-site dissolved-phase benzene concentration from the grab groundwater sample collected from soil boring SB-15, which is outside the proposed building footprint near the property line, was above 100 µg/L during the 2015 investigation, which requires a minimum 10-foot bioattenuation zone of soil with TPH concentrations less than 100 mg/kg. The most recent DTW measurements in wells MW-5 and MW-6 adjacent to the Site are approximately 7.08 and 7.20 feet bgs, respectively. Without a minimum 10-foot bioattenuation zone and no direct soil gas measurements, the Site does not satisfy petroleum vapor intrusion to indoor air criteria. Although, the majority of contaminated soil was excavated in 2005, localized areas of residual soil contamination prevent this criteria from being met, particularly at soil boring SB-15 where TPH-GRO was detected above 100 mg/kg at 10 feet bgs. And although other detections of TPH-GRO in soil on Site were less than 100 mg/kg, their combined total exceeds 100 mg/kg.

Although the Site is currently a vacant lot, it is zoned for residential, and the proposed development plans for the Site include a residential building with its foundation constructed to depths ranging from approximately 4 to 12 feet bgs. This would place the building foundation within 10 feet of the groundwater table or within the groundwater table at some locations. Because on-site conditions do not meet any petroleum vapor intrusion to indoor air criteria scenarios, Stantec evaluated potential vapor intrusion in regards to the proposed development plans. The review is based on the proposed development plans provided by the property owner, dated March 1, 2007, and the evaluation may change should the development plans be updated prior to receipt of construction permits, which is highly likely due to the age of the plans.

There are no occupied spaces in the building that are provided with positive mechanical (forced) ventilation or particulate filtration. Dwelling units are provided with a small air make-up openings (for toilet room exhaust air and clothes dryer exhaust air make-up) and operable windows for ventilation. Vestibules and corridors are also provided with operable windows. The proximity of the building to two major roads, and these operable windows, provide pathways for external airborne pollutants to enter the dwelling units. Transient spaces, such as the stairways, are not provided with openings to the outdoors other than egress doors.

Although Site conditions do not currently satisfy petroleum vapor intrusion to indoor air criteria a or b, criteria c may be met by controlling exposure through the use of mitigation measures or engineering controls. Details within the development plans call for a vapor barrier in the typical slab-on-grade detail and a waterproofing membrane in the foundation details, which would assist with the mitigation of potential vapor intrusion to indoor air. In addition, the plans include a ventilation system for the ground floor parking garage, which would also assist with the



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mitigation of potential vapor intrusion to indoor air. However, Stantec notes that the minimum air flow for the parking garage ventilation system appears to be based on a calculation using 33 cars without factoring in the car stacker. Factoring in the car stacker, it appears that a maximum of 39 cars may occupy the parking garage. Furthermore, no provision is made for ventilating the pit areas (elevator and car stacker) located below the parking garage floor level. Stantec recommends that the design plans be reevaluated by the owner to include minimum air flow calculations based on a total of 39 cars and that the two pit areas be ventilated with air flow calculated as the larger of 1 cubic foot per minute (cfm) of air per square foot of area, or 4 to 6 air changes per hour (one every 10 to 15 minutes) based on pit volume. With these considerations incorporated into the parking garage ventilation system, along with the planned vapor barrier and waterproofing membrane, these engineering controls should sufficiently mitigate exposure to potential petroleum hydrocarbon vapors migrating from soil and groundwater such that they will have no significant risk of adversely affecting human health.

Using current and historical soil and groundwater data, off-Site soil and groundwater conditions meet LTCP petroleum vapor intrusion to indoor air criteria scenario #3, because concentrations of dissolved benzene were less than 100  $\mu$ g/L in groundwater monitoring well samples collected during Second Quarter 2015, groundwater levels are greater than 5 feet bgs, and concentrations of TPH in off-site soil are less than 100 mg/kg from 0 to 10 feet bgs.

## 5.2.3 Direct Contact and Outdoor Air Exposure

Site conditions satisfy the LTCP direct contact and outdoor air exposure criteria. The concentrations of benzene, ethylbenzene, and naphthalene in the upper 10 feet of soil that was not excavated are less than the residential and commercial limits for direct contact and outdoor air exposure specified in Table 1 of the LTCP.

VOCs and semi-volatile organic compounds (SVOCs), including polynuclear aromatic hydrocarbons (PAHs), were analyzed in the samples collected from boring B-4, located directly adjacent to the former waste oil UST. All concentrations of VOCs and SVOCs in these samples were below MDLs, thereby satisfying the PAH limits for direct contact and outdoor air exposure specified in Table 1 of the LTCP.



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## 6.0 CONCLUSIONS AND RECOMMENDATIONS

## 6.1 CONCLUSIONS

- Lateral delineation of petroleum hydrocarbons in soil and groundwater is complete.
- Any identified wells, surface water bodies, potential sensitive populations, or nearby properties with basements are unlikely to be impacted by petroleum hydrocarbon impacts associated with the Site.
- All general criteria of the LTCP are satisfied.
- Groundwater-specific criteria of the LTCP are satisfied.
- Petroleum vapor intrusion to indoor air criteria of the LTCP are not currently satisfied on Site; however, based on the proposed design plans provided by the property owner, and with the inclusion of the recommendations summarized in Sections 5.2.2 and 6.2, petroleum vapor intrusion to indoor air criteria c may be satisfied, because engineering controls should sufficiently mitigate exposure to potential petroleum hydrocarbon vapors migrating from soil and groundwater such that they will have no significant risk of adversely affecting human health.
- Petroleum vapor intrusion to indoor air criteria are satisfied off Site.
- Direct contact and outdoor air exposure criteria of the LTCP are satisfied.



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## 6.2 **RECOMMENDATIONS**

Stantec recommends that the design plans be reevaluated by the owner to include minimum air flow calculations based on a total of 39 cars (according to the current design) and that the two pit areas be ventilated with air flow calculated as the larger of 1 cubic foot per minute (cfm) of air per square foot of area, or 4 to 6 air changes per hour (one every 10 to 15 minutes) based on pit volume. With these considerations incorporated into the parking garage ventilation system, along with the planned vapor barrier and waterproofing membrane, these engineering controls should sufficiently mitigate exposure to potential petroleum hydrocarbon vapors migrating from soil and groundwater such that they will have no significant risk of adversely affecting human health. This would then satisfy LTCP petroleum vapor intrusion to indoor air criteria.



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## 7.0 REFERENCES

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# **TABLES**

# Table 1 Current Soil Analytical Results

			US EPA Method 8015B					US EPA N	METHOD 8260					
Boring ID	Depth	Date Collected	TPH-GRO (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	MtBE (mg/kg)	TBA (mg/kg)	DIPE (mg/kg)	EtBE (mg/kg)	TAME (mg/kg)	Ethanol (mg/kg)	Naphthalene (mg/kg)
	(feet bgs)					,	,							1 0 0
	2.5		<0.5	<0.0005	<0.001	<0.001	<0.001	<0.0005	<0.021	<0.001	<0.001	<0.001	<0.10	<0.001
SB-11	5	02/25/15	<0.5	<0.0005	<0.001	<0.001	<0.001	<0.0005	<0.020	<0.001	<0.001	<0.001	<0.10	<0.001
	7.5		0.7	<0.0005	<0.001	<0.001	<0.001	<0.0005	<0.021	<0.001	<0.001	<0.001	<0.10	<0.001
	10		65	<0.023	<0.047	<0.047	<0.047	<0.023	<0.94	<0.047	<0.047	<0.047	<4.7	0.46
	2.5		<0.5	<0.0005	<0.001	<0.001	<0.001	<0.0005	<0.020	<0.001	<0.001	<0.001	<0.10	<0.001
SB-12	5	02/26/15	<0.5	<0.0005	<0.001	<0.001	<0.001	<0.0005	<0.021	<0.001	<0.001	<0.001	<0.10	<0.001
	7.5		<0.5	<0.0005	<0.001	<0.001	<0.001	<0.0005	<0.020	<0.001	<0.001	<0.001	<0.10	<0.001
	10		26	<0.0005	<0.001	<0.001	<0.001	<0.0005	<0.020	<0.001	<0.001	<0.001	<0.10	<0.001
	2.5	02/25/15	<0.5	<0.0005	<0.001	<0.001	<0.001	<0.0005	<0.020	<0.001	<0.001	<0.001	<0.099	<0.001
SB-13	14	03/05/15	<0.5	<0.0005	<0.001	<0.001	<0.001	<0.0005	<0.019	<0.001	<0.001	<0.001	<0.097	<0.001
	14.5		<0.5	<0.0005	<0.001	<0.001	<0.001	0.087	<0.021	<0.001	<0.001	<0.001	<0.11	<0.001
SB-14	2.5	<u> </u>	<0.5	<0.0005	<0.001	<0.001	<0.001	<0.0005	<0.020	<0.001	<0.001	<0.001	<0.10	<0.001
	5	02/26/15	<0.5	<0.0005	<0.0009	<0.0009	<0.0009	<0.0005	<0.019	<0.0009	<0.0009	<0.0009	<0.094	<0.0009
	7.5	,	2.4	<0.0005	<0.001	<0.001	<0.001	<0.0005	<0.019	<0.001	<0.001	<0.001	<0.096	<0.001
	10		39	0.004	<0.001	0.005	<0.001	0.0006	<0.021	<0.001	<0.001	<0.001	<0.11	0.002
	2.5	02/27/15	<0.5	<0.0005	<0.001	<0.001	<0.001	<0.0005	<0.019	<0.001	<0.001	<0.001	<0.096	<0.001
SB-15	5		<0.5	<0.0005	<0.001	<0.001	<0.001	<0.0005	<0.020	<0.001	<0.001	<0.001	<0.10	<0.001
05 10	7.5		0.9	<0.0005	<0.001	<0.001	<0.001	<0.0005	<0.022	<0.001	<0.001	<0.001	<0.11	<0.001
	10		480	0.40	<0.053	8.3	14	<0.027	<1.1	<0.053	<0.053	<0.053	<5.3	2.5
	2.5		<0.5	<0.0005	<0.001	<0.001	<0.001	<0.0005	<0.020	<0.001	<0.001	<0.001	<0.10	<0.001
SB-17	5	02/27/15	<0.5	<0.0005	<0.001	<0.001	<0.001	<0.0005	<0.020	<0.001	<0.001	<0.001	<0.10	0.001
35 17	7.5	02/2//13	0.6	<0.0005	<0.0009	<0.0009	<0.0009	<0.0005	<0.019	<0.0009	<0.0009	<0.0009	<0.093	<0.0009
	10		25	0.0008	<0.001	<0.001	<0.001	<0.0005	<0.020	<0.001	<0.001	<0.001	<0.10	<0.001
	2.5		<0.5	<0.0005	<0.001	<0.001	<0.001	<0.0005	<0.021	<0.001	<0.001	<0.001	<0.10	<0.001
SB-18	5	02/27/15	<0.5	<0.0005	<0.001	<0.001	<0.001	<0.0005	<0.020	<0.001	<0.001	<0.001	<0.099	< 0.001
30-10	7.5	02/2//13	470	0.064	<0.047	0.24	<0.047	<0.023	<0.94	<0.047	<0.047	<0.047	<4.7	0.11
	10		410	0.17	<0.048	3.8	<0.048	<0.024	<0.96	<0.048	<0.048	<0.048	<4.8	1.2
	2.5		<0.5	<0.0005	<0.001	<0.001	<0.001	0.001	<0.020	<0.001	<0.001	<0.001	<0.10	<0.001
SB-19	5	02/26/15	<0.5	<0.0005	<0.0009	<0.0009	<0.0009	0.0005	<0.019	<0.0009	<0.0009	<0.0009	<0.094	<0.0009
3D-17	7.5	02/26/13	<0.5	<0.0005	<0.001	<0.001	<0.001	<0.0005	<0.020	<0.001	<0.001	<0.001	<0.10	<0.001
	10		5.7	<0.0005	<0.001	<0.001	<0.001	<0.0005	<0.020	<0.001	<0.001	<0.001	<0.10	<0.001
	2.5		<0.5	<0.0005	<0.001	<0.001	<0.001	<0.0005	<0.020	<0.001	<0.001	<0.001	<0.099	<0.001
SB-20	5	02/26/15	<0.5	<0.0005	<0.001	<0.001	<0.001	<0.0005	<0.020	<0.001	<0.001	<0.001	<0.098	<0.001
	7.5		<0.5	<0.0005	<0.001	<0.001	<0.001	<0.0005	<0.022	<0.001	<0.001	<0.001	<0.11	<0.001

#### Table 1

#### **Current Soil Analytical Results**

Former Chevron-Branded Service Station 92029 890 West MacArthur Boulevard Oakland, California

			US EPA Method 8015B	US EPA METHOD 8260										
Boring ID	Depth (feet bgs)	Date Collected	TPH-GRO (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	MtBE (mg/kg)	TBA (mg/kg)	DIPE (mg/kg)	EtBE (mg/kg)	TAME (mg/kg)	Ethanol (mg/kg)	Naphthalene (mg/kg)
	(leel bgs)		(5,5)	(9,9)	(9,9)	(3,3)	(3,3)	(9,9)	(3,3)	(9,9)	(3,3)	(9,9)	(9,9)	(3,3)
	2.5	00/07/15	<0.5	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.019	< 0.001	< 0.001	< 0.001	< 0.096	<0.001
SB-21	5		<0.5	<0.0005	<0.001	<0.001	<0.001	<0.0005	<0.020	< 0.001	<0.001	<0.001	<0.098	<0.001
3D-21	7.5	02/27/15	<0.5	<0.0005	<0.001	<0.001	<0.001	<0.0005	<0.020	< 0.001	<0.001	<0.001	<0.098	<0.001
	10		<0.5	<0.0005	<0.001	<0.001	<0.001	<0.0005	<0.019	<0.001	<0.001	<0.001	<0.096	<0.001
Е	SLs - Shallow S	ioil <sup>1,2</sup>	100	0.044	2.9	3.3	2.3	0.023	0.075	NE	NE	NE	NE	1.2
	ESLs - Deep So	500	0.044	2.9	3.3	2.3	0.023	0.075	NE	NE	NE	NE	1.2	

#### Notes:

- 1 = California Regional Water Quality Control Board, San Francisco Bay Region (RWQCB), Screening For Environmental Concerns at Sites with Contaminated Soil and Groundwater. Interim Final December 2013.
- 2 = Shallow soil refers to soil above 9.84 feet bgs and deep soil refers to soil below 9.84 feet bgs.

Bold text denotes detected concentrations. Bold/blue text denotes concentrations above RWQCB ESLs for residential land use where groundwater is a current or potential source of drinking water.

#### Abbreviations:

bgs = below ground surface
US EPA = United States Environmental Protection Agency
TPH-GRO = total petroleum hydrocarbons as gasoline range organics
mg/kg = milligrams per kilogram
MtBE = methyl tertiary-butyl ether
TBA = tertiary-butyl alcohol

DIPE = di-isopropyl ether
EtBE = ethyl tertiary-butyl ether
TAME = tertiary-amyl methyl ether
< = indicates less than stated method detection limit
ESL = Environmental Screening Level
NE = ESL not established for compound

Borehole/ Sample ID	Sample Depth (feet bgs)	Sample Date	TPH-GRO (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	MtBE (mg/kg)	DIPE (mg/kg)	ETBE (mg/kg)	TAME (mg/kg)	TBA (mg/kg)	1,2-DCA (mg/kg)	Lead (mg/kg)
\$1 (soil removed)	3	02/26/97	<del>&lt;1.0</del>	<0.0050	<0.0050	<0.0050	0.011	0.087						
S2 (soil removed)	3	02/26/97	6.0 <sup>1</sup>	<0.0050	<0.0050	<0.0050	0.0079	0.38						
S3 (soil removed)	3	02/26/97	4.1 <sup>2</sup>	0.0098	0.0087	0.027	0.026	0.44						
S4 (soil removed)	3	02/26/97	2.0 <sup>2</sup>	0.016	0.0088	<0.0050	0.015	0.42						
S5 (soil removed)	3	02/26/97	38	0.63	0.14	0.90	0.37	0.62			-			
\$6	3	02/26/97	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.050						
D. 1. / !! !!	6	10/0//00	68 <sup>3</sup>	0.25	0.30	1.2	0.64	0.33	-	-	1			4.5
B-1 (soil removed)	11	10/06/00	<1.0	<0.0050	0.0073	<0.0050	0.0089	<0.050	-	-	1	-		4.5
D. O. / il	6	10/0//00	<1.0 <sup>4</sup>	<0.0050	<0.0050	<0.0050	0.012	<0.050	_	-	1	-		6.9
B-2 (soil removed)	11	10/06/00	<1.0 <sup>4</sup>	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	_	-	1	-		3.9
D 2 / il	6	10/00/00	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<del>&lt;0.050</del>	-	-	1			4.4
B-3 (soil removed)	11	10/09/00	930 <sup>3</sup>	6.7	1.2	22	100	13	-	-	1	-		4.7
B /	6	10/00/00	<1.0 <sup>5</sup>	<0.0050	<0.0050	<0.0050	<0.0050	<0.050 <sup>6</sup>						10 <sup>7</sup>
B-4	11	10/09/00	<1.05	<0.0050	<0.0050	<0.0050	<0.0050	<0.050°						3.5 <sup>8</sup>
D. 5	6	10/05/00	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.050						6.1
B-5	11	10/05/00	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.050						3.7
	6	10/05/00	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	< 0.050						6.5
B-6	11	10/05/00	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.050						5.1
D 7 / "	6	10/00/00	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<del>&lt;0.050</del>	_	_	_	-	_	<del>9.2</del>
B-7 (soil removed)	11	10/09/00	<del>&lt;1.0</del>	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	_	_	_			<del>5.4</del>
	6	10/0//00	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	< 0.050						6.8
B-8	11	10/06/00	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.050						5.1
5.0 ( "	6	10/00/00	95 <sup>3</sup>	<del>0.15</del>	0.2	1.9	2.2	<0.5	_	_	_			<del>5.0</del>
B-9 (soil removed)	11	10/09/00	200 <sup>3</sup>	1.3	0.59	<del>6.1</del>	9.7	3.4	_	_	_			6.9
	6		<1.0	<0.0050	0.0058	0.0052	0.016	<0.050	_	_	_			7.7
B-10 (soil removed)	11	10/06/00	<del>&lt;1.0</del>	<0.0050	<0.0050	0.0051	0.015	<0.050	_	_	_	_	_	4.6
	6		<1.0	<0.0050	<0.0050	<0.0050	<0.015	<0.050						
MW-1	24.5	03/01/02	<1.0	<0.0050	<0.0050	<0.0050	<0.015	<0.050						
	4.5		<1.0	< 0.0050	<0.0050	<0.0050	<0.015	< 0.050						
MW-2	14.5	03/01/02	<1.0	<0.0050	<0.0050	<0.0050	<0.015	<0.050						
	24.5		<1.0	<0.0050	<0.0050	<0.0050	<0.015	<0.050						
	4.5		240	<0.050	<0.050	3.7	<0.300	<0.20						
MW-3	14.5	03/01/02	2.1	0.22	<0.0050	0.11	<0.015	<0.21						
-	24.5		<1.0	<0.0050	<0.0050	<0.0050	<0.015	<0.050						
	4		150	0.18	<0.020	2.1	1.9	0.23						
MW-4	14.5	03/01/02	3.1	<0.0050	<0.0050	0.019	<0.015	<0.050						
	24.5	, , , , , , , , , , ,	<1.0	<0.0050	<0.0050	<0.0050	<0.015	<0.050						

Borehole/ Sample ID	Sample Depth (feet bgs)	Sample Date	TPH-GRO (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	MtBE (mg/kg)	DIPE (mg/kg)	ETBE (mg/kg)	TAME (mg/kg)	TBA (mg/kg)	1,2-DCA (mg/kg)	Lead (mg/kg)
EX1	10	04/25/05	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005						11
EX2 (soil removed)	10	04/25/05	1.8	<0.005	0.0095	<0.005	<0.005	<0.005	_	_	-	_	_	<del>12</del>
EX3 (soil removed)	10	04/25/05	<1.0	<0.005	<del>&lt;0.005</del>	<0.005	<0.005	<del>&lt;0.005</del>	_	-	1			8.7
EX4 (soil removed)	10	04/25/05	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	_	_	_	_	-	11
EX5	10	04/25/05	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005						9.8
EX6 (soil removed)	3.5	04/25/05	3.5	<0.005	0.020	<0.005	<0.005	<0.005	_	_	_	_	-	8.9
EX7 (soil removed)	3.5	04/25/05	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	_	_	-	_	-	<del>12</del>
EX8 (soil removed)	3.5	04/25/05	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	_	_	_	_	-	9.7
EX9 (soil removed)	3.5	04/25/05	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	_	_	-	_	-	8.9
EX10 (soil removed)	3.5	04/25/05	<del>&lt;1.0</del>	<0.005	<0.005	<del>&lt;0.005</del>	<del>&lt;0.005</del>	<del>&lt;0.005</del>	_	_	_	_	-	5.5
EX11 (soil removed)	3.5	04/25/05	<del>&lt;1.0</del>	<del>&lt;0.005</del>	<del>&lt;0.005</del>	<del>&lt;0.005</del>	<del>&lt;0.005</del>	<del>&lt;0.005</del>	-	-	-	-		<del>12</del>
EX12 (soil removed)	3.5	04/25/05	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	_	-	-	-		9.3
EX13 (soil removed)	3.5	04/25/05	<del>&lt;1.0</del>	<0.005	<del>&lt;0.005</del>	<0.005	<0.005	<del>&lt;0.005</del>	_	-	1			<del>7.2</del>
EX14 (soil removed)	3.5	04/25/05	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	_	1	1	_	_	6.6
EX15 (soil removed)	3.5	04/25/05	<del>65</del>	<0.005	0.087	0.53	0.069	<del>&lt;0.005</del>	_	_	_	_	_	11
EX16 (soil removed)	3.5	04/25/05	<del>&lt;1.0</del>	<0.005	<0.005	<0.005	<0.005	<0.005	_	_	_	_		7.9
EX17 (soil removed)	3.5	04/25/05	370	<0.050	0.20	<0.050	0.61	<0.50	_	_	_	_		14
EX18 (soil removed)	3.5	04/25/05	<del>&lt;1.0</del>	<0.005	<0.005	<0.005	<0.005	<0.005	_	_	_	_	_	<del>7.8</del>
EX19 (soil removed)	3.5	04/25/05	<del>&lt;1.0</del>	<0.005	<del>&lt;0.005</del>	<0.005	<0.005	<del>&lt;0.005</del>	_	_	_	_	_	<del>7.1</del>
EX20 (soil removed)	3.5	04/25/05	3.4	<0.005	0.021	<0.005	0.0075	<0.005	_	_	_	_	_	8.4
EX21 (soil removed)	3.5	04/25/05	190	0.20	0.14	0.17	0.27	0.37	_	_	_	_	-	<del>22</del>
EX22 (soil removed)	3.5	04/25/05	76	0.35	0.058	0.78	0.20	<0.25	_	_	_	_	_	13
EX23	7	04/27/05	2.5	<0.005	<0.005	<0.005	<0.005	<0.005						
EX24 (soil removed)	10	04/27/05	120	2.2	0.23	2.9	6.6	0.12	_	_	_	_	_	_
EX25 (soil removed)	10	04/27/05	19	1.3	<del>&lt;0.10</del>	0.63	0.18	0.26	_	_	_	_	-	_
EX26 (soil removed)	10	04/27/05	<del>&lt;1.0</del>	<0.005	<0.005	<0.005	<0.005	0.23	-	-	_			-
EX27 (soil removed)	7	04/27/05	480	<0.050	<0.050	<0.050	<0.050	<0.050	_	_	_	_	_	_
EX28 (soil removed)	8	04/27/05	2,800	3.0	<del>&lt;2.0</del>	<del>58</del>	120	<2.0	_	_	_	_	-	-
EX29 (soil removed)	8	04/27/05	250	<0.033	<0.033	<0.033	<0.033	<0.033	_	_	_	-	-	-
EX30 (soil removed)	8	04/27/05	81	0.021	<0.020	0.034	<0.020	<0.020	_	_	_	_	_	_
EX31 (soil removed)	8	04/27/05	600	<del>&lt;0.10</del>	<del>&lt;0.10</del>	0.30	<0.10	<0.10	_	_	_	_	-	_
EX32	12	05/02/05	<1.0	<0.005	<0.005	<0.005	<0.005	0.0065						
EX33	12	05/02/05	<1.0	<0.005	<0.005	<0.005	<0.005	0.12						
EX34	12	05/02/05	<1.0	<0.005	<0.005	<0.005	<0.005	0.03						
EX35	12	05/02/05	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005						
EX36	9	05/02/05	450	<0.33	<0.33	10	7.30	<0.33						
EX37	9	05/02/05	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005						

Borehole/ Sample ID	Sample Depth (feet bgs)	Sample Date	TPH-GRO (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	MtBE (mg/kg)	DIPE (mg/kg)	ETBE (mg/kg)	TAME (mg/kg)	TBA (mg/kg)	1,2-DCA (mg/kg)	Lead (mg/kg)
EX38	12	05/03/05	34	0.66	<0.10	0.66	0.31	0.21						
EX39	9	05/03/05	64	0.022	<0.005	0.11	0.014	<0.005					-	
EX40	12	05/03/05	<1.0	<0.005	<0.005	<0.005	<0.005	0.12						
EX41	12	05/03/05	<1.0	< 0.005	<0.005	<0.005	<0.005	0.16						
EX42 (soil removed)	9	05/03/05	450	< <del>0.010</del>	<del>&lt;0.010</del>	<0.010	<0.010	<del>&lt;0.010</del>	_	_	_	_	-	
EX43 (soil removed)	9	05/03/05	120	< <del>0.010</del>	<del>&lt;0.010</del>	0.070	<0.010	<del>&lt;0.010</del>	_	_	-	_	1	-
EX44 (soil removed)	9	05/03/05	230	<0.010	<0.010	0.110	<0.010	<0.010	_	_	_	_	-	
EX45	12	05/10/05	<1.0	<0.005	<0.005	<0.005	<0.005	0.11					-	
EX46	12	05/10/05	<1.0	<0.005	<0.005	<0.005	<0.005	0.025						
EX47	8	05/10/05	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005					-	<0.005
EX48	12	05/10/05	<1.0	< 0.005	<0.005	<0.005	<0.005	<0.005						<0.005
EX49 (soil removed)	9	05/10/05	1.1	<0.005	<del>&lt;0.005</del>	<0.005	<0.005	<0.005	_	-	1	_	1	<del>&lt;0.005</del>
EX50	9	05/10/05	1.3	<0.005	<0.005	<0.005	<0.005	<0.005						<0.005
EX51	9	05/10/05	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005					-	<0.005
EX52 (soil removed)	9	05/11/05	610	<0.50	<0.50	18	<0.50	<0.50	_	_	_	_	-	<del>&lt;0.50</del>
EX53	12	05/11/05	<1.0	<0.005	0.0055	<0.005	<0.005	0.16						0.16
EX54 (soil removed)	9	05/11/05	2.7	<0.005	<0.005	<0.005	<0.005	<0.005	_	_	_	_	-	<0.005
EX55	9	05/19/05	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005						<0.005
EX56	9	05/19/05	8.5	<0.005	<0.005	<0.005	<0.005	<0.005						< 0.005
EX57	12	05/19/05	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005						<0.005
EX58	12	05/19/05	<1.0	<0.005	<0.005	<0.005	<0.005	0.0070						0.0070
EX59	9	05/19/05	240	<0.025	<0.025	0.40	<0.025	<0.025					-	<0.025
EX60	9	05/20/05	250	<0.20	<0.20	6.1	<0.20	<0.20						<0.20
EX61	12	05/20/05	16	0.10	<0.010	0.19	0.012	0.079					-	0.079
EX62	9	05/20/05	78	<0.005	<0.005	0.095	<0.005	<0.005						<0.005
EX63	9	05/20/05	22	0.25	< 0.033	0.90	0.035	< 0.033					-	< 0.033
	5	07/22/08	260	<0.025	<0.049	<0.049	< 0.049	<0.025	<0.049	<0.049	<0.049	<0.98	<0.049	
	10		<1.0	<0.005	<0.001	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.019	<0.001	
MW-5	15	07/00/00	<1.0	<0.0005	<0.001	<0.001	<0.001	0.021	<0.001	<0.001	<0.001	<0.020	<0.001	
	20	07/23/08	<1.0	<0.0005	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.020	<0.001	
	25		1.8	<0.0005	<0.001	<0.001	<0.001	0.003	<0.001	<0.001	<0.001	<0.019	<0.001	
	5	07/22/08	2.7	<0.0005	<0.001	<0.001	<0.001	0.003	<0.001	<0.001	<0.001	<0.020	<0.001	
	10		16	0.19	<0.001	0.13	0.006	0.07	<0.001	<0.001	0.001	0.042	<0.001	
MW-6	15	07/00/00	1.9	<0.0005	<0.001	<0.001	<0.001	0.007	<0.001	<0.001	<0.001	0.026	<0.001	
	20	07/23/08	<1.0	<0.0005	<0.001	0.001	<0.001	0.006	<0.001	<0.001	<0.001	<0.020	<0.001	
	25		<1.0	0.001	<0.001	0.012	<0.001	0.0009	<0.001	<0.001	<0.001	<0.022	<0.001	

Former Chevron-Branded Service Station 92029 890 West MacArthur Boulevard Oakland, California

Borehole/ Sample ID	Sample Depth (feet bgs)	Sample Date	TPH-GRO (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	MtBE (mg/kg)	DIPE (mg/kg)	ETBE (mg/kg)	TAME (mg/kg)	TBA (mg/kg)	1,2-DCA (mg/kg)	Lead (mg/kg)
	5	07/22/08	<1.0	<0.0005	<0.001	0.014	<0.001	<0.0005	<0.001	<0.001	<0.001	<0.020	<0.001	
	10		75	0.21	<0.046	1.9	<0.046	<0.023	<0.046	<0.046	<0.046	<0.92	<0.046	
MW-7	15	07/23/08	31	0.062	<0.001	0.19	0.004	<0.0005	<0.001	<0.001	<0.001	<0.019	<0.001	
	20	0//23/06	<1.0	<0.0005	<0.001	<0.001	< 0.001	<0.0005	<0.001	< 0.001	<0.001	<0.021	<0.001	
	25		<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	<0.001	<0.001	<0.001	<0.020	<0.001	
	5	07/22/08	<1.0	<0.0005	<0.001	<0.001	< 0.001	<0.0005	<0.001	< 0.001	<0.001	<0.019	<0.001	
	10	07/24/08	<1.0	<0.0005	<0.001	<0.001	< 0.001	<0.0005	<0.001	< 0.001	<0.001	<0.020	<0.001	
MW-8	15		<1.0	<0.0005	<0.001	<0.001	< 0.001	<0.0005	<0.001	< 0.001	<0.001	<0.021	<0.001	
	20		<1.0	<0.0005	<0.001	<0.001	< 0.001	<0.0005	<0.001	< 0.001	<0.001	<0.020	<0.001	
	25		<1.0	<0.0005	<0.001	<0.001	< 0.001	<0.0005	<0.001	< 0.001	<0.001	<0.020	< 0.001	
	5		<1	<0.0005	<0.001	<0.001	< 0.001	<0.0005					-	
SB-10	9.5	01/04/11	<1	<0.0005	<0.001	<0.001	< 0.001	<0.0005					-	
30-10	14.5	01/04/11	<1	<0.0005	<0.001	<0.001	<0.001	<0.0005						
	19.5		<1	0.0006	0.002	<0.001	<0.001	<0.0005						
	ESLs - Shallow Soil <sup>9,10</sup>				2.9	3.3	2.3	0.023	NE	NE	NE	0.075	0.0045	80
ESLs	500	0.044	2.9	3.3	2.3	0.023	NE	NE	NE	0.075	0.0045	80		

#### Notes:

TAME = tertiary -amyl methyl ether

Bold text denotes detected concentrations. Bold/blue text denotes detected concentrations above ESLs for Residential Land Use.

#### Abbreviations:

bgs = below ground surface mg/kg = milligrams per kilogram TPH-GRO = total petroleum hydrocarbons as gasoline range organics MtBE = methyl tertiary -butyl ether DIPE = di-isopropyl ether EtBE = ethyl tertiary -butyl ether

TBA = tertiary -butyl alcohol 1,2-DCA = 1,2-dichloroethane

< = indicates less than stated method detection limit

-- = not analyzed

ESL = Environmental Screening Level NE = ESL not established for compound

<sup>&</sup>lt;sup>1</sup> = Unidentified hydrocarbons > C8.

<sup>&</sup>lt;sup>2</sup> = Gasoline and discrete peaks.

 $<sup>^3</sup>$  = Gasoline C6-C12.

<sup>&</sup>lt;sup>4</sup> = Sample also analyzed for total petroleum hydrocarbons as hydraulic oil (TPHho; <10 mg/kg).

<sup>&</sup>lt;sup>5</sup> = Sample also analyzed for total oil and grease (TOG; <50 mg/kg) and total petroleum hydrocarbons as diesel range organics (TPH-DRO; <1.0 mg/kg).

<sup>&</sup>lt;sup>6</sup> = Sample also analyzed for volatile organic compounds (VOCs; non-detect) and semi-volatile organic compounds (SVOCs; non-detect).

 $<sup>^{7}</sup>$  = Sample also analyzed for cadmium (0.69 mg/kg), chromium (42 mg/kg), nickel (100 mg/kg), and zinc (63 mg/kg).

<sup>&</sup>lt;sup>8</sup> = Sample also analyzed for cadmium (0.57 mg/kg), chromium (24 mg/kg), nickel (29 mg/kg), and zinc (50 mg/kg).

<sup>&</sup>lt;sup>9</sup> = California Regional Water Quality Control Board, San Francisco Bay Region, Screening For Environmental Concerns at Sites with Contaminated Soil and Groundwater, Interim Final - December 2013.

<sup>&</sup>lt;sup>10</sup> = Shallow soil refers to soil above 9.84 feet bgs and deep soil refers to soil below 9.84 feet bgs.

## Table 3 Current Grab Groundwater Analytical Results

Former Chevron-Branded Service Station 92029 890 West MacArthur Boulevard Oakland, California

			US EPA Method 8015B					US EPA N	METHOD 8	260				
Boring ID	Date	DTW	TPH-GRO	Benzene	Toluene	Ethylbenzene	Total Xylenes	MtBE	TBA	DIPE	EtBE	TAME	Ethanol	Naphthalene
Boiling ID	Collected	(feet bgs)	(μg/L)	(μg/L)	(μg/L)	(μg/L)	(μg/L)	(μg/L)	(μg/L)	(μg/L)	(μg/L)	(μg/L)	(μg/L)	(μg/L)
SB-11	02/25/15	6.05	4,800	<0.5	0.9	0.9	<0.5	<0.5	<2	<0.5	<0.5	<0.5	<50	2
SB-12	02/26/15	5.6	3,800	<0.5	<0.5	<0.5	<0.5	0.5	<2	<0.5	<0.5	<0.5	<50	<1
SB-13	03/05/15	7.5	<50	<0.5	<0.5	<0.5	<0.5	4	<2	<0.5	<0.5	<0.5	<50	<1
SB-14	02/26/15	6.2	8,800	0.8	<0.5	11	<0.5	<0.5	<2	<0.5	<0.5	<0.5	<50	4
SB-15	02/27/15	6.5	43,000	210	21	2,700	4,100	1	<2	<0.5	<0.5	<0.5	<50	900
SB-17	02/27/15	5.7	5,300	<0.5	<0.5	4	1	<0.5	<2	<0.5	<0.5	<0.5	<50	<1
SB-18	02/27/15	8.9	43,000	1,200	7	3,100	76	29	29	<1	<1	<1	<100	910
SB-19	02/26/15	9.83	8,300	<0.5	<0.5	3	0.6	<0.5	<2	<0.5	<0.5	<0.5	<50	<1
SB-20	02/26/15	6.30	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<0.5	<0.5	<50	<1
SB-21	02/27/15	10.65	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<0.5	<0.5	<50	<1
	ESLs <sup>1</sup>		100	1	40	30	20	5	12	NE	NE	NE	NE	6.1

### Notes:

**Bold** text denotes detected concentrations. **Bold/blue** text denotes concentrations above RWQCB ESLs for groundwater that is a current or potential source of drinking water.

### Abbreviations:

DTW = Depth-to-Groundwater
US EPA = United States Environmental Protection Agency
TPH-GRO = total petroleum hydrocarbons as gasoline range organics
(µg/L) = micrograms per liter
MtBE = methyl tertiary-butyl ether
TBA = tertiary-butyl alcohol

DIPE = di-isopropyl ether

EtBE = ethyl tertiary-butyl ether

TAME = tertiary-amyl methyl ether

< = indicates less than stated method detection limit

ESL = Environmental Screening Level

NE = ESL not established for compound

<sup>&</sup>lt;sup>1</sup> = California Regional Water Quality Control Board, San Francisco Bay Region (RWQCB), Screening For Environmental Concerns at Sites with Contaminated Soil and Groundwater, Interim Final - December 2013.

### Table 4

### Historical Grab Groundwater Analytical Results

Former Chevron-Branded Service Station 92029 890 West MacArthur Boulevard Oakland, California

Borehole/ Sample ID	Sample Depth (feet bgs)	Sample Date	TPH-GRO (μg/L)	Benzene (µg/L)	Toluene (μg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	MtBE (μg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (μg/L)	TBA (µg/L)	1,2-DCA (μg/L)	1,2-DBA (μg/L)
B-1	13.1	10/06/00	3,600 <sup>1</sup>	110	3.5	770	150	820						
B-2	13	10/06/00	<50 <sup>2</sup>	<0.50	<0.50	<0.50	<0.50	460						
B-3	13.1	10/09/00	33,000 <sup>1</sup>	1,200	580	2,000	7,500	670						
B-4	13.5	10/09/00	<50 <sup>3</sup>	<0.50	<0.50	<0.50	<0.50	71 <sup>4,5</sup>						
B-5	12.3	10/06/00	<50	<0.50	<0.50	<0.50	<0.50	590			-			
B-6	11.8	10/06/00	<50	<0.50	<0.50	<0.50	<0.50	34						
B-7	13.7	10/09/00	500 <sup>1</sup>	<0.50	<0.50	16	63	360						
B-8	12.8	10/06/00	<50	<0.50	<0.50	<0.50	<0.50	650						
B-10	13.8	10/09/00	3,700 <sup>1</sup>	8.3	4.2	180	1.7	47						
SB-1	20	03/28/06	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5
3D-1	30	03/26/06	<50	<0.5	1	<0.5	0.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5
SB-2	20	03/28/06	2,700	34	1	83	170	38	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5
30-2	31	03/20/00	970	11	1	24	50	13	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5
SB-3	16	03/30/06	<50	<0.5	1	<0.5	0.6	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5
30-3	34	03/30/08	<50	0.6	2	<0.5	1	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5
SB-5	28	03/29/06	<50	1	1	1	3	5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5
30-3	44	03/2//08	51	0.8	2	0.9	3	0.8	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5
SB-6	16	03/30/06	<50	<0.5	0.7	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5
30-0	30	03/30/08	<50	<0.5	0.9	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5
SB-8	23	03/29/06	66	<0.5	1	<0.5	1	7	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5
30-0	33	03/2//00	63	<0.5	0.7	<0.5	0.6	2	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5
SB-9	23	03/30/06	<50	<0.5	0.6	<0.5	<0.5	210	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5
30-7	33	03/30/08	<50	0.6	0.9	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5
SB-10		01/04/11	<50	<0.5	<0.5	<0.5	<0.5	4						
	ESLs <sup>6</sup>		100	1	40	30	20	5	NE	NE	NE	12	0.05	0.5

#### Notes:

### Abbreviations:

bgs = below ground surface µg/L = micrograms per liter

TPH-GRO = total petroleum hydrocarbons as gasoline range organics

 $\mathsf{MtBE} = \mathsf{methyl} \ \mathit{tertiary} \ \mathsf{-butyl} \ \mathsf{ether}$ 

DIPE = di-isopropyl ether

EtBE = ethyl tertiary -butyl ether

TAME = tertiary -amyl methyl ether

TBA = tertiary-butyl alcohol

1,2-DCA = 1,2-dichloroethane

1,2-DBA = 1,2-dibromoethane

< = indicates less than stated method detection limit

-- = not measured/not analyzed

ESL = Environmental Screening Level

NE = ESL not established for compound

<sup>1 =</sup> Gasoline C6-C12.

 $<sup>^2</sup>$  = Sample also analyzed for total petroleum hydrocarbons as hydraulic oil (TPHho; <250  $\mu$ g/L).

<sup>3 =</sup> Sample also analyzed for total oil and grease (TOG; <5,000 μg/L) and total petroleum hydrocarbons as diesel range organics (TPH-DRO; 170 μg/L).

<sup>4 =</sup> Sample also analyzed for volatile organic compounds (VOCs; non-detect except for tetrachloroethene [PCE] at 4.3 µg/L) and semi-volatile organic compounds (SVOCs; non-detect).

<sup>&</sup>lt;sup>5</sup> = Sample also analyzed for cadmium (non-detect), chromium (110 μg/L), lead (27 μg/L), nickel (140 μg/L), and zinc (250 μg/L).

<sup>&</sup>lt;sup>6</sup> = California Regional Water Quality Control Board, San Francisco Bay Region, Screening For Environmental Concerns at Sites with Contaminated Soil and Groundwater, Interim Final - December 2013. **Bold** text denotes detected concentrations. **Bold/blue** text denotes detected concentrations above ESLs for groundwater that is a current or potential source of drinking water.

WELL ID/ DATE	TOC* (ff.)	DTW (ff.)	GWE (msl)	TPH-GRO (µg/L)	Β (μg/L)	Τ (μg/L)	Ε (μg/L)	Χ (μg/L)	MtBE (µg/L)
DATE		dwater ESL	(IIIsi)	100	<u>(μ9/ε)</u> 1	(μg/L) 40	30	20	5
MW-5									
08/22/08 <sup>1</sup>	49.39	9.97	39.42						
08/27/08 <sup>3</sup>	49.39	10.03	39.36	54	0.5	0.8	<0.5	0.7	10
11/21/08 <sup>3</sup>	49.39	8.42	40.97	6,000	93	6	37	6	8
02/13/09 <sup>3</sup>	49.39	7.11	42.28	5,100	31	5	20	3	6
05/08/09 <sup>3</sup>	49.39	7.21	42.18	3,600	18	4	14	2	2
08/07/09 <sup>3</sup>	49.39	9.60	39.79	520	0.7	<0.5	<0.5	<0.5	2
11/05/09 <sup>3</sup>	49.39	7.08	42.31	7,400	16	5	18	4	0.9
05/06/10 <sup>3</sup>	49.39	6.08	43.31	3,500	4	2	3	0.9	0.9
11/03/10 <sup>5</sup>	49.39	9.05	40.34	5,000	13	4	8	3	0.9
05/10/11 <sup>5</sup>	49.39	7.26	42.13	3,200	6	4	7	0.9	<0.5
11/10/11 <sup>5</sup>	49.39	7.60	41.79	2,600	6	3	10	2	<0.5
05/11/12 <sup>5</sup>	49.39	6.48	42.91	3,300	<3	<3	<3	<3	<3
11/14/12 <sup>3</sup>	49.39	8.89	40.50	2,100	3	2	3	0.6	<0.5
05/08/13 <sup>3</sup>	49.39	8.41	40.98	2,100	2	0.9	2	<0.5	<0.5
11/06/13 <sup>3</sup>	49.39	9.81	39.58	160	<0.5	<0.5	<0.5	<0.5	<0.5
05/14/14 <sup>3</sup>	49.39	6.74	42.65	3,500	1	2	4	<0.5	<0.5
11/19/14	49.39			TH SURFACE WATER					
05/07/15 <sup>3</sup>	49.39	7.08	42.31	2,800	1	1	2	<0.5	<0.5
30,01,10				,					
MW-6									
08/22/08 <sup>1</sup>	49.07	8.98	40.09						
08/27/08 <sup>3</sup>	49.07	8.98	40.09	6,000	990	4	350	530	440
11/21/08 <sup>3</sup>	49.07	8.12	40.95	14,000	1,000	15	1,300	550	300
02/13/09 <sup>3</sup>	49.07	5.84	43.23	9,700	630	4	510	36	180
05/08/09 <sup>3</sup>	49.07	5.77	43.30	7,600	240	4	470	67	38
08/07/09 <sup>3</sup>	49.07	8.49	40.58	14,000	1,500	12	1,400	180	330
11/05/09 <sup>3</sup>	49.07	6.72	42.35	22,000	870	8	1,300	130	160
05/06/10 <sup>3</sup>	49.07	4.89	44.18	5,200	110	2	160	23	9
11/03/10 <sup>5</sup>	49.07	8.05	41.02	13,000	1,100	8	670	58	160
05/10/11 <sup>4,5</sup>	49.07	8.56	40.51	<50	0.6	<0.5	<0.5	<0.5	<0.5
11/10/11 <sup>5</sup>	49.07	7.59	41.48	5,700	260	7	180	13	37
05/11/12 <sup>5</sup>	49.07	5.68	43.39	1,200	36	0.6	0.8	<0.5	1
11/14/12 <sup>3</sup>	49.07	9.83	39.24	6,400	290	9	180	6	36
05/08/13 <sup>3</sup>	49.07	7.21	41.86	2,000	77	1	9	<0.5	6
11/06/13 <sup>3</sup>	49.07	9.27	39.80	5,300	330 <sup>6</sup>	3 <sup>6</sup>	8 <sup>6</sup>	16	78 <sup>6</sup>

WELL ID/	TOC*	DTW	GWE	TPH-GRO	B (µg/L)	T (ug/l)	E (ug/l)	X (ug/l)	MtBE (ug./l)
DATE	(ft.)	(ft.)	(msl)	(µg/L)		(µg/L)	(µg/L)	(µg/L)	(µg/L)
	Groun	dwater ESL		100	1	40	30	20	5
MW-6 (cont)									
05/14/14 <sup>3</sup>	49.07	6.29	42.78	5,000	140	6	46	2	10
11/19/14	49.07		E; FLOODED WI	TH SURFACE WATER					
05/07/15 <sup>3</sup>	49.07	7.20	41.87	3,600	19	2	7	<0.5	2
MW-7									
08/22/08 <sup>1</sup>	48.74	10.20	38.54						
08/27/08 <sup>3</sup>	48.74	10.19	38.55	<50	<0.5	0.6	<0.5	0.7	6
11/21/08 <sup>3</sup>	48.74	9.51	39.23	1,100	80	<0.5	65	0.7	6
02/13/09 <sup>3</sup>	48.74	7.95	40.79	630	30	<0.5	38	0.9	7
05/08/09 <sup>3</sup>	48.74	8.04	40.70	1,200	83	<0.5	190	2	8
08/07/09 <sup>3</sup>	48.74	9.88	38.86	8,900	240	0.7	770	5	5
11/05/09 <sup>3</sup>	48.74	9.03	39.71	12,000	630	<1	1,300	420	5
05/06/10 <sup>3</sup>	48.74	7.88	40.86	4,000	190	<0.5	270	7	6
11/03/10 <sup>5</sup>	48.74	9.48	39.26	5,700	150	0.7	45	2	4
05/10/11 <sup>5</sup>	48.74	8.82	39.92	3,500	180	<0.5	150	2	5
11/10/11 <sup>5</sup>	48.74	9.68	39.06	1,500	2	<0.5	2	<0.5	5
05/11/12 <sup>5</sup>	48.74	8.37	40.37	9,200	440	<5	1,000	33	<5
11/14/12 <sup>3</sup>	48.74	9.79	38.95	5,000	<3	<3	6	<3	4
05/08/13 <sup>3</sup>	48.74	9.54	39.20	2,200	10	<0.5	2	<0.5	5
11/06/13 <sup>3</sup>	48.74	10.60	38.14	790	<0.5	<0.5	<0.5	<0.5	4
05/14/14 <sup>3</sup>	48.74	8.73	40.01	8,200	380 <sup>6</sup>	<16	460 <sup>6</sup>	34 <sup>6</sup>	4 <sup>6</sup>
11/19/14 <sup>3</sup>	48.74	10.33	38.41	1,200	0.6	<0.5	1	<0.5	5
05/07/15 <sup>3</sup>	48.74	9.33	39.41	5,000	24	0.8	19	1	3
MW-8									
08/22/08 <sup>1</sup>	47.61	12.41	35.20						
08/27/08 <sup>3</sup>	47.61	12.42	35.19	<50	<0.5	0.7	<0.5	0.6	<0.5
11/21/08 <sup>3</sup>	47.61	11.42	36.19	<50	<0.5	<0.5	<0.5	<0.5	<0.5
02/13/09 <sup>3</sup>	47.61	8.87	38.74	<50	<0.5	<0.5	<0.5	<0.5	<0.5
05/08/09 <sup>3</sup>	47.61	10.79	36.82	<50	<0.5	<0.5	<0.5	<0.5	<0.5
08/07/09 <sup>3</sup>	47.61	12.33	35.28	<50	<0.5	<0.5	<0.5	<0.5	<0.5
11/05/09 <sup>3</sup>	47.61	11.23	36.38	<50	<0.5	<0.5	<0.5	<0.5	<0.5
05/06/10 <sup>3</sup>	47.61	10.28	37.33	<50	<0.5	<0.5	<0.5	<0.5	<0.5
11/03/10 <sup>5</sup>	47.61	11.37	36.24	<50	<0.5	<0.5	<0.5	<0.5	<0.5
05/10/11 <sup>5</sup>	47.61	11.55	36.06	<50	<0.5	<0.5	<0.5	<0.5	<0.5
11/10/11 <sup>5</sup>	47.61	11.49	36.12	<50	<0.5	<0.5	<0.5	<0.5	<0.5
05/11/12 <sup>5</sup>	47.61	10.89	36.72	<50	<0.5	<0.5	<0.5	<0.5	<0.5

WELL ID/	TOC*	DTW	GWE	TPH-GRO	B (ug/l)	T (va/t)	E (100/1)	X (ua/1)	MtBE
DATE	(ft.)	(ft.)	(msl)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(μg/L)
	Groundy	vater ESL		100	1	40	30	20	5
MW-8 (cont)									
11/14/12 <sup>3</sup>	47.61	11.73	35.88	<50	<0.5	<0.5	<0.5	<0.5	<0.5
05/08/13 <sup>3</sup>	47.61	12.03	35.58	<50	<0.5	<0.5	<0.5	<0.5	<0.5
11/06/13 <sup>3</sup>	47.61	12.63	34.98	<50	<0.5	<0.5	<0.5	<0.5	<0.5
05/14/14 <sup>3</sup>	47.61	11.69	35.92	<50	<0.5	<0.5	<0.5	<0.5	<0.5
11/19/14 <sup>3</sup>	47.61	12.33	35.28	<50	<0.5	<0.5	<0.5	<0.5	<0.5
05/07/15 <sup>3</sup>	47.61	11.79	35.82	<50	<0.5	<0.5	<0.5	<0.5	<0.5
MW-1									
03/12/02 <sup>1</sup>	50.71	6.50	44.21	<50	<0.50	<0.50	<0.50	<1.5	<2.5/<2 <sup>2</sup>
06/07/02	50.71	8.69	42.02	<50	<0.50	<0.50	<0.50	<1.5	<2.5/<2 <sup>2</sup>
09/13/02	50.71	9.28	41.43	<50	<0.50	<0.50	<0.50	<1.5	<2.5/<2 <sup>2</sup>
12/13/02	50.71	8.48	42.23	<50	<0.50	<0.50	<0.50	<1.5	<2.5/<2 <sup>2</sup>
03/01/03	50.71	7.34	43.37	<50	<0.50	<0.50	<0.50	<1.5	<2.5/<0.5 <sup>2</sup>
06/27/03 <sup>3</sup>	50.71	9.29	41.42	<50	<0.5	0.6	<0.5	<0.5	<0.5
09/30/03 <sup>3</sup>	50.71	10.17	40.54	<50	<0.5	0.6	<0.5	<0.5	<0.5
12/03/03 <sup>3</sup>	50.71	7.82	42.89	<50	<0.5	<0.5	<0.5	<0.5	<0.5
03/10/04 <sup>3</sup>	50.71	6.57	44.14	<50	<0.5	<0.5	<0.5	<0.5	<0.5
06/30/04 <sup>3</sup>	50.71	9.78	40.93	<50	<0.5	<0.5	<0.5	<0.5	<0.5
09/30/04 <sup>3</sup>	50.71	9.91	40.80	<50	<0.5	<0.5	<0.5	<0.5	<0.5
12/29/04 <sup>3</sup>	50.71	2.90	47.81	<50	<0.5	<0.5	<0.5	<0.5	<0.5
03/23/05 <sup>3</sup>	50.71	2.90	47.81	<50	<0.5	<0.5	<0.5	<0.5	<0.5
06/22/05 <sup>3</sup>	50.71	8.59	42.12	<50	<0.5	< 0.5	< 0.5	<0.5	<0.5
09/02/05 <sup>3</sup>	50.71	9.38	41.33	<50	<0.5	<0.5	<0.5	<0.5	<0.5
12/02/05	50.71	8.44	42.27						
03/20/06	50.71	3.05	47.66						
06/01/06	50.71	6.77	43.94						
09/11/06 DESTROYED	50.71	9.18	41.53						
MW-2									
03/12/02 <sup>1</sup>	52.57	6.09	46.48	<50	<0.50	<0.50	<0.50	<1.5	<2.5/3 <sup>2</sup>
06/07/02	52.57	8.65	43.92	<50	<0.50	<0.50	<0.50	<1.5	<2.5/<2 <sup>2</sup>
09/13/02	52.57	9.58	42.99	<50	<0.50	<0.50	<0.50	<1.5	<2.5/<2 <sup>2</sup>
12/13/02	52.57	8.50	44.07	<50	<0.50	<0.50	<0.50	<1.5	<2.5/<2 <sup>2</sup>
03/01/03	52.57	7.00	45.57	<50	<0.50	<0.50	<0.50	<1.5	<2.5/<0.5 <sup>2</sup>
06/27/03 <sup>3</sup>	52.57	9.59	42.98	<50	<0.5	<0.5	<0.5	<0.5	<0.5
09/30/03 <sup>3</sup>	52.57	10.64	41.93	<50	<0.5	<0.5	<0.5	<0.5	0.7

WELL ID/ DATE	TOC* (ff.)	DTW (ft.)	GWE (msl)	TPH-GRO (µg/L)	Β (μg/L)	Τ (μg/L)	Ε (μg/L)	Χ (μg/L)	M†BE (µg/L)
DAIL	Groundy		(11131)	100	1	40	30	20	5
MW-2 (cont)									
12/03/03 <sup>3</sup>	52.57	7.54	45.03	<50	<0.5	<0.5	<0.5	<0.5	<0.5
03/10/04 <sup>3</sup>	52.57	6.05	46.52	<50	<0.5	<0.5	<0.5	<0.5	<0.5
06/30/04 <sup>3</sup>	52.57	10.15	42.42	<50	<0.5	<0.5	<0.5	<0.5	<0.5
09/30/04 <sup>3</sup>	52.57	10.14	42.43	<50	<0.5	<0.5	<0.5	<0.5	<0.5
12/29/04 <sup>3</sup>	52.57	2.29	50.28	<50	<0.5	<0.5	<0.5	<0.5	< 0.5
03/23/05 <sup>3</sup>	52.57	2.44	50.13	<50	< 0.5	<0.5	<0.5	<0.5	< 0.5
06/22/05 <sup>3</sup>	52.57	8.99	43.58	<50	< 0.5	<0.5	<0.5	<0.5	< 0.5
09/02/05 <sup>3</sup>	52.57	10.17	42.40	<50	< 0.5	<0.5	<0.5	<0.5	<0.5
12/02/05	52.57	8.99	43.58						
03/20/06	52.57	2.70	49.87						
06/01/06	51.57	6.51	45.06						
09/11/06	51.57	10.06	41.51						
DESTROYED									
MW-3									
03/12/02 <sup>1</sup>	50.31	6.50	43.81	12,000	600	8.5	1,100	370	700/650 <sup>2</sup>
06/07/02	50.31	7.74	42.57	14,000	630	8.8	1,200	160	520/490 <sup>2</sup>
09/13/02	50.31	9.73	40.58	3,000	270	3.2	200	11	600/640 <sup>2</sup>
12/13/02	50.31	8.60	41.71	24,000	1,100	14	2,400	220	650/540 <sup>2</sup>
03/01/03	50.31	6.75	43.56	16,000	500	9.0	1,200	130	460/330 <sup>2</sup>
06/27/03 <sup>3</sup>	50.31	9.25	41.06	9,500	390	6	450	30	470
09/30/03 <sup>3</sup>	50.31	10.31	40.00	2,000	110	1	100	3	710
12/03/03 <sup>3</sup>	50.31	8.18	42.13	19,000	970	8	2,100	85	420
03/10/04 <sup>3</sup>	50.31	6.10	44.21	15,000	550	6	960	95	220
06/30/04 <sup>3</sup>	50.31	9.80	40.51	3,200	150	1	100	3	660
09/30/04 <sup>3</sup>	50.31	10.18	40.13	1,900	66	0.8	84	4	690
12/29/04 <sup>3</sup>	50.31	4.58	45.73	16,000	470	7	820	47	170
03/23/05 <sup>3</sup>	50.31	5.07	45.24	18,000	380	6	960	58	140
06/22/05 <sup>3</sup>	50.31	8.12	42.19	16,000	700	6	950	62	300
09/02/05 <sup>3</sup>	50.31	9.41	40.90	8,400	380	4	510	41	440
12/02/05 <sup>3</sup>	50.31	7.97	42.34	16,000	490	6	1,200	32	170
03/20/06 <sup>3</sup>	50.31	5.32	44.99	4,200	79	0.8	2	10	34
06/01/06 <sup>3</sup>	50.31	7.07	43.24	5,400	67	1	26	3	28
09/11/06 <sup>3</sup>	50.31	9.07	41.24	14,000	270	5	240	38	97
DESTROYED									

WELL ID/ DATE	TOC*	DTW	GWE	TPH-GRO (µg/L)	Β (μg/L)	Τ (μg/L)	Ε (μg/L)	Χ (μg/L)	MtBE (μg/L)
DAIE	(ft.)	(ft.)	(msl)						
	Groundy	vater ESL		100	1	40	30	20	5
MW-4									
03/12/02 <sup>1</sup>	49.93	5.34	44.59	9,700	360	5.3	1,100	150	170/170 <sup>2</sup>
06/07/02	49.93	8.52	41.41	7,300	170	2.7	280	21	200/1202
09/13/02	49.93	9.86	40.07	5,800	92	4.5	80	14	190/160
12/13/02	49.93	9.42	40.51	10,000	250	2.2	330	19	170/2002
03/01/03	49.93	7.33	42.60	12,000	300	4.6	900	110	160/100
06/27/03 <sup>3</sup>	49.93	9.62	40.31	7,500	110	2	200	58	130
09/30/03 <sup>3</sup>	49.93	11.13	38.80	3,600	18	<1	16	7	520
12/03/03 <sup>3</sup>	49.93	7.80	42.13	16,000	1,000	6	720	52	73
03/10/04 <sup>3</sup>	49.93	6.69	43.24	2,200	230	3	610	71	55
06/30/04 <sup>3</sup>	49.93	10.33	39.60	7,700	59	<1	78	17	110
09/30/04 <sup>3</sup>	49.93	10.75	39.18	4,800	100	1	33	10	400
12/29/04 <sup>3</sup>	49.93	3.34	46.59	13,000	250	3	480	27	42
03/23/05 <sup>3</sup>	49.93	4.24	45.69	12,000	130	2	280	16	24
06/22/05 <sup>3</sup>	49.93	7.95	41.98	6,400	290	2	11	11	18
09/02/05 <sup>3</sup>	49.93	9.46	40.47	3,700	180	1	13	7	18
12/02/05 <sup>3</sup>	49.93	7.60	42.33	11,000	840	5	480	24	34
03/20/06 <sup>3</sup>	49.93	4.50	45.43	790	14	<0.5	1	0.6	2
06/01/06 <sup>3</sup>	49.93	7.30	42.63	5,100	48	0.8	42	4	2
09/11/06 <sup>3</sup>	49.93	9.38	40.55	6,700	64	3	44	3	4
DESTROYED	., ,, c	7.00	.0.00	<i>5</i> ,7 <i>5 5</i>	<b>.</b>	ŭ		Ü	
TRIP BLANK									
QA									
03/12/02				<50	<0.50	<0.50	<0.50	<1.5	<2.5
06/07/02				<50	<0.50	<0.50	<0.50	<1.5	<2.5
09/13/02				<50	<0.50	<0.50	<0.50	<1.5	<2.5
12/13/02				<50	< 0.50	<0.50	<0.50	<1.5	<2.5
03/01/03				<50	<0.50	<0.50	<0.50	<1.5	<2.5
06/27/03 <sup>3</sup>				<50	<0.5	<0.5	<0.5	<0.5	<0.5
09/30/03 <sup>3</sup>				<50	<0.5	<0.5	<0.5	<0.5	<0.5
12/03/03 <sup>3</sup>				<50	<0.5	<0.5	<0.5	<0.5	<0.5
03/10/04 <sup>3</sup>				<50	<0.5	<0.5	<0.5	<0.5	<0.5
06/30/04 <sup>3</sup>				<50	<0.5	<0.5	<0.5	<0.5	<0.5
09/30/04 <sup>3</sup>				<50	<0.5	<0.7	<0.8	<0.8	<0.5
12/29/04 <sup>3</sup>				<50	<0.5	<0.5	<0.5	<0.5	<0.5
03/23/05 <sup>3</sup>				<50	<0.5	<0.5	<0.5	<0.5	<0.5
06/22/05 <sup>3</sup>				<50	<0.5	<0.5	<0.5	<0.5	<0.5
09/02/05 <sup>3</sup>				<50	<0.5	14	<0.5	14	<0.5

WELL ID/ DATE	TOC* (ff.)	DTW (ft.)	GWE (msl)	TPH-GRO (μg/L)	B (µg/L)	Τ (μg/L)	Ε (μg/L)	Χ (μg/L)	MtBE (μg/L)
, AIL	Groundy		(IIII)	100	1	40	30	20	5
QA (cont)									
2/02/05 <sup>3</sup>				<50	<0.5	<0.5	<0.5	<0.5	<0.5
3/20/06 <sup>3</sup>				<50	<0.5	<0.5	<0.5	<0.5	<0.5
6/01/06 <sup>3</sup>				<50	<0.5	<0.5	<0.5	<0.5	< 0.5
9/11/06 <sup>3</sup>				<50	<0.5	<0.5	<0.5	<0.5	< 0.5
18/27/08 <sup>3</sup>				<50	<0.5	<0.5	<0.5	<0.5	<0.5
1/21/08 <sup>5</sup>				<50	<0.5	<0.5	<0.5	<0.5	
2/13/09 <sup>5</sup>				<50	<0.5	<0.5	<0.5	<0.5	
05/08/09 <sup>5</sup>				<50	<0.5	<0.5	<0.5	<0.5	
8/07/09 <sup>5</sup>				<50	<0.5	<0.5	<0.5	<0.5	
1/14/12 <sup>3</sup>				<50	<0.5	<0.5	<0.5	<0.5	<0.5
05/08/13 <sup>3</sup>				<50	<0.5	<0.5	<0.5	<0.5	<0.5
1/06/13 <sup>3</sup>				<50	<0.5	<0.5	<0.5	<0.5	<0.5
05/14/14 <sup>3</sup>				<50	<0.5	<0.5	<0.5	<0.5	<0.5
1/19/14 <sup>3</sup>				<50	<0.5	<0.5	<0.5	<0.5	<0.5
05/07/15 <sup>3</sup>				<50	<0.5	<0.5	<0.5	<0.5	<0.5

### Table 5

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

Former Chevron-Branded Service Station 92029 890 West MacArthur Boulevard, Oakland, California

EPA = Environmental Protection Agency

### **EXPLANATIONS:**

Current groundwater monitoring data was provided by Gettler-Ryan Inc. Current laboratory analytical results were provided by Eurofins Lancaster Laboratories.

TOC = Top of Casing

TPH-GRO = Total Petroleum Hydrocarbons as Gasoline Range Organics

-- = Not Measured/Not Analyzed

(ft.) = Feet

B = Benzene

QA = Quality Assurance/Trip Blank

DTW = Depth to Water T = Toluene
GWE = Groundwater Elevation E = Ethylbenzene
(msl) = Mean sea level X = Xylenes

(µg/L) = Micrograms per liter MtBE = Methyl tertiary-butyl ether

ESL = California Regional Water Quality Control Board - San Francisco Bay Region Environmental Screening Level for groundwater that is a current or potential source of drinking water

- \* Current TOC elevations were surveyed on October 1, 2008, by CRA. The benchmark for this survey was a USGS bronze disk located near the north end of the curb return at the Northwest corner of 38th Street and Broadway, (Benchmark Elevation = 85.41 feet, NGVD29).
- Well development performed.
- <sup>2</sup> MtBE by EPA Method 8260.
- BTEX and MtBE by EPA Method 8260.
- <sup>4</sup> Laboratory confirmed analytical result.
- <sup>5</sup> BTEX by EPA Method 8260.
- <sup>6</sup> Laboratory report indicates reporting limits were raised due to interference from the sample matrix.

WELL ID/	ETHANOL	TBA	MtBE	DIPE	EtBE	TAME	1,2-DCA	1,2-DBA	PCE
DATE	(μg/L)	(μg/L)	(μg/L)	(μg/L)	(μg/L)	(μg/L)	(µg/L)	(μg/L)	(µg/L)
Groundwater ESL	NE	12	5	NE	NE	NE	0.5	0.05	5
MW-5									
08/27/08		2	10	<0.5	<0.5	<0.5			
11/21/08		4	8	<0.5	<0.5	<0.5			
02/13/09		3	6	<0.5	<0.5	<0.5			
05/08/09		7	2	<0.5	<0.5	<0.5			
08/07/09		<2	2	<0.5	<0.5	<0.5			
11/05/09		2	0.9	<0.5	<0.5	<0.5			
05/06/10		<2	0.9	<0.5	<0.5	<0.5			
11/03/10		<2	0.9	<0.5	<0.5	<0.5			
05/10/11		<2	<0.5	<0.5	<0.5	<0.5			
11/10/11		<2	<0.5	<0.5	<0.5	<0.5			
05/11/12		<10	<3	<3	<3	<3			
11/14/12		<2	<0.5	<0.5	<0.5	<0.5			
05/08/13		<2	<0.5	<0.5	<0.5	<0.5			
11/06/13		<2	<0.5	<0.5	<0.5	<0.5			
05/14/14		<5	<0.5	<0.5	<0.5	<0.5			< 0.5
05/07/15		<2	<0.5	<0.5	<0.5	<0.5			
MW-6									
08/27/08		390	440	<0.5	<0.5	6			
11/21/08		320	300	<13	<13	<13			
02/13/09		100	180	<1	<1	4			
05/08/09		16	38	<0.5	<0.5	0.9			
08/07/09		190	330	<3	<3	5			
11/05/09		86	160	<1	<1	4			
05/06/10		2	9	<0.5	<0.5	<0.5			
11/03/10		98	160	<3	<3	3			
05/10/11 <sup>1</sup>		<2	<0.5	<0.5	<0.5	<0.5			
11/10/11		19	37	<1	<1	<1			
05/11/12		<2	1	<0.5	<0.5	<0.5			
11/14/12		16	36	<0.5	<0.5	0.7			
05/08/13		5	6	<0.5	<0.5	<0.5			
11/06/13 <sup>2</sup>		60	78	<1	<1	2			
05/14/14		8	10	<0.5	<0.5	<0.5			<0.5
05/07/15		3	2	<0.5	<0.5	<0.5			

WELL ID/	ETHANOL	TBA	MtBE	DIPE	EtBE	TAME	1,2-DCA	1,2-DBA	PCE
DATE	(μg/L)	(µg/L)	(µg/L)	(μg/L)	(μg/L)	(μg/L)	(μg/L)	(µg/L)	(μg/L)
Groundwater ESL	NE	12	5	NE	NE	NE	0.5	0.05	5
MW-7									
08/27/08		<2	6	<0.5	<0.5	<0.5			
11/21/08		5	6	<0.5	< 0.5	< 0.5			
02/13/09		<2	7	<0.5	<0.5	<0.5			
05/08/09		<2	8	<0.5	<0.5	<0.5			
08/07/09		4	5	<0.5	<0.5	<0.5			
11/05/09		9	5	<1	<1	<1			
05/06/10		3	6	<0.5	<0.5	<0.5			
11/03/10		6	4	< 0.5	<0.5	<0.5			
05/10/11		3	5	<0.5	<0.5	<0.5			
11/10/11		4	5	<0.5	<0.5	<0.5			
05/11/12		<20	<5	<5	<5	<5			
11/14/12		<10	4	<3	<3	<3			
05/08/13		<2	5	<0.5	<0.5	<0.5			
11/06/13		<2	4	< 0.5	<0.5	<0.5			
05/14/14 <sup>2</sup>		<10	4	<1	<1	<1			<1
11/19/14		<2	5	<0.5	<0.5	<0.5			
05/07/15		2	3	<0.5	<0.5	<0.5			
MW-8									
08/27/08		<2	<0.5	<0.5	<0.5	<0.5			
11/21/08		<2	<0.5	<0.5	<0.5	<0.5			
02/13/09		<2	<0.5	<0.5	<0.5	<0.5			
05/08/09		<2	<0.5	<0.5	<0.5	<0.5			
08/07/09		<2	<0.5	<0.5	<0.5	<0.5			
11/05/09		<2	<0.5	<0.5	<0.5	<0.5			
05/06/10		<2	<0.5	<0.5	<0.5	<0.5			
11/03/10		<2	<0.5	<0.5	<0.5	<0.5			
05/10/11		<2	<0.5	<0.5	<0.5	<0.5			
11/10/11		<2	<0.5	<0.5	<0.5	<0.5			
05/11/12		<2	<0.5	<0.5	<0.5	<0.5			
11/14/12		<2	<0.5	<0.5	<0.5	<0.5			
05/08/13		<2	<0.5	<0.5	<0.5	<0.5			
11/06/13		<2	<0.5	<0.5	<0.5	<0.5	 		
		<5	<0.5	<0.5	<0.5	<0.5			<0.5
05/14/14		<2	<0.5	<0.5	<0.5	<0.5			~0.5 
11/19/14 <b>05/07/15</b>		<2 <2	< <b>0.5</b>	< <b>0.5</b>	< <b>0.5</b>	< <b>0.5</b>			

WELL ID/	ETHANOL	TBA	MtBE	DIPE	EtBE	TAME	1,2-DCA	1,2-DBA	PCE
DATE	(μg/L)	(µg/L)	(µg/L)	(µg/L)	(μg/L)	(µg/L)	(μg/L)	(µg/L)	(µg/L)
Groundwater ESL	NE	12	5	NE	NE	NE	0.5	0.05	5
MW-1									
03/12/02		<100	<2	<2	<2	<2	<2	<2	
06/07/02		<100	<2	<2	<2	<2	<2	<2	
09/13/02		<100	<2	<2	<2	<2	<2	<2	
12/13/02		<100	<2	<2	<2	<2	<2	<2	
03/01/03		<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
06/27/03		<5	<0.5	< 0.5	<0.5	<0.5	<0.5	<0.5	
09/30/03	<50	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
12/03/03	<50	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
03/10/04	<50	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
06/30/04	<50	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
09/30/04	<50	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
12/31/04	<50	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
03/23/05	<50	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
06/22/05	<50	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
09/02/05	<50	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
DESTROYED									
MW-2									
03/12/02		<100	3	<2	<2	<2	<2	<2	
06/07/02		<100	<2	<2	<2	<2	<2	<2	
09/13/02		<100	<2	<2	<2	<2	<2	<2	
12/13/02		<100	<2	<2	<2	<2	<2	<2	
03/01/03		<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
06/27/03		<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
09/30/03	<50	<5	0.7	< 0.5	<0.5	<0.5	<0.5	<0.5	
12/03/03	<50	<5	<0.5	< 0.5	<0.5	<0.5	<0.5	<0.5	
03/10/04	<50	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
06/30/04	<50	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
09/30/04	<50	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
12/31/04	<50	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
03/23/05	<50	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
06/22/05	<50	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
09/02/05	<50	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
DESTROYED									

WELL ID/	ETHANOL	TBA	MtBE	DIPE	EtBE	TAME	1,2-DCA	1,2-DBA	PCE
DATE	(µg/L)	(µg/L)	(μg/L)	(µg/L)	(µg/L)	(μg/L)	(µg/L)	(μg/L)	(µg/L)
Groundwater ESL	NE	12	5	NE	NE	NE	0.5	0.05	5
MW-3									
03/12/02		<100	650	<2	<2	18	<2	<2	
06/07/02		230	490	<5.0	<5.0	11	<5.0	<5.0	
09/13/02		170	640	<2	<2	8	<2	<2	
12/13/02		240	540	<2	<2	29	31	<2	
03/01/03		160	330	<0.5	<0.5	10	<0.5	<0.5	
06/27/03		200	470	<0.5	<0.5	11	<0.5	<0.5	
09/30/03	<50	120	710	<0.5	<0.5	6	0.7	<0.5	
12/03/03	<250	200	420	<3	<3	14	<3	<3	
03/10/04	<50	140	220	<0.5	<0.5	5	<0.5	<0.5	
06/30/04	<50	100	660	<0.5	<0.5	5	<0.5	<0.5	
09/30/04	<50	72	690	<0.5	<0.5	4	0.5	<0.5	
12/31/04	<50	77	170	<0.5	<0.5	5	<0.5	<0.5	
03/23/05	<50	<5	140	<0.5	<0.5	4	<0.5	3	
06/22/05	<250	150	300	<3	<3	6	<3	<3	
09/02/05	<100	99	440	<1	<1	<1	<1	<1	
12/02/05	<100	66	170	<1	<1	5	<1	<1	
03/20/06	<50	14	34	<0.5	<0.5	<0.5	<0.5	<0.5	
06/01/06	<50	12	28	<0.5	<0.5	0.8	<0.5	<0.5	
09/11/06	<50	47	97	<0.5	<0.5	2	<0.5	<0.5	
DESTROYED									
MW-4									
03/12/02		<100	170	<2	<2	13	<2	<2	
06/07/02		<100	120	<2	<2	14	<2	<2	
09/13/02		<100	160	<2	<2	14	<2	<2	
12/13/02		<100	200	<2	<2	17	<2	<2	
03/01/03		19	100	<0.5	<0.5	8	<0.5	<0.5	
06/27/03		22	130	<0.5	<0.5	11	<0.5	<0.5	
09/30/03	<100	<10	520	<1	<1	9	<1	<1	
12/03/03	<50	18	73	<0.5	<0.5	5	<0.5	<0.5	
03/10/04	<50	11	55	<0.5	<0.5	4	<0.5	<0.5	
06/30/04	<100	<10	110	<1	<1	6	<1	<1	
09/30/04	<50	17	400	<0.5	<0.5	7	<0.5	<0.5	
12/31/04	<50	11	42	<0.5	<0.5	2	<0.5	<0.5	
03/23/05	<50	<5	24	<0.5	<0.5	1	<0.5	0.9	
06/22/05	<50	15	18	<0.5	<0.5	1	<0.5	<0.5	
09/02/05	<50	6	18	<0.5	<0.5	<0.5	<0.5	<0.5	
	50	-		0.0					

### Former Chevron-Branded Service Station 92029 890 West MacArthur Boulevard,

Oakland, California

WELL ID/ DATE	ETHANOL (µg/L)	TBA (µg/L)	M†BE (µg/L)	DIPE (µg/L)	EtBE (µg/L)	TAME (µg/L)	1,2-DCA (µg/L)	1,2-DBA (µg/L)	PCE (µg/L)
Groundwater ESL	NE	12	5	NE	NE	NE	0.5	0.05	5
MW-4 (cont)									
03/20/06	<50	<5	2	<0.5	<0.5	<0.5	<0.5	<0.5	
06/01/06	<50	<5	2	< 0.5	< 0.5	<0.5	<0.5	<0.5	
09/11/06	<50	<5	4	< 0.5	<0.5	<0.5	<0.5	<0.5	
DESTROYED									

### Table 6

### Groundwater Analytical Results - Oxygenate Compounds

Former Chevron-Branded Service Station 92029 890 West MacArthur Boulevard, Oakland, California

### **EXPLANATIONS:**

Current groundwater monitoring data was provided by Gettler-Ryan Inc. Current laboratory analytical results were provided by Eurofins Lancaster Laboratories

TBA = Tertiary-Butyl Alcohol

MtBE = Methyl tertiary-butyl ether

DIPE = Di-Isopropyl Ether

EtBE = Ethyl Tertiary-Butyl Ether

TAME = Tertiary-Amyl Methyl Ether

1.2-DCA = 1.2-Dichloroethane

1,2-DBA = 1,2-Dibromoethane

PCE = Tetrachloroethene

(μg/L) = Micrograms per liter

-- = Not Analyzed

EPA = Environmental Protection Agency

ESL = California Regional Water Quality Control Board - San Francisco Bay Region Environmental Screening Level for groundwater that is a current or potential source of drinking water

NE = ESL not established

### **ANALYTICAL METHOD:**

EPA Method 8260 for Oxygenate Compounds

<sup>&</sup>lt;sup>1</sup> Laboratory confirmed analytical result.

<sup>&</sup>lt;sup>2</sup> Laboratory report indicates reporting limits were raised due to interference from the sample matrix.

## Table 7 Well Survey Results

Former Chevron-branded Service Station 92029 890 West MacArthur Boulevard Oakland, California

Map ID	State Well ID	Distance from Site <sup>(1)</sup> (feet)	Direction from Site <sup>(1)</sup>	Use	Installation Date	Comments
1	1S4W23F1	200	North (cross-gradient)	Cathodic Protection	04/19/74	
2	Various	530	North (cross-gradient)	Monitoring	07/18/97	Three monitoring wells in cluster
3	Various	730	East-Southeast (cross-gradient)	Monitoring	02/23/88 - 06/18/93	Nine monitoring wells in cluster
4		780	North (cross-gradient)	Industrial	05/08/28	Thought to be destroyed

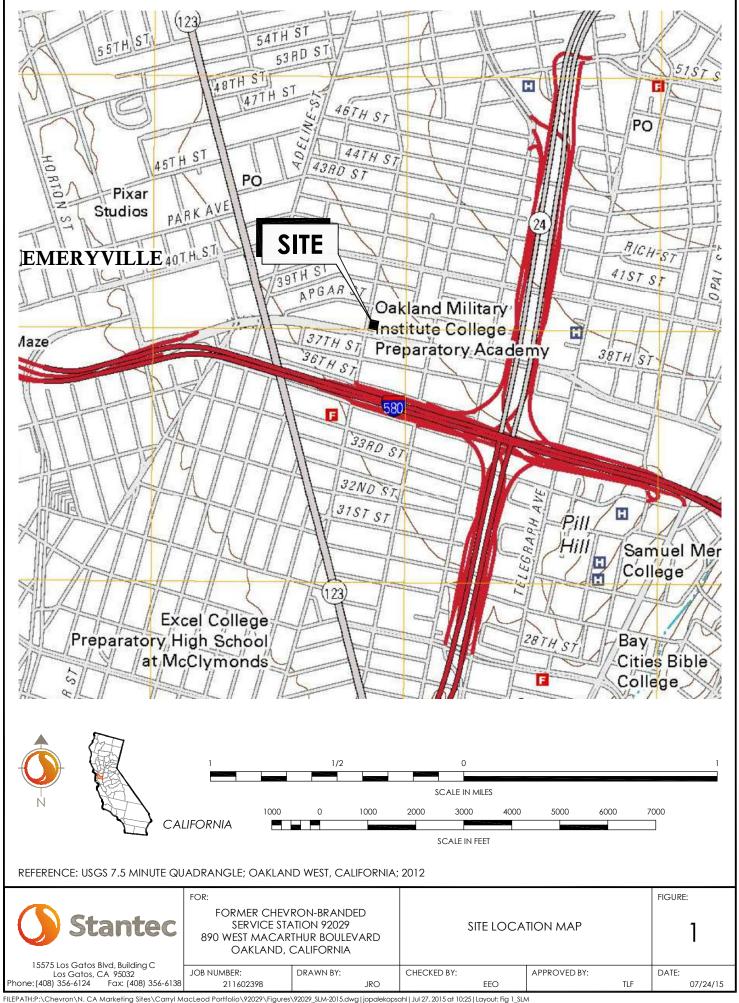
### Notes:

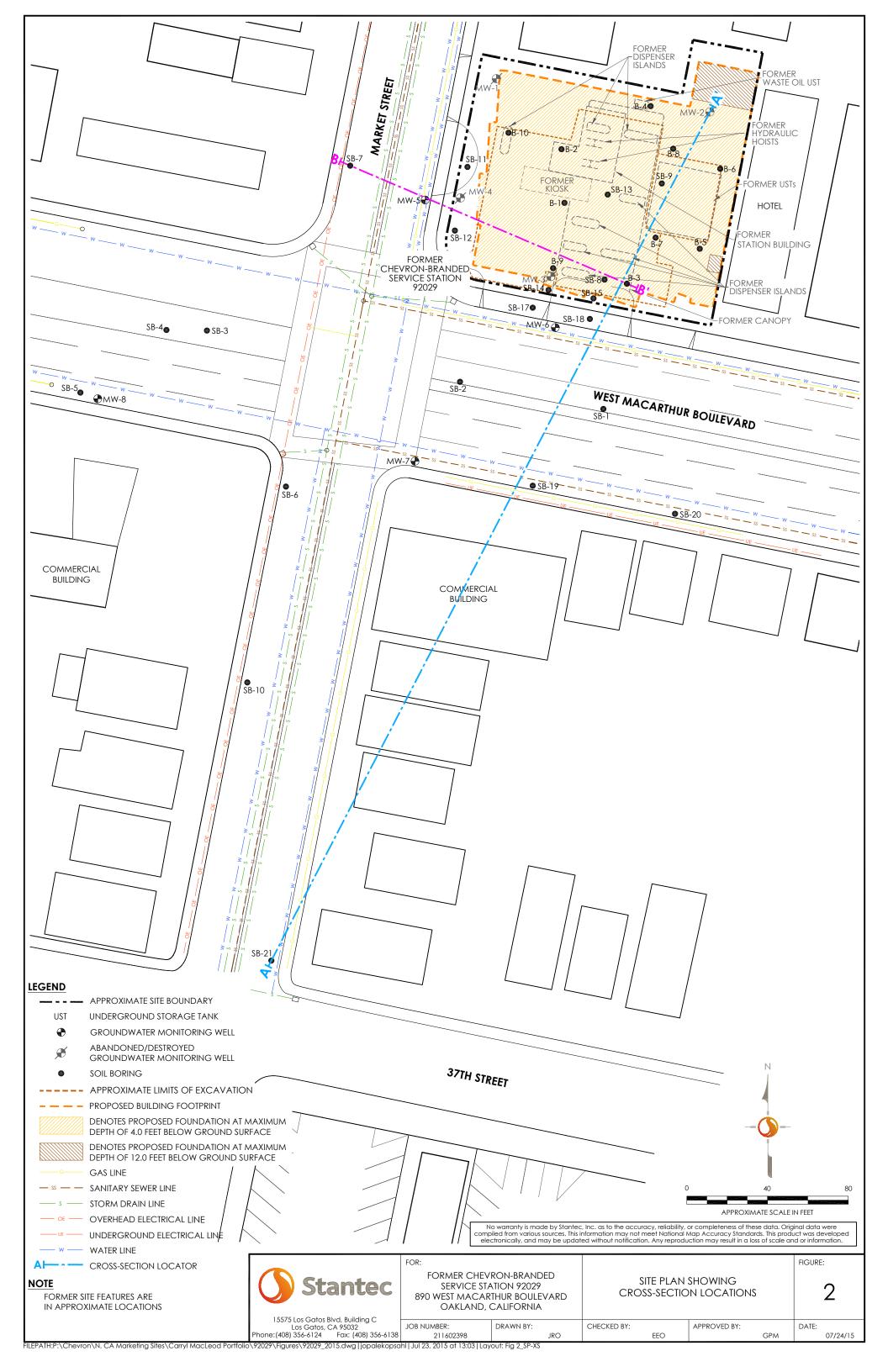
### Abbreviations:

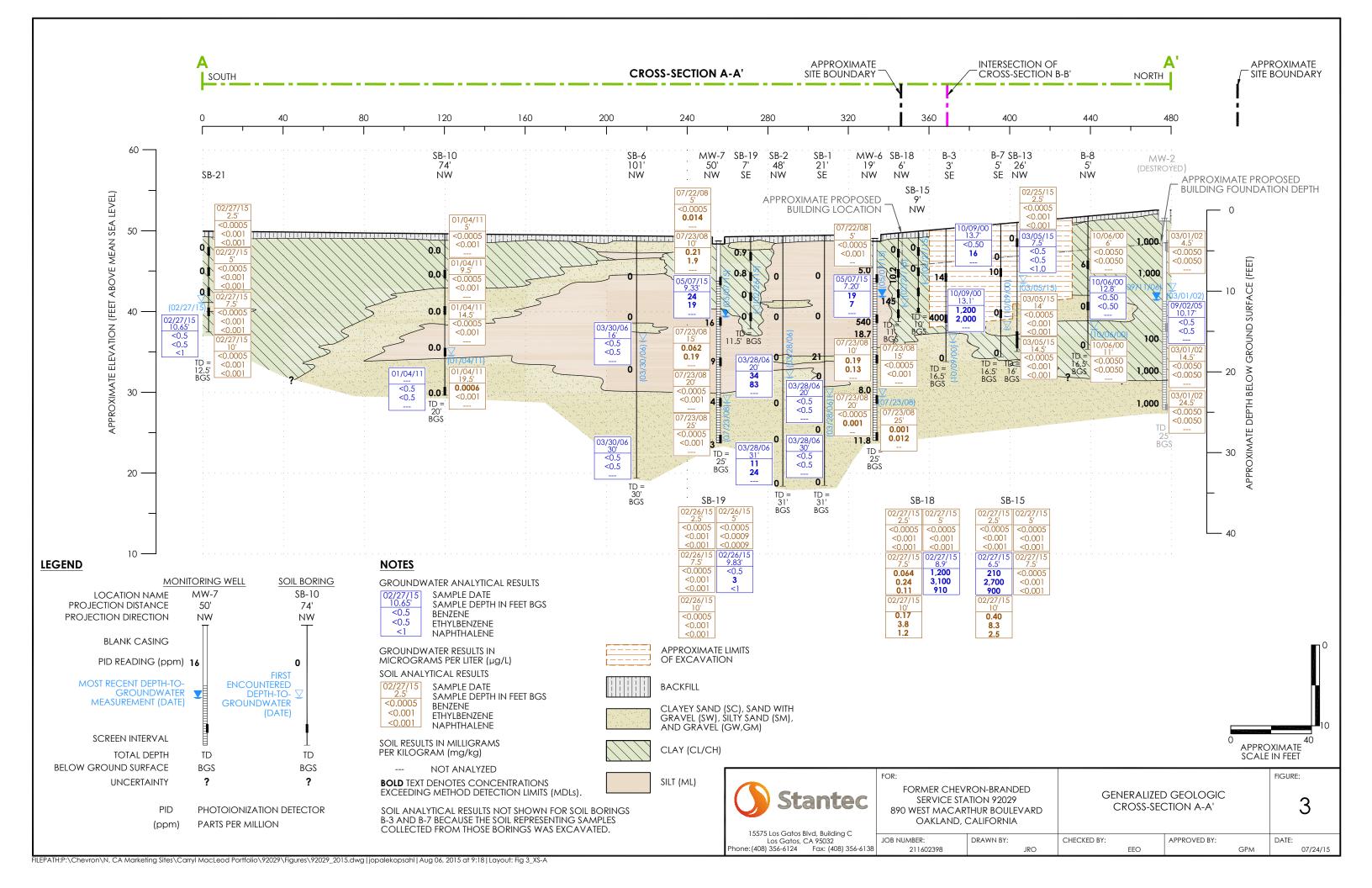
-- = information not available

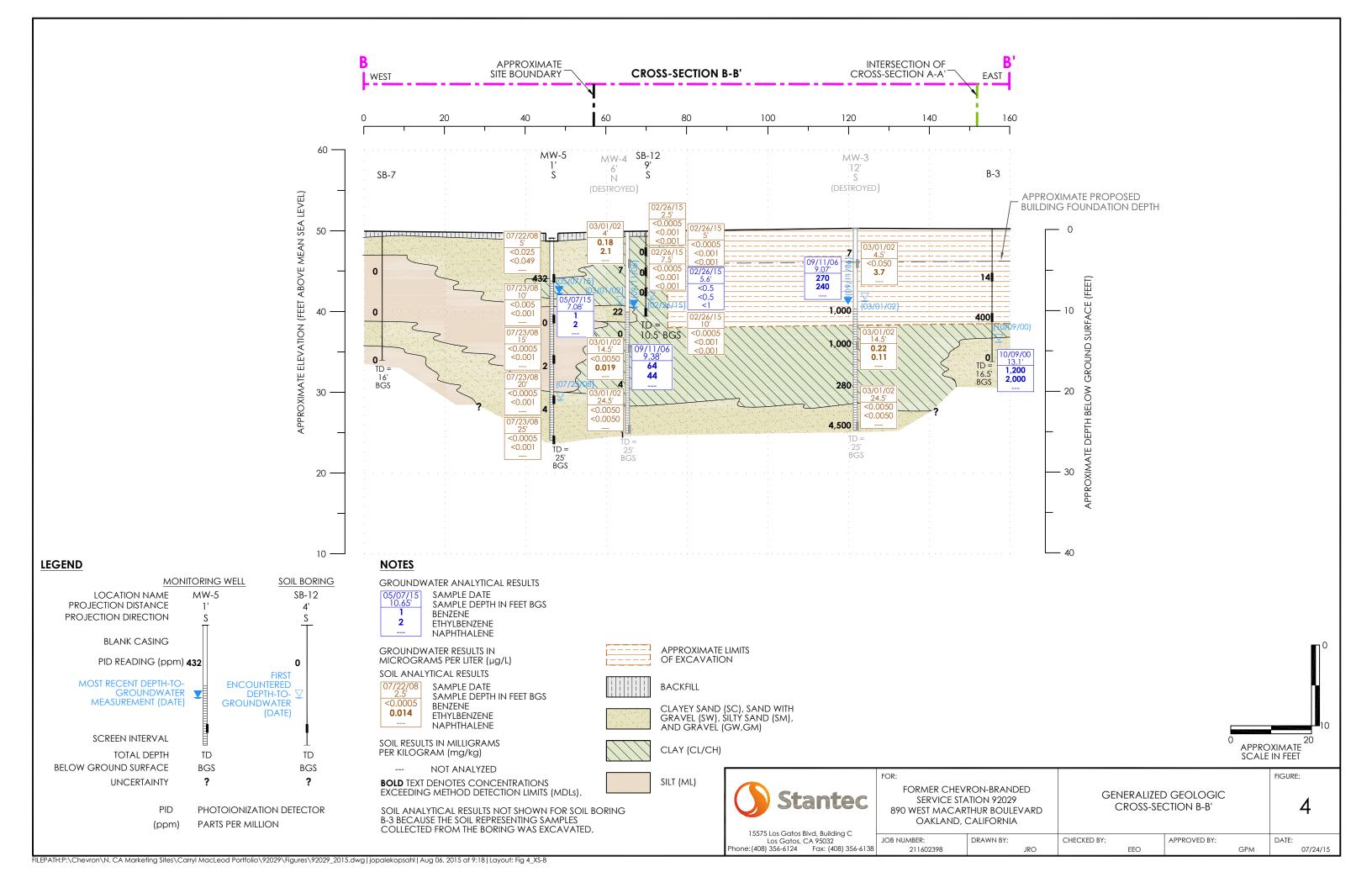
<sup>(1)</sup> Approximate distance and direction determined from well location address and/or drawings on boring logs, where available, and Google Earth® images.

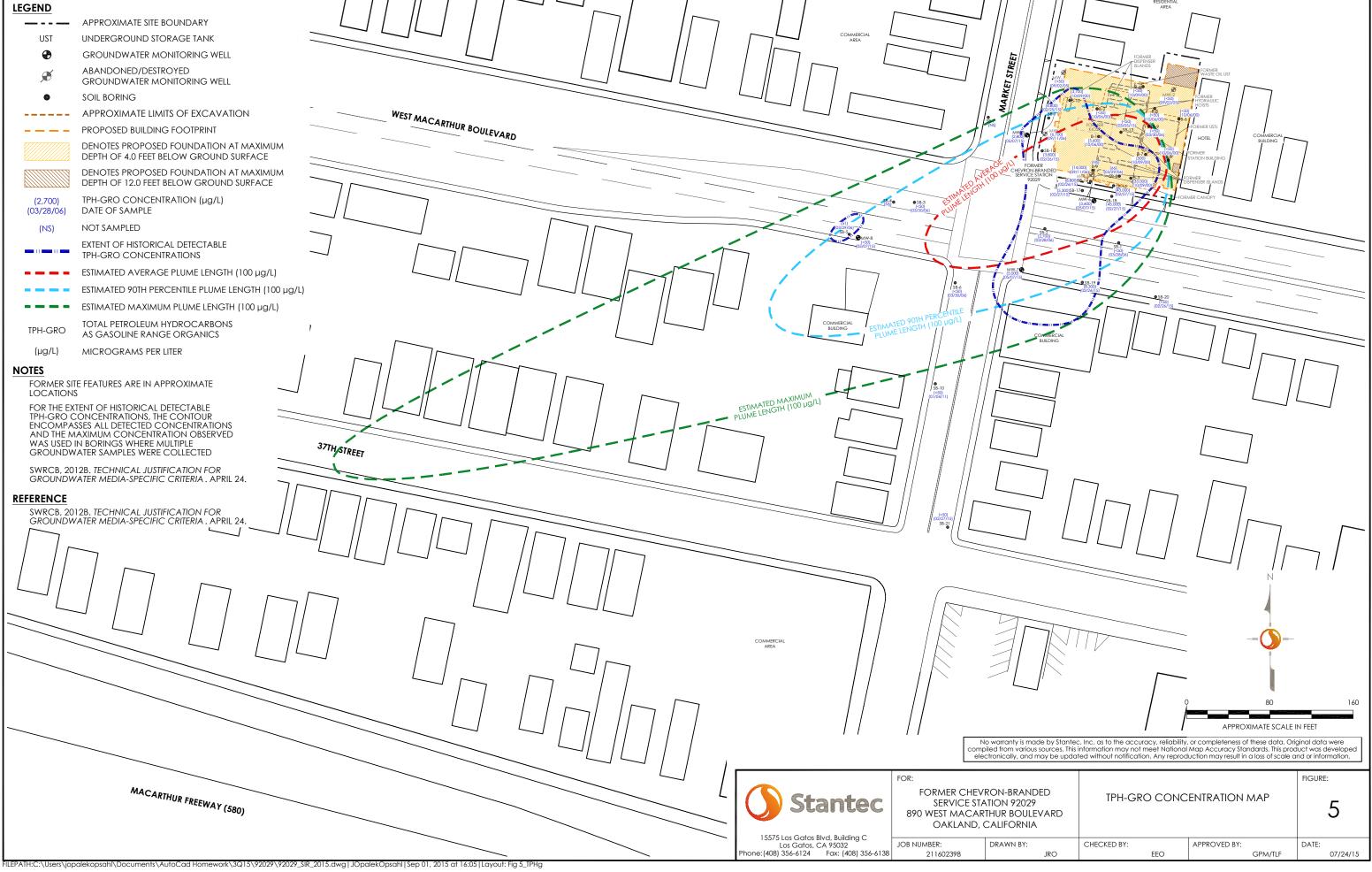
## **FIGURES**

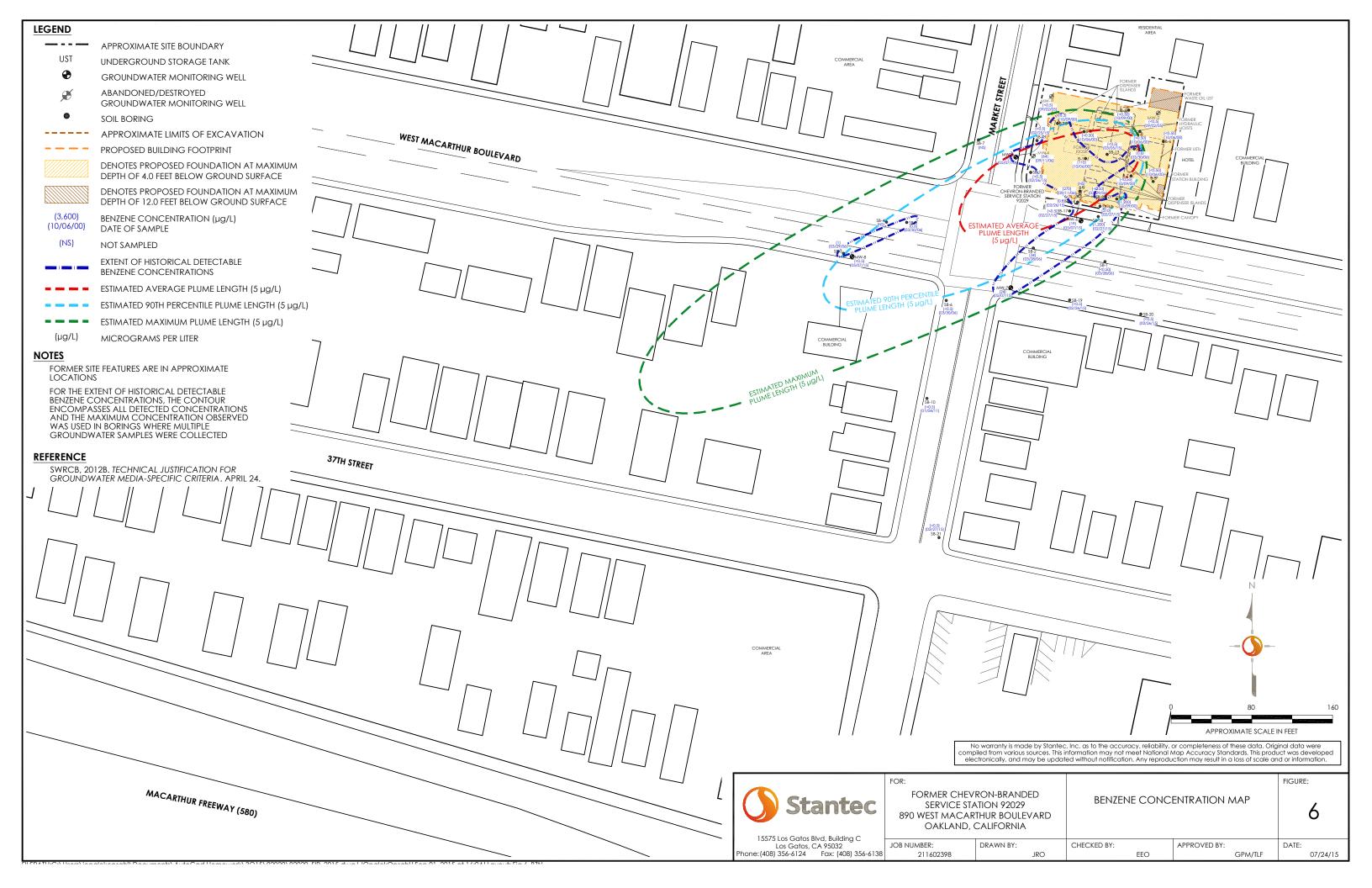


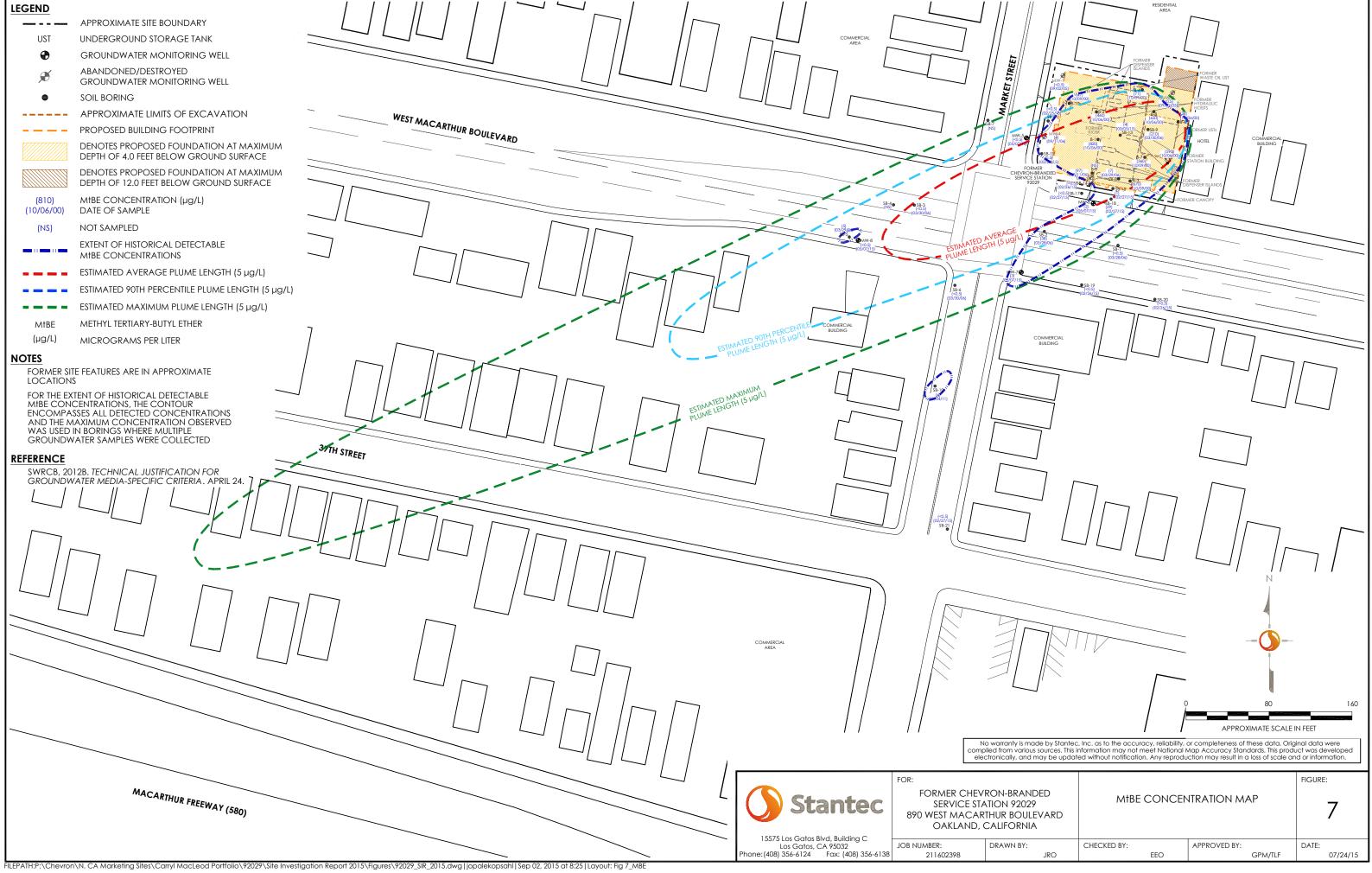


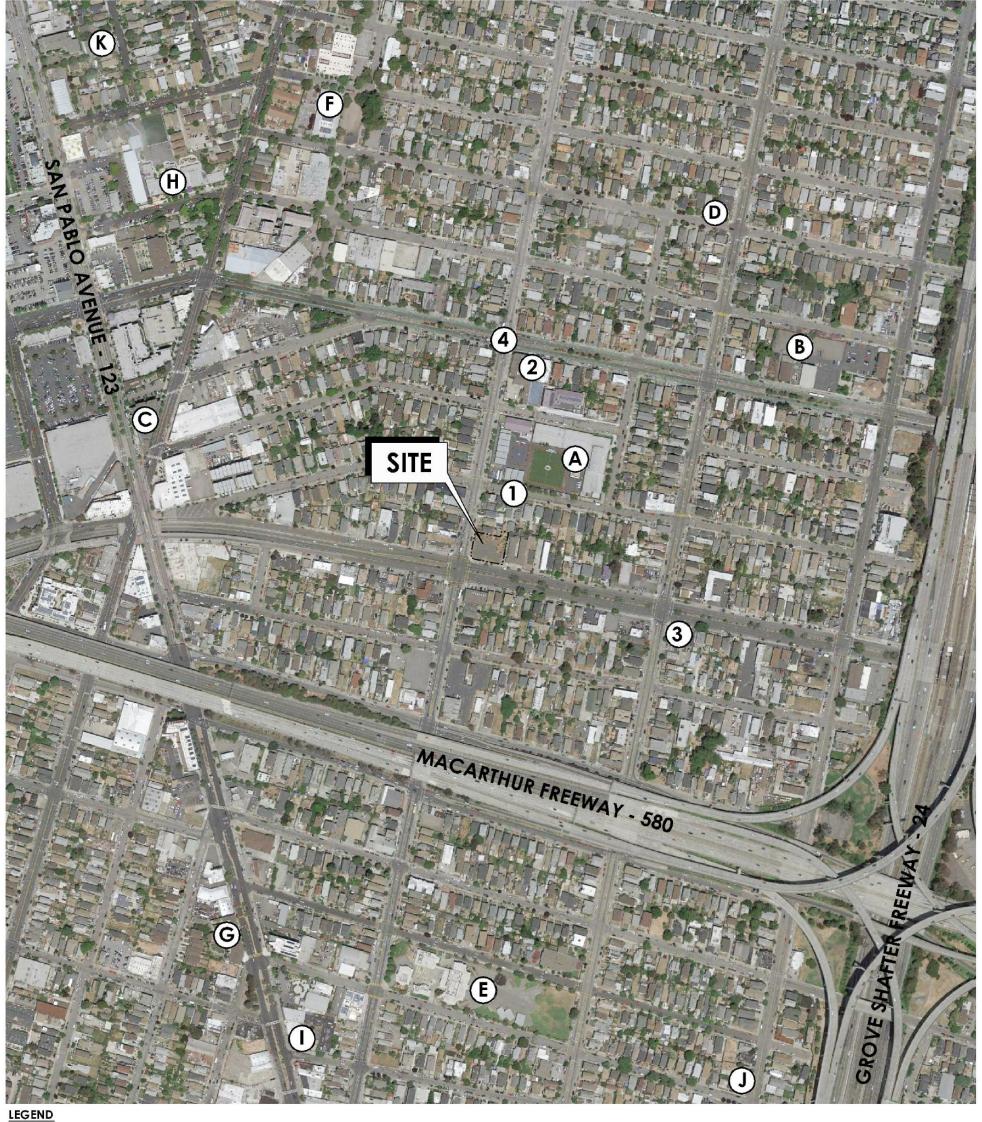










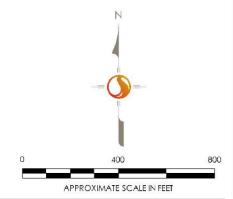


### POTENTIAL SENSITIVE POPULATIONS WITHIN 0.5-MILE RADIUS OF SITE:

- OAKLAND MILITARY INSTITUTE 3877 LUSK STREET
- SAINT MARTIN DE PORRES CATHOLIC SCHOOL 675 41ST STREET **B**
- AVALON SENIOR HOUSING 3850 SAN PABLO AVENUE 0
- HENDERSON RESIDENTIAL CARE 0 4201 WEST STREET
- HOOVER ELEMENTARY AND JUNIOR HIGH SCHOOL 890 BROCKHURST STREET **(E)**
- NORTH OAKLAND COMMUNITY CHARTER SCHOOL 1000 42ND STREET Ð
- SYLVESTER RUTLEDGE MANOR 3255 SAN PABLO AVENUE **©**
- ANNA YATES ELEMENTARY SCHOOL 1070 41ST STREET  $\oplus$
- ST. MARY'S CENTER PRESCHOOL 3208 SAN PABLO AVENUE ①
- LOVE ALWAYS CHILD CARE CENTER 3261 MARTIN LUTHER KING JR. WAY ①
- EMERYVILLE SENIOR CENTER 4321 SALEM STREET **(K)**

### WELLS WITHIN 1,000-FOOT RADIUS OF SITE:

- CATHODIC PROTECTION WELL
- 2 MONITORING WELL CLUSTER
- 3 MONITORING WELL CLUSTER
- INDUSTRIAL WELL; THOUGHT TO BE DESTROYED



GPM/TLF

No warranty is made by Stantec, Inc. as to the accuracy, reliability, or completeness of these data. Original data were compiled from various sources. This information may not meet National Map Accuracy Standards. This product was developed electronically, and may be updated without notification. Any reproduction may result in a loss of scale and or information.

EEO

CHECKED BY:



FORMER CHEVRON-BRANDED SERVICE STATION 92029 890 WEST MACARTHUR BOULEVARD OAKLAND, CALIFORNIA

SENSITIVE POPULATION AND WELL SURVEY RESULTS

APPROVED BY:

8

07/24/15

FIGURE:

DATE:

15575 Los Gatos Blvd, Building C Los Gatos, CA 95032 Phone: (408) 356-6124 Fax: (408) 356-6138 JOB NUMBER: DRAWN BY: 211602398 JRO



# APPENDIX A ALAMEDA COUNTY ENVIRONMENTAL HEALTH CORRESPONDENCE

## ALAMEDA COUNTY HEALTH CARE SERVICES AGENCY



ALEX BRISCOE, Agency Director

July 9, 2014

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

Mr.Carryl MacLeod
Chevron Environmental Management Co.
6101 Bollinger Canyon Road
San Ramon, CA 94583
(sent via electronic mail to:
CMacleod@chevron.com)

WestMac LLC
1842 21<sup>st</sup> Avenue
San Francisco, CA 94122
(sent via electronic mail to:
gathconstruc@aol.com)
and sokaneconst@hotmail.com)

Mr. Buyandalai Itgel 787 Marlesta Road Pinole, CA 94564 (sent via electronic mail to: teamspirit74@yahoo.com)

Subject: Work Plan Approval; Fuel Leak Case No. RO00002438; Chevron #9-2029 (Global ID #T0600173887), 890 MacArthur Blvd, Oakland, CA 94608

Dear Ms. MacLeod, WestMac LLC, and Mr. Itgel:

Alameda County Environmental Health (ACEH) staff has reviewed the case file including the *Work Plan Addendum*, dated June 11, 2014. The report was prepared and submitted on your behalf by generated by Stantec Consulting Services, Inc (Stantec).

ACEH has previously evaluated the data and recommendations presented in case files, and the State Water Resources Control Board's (SWRCBs) Low Threat Underground Storage Tank Case Closure Policy (LTCP). Based on ACEH staff review, we determined that the site fails to meet the LTCP General Criteria e (Site Conceptual Model), and the Media-Specific Criteria for Groundwater, and the Media-Specific Criteria for Vapor Intrusion to Indoor Air (see Attachment A for a copy of the LTCP checklist). ACEH's determination is based on insufficient data and analysis to support groundwater plume stability and delineation, and protection of human occupants of future site buildings from vapor intrusion.

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

### **TECHNICAL COMMENTS**

- 1. **Site Investigation Report** The referenced work plan proposes a series of actions with which ACEH is in general agreement of undertaking. Please submit a report by the date specified below.
- 2. **Groundwater Monitoring** Please continue to conduct semi-annual groundwater monitoring at the subject site and submit report on the schedule listed below.

Ms. MacLeod, WestMac LLC, and Mr. Itgel RO0002438
July 9, 2014, Page 2

### **TECHNICAL REPORT REQUEST**

Please upload technical reports to the ACEH ftp site (Attention: Mark Detterman), and to the State Water Resources Control Board's Geotracker website, in accordance with Attachment 1 and the following specified file naming convention and schedule:

- **July 14, 2014** Semi-Annual Groundwater Monitoring Report File to be named: RO2438\_WP\_R\_yyyy-mm-dd
- September 12, 2014 Site Investigation Report File to be named: RO2438\_SWI\_R\_yyyy-mm-dd
- January 16, 2015 Semi-Annual Groundwater Monitoring Report File to be named: RO2438\_GWM\_R\_yyyy-mm-dd

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

Online case files are available for review at the following website: <a href="http://www.acgov.org/aceh/index.htm">http://www.acgov.org/aceh/index.htm</a>. If your email address does not appear on the cover page of this notification, ACEH is requesting you provide your email address so that we can correspond with you quickly and efficiently regarding your case.

Thank you for your cooperation. If you have any questions, please call me at (510) 567-6876 or send me an electronic mail message at <a href="mark.detterman@acgov.org">mark.detterman@acgov.org</a>.

Sincerely,

Digitally signed by Mark E. Detterman DN: cn=Mark E. Detterman, o, ou,

email, c=US

Date: 2014.07.09 15:15:26 -07'00'

Mark E. Detterman, PG, CEG Senior Hazardous Materials Specialist

Enclosures: Attachment 1 - Responsible Party (ies) Legal Requirements / Obligations and Electronic

Report Upload (ftp) Instructions

cc: Travis Flora, Stantec Consulting Services, Inc, 15575 Los Gatos Blvd, Bldg C, Los Gatos, CA 95032 (sent via electronic mail to: <a href="mailto:Travis.Flora@Stantec.com">Travis.Flora@Stantec.com</a>)

Dan McGue, Paragon Real Estate Group, 1400 Van Ness Avenue, San Francisco, CA 94109 (sent via electronic mail to: <a href="mailto:DanMcGue@paragon.re.com">DanMcGue@paragon.re.com</a>)

Dilan Roe (sent via electronic mail to <a href="mailto:dilan.roe@acgov.org">dilan.roe@acgov.org</a>)

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

Electronic File, GeoTracker

### Attachment 1

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

### REPORT REQUESTS

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

### **ELECTRONIC SUBMITTAL OF REPORTS**

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

### **PERJURY STATEMENT**

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

### PROFESSIONAL CERTIFICATION & CONCLUSIONS/RECOMMENDATIONS

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

### **UNDERGROUND STORAGE TANK CLEANUP FUND**

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

### **AGENCY OVERSIGHT**

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

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

**REVISION DATE:** May 15, 2014

ISSUE DATE: July 5, 2005

PREVIOUS REVISIONS: October 31, 2005;

December 16, 2005; March 27, 2009; July 8, 2010,

July 25, 2010

**SECTION:** Miscellaneous Administrative Topics & Procedures

**SUBJECT:** Electronic Report Upload (ftp) Instructions

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

### **REQUIREMENTS**

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

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

### **Submission Instructions**

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

**From:** Flora, Travis

**Sent:** Friday, August 22, 2014 1:49 PM

To: Espino, Belinda

Subject: FW: Chevron 92029, 890 W MacArthur Boulevard, Oakland, CA (Case #: RO00002438)

**Attachments:** RO0002438\_CORRES\_2014-08-18.pdf

Follow Up Flag: Follow up Flag Status: Flagged

### Travis L. Flora

Associate Project Manager Stantec

15575 Los Gatos Boulevard Building C Los Gatos CA 95032-2569

Phone: (408) 827-3876 Cell: (408) 458-6320 Travis.Flora@stantec.com



### Celebrating 60 years of community, creativity, and client relationships.

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**From:** Detterman, Mark, Env. Health [mailto:Mark.Detterman@acgov.org]

**Sent:** Thursday, August 21, 2014 16:52 **To:** MacLeod, Carryl G; Flora, Travis

Subject: FW: Chevron 92029, 890 W MacArthur Boulevard, Oakland, CA (Case #: RO00002438)

### Carryl and Travis,

Thanks for the update on the site. Please be aware that Oakland prohibits drilling from approximately November 1 to January 1 each year due to the holidays. Please expedite permitting to the extent possible given this consideration. While the requested extension is longer than most, ACEH is aware that the Oakland permitting process is lengthy. Please use this email to document the extension to November 14, 2014.

Mark Detterman

Senior Hazardous Materials Specialist, PG, CEG

Alameda County Environmental Health

1131 Harbor Bay Parkway

Alameda, CA 94502 Direct: 510.567.6876 Fax: 510.337.9335

Email: mark.detterman@acgov.org

PDF copies of case files can be downloaded at:

http://www.acgov.org/aceh/lop/ust.htm

**From:** Flora, Travis [mailto:Travis.Flora@stantec.com]

Sent: Thursday, August 21, 2014 3:28 PM

To: Detterman, Mark, Env. Health

Cc: MacLeod, Carryl G

Subject: Chevron 92029, 890 W MacArthur Boulevard, Oakland, CA (Case #: RO00002438)

### Hi Mark,

As requested, a copy of the extension request for RO2438 is attached. This extension request is due to the delays associated with Oakland encroachment permitting. We also discuss the issue of the City indicating that they will not allow work in the sidewalk. Because of the data we need near MW-6, and the lack of alternative options (an alternative like we're proposing for RO0138 would not be appropriate for this site), we are going to see if we can push the City to approve the sidewalk work. If they will not approve sidewalk work, we may have to cancel the sidewalk locations or wait until the sidewalk is temporarily closed during redevelopment to access those locations.

Because of the pending redevelopment, we kept the requested due date for this work sooner than the other extension requests.

### Regards,

### Travis L. Flora

Associate Project Manager Stantec 15575 Los Gatos Boulevard Building C Los Gatos CA 95032-2569 Phone: (408) 827-3876

Cell: (408) 458-6320 Travis.Flora@stantec.com



### Celebrating 60 years of community, creativity, and client relationships.

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From: Detterman, Mark, Env. Health < Mark.Detterman@acgov.org>

**Sent:** Friday, November 07, 2014 5:17 PM **To:** 'MacLeod, Carryl G'; Flora, Travis

**Cc:** Coulter, Alexis N; Roe, Dilan, Env. Health

**Subject:** Chevron 92029; RO2438; Extension Request Approval

**Attachments:** EXT\_RQ\_L\_2014-10-30.pdf

Follow Up Flag: Follow up Flag Status: Flagged

### Carryl and Travis,

Thank you for the October 30, 2014 letter notifying ACEH of delays in permitting the proposed work through the city of Oakland. ACEH is also aware that Oakland has a restriction on street work between approximately November 1 and January 1 of a year. Consequently, it appears reasonable to extend the delivery due date to the proposed date of March 13, 2015. Please use this email to document ACEH concurrence. I will update Geotracker shortly.

Mark Detterman Senior Hazardous Materials Specialist, PG, CEG Alameda County Environmental Health 1131 Harbor Bay Parkway Alameda, CA 94502

Direct: 510.567.6876 Fax: 510.337.9335

Email: mark.detterman@acgov.org

PDF copies of case files can be downloaded at:

http://www.acgov.org/aceh/lop/ust.htm

### Flora, Travis

From: Detterman, Mark, Env. Health < Mark.Detterman@acgov.org>

**Sent:** Thursday, February 26, 2015 16:32

**To:** Flora, Travis **Cc:** MacLeod, Carryl G

**Subject:** RE: Chevron 92029; RO2438; Extension Request Approval

Follow Up Flag: Follow up Flag Status: Flagged

### Carryl and Travis,

I've extended the deadline until April 17<sup>th</sup>. But it is great to see some progress on the site for Mr. Itgel's development.

### Mark Detterman

Senior Hazardous Materials Specialist, PG, CEG Alameda County Environmental Health

1131 Harbor Bay Parkway Alameda, CA 94502 Direct: 510.567.6876 Fax: 510.337.9335

Email: mark.detterman@acgov.org

PDF copies of case files can be downloaded at:

http://www.acgov.org/aceh/lop/ust.htm

From: Flora, Travis [mailto:Travis.Flora@stantec.com]
Sent: Wednesday, February 25, 2015 12:35 PM

**To:** Detterman, Mark, Env. Health **Cc:** dehloptoxic, Env. Health

Subject: RE: Chevron 92029; RO2438; Extension Request Approval

### Hi Mark

The attached extension request for RO2438 was just uploaded to GeoTracker and the ACEH FTP site.

### Thanks,

### Travis L. Flora

Associate Project Manager

15575 Los Gatos Boulevard Building C Los Gatos CA 95032-2569

Phone: (408) 827-3876 Cell: (408) 458-6320 Travis.Flora@stantec.com



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**From:** Detterman, Mark, Env. Health [mailto:Mark.Detterman@acgov.org]

**Sent:** Friday, November 07, 2014 14:17 **To:** 'MacLeod, Carryl G'; Flora, Travis

Cc: Coulter, Alexis N; Roe, Dilan, Env. Health

Subject: Chevron 92029; RO2438; Extension Request Approval

Carryl and Travis,

Thank you for the October 30, 2014 letter notifying ACEH of delays in permitting the proposed work through the city of Oakland. ACEH is also aware that Oakland has a restriction on street work between approximately November 1 and January 1 of a year. Consequently, it appears reasonable to extend the delivery due date to the proposed date of March 13, 2015. Please use this email to document ACEH concurrence. I will update Geotracker shortly.

Mark Detterman
Senior Hazardous Materials Specialist, PG, CEG
Alameda County Environmental Health
1131 Harbor Bay Parkway
Alameda, CA 94502
Direct: 510.567.6876

Direct: 510.567.6876 Fax: 510.337.9335

Email: mark.detterman@acgov.org

PDF copies of case files can be downloaded at:

http://www.acgov.org/aceh/lop/ust.htm

### Flora, Travis

From: Detterman, Mark, Env. Health < Mark. Detterman@acgov.org >

Sent: Wednesday, April 08, 2015 09:58

To: Flora, Travis Cc: MacLeod, Carryl G

**Subject:** RE: RO2438 - Chevron 92029 - 898 W. MacArthur Blvd., Oakland

#### Travis.

Please use this response to document ACEH concurrence with the extension request.

Mark Detterman

Senior Hazardous Materials Specialist, PG, CEG

Alameda County Environmental Health

1131 Harbor Bay Parkway

Alameda, CA 94502 Direct: 510.567.6876 Fax: 510.337.9335

Email: mark.detterman@acgov.org

PDF copies of case files can be downloaded at:

http://www.acgov.org/aceh/lop/ust.htm

**From:** Flora, Travis [mailto:Travis.Flora@stantec.com]

Sent: Monday, March 30, 2015 2:23 PM To: Detterman, Mark, Env. Health

Cc: MacLeod, Carryl G

Subject: RO2438 - Chevron 92029 - 898 W. MacArthur Blvd., Oakland

#### Hi Mark,

I heard your voicemail with tentative agreement on a 4/22 meeting at 10am. We'll hold that time pending your confirmation with Dilan. We'd also like to request a 2-week extension on that report, which is currently due 4/17, to 4/30 so that we can incorporate potential changes from our discussion.

Thanks,

### Travis L. Flora

Associate Project Manager Stantec

15575 Los Gatos Boulevard Building C Los Gatos CA 95032-2569

Phone: (408) 827-3876 Cell: (408) 458-6320 Travis.Flora@stantec.com



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### Detterman, Mark, Env. Health

From: Detterman, Mark, Env. Health
Sent: Monday, June 22, 2015 2:08 PM
To: 'Flora, Travis'; MacLeod, Carryl G

Subject: RE: Chevron 92029; RO2438; Extension Request

Attachments: RO0002438\_CORRES\_2015-06-22.pdf

### Carryl and Travis,

Thanks for the update on the site. ACEH is in agreement that an extension is appropriate, has extended the delivery date to August 31, 2015, and updated Geotracker to reflect this change.

Mark Detterman

Senior Hazardous Materials Specialist, PG, CEG Alameda County Environmental Health

1131 Harbor Bay Parkway Alameda, CA 94502

Direct: 510.567.6876
Fax: 510.337.9335

Email: mark.detterman@acgov.org

PDF copies of case files can be downloaded at:

http://www.acgov.org/aceh/lop/ust.htm

From: Flora, Travis [mailto:Travis.Flora@stantec.com]

**Sent:** Monday, June 22, 2015 12:36 AM **To:** Detterman, Mark, Env. Health **Cc:** dehloptoxic, Env. Health

Subject: Chevron 92029; RO2438; Extension Request

Hi Mark

The attached extension request for Chevron 92029 – RO2438 was uploaded to GeoTracker and the ACEH FTP site.

Thanks,

### Travis L. Flora

Associate Project Manager

Stantec

15575 Los Gatos Boulevard Building C Los Gatos CA 95032-2569

Phone: (408) 827-3876 Cell: (408) 458-6320 Travis.Flora@stantec.com





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## APPENDIX B SOIL BORING LOGS

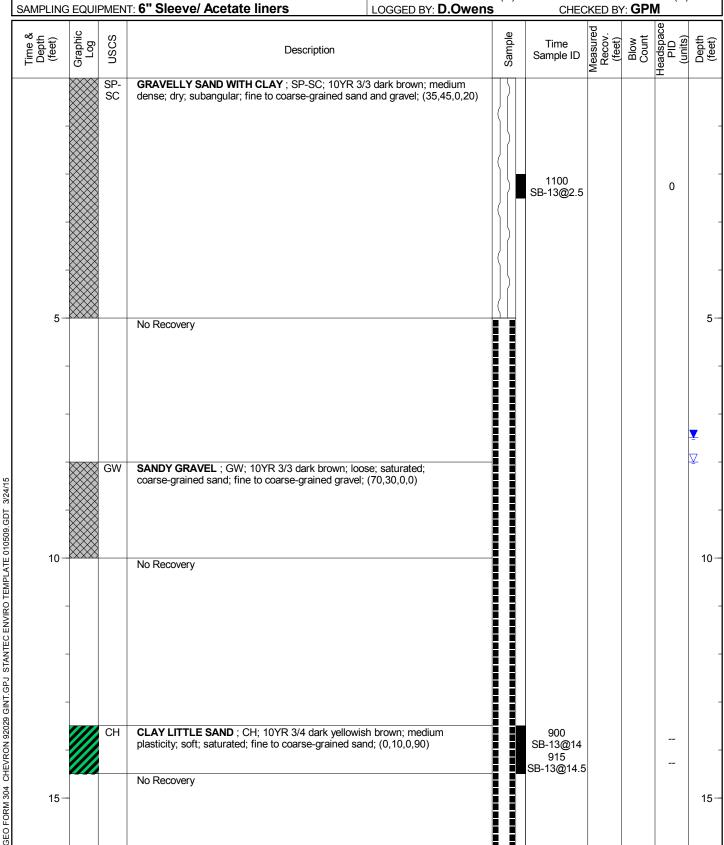
PROJECT: Chevron 92029 WELL / PROBEHOLE / BOREHOLE NO: **Stantec** LOCATION: 890 West MacArthur Blvd Oakland, CA PAGE 1 OF 1 PROJECT NUMBER: **211602398** STARTED 2/25/15 COMPLETED: 2/25/15 NORTHING (ft): EASTING (ft): DRILLING: LATITUDE: LONGITUDE: INSTALLATION: STARTED COMPLETED: GROUND ELEV (ft): TOC ELEV (ft): DRILLING COMPANY: National EWP INITIAL DTW (ft): 8 BOREHOLE DEPTH (ft): 11 DRILLING EQUIPMENT: **HandAuger** STATIC DTW (ft): 6.05 WELL DEPTH (ft): DRILLING METHOD: HandAuger WELL CASING DIAMETER (in): ---BOREHOLE DIAMETER (in): 3.25

SAMPLING EQU		andAuger ⊤: 6" Sleeve	WELL CASING DIAMETER LOGGED BY: <b>D.Owens</b>	OUTSILED DV CDM					
Time & Depth (feet)	COS	Description		Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (units)	Depth (feet)
	GW CH	WELL-GRADED SAND AND GRAVEL; GW; 10Y dry; subangular; fine to coarse-grained gravel; (50, FAT CLAY TRACE COARSE SAND; CH; 10 YR 2 hard; dry; homogeneous; (0,5,0,95)	50,0,0)		1320 SB-11@2.5			0	
5-		2.5Y 4/1 dark gray; mottled; Same As Above			1340 SB-11@5			0.1	5
-	CL	<b>SANDY CLAY</b> ; CL; 2.5Y 4/1 dark gray; low plastic staining; fine to coarse-grained sand; (0,40,0,60)	ity; soft; dry; iron oxide		1400 SB-11@7.5			0.1	<u></u>
10-	GW- GC	GRAVEL AND SAND WITH CLAY; GW-GC; 2.5Y saturated; fine to coarse-grained sand and gravel; ( 2.5Y 4/1 dark gray; Same As Above	7 4/6 olive brown; soft; 40,40,0,20)		1415 SB-11@10				10
		Borehole terminated at 11 feet.							

PROJECT: Chevron 92029 WELL / PROBEHOLE / BOREHOLE NO: **Stantec** LOCATION: 890 West MacArthur Blvd Oakland, CA PAGE 1 OF 1 PROJECT NUMBER: **211602398** STARTED 2/26/15 COMPLETED: 2/26/15 NORTHING (ft): EASTING (ft): DRILLING: LATITUDE: LONGITUDE: INSTALLATION: STARTED COMPLETED: GROUND ELEV (ft): TOC ELEV (ft): DRILLING COMPANY: National EWP INITIAL DTW (ft): 8.5 BOREHOLE DEPTH (ft): 10.5 DRILLING EQUIPMENT: **HandAuger** STATIC DTW (ft): 5.6 WELL DEPTH (ft): DRILLING METHOD: HandAuger WELL CASING DIAMETER (in): ---BOREHOLE DIAMETER (in): 3.25

DRILLING METHOD: H SAMPLING EQUIPMEN		WELL CASING DIAMETER LOGGED BY: <b>D.Owens</b>	R (in):		D	CDI	ER (in):	
Time & Depth (feet) Graphic Log	Description		Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (units)	Depth (feet)
GW CH	dry; subangular; fine to coarse-grained gravel; (50,5) FAT CLAY TRACE COARSE SAND; CH; 10 YR 2	50,0,0)	<u> </u>				_	
	hard; dry; homogeneous; (0,5,0,95)			0745 SB-12@2.5			0	-
	2.5Y 4/1 dark gray; mottled; Same As Above							-
5-				0755 SB-12@5			0	5−
CL	SILTY CLAY; CL; 2.5Y 4/2 dark grayish brown; medry; iron oxide staining; (0,0,40,60)	edium plasticity; hard;		0820 SB-12@7.5			0	-
CL CL	SANDY CLAY WITH GRAVEL; CL; 2.5Y 4/1 dark saturated; fine to coarse-grained sand and gravel; (2.5)	gray; low plasticity; soft; 20,30,0,50)					-	- ∑ -
				0830 SB-12@10				10 —
SIAN IEC ENV	Borehole terminated at 10.5 feet.							-
H 920229 GINT.GF.								=
GEO FORM 304 CHEVRON 92029 GINT.GPJ STANTEC ENVIRO TEMPLATE 010509.GDT 3724/15								_
GEO JON								

PROJECT: Chevron 92029 WELL / PROBEHOLE / BOREHOLE NO: Stantec LOCATION: 890 West MacArthur Blvd Oakland, CA PAGE 1 OF 1 PROJECT NUMBER: 211602398 STARTED 2/25/15 NORTHING (ft): EASTING (ft): DRILLING: COMPLETED: 3/5/15 LATITUDE: LONGITUDE: INSTALLATION: STARTED COMPLETED: GROUND ELEV (ft): TOC ELEV (ft): DRILLING COMPANY: National EWP INITIAL DTW (ft): 8 BOREHOLE DEPTH (ft): 16 DRILLING EQUIPMENT: HandAuger/ GeoProbe STATIC DTW (ft): 7.5 WELL DEPTH (ft): DRILLING METHOD: HandAuger/ Geoprobe WELL CASING DIAMETER (in): ---BOREHOLE DIAMETER (in): 3.25



PROJECT: Chevron 92029 WELL / PROBEHOLE / BOREHOLE NO: **Stantec** LOCATION: 890 West MacArthur Blvd Oakland, CA PAGE 1 OF 1 PROJECT NUMBER: **211602398** STARTED 2/26/15 COMPLETED: 2/26/15 NORTHING (ft): EASTING (ft): DRILLING: LATITUDE: LONGITUDE: INSTALLATION: STARTED COMPLETED: GROUND ELEV (ft): TOC ELEV (ft): DRILLING COMPANY: National EWP INITIAL DTW (ft): 7.5 BOREHOLE DEPTH (ft): 10 DRILLING EQUIPMENT: HandAuger STATIC DTW (ft): 6.2 WELL DEPTH (ft): DRILLING METHOD: **HandAuger** WELL CASING DIAMETER (in): ---BOREHOLE DIAMETER (in): 3.25

				WELL CASING DIAMETER (in): BOREHOLE DIAM CHECKED BY: <b>D.Owens</b> CHECKED BY: <b>GI</b>						
Time & Depth (feet)	Graphic Log	nscs	Description		Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (units)	Depth (feet)
		CH	WELL-GRADED SAND AND GRAVEL; GW; 10YR: dry; subangular; fine to coarse-grained gravel; (50,50, FAT CLAY TRACE COARSE SAND; CH; 10 YR 2/1 hard; dry; homogeneous; (0,5,0,95)	0,0)		1610 SB-14@2.5			0	
			2.5Y 4/1 dark gray; mottled; Same As Above							
5-			Iron oxide staining; Same As Above			1620 SB-14@5			0	5
	-	CL	<b>SILTY CLAY</b> ; CL; 2.5Y 4/2 dark grayish brown; medidry; iron oxide staining; (0,0,40,60)	um plasticity; hard;						<u></u>
		CL	SANDY CLAY TRACE GRAVEL; CL; 2.5Y 4/2 dark of plasticity; soft; dry; iron oxide staining; fine to coarse-gravel; (5,40,0,55)  Saturated; Same As Above			1630 SB-14@7.5				<u>V</u>
			2.5Y 4/1 dark gray; Same As Above			1645				
10-			Borehole terminated at 10 feet.			SB-14@10				10
	-									

PROJECT: Chevron 92029 WELL / PROBEHOLE / BOREHOLE NO: **Stantec** LOCATION: 890 West MacArthur Blvd Oakland, CA PAGE 1 OF 1 PROJECT NUMBER: **211602398** STARTED **2/27/15** COMPLETED: 2/27/15 NORTHING (ft): EASTING (ft): DRILLING: LATITUDE: LONGITUDE: INSTALLATION: STARTED COMPLETED: GROUND ELEV (ft): TOC ELEV (ft): DRILLING COMPANY: National EWP INITIAL DTW (ft): 7 BOREHOLE DEPTH (ft): 10 DRILLING EQUIPMENT: HandAuger STATIC DTW (ft): 6.5 WELL DEPTH (ft): DRILLING METHOD: **HandAuger** WELL CASING DIAMETER (in): ---BOREHOLE DIAMETER (in): 3.25

				LOGGED BY: D Owens CHECKED BY:					METER (in): 3		
Time & Depth (feet)	Graphic Log	nscs	Description		O Sampl		Measured Recov. (feet)	Blow Count	Headspace PID (units)	Depth (feet)	
		GW	WELL-GRADED SAND AND GRAVEL; GW; 10YR 3 dry; subangular; fine to coarse-grained gravel; (50,50,	0,0)							
		CH	<b>FAT CLAY TRACE COARSE SAND</b> ; CH; 10 YR 2/1 hard; dry; homogeneous; (0,5,0,95)	black; high plasticity;							
						0735 SB-15@2.5			0		
5-			2.5Y 4/1 dark gray; iron oxide staining; mottled; Same	As Above		0745 SB-15@5			0	5	
		CL	SILTY CLAY TRACE SAND AND GRAVEL; CL; 2.5' brown; medium plasticity; hard; dry; iron oxide staining coarse-grained sand and gravel; (5,5,30,60)	; fine to						<u></u>	
		CL	SANDY CLAY TRACE GRAVEL ; CL; fine to coarse-gravel; (5,40,0,55) Saturated			0800 SB-15@7.5				⊻	
		CL	CLAY SOME SAND TRACE GRAVEL; CL; GLEY 1 greenish gray; medium plasticity; firm; saturated; (5,15)	5,0,80)							
10-		CL	SILTY CLAY; CL; soft; Same As Above; (0,0,40,60)			0825 SB-15@10				10	
			Borehole terminated at 10 feet.								
	_										
	_										

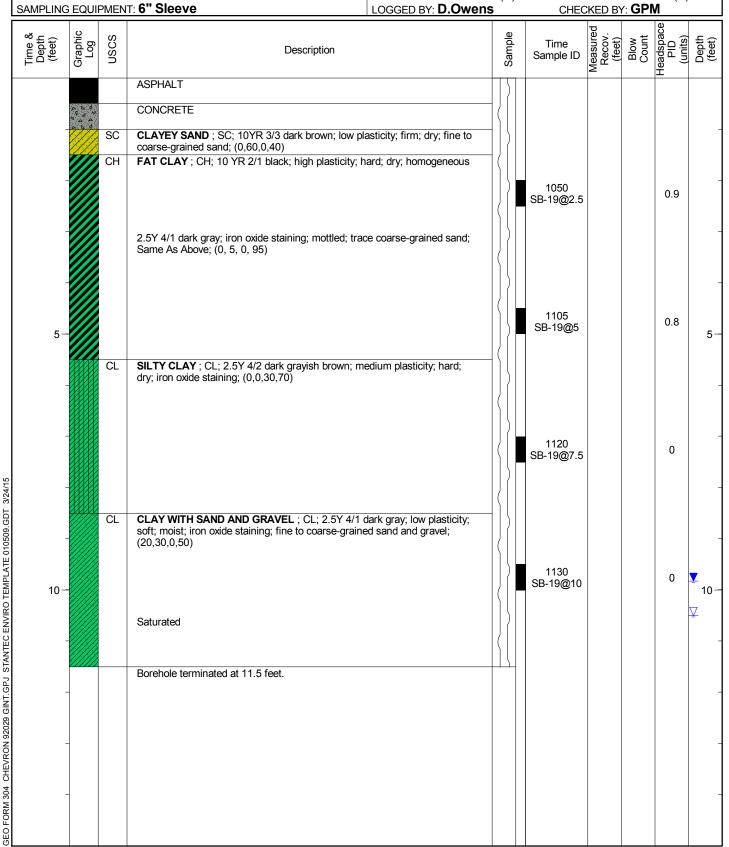
PROJECT: Chevron 92029 WELL / PROBEHOLE / BOREHOLE NO: **Stantec** LOCATION: 890 West MacArthur Blvd Oakland, CA PAGE 1 OF 1 PROJECT NUMBER: **211602398** COMPLETED: 2/27/15 STARTED **2/27/15** NORTHING (ft): EASTING (ft): DRILLING: LATITUDE: LONGITUDE: INSTALLATION: STARTED COMPLETED: GROUND ELEV (ft): TOC ELEV (ft): DRILLING COMPANY: National EWP INITIAL DTW (ft): 7 BOREHOLE DEPTH (ft): 10 DRILLING EQUIPMENT: **HandAuger** STATIC DTW (ft): 5.70 WELL DEPTH (ft): DRILLING METHOD: HandAuger WELL CASING DIAMETER (in): ---BOREHOLE DIAMETER (in): 3.25

DRILLING METHOD: <b>H</b> SAMPLING EQUIPMEN		WELL CASING DIAMETER LOGGED BY: <b>D.Owens</b>			HOLE D	CDA	Α	
Time & Depth (feet) Graphic Log	Description		Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (units)	Depth (feet)
	CONCRETE		$  \rangle  $				_	
CH	<b>FAT CLAY</b> ; CH; 10 YR 2/1 black; high plasticity; h (0, 0, 0, 100)	ard; dry; homogeneous;		1300				-
	FAT CLAY TRACE COARSE SAND; 2.5Y 4/1 dar staining; mottled; Same As Above; (0, 5, 0, 95)	k gray; iron oxide		1300 SB-17@2.5			0	-
5	SANDY CLAY TRACE GRAVEL; CL; 2.5Y 4/2 da	rk grayish brown; low		1320 SB-17@5			0	5 <u>-</u>
	plasticity; hard; dry; fine to coarse-grained sand and Saturated	l gravel; (5,30,0,65)		1345 SB-17@7.5				<u>√</u> .
CH CH	CLAY TRACE SAND AND GRAVEL; CH; 2.5Y 4/ plasticity; soft; saturated; fine to coarse-grained sar	1 dark gray; high ad and gravel; (5,5,0,90)		1350 SB-17@10				10 -
CH 100 See 100	Borehole terminated at 10 feet.							10 -
- Commission of the control of the c								

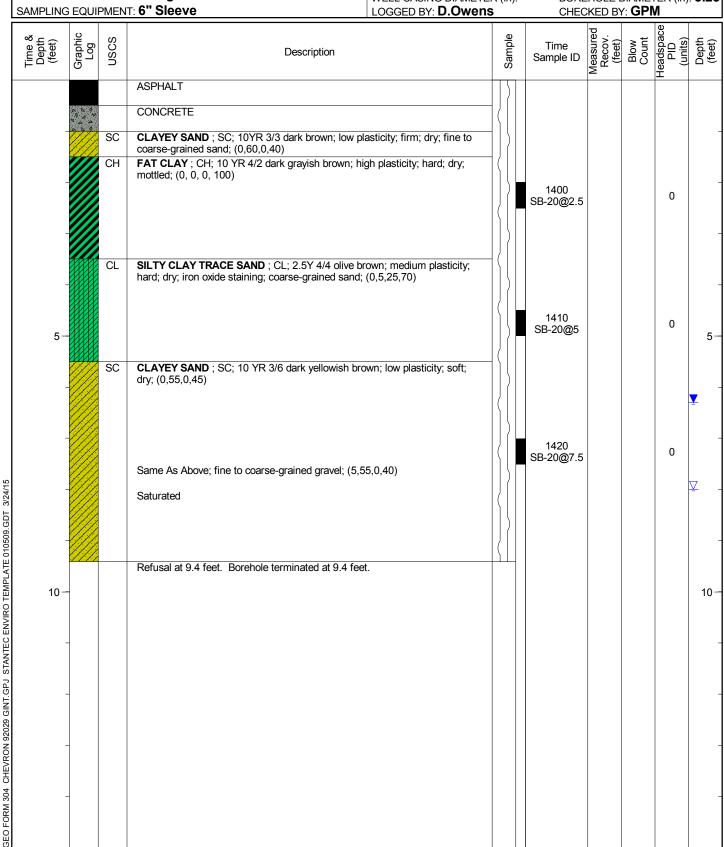
PROJECT: Chevron 92029 WELL / PROBEHOLE / BOREHOLE NO: **Stantec** LOCATION: 890 West MacArthur Blvd Oakland, CA PAGE 1 OF 1 PROJECT NUMBER: **211602398** STARTED 2/27/15 COMPLETED: 2/27/15 NORTHING (ft): EASTING (ft): DRILLING: LATITUDE: LONGITUDE: INSTALLATION: STARTED COMPLETED: GROUND ELEV (ft): TOC ELEV (ft): DRILLING COMPANY: National EWP INITIAL DTW (ft): 9 BOREHOLE DEPTH (ft): 11 DRILLING EQUIPMENT: HandAuger STATIC DTW (ft): 8.90 WELL DEPTH (ft): DRILLING METHOD: HandAuger WELL CASING DIAMETER (in): ---BOREHOLE DIAMETER (in): 3.25

SAMPLING M				L CASING DIAMETER GED BY: <b>D.Owens</b>	(in):		HOLE [			
Time & Depth (feet)	Graphic Log	nscs	Description		Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (units)	Depth (feet)
-		СН	CONCRETE  FAT CLAY; CH; 10 YR 2/1 black; high plasticity; hard; d (0, 0, 0, 100)	ry; homogeneous;		1415 SB-18@2.5			0	-
5-		CL	2.5Y 4/1 dark gray; iron oxide staining; mottled; Same As SILTY CLAY TRACE SAND AND GRAVEL; CL; 2.5Y 4 brown; medium plasticity; hard; dry; iron oxide staining; fi coarse-grained sand and gravel; (5,5,30,60)	/2 dark grayish		1430 SB-18@5			10.2	5-
		CL	2.5Y 4/1 dark gray; Same As Above  SILTY CLAY; CL; GLEY 1 5G 3/1 very dark greenish grifirm; dry; (0,0,40,60)	ay; low plasticity;		1500 SB-18@7.5			145	-
NVIRO I EMPLAIE 010509. GUI 322475  0 1		CL	Wet; Same As Above  CLAY WITH SAND TRACE GRAVEL; CL; GLEY 1 5G greenish gray; low plasticity; firm; saturated; fine to coars gravel; (5,25,0,70)	3/1 very dark e-grained sand and		1510 SB-18@10			-	10-
GEO FORM 304 CHEVRON 92029 GIN 1.GPJ STAN IEC ENVIRO IEMPLAIE 010509.GDT 372475			Borehole terminated at 11 feet.							-
- CAN 04										_

PROJECT: Chevron 92029 WELL / PROBEHOLE / BOREHOLE NO: LOCATION: 890 West MacArthur Blvd Oakland, CA Stantec PAGE 1 OF 1 PROJECT NUMBER: 211602398 STARTED 2/26/15 COMPLETED: 2/26/15 NORTHING (ft): EASTING (ft): DRILLING: LATITUDE: LONGITUDE: INSTALLATION: STARTED COMPLETED: GROUND ELEV (ft): TOC ELEV (ft): DRILLING COMPANY: National EWP INITIAL DTW (ft): 10.5 BOREHOLE DEPTH (ft): 11.5 DRILLING EQUIPMENT: HandAuger STATIC DTW (ft): 9.83 WELL DEPTH (ft): DRILLING METHOD: HandAuger WELL CASING DIAMETER (in): ---BOREHOLE DIAMETER (in): 3.25



PROJECT: Chevron 92029 WELL / PROBEHOLE / BOREHOLE NO: LOCATION: 890 West MacArthur Blvd Oakland, CA Stantec PAGE 1 OF 1 PROJECT NUMBER: 211602398 STARTED 2/26/15 COMPLETED: 2/26/15 NORTHING (ft): EASTING (ft): DRILLING: LATITUDE: LONGITUDE: INSTALLATION: STARTED COMPLETED: GROUND ELEV (ft): TOC ELEV (ft): DRILLING COMPANY: National EWP INITIAL DTW (ft): 8 BOREHOLE DEPTH (ft): 9.4 DRILLING EQUIPMENT: HandAuger STATIC DTW (ft): 6.3 WELL DEPTH (ft): DRILLING METHOD: HandAuger WELL CASING DIAMETER (in): ---BOREHOLE DIAMETER (in): 3.25



PROJECT: Chevron 92029 WELL / PROBEHOLE / BOREHOLE NO: **Stantec** LOCATION: 890 West MacArthur Blvd Oakland, CA PAGE 1 OF 1 PROJECT NUMBER: **211602398** STARTED 2/27/15 COMPLETED: 2/27/15 NORTHING (ft): EASTING (ft): DRILLING: LATITUDE: LONGITUDE: INSTALLATION: STARTED COMPLETED: GROUND ELEV (ft): TOC ELEV (ft): DRILLING COMPANY: National EWP INITIAL DTW (ft): 8.5 BOREHOLE DEPTH (ft): 12.5 DRILLING EQUIPMENT: HandAuger STATIC DTW (ft): 10.65 WELL DEPTH (ft): DRILLING METHOD: HandAuger WELL CASING DIAMETER (in): ---BOREHOLE DIAMETER (in): 3.25

				ELL CASING DIAMETER DGGED BY: <b>D.Owens</b>			HOLE I		A ` ´	
Time & Depth (feet)	Graphic Log	nscs	Description		Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (units)	Depth (feet)
_		CH	CONCRETE  CLAY TRACE SAND; CH; 2.5 Y 4/2 dark grayish brown hard; dry; iron oxide staining; mottled; coarse-grained staining; mottled; coarse-	wn; high plasticity; and; (0,5,0,95)						-
_		CL	SILTY CLAY TRACE SAND; CL; 10YR 3/4 dark yello plasticity; hard; dry; iron oxide staining; mottled; coarse (0,5,30,65)	wish brown; medium -grained sand;		0945 SB-21@2.5			0	-
5-		CH	FAT CLAY; CH; 10YR 3/4 dark yellowish brown; high iron oxide staining; mottled; (0, 0, 0, 100)	plasticity; hard; dry;		0950 SB-21@5			0	5-
_		CL	CLAY WITH SAND AND GRAVEL; CL; 10YR 2/2 ver plasticity; firm; moist; fine to coarse-grained sand and s	y dark brown; low gravel; (20,30,0,50)		1010 SB-21@7.5			0	
-		SP	POORLY GRADED SAND TRACE GRAVEL; SP; 10' soft; wet; fine-grained gravel; (5,95,0,0)  CLAY WITH SAND AND GRAVEL; CL; 2.5Y 4/1 dark soft; saturated; fine to coarse-grained sand and gravel;	gray; low plasticity;		1030 SB-21@10				<u>∇</u>
10 —		CL	SILTY CLAY; CL; 10YR 3/3 dark brown; medium plas			3B-21@10				10 <del>-</del> -
			(0,0,30,70)  Rorehole terminated at 12.5 feet							-
10 -			Borehole terminated at 12.5 feet.							-

# APPENDIX C CERTIFIED LABORATORY ANALYSIS REPORTS AND CHAIN-OF-CUSTODY DOCUMENTS

### Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

### ANALYTICAL RESULTS

Prepared by:

Prepared for:

Eurofins Lancaster Laboratories Environmental 2425 New Holland Pike Lancaster, PA 17601 ChevronTexaco L4310 6001 Bollinger Canyon Rd. San Ramon CA 94583

March 12, 2015

Project: 92029

Submittal Date: 03/03/2015 Group Number: 1542345 PO Number: 0015150110 Release Number: CMACLEOD State of Sample Origin: CA

Client Sample Description	Lancaster Labs (LL) #
SB-11-S-2.5-150225 NA Soil	7790304
SB-11-S-5-150225 NA Soil	7790305
SB-11-S-7.5-150225 NA Soil	7790306
SB-11-S-10-150225 NA Soil	7790307
SB-12-S-2.5-150226 NA Soil	7790308
SB-12-S-5-150226 NA Soil	7790309
SB-12-S-7.5-150226 NA Soil	7790310
SB-12-S-10-150226 NA Soil	7790311
SB-13-S-2.5-150225 NA Soil	7790312
SB-14-S-2.5-150226 NA Soil	7790313
SB-14-S-5-150226 NA Soil	7790314
SB-14-S-7.5-150226 NA Soil	7790315
SB-14-S-10-150226 NA Soil	7790316
SB-15-S-2.5-150227 NA Soil	7790317
SB-15-S-5-150227 NA Soil	7790318
SB-15-S-7.5-150227 NA Soil	7790319
SB-15-S-10-150227 NA Soil	7790320
SB-19-S-2.5-150226 NA Soil	7790321
SB-19-S-5-150226 NA Soil	7790322
SB-19-S-7.5-150226 NA Soil	7790323
SB-19-S-10-150226 NA Soil	7790324
SB-20-S-2.5-150226 NA Soil	7790325
SB-20-S-5-150226 NA Soil	7790326
SB-20-S-7.5-150226 NA Soil	7790327
SB-21-S-2.5-150227 NA Soil	7790328
SB-21-S-5-150227 NA Soil	7790329
SB-21-S-7.5-150227 NA Soil	7790330
SB-21-S-10-150227 NA Soil	7790331
SB-17-S-2.5-150227 NA Soil	7790332
SB-17-S-5-150227 NA Soil	7790333
SB-17-S-7.5-150227 NA Soil	7790334

### Analysis Report

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SB-17-S-10-150227 NA Soil	7790335
SB-18-S-2.5-150227 NA Soil	7790336
SB-18-S-5-150227 NA Soil	7790337
SB-18-S-7.5-150227 NA Soil	7790338
SB-18-S-10-150227 NA Soil	7790339

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

Regulatory agencies do not accredit laboratories for all methods, analytes, and matrices. Our scopes of accreditation can be viewed at <a href="http://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/resources/certifications/">http://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/resources/certifications/</a>.

ELECTRONIC	Stantec	Attn: Laura Viesselman
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ELECTRONIC	Stantec	Attn: Erin O'Malley
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ELECTRONIC	Stantec	Attn: Marisa Kaffenberger
COPY TO		_
ELECTRONIC	Stantec	Attn: Travis Flora
COPY TO		

Respectfully Submitted,

Matalie x - 2

Natalie R. Luciano Senior Specialist

(717) 556-7258



### Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: SB-11-S-2.5-150225 NA Soil

Facility# 92029 STALGCA

SB-11 890 W Macarthur-Oakland T0600173887

LL Sample # SW 7790304

LL Group # 1542345 Account # 10869

Project Name: 92029

Submitted: 03/03/2015 10:00

Reported: 03/12/2015 10:44

Collected: 02/25/2015 13:20 by DO ChevronTexaco

L4310

6001 Bollinger Canyon Rd.

San Ramon CA 94583

#### MO112

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS	Volatiles SW-846	8260B	mg/kg	mg/kg	
10237	t-Amyl methyl ether	994-05-8	N.D.	0.001	1.03
10237	Benzene	71-43-2	N.D.	0.0005	1.03
10237	t-Butyl alcohol	75-65-0	N.D.	0.021	1.03
10237	Ethanol	64-17-5	N.D.	0.10	1.03
10237	Ethyl t-butyl ether	637-92-3	N.D.	0.001	1.03
10237	Ethylbenzene	100-41-4	N.D.	0.001	1.03
10237	di-Isopropyl ether	108-20-3	N.D.	0.001	1.03
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	1.03
10237	Naphthalene	91-20-3	N.D.	0.001	1.03
10237	Toluene	108-88-3	N.D.	0.001	1.03
10237	Xylene (Total)	1330-20-7	N.D.	0.001	1.03
GC Vol	Latiles SW-846	8015B modified	mg/kg	mg/kg	
01725	TPH-GRO N. CA soil C6-C12	n.a.	N.D.	0.5	25.35

### General Sample Comments

CA ELAP Lab Certification No. 2792

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

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	e	Analyst	Dilution Factor
10237	VOCs- Solid by 8260B	SW-846 8260B	1	B150641AA	03/05/2015 1	11:30	Sarah A Guill	1.03
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201506236915	03/03/2015 1	19:50	Mitchell R Washel	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201506236915	03/03/2015 1	19:50	Mitchell R Washel	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201506236915	03/03/2015 1	19:16	Mitchell R Washel	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	15063A34A	03/04/2015 1	14:58	Jeremy C Giffin	25.35
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201506236915	03/03/2015 1	19:17	Mitchell R Washel	n.a.



### **Analysis Report**

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: SB-11-S-5-150225 NA Soil

Facility# 92029 STALGCA

SB-11 890 W Macarthur-Oakland T0600173887

LL Sample # SW 7790305

LL Group # 1542345 Account # 10869

Project Name: 92029

Submitted: 03/03/2015 10:00

Reported: 03/12/2015 10:44

Collected: 02/25/2015 13:40 by DO ChevronTexaco

L4310

6001 Bollinger Canyon Rd.

San Ramon CA 94583

MO115

CAT No.	Analysis Name		CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS	Volatiles :	SW-846	8260B	mg/kg	mg/kg	
10237	t-Amyl methyl ether		994-05-8	N.D.	0.001	1.01
10237	Benzene		71-43-2	N.D.	0.0005	1.01
10237	t-Butyl alcohol		75-65-0	N.D.	0.020	1.01
10237	Ethanol		64-17-5	N.D.	0.10	1.01
10237	Ethyl t-butyl ether		637-92-3	N.D.	0.001	1.01
10237	Ethylbenzene		100-41-4	N.D.	0.001	1.01
10237	di-Isopropyl ether		108-20-3	N.D.	0.001	1.01
10237	Methyl Tertiary Buty	l Ether	1634-04-4	N.D.	0.0005	1.01
10237	Naphthalene		91-20-3	N.D.	0.001	1.01
10237	Toluene		108-88-3	N.D.	0.001	1.01
10237	Xylene (Total)		1330-20-7	N.D.	0.001	1.01
GC Vol	latiles :	SW-846	8015B modified	mg/kg	mg/kg	
01725	TPH-GRO N. CA soil Co	5-C12	n.a.	N.D.	0.5	25.43

### General Sample Comments

CA ELAP Lab Certification No. 2792

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
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CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	9	Analyst	Dilution Factor
10237	VOCs- Solid by 8260B	SW-846 8260B	1	B150641AA	03/05/2015 1	L1:52	Sarah A Guill	1.01
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201506236915	03/03/2015 1	L9:50	Mitchell R Washel	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201506236915	03/03/2015 1	L9:50	Mitchell R Washel	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201506236915	03/03/2015 1	L9:00	Mitchell R Washel	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	15063A34A	03/04/2015 1	L5:34	Jeremy C Giffin	25.43
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201506236915	03/03/2015 1	L9:01	Mitchell R Washel	n.a.



### Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: SB-11-S-7.5-150225 NA Soil

Facility# 92029 STALGCA

SB-11 890 W Macarthur-Oakland T0600173887

LL Sample # SW 7790306

LL Group # 1542345 Account # 10869

Project Name: 92029

Submitted: 03/03/2015 10:00

Reported: 03/12/2015 10:44

Collected: 02/25/2015 14:00 by DO ChevronTexaco

L4310

6001 Bollinger Canyon Rd.

San Ramon CA 94583

MO117

CAT No.	Analysis Name		CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS	Volatiles S	SW-846	8260B	mg/kg	mg/kg	
10237	t-Amyl methyl ether		994-05-8	N.D.	0.001	1.03
10237	Benzene		71-43-2	N.D.	0.0005	1.03
10237	t-Butyl alcohol		75-65-0	N.D.	0.021	1.03
10237	Ethanol		64-17-5	N.D.	0.10	1.03
10237	Ethyl t-butyl ether		637-92-3	N.D.	0.001	1.03
10237	Ethylbenzene		100-41-4	N.D.	0.001	1.03
10237	di-Isopropyl ether		108-20-3	N.D.	0.001	1.03
10237	Methyl Tertiary Butyl	Ether	1634-04-4	N.D.	0.0005	1.03
10237	Naphthalene		91-20-3	N.D.	0.001	1.03
10237	Toluene		108-88-3	N.D.	0.001	1.03
10237	Xylene (Total)		1330-20-7	N.D.	0.001	1.03
GC Vol	latiles S	SW-846	8015B modified	mg/kg	mg/kg	
01725	TPH-GRO N. CA soil Co	5-C12	n.a.	0.7	0.5	24.65

### General Sample Comments

CA ELAP Lab Certification No. 2792

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

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	<b>.</b>	Analyst	Dilution Factor
10237	VOCs- Solid by 8260B	SW-846 8260B	1	B150641AA	03/05/2015 1	2:14	Sarah A Guill	1.03
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201506236915	03/03/2015 1	18:55	Mitchell R Washel	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201506236915	03/03/2015 1	18:55	Mitchell R Washel	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201506236915	03/03/2015 1	18:52	Mitchell R Washel	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	15063A34A	03/04/2015 1	16:10	Jeremy C Giffin	24.65
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201506236915	03/03/2015 1	18:53	Mitchell R Washel	n.a.



### Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: SB-11-S-10-150225 NA Soil

Facility# 92029 STALGCA

SB-11 890 W Macarthur-Oakland T0600173887

LL Sample # SW 7790307

LL Group # 1542345 Account # 10869

Project Name: 92029

Submitted: 03/03/2015 10:00

Reported: 03/12/2015 10:44

Collected: 02/25/2015 14:15 by DO ChevronTexaco

L4310

6001 Bollinger Canyon Rd.

San Ramon CA 94583

MO110

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS	Volatiles SW-846	8260B	mg/kg	mg/kg	
10237	t-Amyl methyl ether	994-05-8	N.D.	0.047	46.9
10237	Benzene	71-43-2	N.D.	0.023	46.9
10237	t-Butyl alcohol	75-65-0	N.D.	0.94	46.9
10237	Ethanol	64-17-5	N.D.	4.7	46.9
10237	Ethyl t-butyl ether	637-92-3	N.D.	0.047	46.9
10237	Ethylbenzene	100-41-4	N.D.	0.047	46.9
10237	di-Isopropyl ether	108-20-3	N.D.	0.047	46.9
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.023	46.9
10237	Naphthalene	91-20-3	0.46	0.047	46.9
10237	Toluene	108-88-3	N.D.	0.047	46.9
10237	Xylene (Total)	1330-20-7	N.D.	0.047	46.9
Repo	rting limits were raised due	to interference from	om the sample matrix.		
GC Vol	latiles SW-846	8015B modified	mg/kg	mg/kg	
01725	TPH-GRO N. CA soil C6-C12	n.a.	65	2.0	98.33

#### General Sample Comments

CA ELAP Lab Certification No. 2792

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

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Tim	ne	Analyst	Dilution Factor
10237	VOCs- Solid by 8260B	SW-846 8260B	1	Q150632AA	03/04/2015	13:09	Anita M Dale	46.9
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201506236915	03/03/2015	18:55	Mitchell R Washel	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201506236915	03/03/2015	18:55	Mitchell R Washel	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201506236915	03/03/2015	18:49	Mitchell R Washel	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	15063A34A	03/04/2015	23:21	Jeremy C Giffin	98.33
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201506236915	03/03/2015	18:50	Mitchell R Washel	n.a.



### Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: SB-12-S-2.5-150226 NA Soil

Facility# 92029 STALGCA

SB-12 890 W Macarthur-Oakland T0600173887

LL Sample # SW 7790308

LL Group # 1542345 Account # 10869

Project Name: 92029

Submitted: 03/03/2015 10:00

Reported: 03/12/2015 10:44

Collected: 02/26/2015 07:45 by DO ChevronTexaco

L4310

6001 Bollinger Canyon Rd.

San Ramon CA 94583

### MO122

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS	Volatiles SW-84	8260B	mg/kg	mg/kg	
10237	t-Amyl methyl ether	994-05-8	N.D.	0.001	1
10237	Benzene	71-43-2	N.D.	0.0005	1
10237	t-Butyl alcohol	75-65-0	N.D.	0.020	1
10237	Ethanol	64-17-5	N.D.	0.10	1
10237	Ethyl t-butyl ether	637-92-3	N.D.	0.001	1
10237	Ethylbenzene	100-41-4	N.D.	0.001	1
10237	di-Isopropyl ether	108-20-3	N.D.	0.001	1
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	1
10237	Naphthalene	91-20-3	N.D.	0.001	1
10237	Toluene	108-88-3	N.D.	0.001	1
10237	Xylene (Total)	1330-20-7	N.D.	0.001	1
GC Vol	atiles SW-84	8015B modified	mg/kg	mg/kg	
01725	TPH-GRO N. CA soil C6-C12	n.a.	N.D.	0.5	25

### General Sample Comments

CA ELAP Lab Certification No. 2792

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

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Tim	ıe.	Analyst	Dilution Factor
10237	VOCs- Solid by 8260B	SW-846 8260B	1	B150631AA	03/04/2015	14:44	Sarah A Guill	1
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201506236915	03/03/2015	18:55	Mitchell R Washel	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201506236915	03/03/2015	18:55	Mitchell R Washel	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201506236915	03/03/2015	18:46	Mitchell R Washel	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	15063A34A	03/04/2015	16:46	Jeremy C Giffin	25
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201506236915	03/03/2015	18:47	Mitchell R Washel	n.a.



### Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: SB-12-S-5-150226 NA Soil

Facility# 92029 STALGCA

SB-12 890 W Macarthur-Oakland T0600173887

LL Sample # SW 7790309

LL Group # 1542345 Account # 10869

Project Name: 92029

Submitted: 03/03/2015 10:00

Reported: 03/12/2015 10:44

Collected: 02/26/2015 07:55 by DO ChevronTexaco

L4310

6001 Bollinger Canyon Rd.

San Ramon CA 94583

MO125

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS	Volatiles SW-8	46 8260B	mg/kg	mg/kg	
10237	t-Amyl methyl ether	994-05-8	N.D.	0.001	1.04
10237	Benzene	71-43-2	N.D.	0.0005	1.04
10237	t-Butyl alcohol	75-65-0	N.D.	0.021	1.04
10237	Ethanol	64-17-5	N.D.	0.10	1.04
10237	Ethyl t-butyl ether	637-92-3	N.D.	0.001	1.04
10237	Ethylbenzene	100-41-4	N.D.	0.001	1.04
10237	di-Isopropyl ether	108-20-3	N.D.	0.001	1.04
10237	Methyl Tertiary Butyl Eth	er 1634-04-4	N.D.	0.0005	1.04
10237	Naphthalene	91-20-3	N.D.	0.001	1.04
10237	Toluene	108-88-3	N.D.	0.001	1.04
10237	Xylene (Total)	1330-20-7	N.D.	0.001	1.04
GC Vol	Latiles SW-8	46 8015B modified	mg/kg	mg/kg	
01725	TPH-GRO N. CA soil C6-C12	n.a.	N.D.	0.5	24.44

### General Sample Comments

CA ELAP Lab Certification No. 2792

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

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	e	Analyst	Dilution Factor
10237	VOCs- Solid by 8260B	SW-846 8260B	1	B150631AA	03/04/2015 1	15:06	Sarah A Guill	1.04
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201506236915	03/03/2015 1	18:55	Mitchell R Washel	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201506236915	03/03/2015 1	18:55	Mitchell R Washel	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201506236915	03/03/2015 1	18:43	Mitchell R Washel	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	15063A34A	03/04/2015 1	17:22	Jeremy C Giffin	24.44
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201506236915	03/03/2015 1	18:43	Mitchell R Washel	n.a.



### Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: SB-12-S-7.5-150226 NA Soil

Facility# 92029 STALGCA

SB-12 890 W Macarthur-Oakland T0600173887

LL Sample # SW 7790310

LL Group # 1542345 Account # 10869

Project Name: 92029

Submitted: 03/03/2015 10:00

Reported: 03/12/2015 10:44

Collected: 02/26/2015 08:20 by DO ChevronTexaco

L4310

6001 Bollinger Canyon Rd.

San Ramon CA 94583

MO127

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS	Volatiles SW-846	8260B	mg/kg	mg/kg	
10237	t-Amyl methyl ether	994-05-8	N.D.	0.001	1.01
10237	Benzene	71-43-2	N.D.	0.0005	1.01
10237	t-Butyl alcohol	75-65-0	N.D.	0.020	1.01
10237	Ethanol	64-17-5	N.D.	0.10	1.01
10237	Ethyl t-butyl ether	637-92-3	N.D.	0.001	1.01
10237	Ethylbenzene	100-41-4	N.D.	0.001	1.01
10237	di-Isopropyl ether	108-20-3	N.D.	0.001	1.01
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	1.01
10237	Naphthalene	91-20-3	N.D.	0.001	1.01
10237	Toluene	108-88-3	N.D.	0.001	1.01
10237	Xylene (Total)	1330-20-7	N.D.	0.001	1.01
GC Vol	atiles SW-846	8015B modified	mg/kg	mg/kg	
01725	TPH-GRO N. CA soil C6-C12	n.a.	N.D.	0.5	24.25

### General Sample Comments

CA ELAP Lab Certification No. 2792

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

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	e	Analyst	Dilution Factor
10237	VOCs- Solid by 8260B	SW-846 8260B	1	B150631AA	03/04/2015 1	15:28	Sarah A Guill	1.01
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201506236915	03/03/2015 1	18:54	Mitchell R Washel	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201506236915	03/03/2015 1	18:55	Mitchell R Washel	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201506236915	03/03/2015 1	18:40	Mitchell R Washel	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	15063A34A	03/04/2015 1	17:58	Jeremy C Giffin	24.25
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201506236915	03/03/2015 1	18:41	Mitchell R Washel	n.a.



### Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: SB-12-S-10-150226 NA Soil

Facility# 92029 STALGCA

SB-12 890 W Macarthur-Oakland T0600173887

LL Sample # SW 7790311

LL Group # 1542345 Account # 10869

Project Name: 92029

Submitted: 03/03/2015 10:00

Reported: 03/12/2015 10:44

Collected: 02/26/2015 08:30 by DO ChevronTexaco

L4310

6001 Bollinger Canyon Rd.

San Ramon CA 94583

MO120

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS	Volatiles SW-84	6 8260B	mg/kg	mg/kg	
10237	t-Amyl methyl ether	994-05-8	N.D.	0.001	1.01
10237	Benzene	71-43-2	N.D.	0.0005	1.01
10237	t-Butyl alcohol	75-65-0	N.D.	0.020	1.01
10237	Ethanol	64-17-5	N.D.	0.10	1.01
10237	Ethyl t-butyl ether	637-92-3	N.D.	0.001	1.01
10237	Ethylbenzene	100-41-4	N.D.	0.001	1.01
10237	di-Isopropyl ether	108-20-3	N.D.	0.001	1.01
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	1.01
10237	Naphthalene	91-20-3	N.D.	0.001	1.01
10237	Toluene	108-88-3	N.D.	0.001	1.01
10237	Xylene (Total)	1330-20-7	N.D.	0.001	1.01
GC Vol	atiles SW-84	6 8015B modified	mg/kg	mg/kg	
01725	TPH-GRO N. CA soil C6-C12	n.a.	26	2.0	99.01

### General Sample Comments

CA ELAP Lab Certification No. 2792

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

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	e	Analyst	Dilution Factor
10237	VOCs- Solid by 8260B	SW-846 8260B	1	B150641AA	03/05/2015	18:11	Sarah A Guill	1.01
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201506236915	03/03/2015	18:00	Mitchell R Washel	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201506236915	03/03/2015	18:00	Mitchell R Washel	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201506236915	03/03/2015	17:54	Mitchell R Washel	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	15063A34A	03/04/2015 2	23:58	Jeremy C Giffin	99.01
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201506236915	03/03/2015	17:55	Mitchell R Washel	n.a.



### **Analysis Report**

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: SB-13-S-2.5-150225 NA Soil

Facility# 92029 STALGCA

SB-13 890 W Macarthur-Oakland T0600173887

LL Sample # SW 7790312 LL Group # 1542345

Account # 10869

Project Name: 92029

Submitted: 03/03/2015 10:00

Reported: 03/12/2015 10:44

Collected: 02/25/2015 11:00 by DO ChevronTexaco

L4310

6001 Bollinger Canyon Rd.

San Ramon CA 94583

MO132

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS	Volatiles SW-846	8260B	mg/kg	mg/kg	
10237	t-Amyl methyl ether	994-05-8	N.D.	0.001	0.99
10237	Benzene	71-43-2	N.D.	0.0005	0.99
10237	t-Butyl alcohol	75-65-0	N.D.	0.020	0.99
10237	Ethanol	64-17-5	N.D.	0.099	0.99
10237	Ethyl t-butyl ether	637-92-3	N.D.	0.001	0.99
10237	Ethylbenzene	100-41-4	N.D.	0.001	0.99
10237	di-Isopropyl ether	108-20-3	N.D.	0.001	0.99
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	0.99
10237	Naphthalene	91-20-3	N.D.	0.001	0.99
10237	Toluene	108-88-3	N.D.	0.001	0.99
10237	Xylene (Total)	1330-20-7	N.D.	0.001	0.99
GC Vol	Latiles SW-846	8015B modified	mg/kg	mg/kg	
01725	TPH-GRO N. CA soil C6-C12	n.a.	N.D.	0.5	23.63

### General Sample Comments

CA ELAP Lab Certification No. 2792

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

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor
10237	VOCs- Solid by 8260B	SW-846 8260B	1	B150631AA	03/04/2015	15:51	Sarah A Guill	0.99
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201506236915	03/03/2015	18:00	Mitchell R Washel	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201506236915	03/03/2015	18:00	Mitchell R Washel	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	3	201506236915	03/03/2015	18:00	Mitchell R Washel	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	4	201506236915	03/03/2015	18:00	Mitchell R Washel	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201506236915	03/03/2015	17:48	Mitchell R Washel	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	2	201506236915	03/03/2015	17:47	Mitchell R Washel	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	3	201506236915	03/03/2015	17:48	Mitchell R Washel	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	15063A34A	03/04/2015	12:33	Jeremy C Giffin	23.63
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201506236915	03/03/2015	17:49	Mitchell R Washel	n.a.
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	2	201506236915	03/03/2015	17:51	Mitchell R Washel	n.a.



### **Analysis Report**

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: SB-13-S-2.5-150225 NA Soil

Facility# 92029 STALGCA

SB-13 890 W Macarthur-Oakland T0600173887

LL Sample # SW 7790312 LL Group # 1542345 Account # 10869

Project Name: 92029

Submitted: 03/03/2015 10:00

Reported: 03/12/2015 10:44

Collected: 02/25/2015 11:00 by DO ChevronTexaco

L4310

6001 Bollinger Canyon Rd.

San Ramon CA 94583

MO132

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	3	201506236915	03/03/2015 17:49	Mitchell R Washel	n.a.
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	4	201506236915	03/03/2015 17:50	Mitchell R Washel	n.a.
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	5	201506236915	03/03/2015 17:50	Mitchell R Washel	n.a.



### Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: SB-14-S-2.5-150226 NA Soil

Facility# 92029 STALGCA

SB-14 890 W Macarthur-Oakland T0600173887

LL Sample # SW 7790313

LL Group # 1542345 Account # 10869

Project Name: 92029

Submitted: 03/03/2015 10:00

Reported: 03/12/2015 10:44

Collected: 02/26/2015 16:10 by DO ChevronTexaco

L4310

6001 Bollinger Canyon Rd.

San Ramon CA 94583

### MO142

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS	Volatiles SW-846	8260B	mg/kg	mg/kg	
10237	t-Amyl methyl ether	994-05-8	N.D.	0.001	1.02
10237	Benzene	71-43-2	N.D.	0.0005	1.02
10237	t-Butyl alcohol	75-65-0	N.D.	0.020	1.02
10237	Ethanol	64-17-5	N.D.	0.10	1.02
10237	Ethyl t-butyl ether	637-92-3	N.D.	0.001	1.02
10237	Ethylbenzene	100-41-4	N.D.	0.001	1.02
10237	di-Isopropyl ether	108-20-3	N.D.	0.001	1.02
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	1.02
10237	Naphthalene	91-20-3	N.D.	0.001	1.02
10237	Toluene	108-88-3	N.D.	0.001	1.02
10237	Xylene (Total)	1330-20-7	N.D.	0.001	1.02
GC Vol	Latiles SW-846	8015B modified	mg/kg	mg/kg	
01725	TPH-GRO N. CA soil C6-C12	n.a.	N.D.	0.5	26.23

### General Sample Comments

CA ELAP Lab Certification No. 2792

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

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Tim	ne	Analyst	Dilution Factor
10237	VOCs- Solid by 8260B	SW-846 8260B	1	B150631AA	03/04/2015	16:58	Sarah A Guill	1.02
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201506236915	03/03/2015	18:00	Mitchell R Washel	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201506236915	03/03/2015	18:00	Mitchell R Washel	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201506236915	03/03/2015	17:39	Mitchell R Washel	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	15063A34A	03/04/2015	19:10	Jeremy C Giffin	26.23
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201506236915	03/03/2015	17:39	Mitchell R Washel	n.a.



### Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: SB-14-S-5-150226 NA Soil

Facility# 92029 STALGCA

SB-14 890 W Macarthur-Oakland T0600173887

LL Sample # SW 7790314

LL Group # 1542345 Account # 10869

Project Name: 92029

Submitted: 03/03/2015 10:00

Reported: 03/12/2015 10:44

Collected: 02/26/2015 16:20 by DO ChevronTexaco

L4310

6001 Bollinger Canyon Rd.

San Ramon CA 94583

### MO145

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS	Volatiles SW-846	8260B	mg/kg	mg/kg	
10237	t-Amyl methyl ether	994-05-8	N.D.	0.0009	0.94
10237	Benzene	71-43-2	N.D.	0.0005	0.94
10237	t-Butyl alcohol	75-65-0	N.D.	0.019	0.94
10237	Ethanol	64-17-5	N.D.	0.094	0.94
10237	Ethyl t-butyl ether	637-92-3	N.D.	0.0009	0.94
10237	Ethylbenzene	100-41-4	N.D.	0.0009	0.94
10237	di-Isopropyl ether	108-20-3	N.D.	0.0009	0.94
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	0.94
10237	Naphthalene	91-20-3	N.D.	0.0009	0.94
10237	Toluene	108-88-3	N.D.	0.0009	0.94
10237	Xylene (Total)	1330-20-7	N.D.	0.0009	0.94
GC Vol	Latiles SW-846	8015B modified	mg/kg	mg/kg	
01725	TPH-GRO N. CA soil C6-C12	n.a.	N.D.	0.5	23.34

### General Sample Comments

CA ELAP Lab Certification No. 2792

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

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	e	Analyst	Dilution Factor
10237	VOCs- Solid by 8260B	SW-846 8260B	1	B150631AA	03/04/2015	17:20	Sarah A Guill	0.94
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201506236915	03/03/2015	18:00	Mitchell R Washel	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201506236915	03/03/2015	18:00	Mitchell R Washel	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201506236915	03/03/2015	17:36	Mitchell R Washel	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	15063A34A	03/04/2015	19:46	Jeremy C Giffin	23.34
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201506236915	03/03/2015	17:37	Mitchell R Washel	n.a.



### Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: SB-14-S-7.5-150226 NA Soil

Facility# 92029 STALGCA

SB-14 890 W Macarthur-Oakland T0600173887

LL Sample # SW 7790315

LL Group # 1542345 Account # 10869

Project Name: 92029

Submitted: 03/03/2015 10:00

Reported: 03/12/2015 10:44

Collected: 02/26/2015 16:30 by DO ChevronTexaco

L4310

6001 Bollinger Canyon Rd.

San Ramon CA 94583

MO147

CAT No.	Analysis Name		CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS	Volatiles :	SW-846	8260B	mg/kg	mg/kg	
10237	t-Amyl methyl ether		994-05-8	N.D.	0.001	0.96
10237	Benzene		71-43-2	N.D.	0.0005	0.96
10237	t-Butyl alcohol		75-65-0	N.D.	0.019	0.96
10237	Ethanol		64-17-5	N.D.	0.096	0.96
10237	Ethyl t-butyl ether		637-92-3	N.D.	0.001	0.96
10237	Ethylbenzene		100-41-4	N.D.	0.001	0.96
10237	di-Isopropyl ether		108-20-3	N.D.	0.001	0.96
10237	Methyl Tertiary Buty	l Ether	1634-04-4	N.D.	0.0005	0.96
10237	Naphthalene		91-20-3	N.D.	0.001	0.96
10237	Toluene		108-88-3	N.D.	0.001	0.96
10237	Xylene (Total)		1330-20-7	N.D.	0.001	0.96
GC Vol	latiles :	SW-846	8015B modified	mg/kg	mg/kg	
01725	TPH-GRO N. CA soil Ce	6-C12	n.a.	2.4	0.5	25.99

### General Sample Comments

CA ELAP Lab Certification No. 2792

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

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	e	Analyst	Dilution Factor
10237	VOCs- Solid by 8260B	SW-846 8260B	1	B150631AA	03/04/2015 1	17:43	Sarah A Guill	0.96
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201506236915	03/03/2015 1	18:00	Mitchell R Washel	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201506236915	03/03/2015 1	18:00	Mitchell R Washel	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201506236915	03/03/2015 1	17:33	Mitchell R Washel	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	15063A34A	03/04/2015 2	20:22	Jeremy C Giffin	25.99
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201506236915	03/03/2015 1	17:34	Mitchell R Washel	n.a.



### **Analysis Report**

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: SB-14-S-10-150226 NA Soil

Facility# 92029 STALGCA

SB-14 890 W Macarthur-Oakland T0600173887

LL Sample # SW 7790316

LL Group # 1542345 Account # 10869

Project Name: 92029

Submitted: 03/03/2015 10:00

Reported: 03/12/2015 10:44

Collected: 02/26/2015 16:45 by DO ChevronTexaco

L4310

6001 Bollinger Canyon Rd.

San Ramon CA 94583

### MO140

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS	Volatiles SW-846	8260B	mg/kg	mg/kg	
10237	t-Amyl methyl ether	994-05-8	N.D.	0.001	1.07
10237	Benzene	71-43-2	0.004	0.0005	1.07
10237	t-Butyl alcohol	75-65-0	N.D.	0.021	1.07
10237	Ethanol	64-17-5	N.D.	0.11	1.07
10237	Ethyl t-butyl ether	637-92-3	N.D.	0.001	1.07
10237	Ethylbenzene	100-41-4	0.005	0.001	1.07
10237	di-Isopropyl ether	108-20-3	N.D.	0.001	1.07
10237	Methyl Tertiary Butyl Ether	1634-04-4	0.0006	0.0005	1.07
10237	Naphthalene	91-20-3	0.002	0.001	1.07
10237	Toluene	108-88-3	N.D.	0.001	1.07
10237	Xylene (Total)	1330-20-7	N.D.	0.001	1.07
GC Vol	Latiles SW-846	8015B modified	mg/kg	mg/kg	
01725	TPH-GRO N. CA soil C6-C12	n.a.	39	2.0	99.01

### General Sample Comments

CA ELAP Lab Certification No. 2792

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

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Tim	ıe.	Analyst	Dilution Factor
10237	VOCs- Solid by 8260B	SW-846 8260B	1	B150631AA	03/04/2015	19:57	Sarah A Guill	1.07
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201506236915	03/03/2015	18:00	Mitchell R Washel	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201506236915	03/03/2015	18:00	Mitchell R Washel	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201506236915	03/03/2015	17:30	Mitchell R Washel	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	15063A34A	03/05/2015	00:34	Jeremy C Giffin	99.01
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201506236915	03/03/2015	17:31	Mitchell R Washel	n.a.



### Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: SB-15-S-2.5-150227 NA Soil

Facility# 92029 STALGCA

SB-15 890 W Macarthur-Oakland T0600173887

LL Sample # SW 7790317

LL Group # 1542345 Account # 10869

Project Name: 92029

Submitted: 03/03/2015 10:00

Reported: 03/12/2015 10:44

Collected: 02/27/2015 07:35 by DO ChevronTexaco

L4310

6001 Bollinger Canyon Rd.

San Ramon CA 94583

#### MO152

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS	Volatiles SW-846	8260B	mg/kg	mg/kg	
10237	t-Amyl methyl ether	994-05-8	N.D.	0.001	0.96
10237	Benzene	71-43-2	N.D.	0.0005	0.96
10237	t-Butyl alcohol	75-65-0	N.D.	0.019	0.96
10237	Ethanol	64-17-5	N.D.	0.096	0.96
10237	Ethyl t-butyl ether	637-92-3	N.D.	0.001	0.96
10237	Ethylbenzene	100-41-4	N.D.	0.001	0.96
10237	di-Isopropyl ether	108-20-3	N.D.	0.001	0.96
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	0.96
10237	Naphthalene	91-20-3	N.D.	0.001	0.96
10237	Toluene	108-88-3	N.D.	0.001	0.96
10237	Xylene (Total)	1330-20-7	N.D.	0.001	0.96
GC Vol	Latiles SW-846	8015B modified	mg/kg	mg/kg	
01725	TPH-GRO N. CA soil C6-C12	n.a.	N.D.	0.5	24.98

### General Sample Comments

CA ELAP Lab Certification No. 2792

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

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Tim	ne	Analyst	Dilution Factor
10237	VOCs- Solid by 8260B	SW-846 8260B	1	B150631AA	03/04/2015	18:06	Sarah A Guill	0.96
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201506236915	03/03/2015	16:41	Mitchell R Washel	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201506236915	03/03/2015	16:42	Mitchell R Washel	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201506236915	03/03/2015	16:39	Mitchell R Washel	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	15065A34A	03/06/2015	10:55	Marie D Beamenderfer	24.98
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201506236915	03/03/2015	16:40	Mitchell R Washel	n.a.



### Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: SB-15-S-5-150227 NA Soil

Facility# 92029 STALGCA

SB-15 890 W Macarthur-Oakland T0600173887

LL Sample # SW 7790318

LL Group # 1542345 Account # 10869

Project Name: 92029

Submitted: 03/03/2015 10:00

Reported: 03/12/2015 10:44

Collected: 02/27/2015 07:45 by DO ChevronTexaco

L4310

6001 Bollinger Canyon Rd.

San Ramon CA 94583

MO155

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS	Volatiles SW-846	8260B	mg/kg	mg/kg	
10237	t-Amyl methyl ether	994-05-8	N.D.	0.001	1.02
10237	Benzene	71-43-2	N.D.	0.0005	1.02
10237	t-Butyl alcohol	75-65-0	N.D.	0.020	1.02
10237	Ethanol	64-17-5	N.D.	0.10	1.02
10237	Ethyl t-butyl ether	637-92-3	N.D.	0.001	1.02
10237	Ethylbenzene	100-41-4	N.D.	0.001	1.02
10237	di-Isopropyl ether	108-20-3	N.D.	0.001	1.02
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	1.02
10237	Naphthalene	91-20-3	N.D.	0.001	1.02
10237	Toluene	108-88-3	N.D.	0.001	1.02
10237	Xylene (Total)	1330-20-7	N.D.	0.001	1.02
GC Vol	Latiles SW-846	8015B modified	mg/kg	mg/kg	
01725	TPH-GRO N. CA soil C6-C12	n.a.	N.D.	0.5	25.48

### General Sample Comments

CA ELAP Lab Certification No. 2792

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

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor
10237	VOCs- Solid by 8260B	SW-846 8260B	1	B150631AA	03/04/2015	18:28	Sarah A Guill	1.02
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201506236915	03/03/2015	16:41	Mitchell R Washel	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201506236915	03/03/2015	16:41	Mitchell R Washel	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201506236915	03/03/2015	16:36	Mitchell R Washel	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	15065A34A	03/06/2015	11:31	Marie D Beamenderfer	25.48
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201506236915	03/03/2015	16:36	Mitchell R Washel	n.a.



### **Analysis Report**

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: SB-15-S-7.5-150227 NA Soil

Facility# 92029 STALGCA

SB-15 890 W Macarthur-Oakland T0600173887

LL Sample # SW 7790319

LL Group # 1542345 Account # 10869

Project Name: 92029

Submitted: 03/03/2015 10:00

Reported: 03/12/2015 10:44

Collected: 02/27/2015 08:00 by DO ChevronTexaco

L4310

6001 Bollinger Canyon Rd.

San Ramon CA 94583

MO157

CAT No.	Analysis Name		CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS	Volatiles S	SW-846	8260B	mg/kg	mg/kg	
10237	t-Amyl methyl ether		994-05-8	N.D.	0.001	1.09
10237	Benzene		71-43-2	N.D.	0.0005	1.09
10237	t-Butyl alcohol		75-65-0	N.D.	0.022	1.09
10237	Ethanol		64-17-5	N.D.	0.11	1.09
10237	Ethyl t-butyl ether		637-92-3	N.D.	0.001	1.09
10237	Ethylbenzene		100-41-4	N.D.	0.001	1.09
10237	di-Isopropyl ether		108-20-3	N.D.	0.001	1.09
10237	Methyl Tertiary Butyl	l Ether	1634-04-4	N.D.	0.0005	1.09
10237	Naphthalene		91-20-3	N.D.	0.001	1.09
10237	Toluene		108-88-3	N.D.	0.001	1.09
10237	Xylene (Total)		1330-20-7	N.D.	0.001	1.09
GC Vol	latiles s	SW-846	8015B modified	mg/kg	mg/kg	
01725	TPH-GRO N. CA soil Co	5-C12	n.a.	0.9	0.5	24.73

### General Sample Comments

CA ELAP Lab Certification No. 2792

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

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Tim	e	Analyst	Dilution Factor
10237	VOCs- Solid by 8260B	SW-846 8260B	1	B150631AA	03/04/2015	18:51	Sarah A Guill	1.09
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201506236915	03/03/2015	16:41	Mitchell R Washel	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201506236915	03/03/2015	16:41	Mitchell R Washel	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201506236915	03/03/2015	16:32	Mitchell R Washel	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	15065A34A	03/06/2015	12:07	Marie D Beamenderfer	24.73
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201506236915	03/03/2015	16:33	Mitchell R Washel	n.a.



### Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: SB-15-S-10-150227 NA Soil

Facility# 92029 STALGCA

SB-15 890 W Macarthur-Oakland T0600173887

LL Sample # SW 7790320

LL Group # 1542345 Account # 10869

Project Name: 92029

Submitted: 03/03/2015 10:00

Reported: 03/12/2015 10:44

Collected: 02/27/2015 08:25 by DO ChevronTexaco

L4310

6001 Bollinger Canyon Rd.

San Ramon CA 94583

MO150

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS	Volatiles SW-84	5 8260B	mg/kg	mg/kg	
10237	t-Amyl methyl ether	994-05-8	N.D.	0.053	53.42
10237	Benzene	71-43-2	0.40	0.027	53.42
10237	t-Butyl alcohol	75-65-0	N.D.	1.1	53.42
10237	Ethanol	64-17-5	N.D.	5.3	53.42
10237	Ethyl t-butyl ether	637-92-3	N.D.	0.053	53.42
10237	Ethylbenzene	100-41-4	8.3	0.053	53.42
10237	di-Isopropyl ether	108-20-3	N.D.	0.053	53.42
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.027	53.42
10237	Naphthalene	91-20-3	2.5	0.053	53.42
10237	Toluene	108-88-3	N.D.	0.053	53.42
10237	Xylene (Total)	1330-20-7	14	0.053	53.42
GC Vol	atiles SW-84	8015B modified	mg/kg	mg/kg	
01725	TPH-GRO N. CA soil C6-C12	n.a.	480	100	5086.47

### General Sample Comments

CA ELAP Lab Certification No. 2792

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

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
10237	VOCs- Solid by 8260B	SW-846 8260B	1	Q150632AA	03/04/2015 1:	2:24	Anita M Dale	53.42
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201506236915	03/03/2015 1	6:41	Mitchell R Washel	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201506236915	03/03/2015 1	6:41	Mitchell R Washel	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201506236915	03/03/2015 1	6:24	Mitchell R Washel	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	15065A34A	03/06/2015 2	1:40	Marie D Beamenderfer	5086.47
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201506236915	03/03/2015 1	6:25	Mitchell R Washel	n.a.



### Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: SB-19-S-2.5-150226 NA Soil

Facility# 92029 STALGCA

SB-19 890 W Macarthur-Oakland T0600173887

LL Sample # SW 7790321

LL Group # 1542345 Account # 10869

Project Name: 92029

Submitted: 03/03/2015 10:00

Reported: 03/12/2015 10:44

Collected: 02/26/2015 10:50 by DO ChevronTexaco

L4310

6001 Bollinger Canyon Rd.

San Ramon CA 94583

MO192

CAT No.	Analysis Name		CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS	Volatiles S	W-846	8260B	mg/kg	mg/kg	
10237	t-Amyl methyl ether		994-05-8	N.D.	0.001	1
10237	Benzene		71-43-2	N.D.	0.0005	1
10237	t-Butyl alcohol		75-65-0	N.D.	0.020	1
10237	Ethanol		64-17-5	N.D.	0.10	1
10237	Ethyl t-butyl ether		637-92-3	N.D.	0.001	1
10237	Ethylbenzene		100-41-4	N.D.	0.001	1
10237	di-Isopropyl ether		108-20-3	N.D.	0.001	1
10237	Methyl Tertiary Butyl	Ether	1634-04-4	0.001	0.0005	1
10237	Naphthalene		91-20-3	N.D.	0.001	1
10237	Toluene		108-88-3	N.D.	0.001	1
10237	Xylene (Total)		1330-20-7	N.D.	0.001	1
GC Vol	latiles S	SW-846	8015B modified	mg/kg	mg/kg	
01725	TPH-GRO N. CA soil C6	-C12	n.a.	N.D.	0.5	25.67

### General Sample Comments

CA ELAP Lab Certification No. 2792

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

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Tim	ne	Analyst	Dilution Factor
10237	VOCs- Solid by 8260B	SW-846 8260B	1	B150631AA	03/04/2015	19:13	Sarah A Guill	1
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201506236915	03/03/2015	16:41	Mitchell R Washel	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201506236915	03/03/2015	16:41	Mitchell R Washel	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201506236915	03/03/2015	16:22	Mitchell R Washel	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	15063A34A	03/04/2015	20:58	Jeremy C Giffin	25.67
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201506236915	03/03/2015	16:22	Mitchell R Washel	n.a.



### Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: SB-19-S-5-150226 NA Soil

Facility# 92029 STALGCA

SB-19 890 W Macarthur-Oakland T0600173887

LL Sample # SW 7790322

LL Group # 1542345 Account # 10869

Project Name: 92029

Submitted: 03/03/2015 10:00

Reported: 03/12/2015 10:44

Collected: 02/26/2015 11:05 by DO ChevronTexaco

L4310

6001 Bollinger Canyon Rd.

San Ramon CA 94583

### MO195

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS	Volatiles SW-846	8260B	mg/kg	mg/kg	
10237	t-Amyl methyl ether	994-05-8	N.D.	0.0009	0.94
10237	Benzene	71-43-2	N.D.	0.0005	0.94
10237	t-Butyl alcohol	75-65-0	N.D.	0.019	0.94
10237	Ethanol	64-17-5	N.D.	0.094	0.94
10237	Ethyl t-butyl ether	637-92-3	N.D.	0.0009	0.94
10237	Ethylbenzene	100-41-4	N.D.	0.0009	0.94
10237	di-Isopropyl ether	108-20-3	N.D.	0.0009	0.94
10237	Methyl Tertiary Butyl Ether	1634-04-4	0.0005	0.0005	0.94
10237	Naphthalene	91-20-3	N.D.	0.0009	0.94
10237	Toluene	108-88-3	N.D.	0.0009	0.94
10237	Xylene (Total)	1330-20-7	N.D.	0.0009	0.94
GC Vol	latiles SW-846	8015B modified	mg/kg	mg/kg	
01725	TPH-GRO N. CA soil C6-C12	n.a.	N.D.	0.5	24.37

### General Sample Comments

CA ELAP Lab Certification No. 2792

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

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Tim	ne	Analyst	Dilution Factor
10237	VOCs- Solid by 8260B	SW-846 8260B	1	B150631AA	03/04/2015	19:35	Sarah A Guill	0.94
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201506236915	03/03/2015	16:41	Mitchell R Washel	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201506236915	03/03/2015	16:41	Mitchell R Washel	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201506236915	03/03/2015	16:19	Mitchell R Washel	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	15063A34A	03/04/2015	21:33	Jeremy C Giffin	24.37
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201506236915	03/03/2015	16:20	Mitchell R Washel	n.a.



## Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: SB-19-S-7.5-150226 NA Soil

Facility# 92029 STALGCA

SB-19 890 W Macarthur-Oakland T0600173887

LL Sample # SW 7790323

LL Group # 1542345 Account # 10869

Project Name: 92029

Submitted: 03/03/2015 10:00

Reported: 03/12/2015 10:44

Collected: 02/26/2015 11:20 by DO ChevronTexaco

L4310

6001 Bollinger Canyon Rd.

San Ramon CA 94583

MO197

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS	Volatiles SW-84	6 8260B	mg/kg	mg/kg	
10237	t-Amyl methyl ether	994-05-8	N.D.	0.001	1.01
10237	Benzene	71-43-2	N.D.	0.0005	1.01
10237	t-Butyl alcohol	75-65-0	N.D.	0.020	1.01
10237	Ethanol	64-17-5	N.D.	0.10	1.01
10237	Ethyl t-butyl ether	637-92-3	N.D.	0.001	1.01
10237	Ethylbenzene	100-41-4	N.D.	0.001	1.01
10237	di-Isopropyl ether	108-20-3	N.D.	0.001	1.01
10237	Methyl Tertiary Butyl Ethe	r 1634-04-4	N.D.	0.0005	1.01
10237	Naphthalene	91-20-3	N.D.	0.001	1.01
10237	Toluene	108-88-3	N.D.	0.001	1.01
10237	Xylene (Total)	1330-20-7	N.D.	0.001	1.01
GC Vol	atiles SW-84	6 8015B modified	mg/kg	mg/kg	
01725	TPH-GRO N. CA soil C6-C12	n.a.	N.D.	0.5	25.51

#### General Sample Comments

CA ELAP Lab Certification No. 2792

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

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	e	Analyst	Dilution Factor
10237	VOCs- Solid by 8260B	SW-846 8260B	1	B150641AA	03/05/2015 1	12:36	Sarah A Guill	1.01
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201506236915	03/03/2015 1	16:41	Mitchell R Washel	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201506236915	03/03/2015 1	16:41	Mitchell R Washel	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201506236915	03/03/2015 1	16:16	Mitchell R Washel	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	15063A34A	03/04/2015 2	22:09	Jeremy C Giffin	25.51
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201506236915	03/03/2015 1	16:17	Mitchell R Washel	n.a.



## Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: SB-19-S-10-150226 NA Soil

Facility# 92029 STALGCA

SB-19 890 W Macarthur-Oakland T0600173887

LL Sample # SW 7790324

LL Group # 1542345 Account # 10869

Project Name: 92029

Submitted: 03/03/2015 10:00

Reported: 03/12/2015 10:44

Collected: 02/26/2015 11:30 by DO ChevronTexaco

L4310

6001 Bollinger Canyon Rd.

San Ramon CA 94583

MO190

CAT No.	Analysis Name		CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846	8260B	mg/kg	mg/kg	
10237	t-Amyl methyl ether		994-05-8	N.D.	0.001	1
10237	Benzene		71-43-2	N.D.	0.0005	1
10237	t-Butyl alcohol		75-65-0	N.D.	0.020	1
10237	Ethanol		64-17-5	N.D.	0.10	1
10237	Ethyl t-butyl ether		637-92-3	N.D.	0.001	1
10237	Ethylbenzene		100-41-4	N.D.	0.001	1
10237	di-Isopropyl ether		108-20-3	N.D.	0.001	1
10237	Methyl Tertiary Buty	l Ether	1634-04-4	N.D.	0.0005	1
10237	Naphthalene		91-20-3	N.D.	0.001	1
10237	Toluene		108-88-3	N.D.	0.001	1
10237	Xylene (Total)		1330-20-7	N.D.	0.001	1
GC Vol	latiles	SW-846	8015B modified	mg/kg	mg/kg	
01725	TPH-GRO N. CA soil C	6-C12	n.a.	5.7	0.5	25.93

#### General Sample Comments

CA ELAP Lab Certification No. 2792

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

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	e	Analyst	Dilution Factor
10237	VOCs- Solid by 8260B	SW-846 8260B	1	B150641AA	03/05/2015 1	17:26	Sarah A Guill	1
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201506236915	03/03/2015	16:41	Mitchell R Washel	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201506236915	03/03/2015	16:41	Mitchell R Washel	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201506236915	03/03/2015	16:01	Mitchell R Washel	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	15063A34A	03/04/2015 2	22:45	Jeremy C Giffin	25.93
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201506236915	03/03/2015	16:01	Mitchell R Washel	n.a.



# Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: SB-20-S-2.5-150226 NA Soil

Facility# 92029 STALGCA

SB-20 890 W Macarthur-Oakland T0600173887

LL Sample # SW 7790325

LL Group # 1542345 Account # 10869

Project Name: 92029

Submitted: 03/03/2015 10:00

Reported: 03/12/2015 10:44

Collected: 02/26/2015 14:00 by DO ChevronTexaco

L4310

6001 Bollinger Canyon Rd.

San Ramon CA 94583

#### MO202

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS	Volatiles SW-84	6 8260B	mg/kg	mg/kg	
10237	t-Amyl methyl ether	994-05-8	N.D.	0.001	0.99
10237	Benzene	71-43-2	N.D.	0.0005	0.99
10237	t-Butyl alcohol	75-65-0	N.D.	0.020	0.99
10237	Ethanol	64-17-5	N.D.	0.099	0.99
10237	Ethyl t-butyl ether	637-92-3	N.D.	0.001	0.99
10237	Ethylbenzene	100-41-4	N.D.	0.001	0.99
10237	di-Isopropyl ether	108-20-3	N.D.	0.001	0.99
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	0.99
10237	Naphthalene	91-20-3	N.D.	0.001	0.99
10237	Toluene	108-88-3	N.D.	0.001	0.99
10237	Xylene (Total)	1330-20-7	N.D.	0.001	0.99
GC Vol	atiles SW-84	8015B modified	mg/kg	mg/kg	
01725	TPH-GRO N. CA soil C6-C12	n.a.	N.D.	0.5	24.32

#### General Sample Comments

CA ELAP Lab Certification No. 2792

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

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	e	Analyst	Dilution Factor
10237	VOCs- Solid by 8260B	SW-846 8260B	1	B150641AA	03/05/2015 1	12:58	Sarah A Guill	0.99
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201506236915	03/03/2015 1	16:41	Mitchell R Washel	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201506236915	03/03/2015 1	16:41	Mitchell R Washel	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201506236915	03/03/2015 1	15:57	Mitchell R Washel	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	15063A34A	03/04/2015 1	13:09	Jeremy C Giffin	24.32
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201506236915	03/03/2015 1	15:58	Mitchell R Washel	n.a.



# Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: SB-20-S-5-150226 NA Soil

Facility# 92029 STALGCA

SB-20 890 W Macarthur-Oakland T0600173887

LL Sample # SW 7790326

LL Group # 1542345 Account # 10869

Project Name: 92029

Submitted: 03/03/2015 10:00

Reported: 03/12/2015 10:44

Collected: 02/26/2015 14:10 by DO ChevronTexaco

L4310

6001 Bollinger Canyon Rd.

San Ramon CA 94583

MO205

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS	Volatiles SW-846	8260B	mg/kg	mg/kg	
10237	t-Amyl methyl ether	994-05-8	N.D.	0.001	0.98
10237	Benzene	71-43-2	N.D.	0.0005	0.98
10237	t-Butyl alcohol	75-65-0	N.D.	0.020	0.98
10237	Ethanol	64-17-5	N.D.	0.098	0.98
10237	Ethyl t-butyl ether	637-92-3	N.D.	0.001	0.98
10237	Ethylbenzene	100-41-4	N.D.	0.001	0.98
10237	di-Isopropyl ether	108-20-3	N.D.	0.001	0.98
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	0.98
10237	Naphthalene	91-20-3	N.D.	0.001	0.98
10237	Toluene	108-88-3	N.D.	0.001	0.98
10237	Xylene (Total)	1330-20-7	N.D.	0.001	0.98
GC Vol	Latiles SW-846	8015B modified	mg/kg	mg/kg	
01725	TPH-GRO N. CA soil C6-C12	n.a.	N.D.	0.5	25.99

#### General Sample Comments

CA ELAP Lab Certification No. 2792

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

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Tim	ne	Analyst	Dilution Factor
10237	VOCs- Solid by 8260B	SW-846 8260B	1	B150641AA	03/05/2015	13:21	Sarah A Guill	0.98
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201506236915	03/03/2015	16:41	Mitchell R Washel	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201506236915	03/03/2015	16:41	Mitchell R Washel	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201506236915	03/03/2015	15:54	Mitchell R Washel	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	15065A34A	03/06/2015	12:42	Marie D Beamenderfer	25.99
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201506236915	03/03/2015	15:55	Mitchell R Washel	n.a.



## Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: SB-20-S-7.5-150226 NA Soil

Facility# 92029 STALGCA

SB-20 890 W Macarthur-Oakland T0600173887

LL Sample # SW 7790327

LL Group # 1542345 Account # 10869

Project Name: 92029

Submitted: 03/03/2015 10:00

Reported: 03/12/2015 10:44

Collected: 02/26/2015 14:20 by DO ChevronTexaco

L4310

6001 Bollinger Canyon Rd.

San Ramon CA 94583

MO207

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS	Volatiles SW-84	6 8260B	mg/kg	mg/kg	
10237	t-Amyl methyl ether	994-05-8	N.D.	0.001	1.09
10237	Benzene	71-43-2	N.D.	0.0005	1.09
10237	t-Butyl alcohol	75-65-0	N.D.	0.022	1.09
10237	Ethanol	64-17-5	N.D.	0.11	1.09
10237	Ethyl t-butyl ether	637-92-3	N.D.	0.001	1.09
10237	Ethylbenzene	100-41-4	N.D.	0.001	1.09
10237	di-Isopropyl ether	108-20-3	N.D.	0.001	1.09
10237	Methyl Tertiary Butyl Ethe	r 1634-04-4	N.D.	0.0005	1.09
10237	Naphthalene	91-20-3	N.D.	0.001	1.09
10237	Toluene	108-88-3	N.D.	0.001	1.09
10237	Xylene (Total)	1330-20-7	N.D.	0.001	1.09
GC Vol	Latiles SW-84	6 8015B modified	mg/kg	mg/kg	
01725	TPH-GRO N. CA soil C6-C12	n.a.	N.D.	0.5	23.41

#### General Sample Comments

CA ELAP Lab Certification No. 2792

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

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	e	Analyst	Dilution Factor
10237	VOCs- Solid by 8260B	SW-846 8260B	1	B150641AA	03/05/2015	13:43	Sarah A Guill	1.09
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201506236915	03/03/2015	16:41	Mitchell R Washel	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201506236915	03/03/2015	16:41	Mitchell R Washel	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201506236915	03/03/2015	15:52	Mitchell R Washel	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	15065A34A	03/06/2015	13:18	Marie D Beamenderfer	23.41
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201506236915	03/03/2015	15:52	Mitchell R Washel	n.a.



## Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: SB-21-S-2.5-150227 NA Soil

Facility# 92029 STALGCA

SB-21 890 W Macarthur-Oakland T0600173887

LL Sample # SW 7790328

LL Group # 1542345 Account # 10869

Project Name: 92029

Submitted: 03/03/2015 10:00

Reported: 03/12/2015 10:44

Collected: 02/27/2015 09:45 by DO ChevronTexaco

L4310

6001 Bollinger Canyon Rd.

San Ramon CA 94583

MO212

CAT No.	Analysis Name		CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846	8260B	mg/kg	mg/kg	
10237	t-Amyl methyl ether		994-05-8	N.D.	0.001	0.96
10237	Benzene		71-43-2	N.D.	0.0005	0.96
10237	t-Butyl alcohol		75-65-0	N.D.	0.019	0.96
10237	Ethanol		64-17-5	N.D.	0.096	0.96
10237	Ethyl t-butyl ether		637-92-3	N.D.	0.001	0.96
10237	Ethylbenzene		100-41-4	N.D.	0.001	0.96
10237	di-Isopropyl ether		108-20-3	N.D.	0.001	0.96
10237	Methyl Tertiary Buty	vl Ether	1634-04-4	N.D.	0.0005	0.96
10237	Naphthalene		91-20-3	N.D.	0.001	0.96
10237	Toluene		108-88-3	N.D.	0.001	0.96
10237	Xylene (Total)		1330-20-7	N.D.	0.001	0.96
GC Vol	latiles	SW-846	8015B modified	mg/kg	mg/kg	
01725	TPH-GRO N. CA soil (	C6-C12	n.a.	N.D.	0.5	24.56

#### General Sample Comments

CA ELAP Lab Certification No. 2792

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

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Tim	e	Analyst	Dilution Factor
10237	VOCs- Solid by 8260B	SW-846 8260B	1	B150641AA	03/05/2015	14:05	Sarah A Guill	0.96
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201506236915	03/03/2015	16:41	Mitchell R Washel	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201506236915	03/03/2015	16:41	Mitchell R Washel	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201506236915	03/03/2015	15:49	Mitchell R Washel	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	15065A34A	03/06/2015	13:54	Marie D Beamenderfer	24.56
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201506236915	03/03/2015	15:49	Mitchell R Washel	n.a.



# **Analysis Report**

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: SB-21-S-5-150227 NA Soil

Facility# 92029 STALGCA

SB-21 890 W Macarthur-Oakland T0600173887

LL Sample # SW 7790329

LL Group # 1542345 Account # 10869

Project Name: 92029

Submitted: 03/03/2015 10:00

Reported: 03/12/2015 10:44

Collected: 02/27/2015 09:50 by DO ChevronTexaco

L4310

6001 Bollinger Canyon Rd.

San Ramon CA 94583

#### MO215

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS	Volatiles SW-84	5 8260B	mg/kg	mg/kg	
10237	t-Amyl methyl ether	994-05-8	N.D.	0.001	0.98
10237	Benzene	71-43-2	N.D.	0.0005	0.98
10237	t-Butyl alcohol	75-65-0	N.D.	0.020	0.98
10237	Ethanol	64-17-5	N.D.	0.098	0.98
10237	Ethyl t-butyl ether	637-92-3	N.D.	0.001	0.98
10237	Ethylbenzene	100-41-4	N.D.	0.001	0.98
10237	di-Isopropyl ether	108-20-3	N.D.	0.001	0.98
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	0.98
10237	Naphthalene	91-20-3	N.D.	0.001	0.98
10237	Toluene	108-88-3	N.D.	0.001	0.98
10237	Xylene (Total)	1330-20-7	N.D.	0.001	0.98
GC Vol	atiles SW-84	8015B modified	mg/kg	mg/kg	
01725	TPH-GRO N. CA soil C6-C12	n.a.	N.D.	0.5	25.85

#### General Sample Comments

CA ELAP Lab Certification No. 2792

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

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Tim	ne	Analyst	Dilution Factor
10237	VOCs- Solid by 8260B	SW-846 8260B	1	B150641AA	03/05/2015	14:27	Sarah A Guill	0.98
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201506236915	03/03/2015	19:50	Mitchell R Washel	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201506236915	03/03/2015	19:50	Mitchell R Washel	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201506236915	03/03/2015	19:13	Mitchell R Washel	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	15065A34A	03/06/2015	14:29	Marie D Beamenderfer	25.85
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201506236915	03/03/2015	19:13	Mitchell R Washel	n.a.



## **Analysis Report**

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: SB-21-S-7.5-150227 NA Soil

Facility# 92029 STALGCA

SB-21 890 W Macarthur-Oakland T0600173887

LL Sample # SW 7790330 LL Group # 1542345

Account # 10869

Project Name: 92029

Submitted: 03/03/2015 10:00

Reported: 03/12/2015 10:44

Collected: 02/27/2015 10:10 by DO ChevronTexaco

L4310

6001 Bollinger Canyon Rd.

San Ramon CA 94583

MO217

CAT No.	Analysis Name		CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846	8260B	mg/kg	mg/kg	
10237	t-Amyl methyl ether		994-05-8	N.D.	0.001	0.98
10237	Benzene		71-43-2	N.D.	0.0005	0.98
10237	t-Butyl alcohol		75-65-0	N.D.	0.020	0.98
10237	Ethanol		64-17-5	N.D.	0.098	0.98
10237	Ethyl t-butyl ether		637-92-3	N.D.	0.001	0.98
10237	Ethylbenzene		100-41-4	N.D.	0.001	0.98
10237	di-Isopropyl ether		108-20-3	N.D.	0.001	0.98
10237	Methyl Tertiary Buty	vl Ether	1634-04-4	N.D.	0.0005	0.98
10237	Naphthalene		91-20-3	N.D.	0.001	0.98
10237	Toluene		108-88-3	N.D.	0.001	0.98
10237	Xylene (Total)		1330-20-7	N.D.	0.001	0.98
GC Vol	latiles	SW-846	8015B modified	mg/kg	mg/kg	
01725	TPH-GRO N. CA soil (	C6-C12	n.a.	N.D.	0.5	24.78

#### General Sample Comments

CA ELAP Lab Certification No. 2792

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

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Tim	ıe	Analyst	Dilution Factor
10237	VOCs- Solid by 8260B	SW-846 8260B	1	B150641AA	03/05/2015	14:49	Sarah A Guill	0.98
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201506236915	03/03/2015	19:50	Mitchell R Washel	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201506236915	03/03/2015	19:50	Mitchell R Washel	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201506236915	03/03/2015	19:09	Mitchell R Washel	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	15065A34A	03/06/2015	15:05	Marie D Beamenderfer	24.78
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201506236915	03/03/2015	19:10	Mitchell R Washel	n.a.



## Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: SB-21-S-10-150227 NA Soil

Facility# 92029 STALGCA

SB-21 890 W Macarthur-Oakland T0600173887

LL Sample # SW 7790331

LL Group # 1542345 Account # 10869

Project Name: 92029

Submitted: 03/03/2015 10:00

Reported: 03/12/2015 10:44

Collected: 02/27/2015 10:30 by DO ChevronTexaco

L4310

6001 Bollinger Canyon Rd.

San Ramon CA 94583

#### MO210

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS	Volatiles SW-846	8260B	mg/kg	mg/kg	
10237	t-Amyl methyl ether	994-05-8	N.D.	0.001	0.96
10237	Benzene	71-43-2	N.D.	0.0005	0.96
10237	t-Butyl alcohol	75-65-0	N.D.	0.019	0.96
10237	Ethanol	64-17-5	N.D.	0.096	0.96
10237	Ethyl t-butyl ether	637-92-3	N.D.	0.001	0.96
10237	Ethylbenzene	100-41-4	N.D.	0.001	0.96
10237	di-Isopropyl ether	108-20-3	N.D.	0.001	0.96
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	0.96
10237	Naphthalene	91-20-3	N.D.	0.001	0.96
10237	Toluene	108-88-3	N.D.	0.001	0.96
10237	Xylene (Total)	1330-20-7	N.D.	0.001	0.96
GC Vol	Latiles SW-846	8015B modified	mg/kg	mg/kg	
01725	TPH-GRO N. CA soil C6-C12	n.a.	N.D.	0.5	25.56

#### General Sample Comments

CA ELAP Lab Certification No. 2792

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

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	e	Analyst	Dilution Factor
10237	VOCs- Solid by 8260B	SW-846 8260B	1	B150681AA	03/09/2015	12:26	Sarah A Guill	0.96
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201506236915	03/03/2015	19:50	Mitchell R Washel	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201506236915	03/03/2015	19:50	Mitchell R Washel	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201506236915	03/03/2015	19:06	Mitchell R Washel	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	15065A34A	03/06/2015	15:41	Marie D Beamenderfer	25.56
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201506236915	03/03/2015	19:07	Mitchell R Washel	n.a.



## Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: SB-17-S-2.5-150227 NA Soil

Facility# 92029 STALGCA

SB-17 890 W Macarthur-Oakland T0600173887

LL Sample # SW 7790332

LL Group # 1542345 Account # 10869

Project Name: 92029

Submitted: 03/03/2015 10:00

Reported: 03/12/2015 10:44

Collected: 02/27/2015 13:00 by DO ChevronTexaco

L4310

6001 Bollinger Canyon Rd.

San Ramon CA 94583

MO172

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS	Volatiles SW-8	346 8260B	mg/kg	mg/kg	
10237	t-Amyl methyl ether	994-05-8	N.D.	0.001	1.01
10237	Benzene	71-43-2	N.D.	0.0005	1.01
10237	t-Butyl alcohol	75-65-0	N.D.	0.020	1.01
10237	Ethanol	64-17-5	N.D.	0.10	1.01
10237	Ethyl t-butyl ether	637-92-3	N.D.	0.001	1.01
10237	Ethylbenzene	100-41-4	N.D.	0.001	1.01
10237	di-Isopropyl ether	108-20-3	N.D.	0.001	1.01
10237	Methyl Tertiary Butyl Etl	ner 1634-04-4	N.D.	0.0005	1.01
10237	Naphthalene	91-20-3	N.D.	0.001	1.01
10237	Toluene	108-88-3	N.D.	0.001	1.01
10237	Xylene (Total)	1330-20-7	N.D.	0.001	1.01
GC Vol	Latiles SW-8	346 8015B modified	mg/kg	mg/kg	
01725	TPH-GRO N. CA soil C6-C12	n.a.	N.D.	0.5	25.33

#### General Sample Comments

CA ELAP Lab Certification No. 2792

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

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	e	Analyst	Dilution Factor
10237	VOCs- Solid by 8260B	SW-846 8260B	1	B150641AA	03/05/2015	15:34	Sarah A Guill	1.01
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201506236915	03/03/2015	19:50	Mitchell R Washel	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201506236915	03/03/2015	19:50	Mitchell R Washel	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201506236915	03/03/2015	19:03	Mitchell R Washel	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	15065A34A	03/06/2015	16:17	Marie D Beamenderfer	25.33
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201506236915	03/03/2015	19:04	Mitchell R Washel	n.a.



# Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: SB-17-S-5-150227 NA Soil

Facility# 92029 STALGCA

SB-17 890 W Macarthur-Oakland T0600173887

LL Sample # SW 7790333

LL Group # 1542345 Account # 10869

Project Name: 92029

Submitted: 03/03/2015 10:00

Reported: 03/12/2015 10:44

Collected: 02/27/2015 13:20 by DO ChevronTexaco

L4310

6001 Bollinger Canyon Rd.

San Ramon CA 94583

MO175

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS	Volatiles SW-8	346 8260B	mg/kg	mg/kg	
10237	t-Amyl methyl ether	994-05-8	N.D.	0.001	1
10237	Benzene	71-43-2	N.D.	0.0005	1
10237	t-Butyl alcohol	75-65-0	N.D.	0.020	1
10237	Ethanol	64-17-5	N.D.	0.10	1
10237	Ethyl t-butyl ether	637-92-3	N.D.	0.001	1
10237	Ethylbenzene	100-41-4	N.D.	0.001	1
10237	di-Isopropyl ether	108-20-3	N.D.	0.001	1
10237	Methyl Tertiary Butyl Et	ner 1634-04-4	N.D.	0.0005	1
10237	Naphthalene	91-20-3	0.001	0.001	1
10237	Toluene	108-88-3	N.D.	0.001	1
10237	Xylene (Total)	1330-20-7	N.D.	0.001	1
GC Vol	latiles SW-8	346 8015B modified	mg/kg	mg/kg	
01725	TPH-GRO N. CA soil C6-C1	n.a.	N.D.	0.5	23.5

#### General Sample Comments

CA ELAP Lab Certification No. 2792

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

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Tim	ne	Analyst	Dilution Factor
10237	VOCs- Solid by 8260B	SW-846 8260B	1	B150641AA	03/05/2015	15:56	Sarah A Guill	1
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201506236915	03/03/2015	19:52	Mitchell R Washel	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201506236915	03/03/2015	19:52	Mitchell R Washel	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201506236915	03/03/2015	19:48	Mitchell R Washel	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	15065A34A	03/06/2015	17:28	Marie D Beamenderfer	23.5
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201506236915	03/03/2015	19:49	Mitchell R Washel	n.a.



## Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: SB-17-S-7.5-150227 NA Soil

Facility# 92029 STALGCA

SB-17 890 W Macarthur-Oakland T0600173887

LL Sample # SW 7790334

LL Group # 1542345 Account # 10869

Project Name: 92029

Submitted: 03/03/2015 10:00

Reported: 03/12/2015 10:44

Collected: 02/27/2015 13:45 by DO ChevronTexaco

L4310

6001 Bollinger Canyon Rd.

San Ramon CA 94583

MO177

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS	Volatiles SW-846	8260B	mg/kg	mg/kg	
10237	t-Amyl methyl ether	994-05-8	N.D.	0.0009	0.93
10237	Benzene	71-43-2	N.D.	0.0005	0.93
10237	t-Butyl alcohol	75-65-0	N.D.	0.019	0.93
10237	Ethanol	64-17-5	N.D.	0.093	0.93
10237	Ethyl t-butyl ether	637-92-3	N.D.	0.0009	0.93
10237	Ethylbenzene	100-41-4	N.D.	0.0009	0.93
10237	di-Isopropyl ether	108-20-3	N.D.	0.0009	0.93
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	0.93
10237	Naphthalene	91-20-3	N.D.	0.0009	0.93
10237	Toluene	108-88-3	N.D.	0.0009	0.93
10237	Xylene (Total)	1330-20-7	N.D.	0.0009	0.93
GC Vol	atiles SW-846	8015B modified	mg/kg	mg/kg	
01725	TPH-GRO N. CA soil C6-C12	n.a.	0.6	0.5	23.47

#### General Sample Comments

CA ELAP Lab Certification No. 2792

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

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	e	Analyst	Dilution Factor
10237	VOCs- Solid by 8260B	SW-846 8260B	1	B150641AA	03/05/2015 1	16:19	Sarah A Guill	0.93
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201506236915	03/03/2015 1	19:51	Mitchell R Washel	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201506236915	03/03/2015 1	19:51	Mitchell R Washel	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201506236915	03/03/2015 1	19:44	Mitchell R Washel	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	15065A34A	03/06/2015 1	18:02	Marie D Beamenderfer	23.47
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201506236915	03/03/2015 1	19:46	Mitchell R Washel	n.a.



# Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: SB-17-S-10-150227 NA Soil

Facility# 92029 STALGCA

SB-17 890 W Macarthur-Oakland T0600173887

LL Sample # SW 7790335

LL Group # 1542345 Account # 10869

Project Name: 92029

Submitted: 03/03/2015 10:00

Reported: 03/12/2015 10:44

Collected: 02/27/2015 13:50 by DO ChevronTexaco

L4310

6001 Bollinger Canyon Rd.

San Ramon CA 94583

MO170

CAT No.	Analysis Name		CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846	8260B	mg/kg	mg/kg	
10237	t-Amyl methyl ether		994-05-8	N.D.	0.001	1
10237	Benzene		71-43-2	0.0008	0.0005	1
10237	t-Butyl alcohol		75-65-0	N.D.	0.020	1
10237	Ethanol		64-17-5	N.D.	0.10	1
10237	Ethyl t-butyl ether		637-92-3	N.D.	0.001	1
10237	Ethylbenzene		100-41-4	N.D.	0.001	1
10237	di-Isopropyl ether		108-20-3	N.D.	0.001	1
10237	Methyl Tertiary Buty	yl Ether	1634-04-4	N.D.	0.0005	1
10237	Naphthalene		91-20-3	N.D.	0.001	1
10237	Toluene		108-88-3	N.D.	0.001	1
10237	Xylene (Total)		1330-20-7	N.D.	0.001	1
GC Vol	latiles	SW-846	8015B modified	mg/kg	mg/kg	
01725	TPH-GRO N. CA soil (	C6-C12	n.a.	25	1.9	94.52

#### General Sample Comments

CA ELAP Lab Certification No. 2792

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

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Tim	ne	Analyst	Dilution Factor
10237	VOCs- Solid by 8260B	SW-846 8260B	1	B150641AA	03/05/2015	17:49	Sarah A Guill	1
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201506236915	03/03/2015	19:50	Mitchell R Washel	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201506236915	03/03/2015	19:51	Mitchell R Washel	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201506236915	03/03/2015	19:40	Mitchell R Washel	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	15065A34A	03/06/2015	20:29	Marie D Beamenderfer	94.52
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201506236915	03/03/2015	19:41	Mitchell R Washel	n.a.



# Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: SB-18-S-2.5-150227 NA Soil

Facility# 92029 STALGCA

SB-18 890 W Macarthur-Oakland T0600173887

LL Sample # SW 7790336

LL Group # 1542345 Account # 10869

Project Name: 92029

Submitted: 03/03/2015 10:00

Reported: 03/12/2015 10:44

Collected: 02/27/2015 14:15 by DO ChevronTexaco

L4310

6001 Bollinger Canyon Rd.

San Ramon CA 94583

MO182

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS	Volatiles SW-846	8260B	mg/kg	mg/kg	
10237	t-Amyl methyl ether	994-05-8	N.D.	0.001	1.04
10237	Benzene	71-43-2	N.D.	0.0005	1.04
10237	t-Butyl alcohol	75-65-0	N.D.	0.021	1.04
10237	Ethanol	64-17-5	N.D.	0.10	1.04
10237	Ethyl t-butyl ether	637-92-3	N.D.	0.001	1.04
10237	Ethylbenzene	100-41-4	N.D.	0.001	1.04
10237	di-Isopropyl ether	108-20-3	N.D.	0.001	1.04
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	1.04
10237	Naphthalene	91-20-3	N.D.	0.001	1.04
10237	Toluene	108-88-3	N.D.	0.001	1.04
10237	Xylene (Total)	1330-20-7	N.D.	0.001	1.04
GC Vol	atiles SW-846	8015B modified	mg/kg	mg/kg	
01725	TPH-GRO N. CA soil C6-C12	n.a.	N.D.	0.5	25.91

#### General Sample Comments

CA ELAP Lab Certification No. 2792

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

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor
10237	VOCs- Solid by 8260B	SW-846 8260B	1	B150641AA	03/05/2015	16:41	Sarah A Guill	1.04
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201506236915	03/03/2015	19:50	Mitchell R Washel	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201506236915	03/03/2015	19:50	Mitchell R Washel	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201506236915	03/03/2015	19:37	Mitchell R Washel	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	15065A34A	03/06/2015	18:41	Marie D Beamenderfer	25.91
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201506236915	03/03/2015	19:38	Mitchell R Washel	n.a.



# Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: SB-18-S-5-150227 NA Soil

Facility# 92029 STALGCA

SB-18 890 W Macarthur-Oakland T0600173887

LL Sample # SW 7790337

LL Group # 1542345 Account # 10869

Project Name: 92029

Submitted: 03/03/2015 10:00

Reported: 03/12/2015 10:44

Collected: 02/27/2015 14:30 by DO ChevronTexaco

L4310

6001 Bollinger Canyon Rd.

San Ramon CA 94583

MO185

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS	Volatiles SW-84	6 8260B	mg/kg	mg/kg	
10237	t-Amyl methyl ether	994-05-8	N.D.	0.001	0.99
10237	Benzene	71-43-2	N.D.	0.0005	0.99
10237	t-Butyl alcohol	75-65-0	N.D.	0.020	0.99
10237	Ethanol	64-17-5	N.D.	0.099	0.99
10237	Ethyl t-butyl ether	637-92-3	N.D.	0.001	0.99
10237	Ethylbenzene	100-41-4	N.D.	0.001	0.99
10237	di-Isopropyl ether	108-20-3	N.D.	0.001	0.99
10237	Methyl Tertiary Butyl Ethe	1634-04-4	N.D.	0.0005	0.99
10237	Naphthalene	91-20-3	N.D.	0.001	0.99
10237	Toluene	108-88-3	N.D.	0.001	0.99
10237	Xylene (Total)	1330-20-7	N.D.	0.001	0.99
GC Vol	Latiles SW-84	6 8015B modified	mg/kg	mg/kg	
01725	TPH-GRO N. CA soil C6-C12	n.a.	N.D.	0.5	23.85

#### General Sample Comments

CA ELAP Lab Certification No. 2792

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

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Tim	ne	Analyst	Dilution Factor
10237	VOCs- Solid by 8260B	SW-846 8260B	1	B150641AA	03/05/2015	17:04	Sarah A Guill	0.99
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201506236915	03/03/2015	19:50	Mitchell R Washel	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201506236915	03/03/2015	19:50	Mitchell R Washel	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201506236915	03/03/2015	19:35	Mitchell R Washel	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	15065A34A	03/06/2015	19:17	Marie D Beamenderfer	23.85
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201506236915	03/03/2015	19:35	Mitchell R Washel	n.a.



# Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: SB-18-S-7.5-150227 NA Soil

Facility# 92029 STALGCA

SB-18 890 W Macarthur-Oakland T0600173887

LL Sample # SW 7790338

LL Group # 1542345 Account # 10869

Project Name: 92029

Submitted: 03/03/2015 10:00

Reported: 03/12/2015 10:44

Collected: 02/27/2015 15:00 by DO ChevronTexaco

L4310

6001 Bollinger Canyon Rd.

San Ramon CA 94583

MO187

CAT No.	Analysis Name		CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS	Volatiles S	SW-846	8260B	mg/kg	mg/kg	
10237	t-Amyl methyl ether		994-05-8	N.D.	0.047	46.82
10237	Benzene		71-43-2	0.064	0.023	46.82
10237	t-Butyl alcohol		75-65-0	N.D.	0.94	46.82
10237	Ethanol		64-17-5	N.D.	4.7	46.82
10237	Ethyl t-butyl ether		637-92-3	N.D.	0.047	46.82
10237	Ethylbenzene		100-41-4	0.24	0.047	46.82
10237	di-Isopropyl ether		108-20-3	N.D.	0.047	46.82
10237	Methyl Tertiary Butyl	l Ether	1634-04-4	N.D.	0.023	46.82
10237	Naphthalene		91-20-3	0.11	0.047	46.82
10237	Toluene		108-88-3	N.D.	0.047	46.82
10237	Xylene (Total)		1330-20-7	N.D.	0.047	46.82
Repo	rting limits were rais	ed due to	o interference fro	m the sample matrix.		
GC Vo	latiles	SW-846	8015B modified	mg/kg	mg/kg	
01725	TPH-GRO N. CA soil Co	5-C12	n.a.	470	100	5154.64

#### General Sample Comments

CA ELAP Lab Certification No. 2792

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

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Tim	ıe	Analyst	Dilution Factor
10237	VOCs- Solid by 8260B	SW-846 8260B	1	Q150632AA	03/04/2015	13:32	Anita M Dale	46.82
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201506236915	03/03/2015	19:50	Mitchell R Washel	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201506236915	03/03/2015	19:50	Mitchell R Washel	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201506236915	03/03/2015	19:30	Mitchell R Washel	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	15065A34A	03/06/2015	22:16	Marie D Beamenderfer	5154.64
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201506236915	03/03/2015	19:31	Mitchell R Washel	n.a.



# Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: SB-18-S-10-150227 NA Soil

Facility# 92029 STALGCA

SB-18 890 W Macarthur-Oakland T0600173887

**LL Sample # SW 7790339** 

LL Group # 1542345 Account # 10869

Project Name: 92029

Submitted: 03/03/2015 10:00

Reported: 03/12/2015 10:44

Collected: 02/27/2015 15:10 by DO ChevronTexaco

L4310

6001 Bollinger Canyon Rd.

San Ramon CA 94583

MO180

CAT No.	Analysis Name		CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS	Volatiles SW-	-846 8	3260B	mg/kg	mg/kg	
10237	t-Amyl methyl ether		994-05-8	N.D.	0.048	47.8
10237	Benzene		71-43-2	0.17	0.024	47.8
10237	t-Butyl alcohol		75-65-0	N.D.	0.96	47.8
10237	Ethanol		64-17-5	N.D.	4.8	47.8
10237	Ethyl t-butyl ether		637-92-3	N.D.	0.048	47.8
10237	Ethylbenzene		100-41-4	3.8	0.048	47.8
10237	di-Isopropyl ether		108-20-3	N.D.	0.048	47.8
10237	Methyl Tertiary Butyl E	ther	1634-04-4	N.D.	0.024	47.8
10237	Naphthalene		91-20-3	1.2	0.048	47.8
10237	Toluene		108-88-3	N.D.	0.048	47.8
10237	Xylene (Total)		1330-20-7	N.D.	0.048	47.8
GC Vol	latiles SW-	-846 8	015B modified	mg/kg	mg/kg	
01725	TPH-GRO N. CA soil C6-C	12	n.a.	410	20	999

#### General Sample Comments

CA ELAP Lab Certification No. 2792

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

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Tim	ne	Analyst	Dilution Factor
10237	VOCs- Solid by 8260B	SW-846 8260B	1	Q150632AA	03/04/2015	13:55	Anita M Dale	47.8
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201506236915	03/03/2015	19:50	Mitchell R Washel	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201506236915	03/03/2015	19:50	Mitchell R Washel	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201506236915	03/03/2015	19:27	Mitchell R Washel	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	15065A34A	03/06/2015	21:05	Marie D Beamenderfer	999
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201506236915	03/03/2015	19:28	Mitchell R Washel	n.a.



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### Quality Control Summary

Client Name: ChevronTexaco Group Number: 1542345

Reported: 03/12/2015 10:44

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

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

### Laboratory Compliance Quality Control

Analysis Name	Blank <u>Result</u>	Blank <u>MDL</u>	Report <u>Units</u>	LCS <u>%REC</u>	LCSD %REC	LCS/LCSD <u>Limits</u>	RPD	RPD <u>Max</u>
Batch number: B150631AA	Sample num	nber(s): 77	90308-7790	310,7790	312-779031	L9,7790321-77	90322	
t-Amyl methyl ether	N.D.	0.001	mq/kq	87	91	70-120	4	30
Benzene	N.D.	0.0005	mg/kg	86	91	80-120	5	30
t-Butyl alcohol	N.D.	0.020	mg/kg	98	93	76-120	5	30
Ethanol	N.D.	0.10	mg/kg	77	81	45-160	5	30
Ethyl t-butyl ether	N.D.	0.001	mg/kg	85	91	69-120	7	30
Ethylbenzene	N.D.	0.001	mg/kg	83	88	80-120	6	30
di-Isopropyl ether	N.D.	0.001	mg/kg	87	91	71-120	5	30
Methyl Tertiary Butyl Ether	N.D.	0.0005	mg/kg	94	97	72-120	3	30
Naphthalene	N.D.	0.001	mg/kg	90	93	64-120	3	30
Toluene	N.D.	0.001	mg/kg	85	89	80-120	5	30
Xylene (Total)	N.D.	0.001	mg/kg	83	88	80-120	5	30
Batch number: B150641AA						23-7790330,77		
t-Amyl methyl ether	N.D.	0.001	mg/kg	90	85	70-120	6	30
Benzene	N.D.	0.0005	mg/kg	88	83	80-120	6	30
t-Butyl alcohol	N.D.	0.020	mg/kg	95	89	76-120	6	30
Ethanol	N.D.	0.10	mg/kg	81	74	45-160	9	30
Ethyl t-butyl ether	N.D.	0.001	mg/kg	89	83	69-120	7	30
Ethylbenzene	N.D.	0.001	mg/kg	87	83	80-120	4	30
di-Isopropyl ether	N.D.	0.001	mg/kg	90	85	71-120	5	30
Methyl Tertiary Butyl Ether	N.D.	0.0005	mg/kg	97	91	72-120	6	30
Naphthalene	N.D.	0.001	mg/kg	95	90	64-120	6	30
Toluene	N.D.	0.001	mg/kg	89	84	80-120	5	30
Xylene (Total)	N.D.	0.001	mg/kg	87	83	80-120	5	30
Batch number: B150681AA	Cample num	nber(s): 77	00221					
t-Amyl methyl ether	N.D.	0.001	ma/ka	91	87	70-120	5	30
Benzene	N.D.	0.001	mg/kg	91	89	80-120	3	30
	N.D.	0.0005		91	96	76-120	0	30
t-Butyl alcohol			mg/kg	82	85		-	
Ethanol	N.D.	0.10	mg/kg		85 87	45-160	3	30 30
Ethyl t-butyl ether	N.D.	0.001	mg/kg	92		69-120	5	
Ethylbenzene	N.D.	0.001	mg/kg	89	85	80-120	4	30
di-Isopropyl ether	N.D.	0.001	mg/kg	92	89	71-120	3	30
Methyl Tertiary Butyl Ether	N.D.	0.0005	mg/kg	100	93	72-120	8	30
Naphthalene	N.D.	0.001	mg/kg	101	93	64-120	9	30
Toluene	N.D.	0.001	mg/kg	91	88	80-120	4	30
Xylene (Total)	N.D.	0.001	mg/kg	90	86	80-120	4	30
Batch number: Q150632AA	Sample num	nber(s): 77	90307.7790	320.7790	338-779033	3 9		
t-Amyl methyl ether	N.D.	0.050	mg/kg	88	85	70-120	3	3.0
Benzene	N.D.	0.025	mg/kg	92	89	80-120	3	30
t-Butyl alcohol	N.D.	1.0	mq/kq	90	89	76-120	1	30
Ethanol	N.D.	5.0	mg/kg	97	99	45-160	2	30
= =====================================		٥.٠	3/ 123			10 100	_	

#### \*- 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: ChevronTexaco Group Number: 1542345

Reported: 03/12/2015 10:44

	Blank	Blank	Report	LCS	LCSD	LCS/LCSD		RPD
<u>Analysis Name</u>	<u>Result</u>	MDL	<u>Units</u>	%REC	%REC	<u>Limits</u>	RPD	<u>Max</u>
Ethyl t-butyl ether	N.D.	0.050	mg/kg	91	87	69-120	5	30
Ethylbenzene	N.D.	0.050	mg/kg	89	87	80-120	3	30
di-Isopropyl ether	N.D.	0.050	mg/kg	91	88	71-120	3	30
Methyl Tertiary Butyl Ether	N.D.	0.025	mg/kg	89	86	72-120	4	30
Naphthalene	N.D.	0.050	mg/kg	75	68	64-120	9	30
Toluene	N.D.	0.050	mg/kg	89	86	80-120	3	30
Xylene (Total)	N.D.	0.050	mg/kg	89	87	80-120	3	30
Batch number: 15063A34A	Sample numbe	er(s): 779	0304-7790	316,779032	21-7790325			
TPH-GRO N. CA soil C6-C12	N.D.	0.5	mg/kg	102	103	73-120	1	30
Batch number: 15065A34A	Sample numbe	er(s): 779	0317-7790	320,779032	26-7790339			
TPH-GRO N. CA soil C6-C12	N.D.	0.5	mg/kg	89	93	73-120	4	30

### Sample Matrix Quality Control

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

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: B150631AA	Sample r	number(s)	: 7790308-	779031	0,77903	12-7790319,	7790321-779	0322 UNSPK:	7790312
t-Amyl methyl ether	88	90	50-132	13	30				
Benzene	92	97	55-143	16	30				
t-Butyl alcohol	89	97	47-153	21	30				
Ethanol	80	94	35-189	26	30				
Ethyl t-butyl ether	88	92	58-124	16	30				
Ethylbenzene	77	85	44-141	20	30				
di-Isopropyl ether	92	94	59-133	13	30				
Methyl Tertiary Butyl Ether	96	97	55-129	12	30				
Naphthalene	71	75	10-138	16	30				
Toluene	86	92	50-146	18	30				
Xylene (Total)	76	84	44-136	21	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: VOCs- Solid by 8260B

Batch number: B150631AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7790308	108	104	96	94
7790309	106	100	97	92
7790310	108	105	95	95
7790312	107	102	97	95
7790313	104	100	98	90
7790314	109	107	95	96
7790315	107	102	96	94
7790316	104	98	103	117

#### \*- 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: ChevronTexaco Group Number: 1542345 Reported: 03/12/2015 10:44 Surrogate Quality Control 7790317 108 100 92 7790318 107 98 96 95 7790319 108 100 96 7790321 109 104 96 94 94 7790322 110 106 94 108 107 95 96 Blank 103 104 99 99 LCS LCSD 102 103 102 100 105 103 MS 100 99 MSD 104 96 100 100 52-141 Limits: 50-141 54-135 50-131

Analysis Name: VOCs- Solid by 8260B

Batch number: B150641AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7790304	102	99	100	92
7790305	104	101	98	91
7790306	105	98	97	91
7790311	100	98	99	108
7790323	105	99	98	92
7790324	108	101	98	92
7790325	109	106	97	95
7790326	108	105	95	94
7790327	108	100	96	94
7790328	109	108	96	95
7790329	109	104	95	93
7790330	110	109	96	94
7790332	113	104	99	88
7790333	109	103	97	93
7790334	109	101	95	92
7790335	101	96	116	111
7790336	108	102	97	92
7790337	109	103	96	92
Blank	106	103	98	95
LCS	103	103	101	102
LCSD	102	104	100	101
Limits:	50-141	54-135	52-141	50-131

Analysis Name: VOCs- Solid by 8260B

Batch number: B150681AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene	
7790331	104	103	98	93	
Blank	106	110	97	94	
LCS	106	100	101	102	
LCSD	103	104	101	101	
Limits	50-141	54-135	52-141	50-131	

Analysis Name: VOCs- Solid by 8260B

Batch number: Q150632AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7790307	72	70	72	72
7790320	82	79	83	81
7790338	80	72	84	81
7790339	77	75	76	75
Blank	95	95	95	91
LCS	90	84	88	84

- \*- 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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**Environmental** 

## Quality Control Summary

Client Name: ChevronTexaco Group Number: 1542345

Reported: 03/12/2015 10:44

LCSD

### Surrogate Quality Control

	0,5	0.0	0 /	00
Limits:	50-141	54-135	52-141	50-131
Analysis	Name: TPH-GRO N.	CA soil C6-C12		
Batch nu	mber: 15063A34A			
	Trifluorotoluene-F			
7790304	79			
7790305	78			
7790306	80			
7790307	86			
7790308	81			
7790309	82			
7790310	79			
7790311	85			
7790312	84			
7790313	76			
7790314	78			
7790315	83			
7790316	81			
7790321	77			
7790322	80			
7790323	73			
7790324	78			
7790325	76			
Blank	94			
LCS	90			
LCSD	90			
Limits:	50-142			

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

Batch number: 15065A34A Trifluorotoluene-F

	Trifluorotol
7790317	79
7790318	77
7790319	78
7790320	154*
7790326	73
7790327	78
7790328	75
7790329	75
7790330	80
7790331	75
7790332	77
7790333	77
7790334	76
7790335	82
7790336	78
7790337	77
7790338	134
7790339	154*
Blank	92
LCS	85
LCSD	89
Limits:	50-142

\*- 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.



# Analysis Report

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## Quality Control Summary

Client Name: ChevronTexaco Group Number: 1542345

Reported: 03/12/2015 10:44

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

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

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

10869 | 1542345 | 7790304-39 Stantec Consulting Services Inc. 15575 Los Gatos Boulevard, Bldg C Date: 2-27-15 Los Gatos, California 95032 Stantec Tel:408-356-6124 Fax: 408-356-6138 Chain-of-Custody Record and Analysis Request Project Contact for Results (Hardcopy or PDF To): California EDF Report? ✓ Yes □No Turn-around Time (Business Days): TRAVIS. FLORAR STANDEC. COM CC Results to: Standard 5 DAYS 72 HR 48 HR 24 HR Global ID No: Laboratory: LANCASTER (EUROFINS) Lab Phone No.: **Analysis Request** Samplers Name: DEVON ONEWS Project Number: Samplers Signature: 9260 B (4W-846 Sample Remarks (8008) For Lab Use Only Project Address: MTBE, 184 MANALINE Project Manager: 890 W. MACARTHUR BLVD, OAKVANO CA. 8 Sampling Container Preservative They Brex, O, Pe, 40 ml VOA x3 TRAVISFURA # of Contair AMBER Time Field Point POLY NONE HCI HNO<sub>3</sub> SOIL Sample Name Name 2/25/15 1320 SB-11 1340 58-11 1400 56-11 145 2/26/15 SB-12 0745 0755 V 0920

0830 1100 1610 SB-14 P, 2 Time Relinguished by: Received by: /Date Remarks: Relinquished by: Time Received by: Relinquished by: Date Time Bill To: Relinquished By Commercial Carrier: Stantec Los Gatos 15575 Los Gatos Blvd., Bldg C Temperature Upon Receipt FedEx Other Los Gatos, CA 95032

10869 | 1542345 | 7790304-39

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0869 11542345 1 7790304-39 Stantec Consulting Services Inc. 15575 Los Gatos Boulevard, Bidg C Date: 2/21/15 Page: 4 of 5 Los Gatos, California 95032 Stantec Tel:408-356-6124 Fax: 408-356-6138 Chain-of-Custody Record and Analysis Request Project Contact for Results (Hardcopy or PDF To): California EDF Report? TRAVIS FORDESTANTER.COM √ Yes □No Turn-around Time (Business Days): CC Results to: 5 DAYS 72 HR 48 HR 24 HR Global ID No: Laboratory: UNURSPET EUROFINS Aņalysis Request Lab Phone No.: Samplers Name: DEVON OWENS Project Number: Samplers Signature: Sample Remarks 211602398 APH-8/20 (901,578 - MATTHERA Lab Use Only Project Name: Project Address: CHANNY 97079
Project Manager: MACRETIME BLUD. ONCLAWO, CA. Biex, Mise 840 W. PAME, TBA Sampling Preservative 40 ml VOA x3 TRAVIS FLORA # of Contain 000 AMBER Field Point POLY NONE E HOS SOIL Sample Name a Name 56-11 & 7.5 1345 SB-17810 56-17 (350) 98-18 56-18825 1415 56-1805 1430 56-1607.5 1500 56-180 10 1510 5B-11-W 1510 56-12/2015/0845 SB-12-W 50-14-W Relinquished by: Received by: Remarks: (00 Received by: Relinguished by: Received by Laboratory: Relinquished by: Date Time Bill To: Stantec Los Gatos Relinguished By Commercial Carrier: 15575 Los Gatos Blvd., Bldg C Temperature Upon Receipt UPS Other FedEx\_ Los Gatos, CA 95032



## **Explanation of Symbols and Abbreviations**

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

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

less than <

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 per liter of gas.

ppb parts per billion

Results printed under this heading have been adjusted for moisture content. This increases the analyte weight Dry weight basis

concentration to approximate the value present in a similar sample without moisture. All other results are reported on an

as-received basis.

#### Laboratory Data Qualifiers:

B - Analyte detected in the blank

C - Result confirmed by reanalysis

E - Concentration exceeds the calibration range

J (or G, I, X) - estimated value ≥ the Method Detection Limit (MDL or DL) and the < Limit of Quantitation (LOQ or RL)

P - Concentration difference between the primary and confirmation column >40%. The lower result is reported.

U - Analyte was not detected at the value indicated

V - Concentration difference between the primary and confirmation column >100%. The reporting limit is raised due to this disparity and evident interference...

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods. Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.

#### Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, ISO17025) unless otherwise noted under the individual analysis.

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

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

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

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

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

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#### ANALYTICAL RESULTS

Prepared by:

Prepared for:

Eurofins Lancaster Laboratories Environmental 2425 New Holland Pike Lancaster, PA 17601

ChevronTexaco L4310 6001 Bollinger Canyon Rd. San Ramon CA 94583

March 13, 2015

Project: 92029

Submittal Date: 03/06/2015 Group Number: 1543199 PO Number: 0015150110 Release Number: CMACLEOD State of Sample Origin: CA

Client Sample Description

Lancaster Labs (LL) #

SB-13-S-14-150305 NA Soil SB-13-S-14.5-150305 NA Soil 7794015 7794016

Attn: Erin O'Malley

Attn: Marisa Kaffenberger

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

Regulatory agencies do not accredit laboratories for all methods, analytes, and matrices. Our scopes of accreditation can be viewed at http://www.eurofinsus.com/environment-testing/laboratories/eurofins-<u>lancaster-laboratories-environmental/resources/certifications/</u>.

ELECTRONIC Stantec Attn: Laura Viesselman

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**ELECTRONIC** Stantec Attn: Travis Flora

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Respectfully Submitted,

Matalie X-2

Natalie R. Luciano Senior Specialist

(717) 556-7258



## Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: SB-13-S-14-150305 NA Soil

Facility# 92029

890 W Macarthur-Oakland T0600173887

LL Sample # SW 7794015

LL Group # 1543199 Account # 10869

Project Name: 92029

Submitted: 03/06/2015 10:20

Reported: 03/13/2015 16:39

Collected: 03/05/2015 09:00 by DO ChevronTexaco

L4310

6001 Bollinger Canyon Rd.

San Ramon CA 94583

MO134

CAT No.	Analysis Name		CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS	Volatiles S	SW-846	8260B	mg/kg	mg/kg	
10237	t-Amyl methyl ether		994-05-8	N.D.	0.001	0.97
10237	Benzene		71-43-2	N.D.	0.0005	0.97
10237	t-Butyl alcohol		75-65-0	N.D.	0.019	0.97
10237	Ethanol		64-17-5	N.D.	0.097	0.97
10237	Ethyl t-butyl ether		637-92-3	N.D.	0.001	0.97
10237	Ethylbenzene		100-41-4	N.D.	0.001	0.97
10237	di-Isopropyl ether		108-20-3	N.D.	0.001	0.97
10237	Methyl Tertiary Butyl	Ether	1634-04-4	N.D.	0.0005	0.97
10237	Naphthalene		91-20-3	N.D.	0.001	0.97
10237	Toluene		108-88-3	N.D.	0.001	0.97
10237	Xylene (Total)		1330-20-7	N.D.	0.001	0.97
GC Vol	latiles S	SW-846	8015B modified	mg/kg	mg/kg	
01725	TPH-GRO N. CA soil Co	5-C12	n.a.	N.D.	0.5	25.59

#### General Sample Comments

CA ELAP Lab Certification No. 2792

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

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	e	Analyst	Dilution Factor
10237	VOCs- Solid by 8260B	SW-846 8260B	1	B150691AA	03/10/2015 2	22:04	Sarah A Guill	0.97
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201506536930	03/06/2015 1	19:40	Scott W Freisher	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201506536930	03/06/2015 1	19:40	Scott W Freisher	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201506536930	03/06/2015 1	19:26	Scott W Freisher	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	15071A34A	03/12/2015 1	18:43	Jeremy C Giffin	25.59
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201506536930	03/06/2015 1	19:30	Scott W Freisher	n.a.



## Analysis Report

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Sample Description: SB-13-S-14.5-150305 NA Soil

Facility# 92029

890 W Macarthur-Oakland T0600173887

LL Sample # SW 7794016

LL Group # 1543199 Account # 10869

Project Name: 92029

Submitted: 03/06/2015 10:20

Reported: 03/13/2015 16:39

Collected: 03/05/2015 09:15 by DO ChevronTexaco

L4310

6001 Bollinger Canyon Rd.

San Ramon CA 94583

01345

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS	Volatiles SW-846	8260B	mg/kg	mg/kg	
10237	t-Amyl methyl ether	994-05-8	N.D.	0.001	1.07
10237	Benzene	71-43-2	N.D.	0.0005	1.07
10237	t-Butyl alcohol	75-65-0	N.D.	0.021	1.07
10237	Ethanol	64-17-5	N.D.	0.11	1.07
10237	Ethyl t-butyl ether	637-92-3	N.D.	0.001	1.07
10237	Ethylbenzene	100-41-4	N.D.	0.001	1.07
10237	di-Isopropyl ether	108-20-3	N.D.	0.001	1.07
10237	Methyl Tertiary Butyl Ether	1634-04-4	0.087	0.0005	1.07
10237	Naphthalene	91-20-3	N.D.	0.001	1.07
10237	Toluene	108-88-3	N.D.	0.001	1.07
10237	Xylene (Total)	1330-20-7	N.D.	0.001	1.07
GC Vol	atiles SW-846	8015B modified	mg/kg	mg/kg	
01725	TPH-GRO N. CA soil C6-C12	n.a.	N.D.	0.5	25.33

#### General Sample Comments

CA ELAP Lab Certification No. 2792

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

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Tim	e	Analyst	Dilution Factor
10237	VOCs- Solid by 8260B	SW-846 8260B	1	B150691AA	03/10/2015	22:27	Sarah A Guill	1.07
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201506536930	03/06/2015	19:40	Scott W Freisher	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201506536930	03/06/2015	19:40	Scott W Freisher	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201506536930	03/06/2015	19:24	Scott W Freisher	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	15071A34A	03/12/2015	19:19	Jeremy C Giffin	25.33
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201506536930	03/06/2015	19:25	Scott W Freisher	n.a.



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### Quality Control Summary

Client Name: ChevronTexaco Group Number: 1543199

Reported: 03/13/2015 16:39

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

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

#### Laboratory Compliance Quality Control

Analysis Name	Blank <u>Result</u>	Blank <u>MDL</u>	Report <u>Units</u>	LCS %REC	LCSD %REC	LCS/LCSD <u>Limits</u>	RPD	RPD <u>Max</u>
Batch number: B150691AA	Sample numbe	er(s): 779	4015-7794	016				
t-Amyl methyl ether	N.D.	0.001	mg/kg	89	88	70-120	1	30
Benzene	N.D.	0.0005	mg/kg	88	90	80-120	3	30
t-Butyl alcohol	N.D.	0.020	mg/kg	87	93	76-120	6	30
Ethanol	N.D.	0.10	mg/kg	75	89	45-160	17	30
Ethyl t-butyl ether	N.D.	0.001	mg/kg	88	87	69-120	1	30
Ethylbenzene	N.D.	0.001	mg/kg	84	87	80-120	3	30
di-Isopropyl ether	N.D.	0.001	mg/kg	90	92	71-120	2	30
Methyl Tertiary Butyl Ether	N.D.	0.0005	mg/kg	94	92	72-120	3	30
Naphthalene	N.D.	0.001	mg/kg	98	93	64-120	5	30
Toluene	N.D.	0.001	mg/kg	86	90	80-120	5	30
Xylene (Total)	N.D.	0.001	mg/kg	84	86	80-120	2	30
Batch number: 15071A34A	Sample numbe	er(s): 779	4015-7794	016				
TPH-GRO N. CA soil C6-C12	N.D.	0.5	mg/kg	86	86	73-120	1	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: VOCs- Solid by 8260B

Batch number: B150691AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	l oluene-d8	4-Bromotluorobenzene
7794015	99	95	100	94
7794016	98	99	98	93
Blank	102	101	98	95
LCS	100	109	100	101
LCSD	99	100	100	101
Limits:	50-141	54-135	52-141	50-131

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

Batch number: 15071A34A

Trifluorotoluene-F 7794015 82

7794015 82 7794016 80 Blank 89 LCS 87

#### \*- 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.



# Analysis Report

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## Quality Control Summary

Client Name: ChevronTexaco Group Number: 1543199

Reported: 03/13/2015 16:39

Surrogate Quality Control

Limits: 50-142

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

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

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

# Chevron California Region Analysis Request/Chain of Custody

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## **Explanation of Symbols and Abbreviations**

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

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

< less than

> 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 per liter of gas.

ppb parts per billion

Dry weight 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.

#### Laboratory Data Qualifiers:

B - Analyte detected in the blank

C - Result confirmed by reanalysis

E - Concentration exceeds the calibration range

J (or G, I, X) - estimated value ≥ the Method Detection Limit (MDL or DL) and the < Limit of Quantitation (LOQ or RL)

P - Concentration difference between the primary and confirmation column >40%. The lower result is reported.

U - Analyte was not detected at the value indicated

V - Concentration difference between the primary and confirmation column >100%. The reporting limit is raised due to this disparity and evident interference...

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods. Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.

## Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, ISO17025) unless otherwise noted under the individual analysis.

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

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

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

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

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

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#### ANALYTICAL RESULTS

Prepared by:

Prepared for:

Eurofins Lancaster Laboratories Environmental 2425 New Holland Pike Lancaster, PA 17601 ChevronTexaco L4310 6001 Bollinger Canyon Rd. San Ramon CA 94583

March 11, 2015

Project: 92029

Submittal Date: 03/03/2015 Group Number: 1542343 PO Number: 0015167993 Release Number: CMACLEOD State of Sample Origin: CA

Client Sample Description	Lancaster Labs (LL) #
SB-11-W-150225 NA Water	7790293
SB-12-W-150226 NA Water	7790294
SB-14-W-150226 NA Water	7790295
SB-15-W-150227 NA Water	7790296
SB-17-W-150227 NA Water	7790297
SB-18-W-150227 NA Water	7790298
SB-19-W-150226 NA Water	7790299
SB-20-W-150226 NA Water	7790300
SB-21-W-150227 NA Water	7790301

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

Regulatory agencies do not accredit laboratories for all methods, analytes, and matrices. Our scopes of accreditation can be viewed at <a href="http://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/resources/certifications/">http://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/resources/certifications/</a>.

Stantec	Attn: Laura Viesselman
Stantec	Attn: Erin O'Malley
Stantec	Attn: Marisa Kaffenberger
	_
Stantec	Attn: Travis Flora
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## Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Respectfully Submitted,

Matalie X-2

Natalie R. Luciano Senior Specialist

(717) 556-7258



## Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: SB-11-W-150225 NA Water

Facility# 92029

890 W Macarthur-Oakland T0600173887

LL Sample # WW 7790293

LL Group # 1542343 Account # 10869

Project Name: 92029

Submitted: 03/03/2015 09:30

Reported: 03/11/2015 19:46

Collected: 02/25/2015 15:10 by DO ChevronTexaco

L4310

6001 Bollinger Canyon Rd.

San Ramon CA 94583

#### WMO11

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS	Volatiles SW-84	6 8260B	ug/l	ug/l	
10945	t-Amyl methyl ether	994-05-8	N.D.	0.5	1
10945	Benzene	71-43-2	N.D.	0.5	1
10945	t-Butyl alcohol	75-65-0	N.D.	2	1
10945	Ethanol	64-17-5	N.D.	50	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	0.5	1
10945	Ethylbenzene	100-41-4	0.9	0.5	1
10945	di-Isopropyl ether	108-20-3	N.D.	0.5	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10945	Naphthalene	91-20-3	2	1	1
10945	Toluene	108-88-3	0.9	0.5	1
10945	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Volatiles SW-846 8015B			ug/l	ug/l	
01728	TPH-GRO N. CA water C6-C12	n.a.	4,800	50	1

#### General Sample Comments

CA ELAP Lab Certification No. 2792

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

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

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/5 Oxy's/EtOH/Naphthalene	SW-846 8260B	1	Z150642AA	03/05/2015 07:54	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z150642AA	03/05/2015 07:54	Anita M Dale	1
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	15067A94A	03/08/2015 15:06	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	15067A94A	03/08/2015 15:06	Marie D Beamenderfer	1



## Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: SB-12-W-150226 NA Water

Facility# 92029

890 W Macarthur-Oakland T0600173887

LL Sample # WW 7790294

LL Group # 1542343 Account # 10869

Project Name: 92029

Submitted: 03/03/2015 09:30

Reported: 03/11/2015 19:46

Collected: 02/26/2015 08:45 by DO ChevronTexaco

L4310

6001 Bollinger Canyon Rd.

San Ramon CA 94583

#### WMO12

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS	Volatiles SW-846	8260B	ug/l	ug/l	
10945	t-Amyl methyl ether	994-05-8	N.D.	0.5	1
10945	Benzene	71-43-2	N.D.	0.5	1
10945	t-Butyl alcohol	75-65-0	N.D.	2	1
10945	Ethanol	64-17-5	N.D.	50	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	0.5	1
10945	Ethylbenzene	100-41-4	N.D.	0.5	1
10945	di-Isopropyl ether	108-20-3	N.D.	0.5	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	0.5	0.5	1
10945	Naphthalene	91-20-3	N.D.	1	1
10945	Toluene	108-88-3	N.D.	0.5	1
10945	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Volatiles SW-846 8015B		5 8015B	ug/l	ug/l	
01728	TPH-GRO N. CA water C6-C12	n.a.	3,800	50	1

#### General Sample Comments

CA ELAP Lab Certification No. 2792

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

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

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/5 Oxy's/EtOH/Naphthalene	SW-846 8260B	1	Z150642AA	03/05/2015 08:18	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z150642AA	03/05/2015 08:18	Anita M Dale	1
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	15067A94A	03/08/2015 17:13	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	15067A94A	03/08/2015 17:13	Marie D Beamenderfer	1



## Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: SB-14-W-150226 NA Water

Facility# 92029

890 W Macarthur-Oakland T0600173887

LL Sample # WW 7790295

LL Group # 1542343 Account # 10869

Project Name: 92029

Submitted: 03/03/2015 09:30

Reported: 03/11/2015 19:46

Collected: 02/26/2015 17:05 by DO ChevronTexaco

L4310

6001 Bollinger Canyon Rd.

San Ramon CA 94583

#### WMO14

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS	Volatiles SW-846	8260B	ug/l	ug/l	
10945	t-Amyl methyl ether	994-05-8	N.D.	0.5	1
10945	Benzene	71-43-2	0.8	0.5	1
10945	t-Butyl alcohol	75-65-0	N.D.	2	1
10945	Ethanol	64-17-5	N.D.	50	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	0.5	1
10945	Ethylbenzene	100-41-4	11	0.5	1
10945	di-Isopropyl ether	108-20-3	N.D.	0.5	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10945	Naphthalene	91-20-3	4	1	1
10945	Toluene	108-88-3	N.D.	0.5	1
10945	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Vo	latiles SW-846	8015B	ug/l	ug/l	
01728	TPH-GRO N. CA water C6-C12	n.a.	8,800	250	5

#### General Sample Comments

CA ELAP Lab Certification No. 2792

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

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

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/5 Oxy's/EtOH/Naphthalene	SW-846 8260B	1	Z150642AA	03/05/2015 09:30	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z150642AA	03/05/2015 09:30	Anita M Dale	1
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	15068A20A	03/09/2015 20:11	Marie D Beamenderfer	5
01146	GC VOA Water Prep	SW-846 5030B	1	15068A20A	03/09/2015 20:11	Marie D Beamenderfer	5



## Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: SB-15-W-150227 NA Water

Facility# 92029

890 W Macarthur-Oakland T0600173887

LL Sample # WW 7790296

LL Group # 1542343 Account # 10869

Project Name: 92029

Submitted: 03/03/2015 09:30

Reported: 03/11/2015 19:46

Collected: 02/27/2015 08:45 by DO ChevronTexaco

L4310

6001 Bollinger Canyon Rd.

San Ramon CA 94583

#### WMO15

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS	Volatiles SW-846	8260B	ug/l	ug/l	
10945	t-Amyl methyl ether	994-05-8	N.D.	0.5	1
10945	Benzene	71-43-2	210	25	50
10945	t-Butyl alcohol	75-65-0	N.D.	2	1
10945	Ethanol	64-17-5	N.D.	50	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	0.5	1
10945	Ethylbenzene	100-41-4	2,700	25	50
10945	di-Isopropyl ether	108-20-3	N.D.	0.5	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	1	0.5	1
10945	Naphthalene	91-20-3	900	50	50
10945	Toluene	108-88-3	21	0.5	1
10945	Xylene (Total)	1330-20-7	4,100	25	50
GC Volatiles SW-846 8015B ug/l ug/l					
01728	TPH-GRO N. CA water C6-C12	n.a.	43,000	5,000	100

#### General Sample Comments

CA ELAP Lab Certification No. 2792

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

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

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/5 Oxy's/EtOH/Naphthalene	SW-846 8260B	1	Z150642AA	03/05/2015 09:54	Anita M Dale	1
10945	BTEX/5 Oxy's/EtOH/Naphthalene	SW-846 8260B	1	Z150652AA	03/06/2015 11:27	Anita M Dale	50
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z150642AA	03/05/2015 09:54	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	2	Z150652AA	03/06/2015 11:27	Anita M Dale	50
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	15068A20A	03/09/2015 20:39	Marie D Beamenderfer	100
01146	GC VOA Water Prep	SW-846 5030B	1	15068A20A	03/09/2015 20:39	Marie D Beamenderfer	100



## Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: SB-17-W-150227 NA Water

Facility# 92029

890 W Macarthur-Oakland T0600173887

LL Sample # WW 7790297

LL Group # 1542343 Account # 10869

Project Name: 92029

Submitted: 03/03/2015 09:30

Reported: 03/11/2015 19:46

Collected: 02/27/2015 14:15 by DO ChevronTexaco

L4310

6001 Bollinger Canyon Rd.

San Ramon CA 94583

WMO17

CAT No.	Analysis Name		CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS	Volatiles SW	7-846 82	60B	ug/l	ug/l	
10945	t-Amyl methyl ether		994-05-8	N.D.	0.5	1
10945	Benzene		71-43-2	N.D.	0.5	1
10945	t-Butyl alcohol		75-65-0	N.D.	2	1
10945	Ethanol		64-17-5	N.D.	50	1
10945	Ethyl t-butyl ether		637-92-3	N.D.	0.5	1
10945	Ethylbenzene		100-41-4	4	0.5	1
10945	di-Isopropyl ether		108-20-3	N.D.	0.5	1
10945	Methyl Tertiary Butyl 1	Ether	1634-04-4	N.D.	0.5	1
10945	Naphthalene		91-20-3	N.D.	1	1
10945	Toluene		108-88-3	N.D.	0.5	1
10945	Xylene (Total)		1330-20-7	1	0.5	1
GC Volatiles SW-846 8015B			15B	ug/l	ug/l	
01728	TPH-GRO N. CA water C6	-C12	n.a.	5,300	250	5

#### General Sample Comments

CA ELAP Lab Certification No. 2792

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

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

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	•	Analyst	Dilution Factor
10945	BTEX/5 Oxy's/EtOH/Naphthalene	SW-846 8260B	1	Z150642AA	03/05/2015 11	L:54	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z150642AA	03/05/2015 11	L:54	Anita M Dale	1
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	15068A20A	03/09/2015 21		Marie D Beamenderfer	5
01146	GC VOA Water Prep	SW-846 5030B	1	15068A20A	03/09/2015 21		Marie D Beamenderfer	5



## Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: SB-18-W-150227 NA Water

Facility# 92029

890 W Macarthur-Oakland T0600173887

LL Sample # WW 7790298

LL Group # 1542343 Account # 10869

Project Name: 92029

Submitted: 03/03/2015 09:30

Reported: 03/11/2015 19:46

Collected: 02/27/2015 15:50 by DO ChevronTexaco

L4310

6001 Bollinger Canyon Rd.

San Ramon CA 94583

WMO18

CAT No.	Analysis Name		CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846	8260B	ug/l	ug/l	
10945	t-Amyl methyl ether		994-05-8	N.D.	1	2
10945	Benzene		71-43-2	1,200	10	20
10945	t-Butyl alcohol		75-65-0	29	4	2
10945	Ethanol		64-17-5	N.D.	100	2
10945	Ethyl t-butyl ether		637-92-3	N.D.	1	2
10945	Ethylbenzene		100-41-4	3,100	10	20
10945	di-Isopropyl ether		108-20-3	N.D.	1	2
10945	Methyl Tertiary Buty	yl Ether	1634-04-4	29	1	2
10945	Naphthalene		91-20-3	910	20	20
10945	Toluene		108-88-3	7	1	2
10945	Xylene (Total)		1330-20-7	76	1	2
GC Vo	latiles	SW-846	8015B	ug/l	ug/l	
01728	TPH-GRO N. CA water	C6-C12	n.a.	43,000	1,000	20

#### General Sample Comments

CA ELAP Lab Certification No. 2792

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

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

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor
10945	BTEX/5 Oxy's/EtOH/Naphthalene	SW-846 8260B	1	Z150642AA	03/05/2015	10:42	Anita M Dale	2
10945	BTEX/5 Oxy's/EtOH/Naphthalene	SW-846 8260B	1	Z150642AA	03/05/2015	11:06	Anita M Dale	20
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z150642AA	03/05/2015	10:42	Anita M Dale	2
01163	GC/MS VOA Water Prep	SW-846 5030B	2	Z150642AA	03/05/2015	11:06	Anita M Dale	20
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	15068A20A	03/09/2015	21:33	Marie D Beamenderfer	20
01146	GC VOA Water Prep	SW-846 5030B	1	15068A20A	03/09/2015	21:33	Marie D Beamenderfer	20



## Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: SB-19-W-150226 NA Water

Facility# 92029

890 W Macarthur-Oakland T0600173887

LL Sample # WW 7790299

LL Group # 1542343 Account # 10869

Project Name: 92029

Submitted: 03/03/2015 09:30

Reported: 03/11/2015 19:46

Collected: 02/26/2015 12:10 by DO ChevronTexaco

L4310

6001 Bollinger Canyon Rd.

San Ramon CA 94583

WMO19

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS	Volatiles SW-846	8260B	ug/l	ug/l	
10945	t-Amyl methyl ether	994-05-8	N.D.	0.5	1
10945	Benzene	71-43-2	N.D.	0.5	1
10945	t-Butyl alcohol	75-65-0	N.D.	2	1
10945	Ethanol	64-17-5	N.D.	50	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	0.5	1
10945	Ethylbenzene	100-41-4	3	0.5	1
10945	di-Isopropyl ether	108-20-3	N.D.	0.5	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10945	Naphthalene	91-20-3	N.D.	1	1
10945	Toluene	108-88-3	N.D.	0.5	1
10945	Xylene (Total)	1330-20-7	0.6	0.5	1
GC Vol	latiles SW-846	8015B	ug/l	ug/l	
01728	TPH-GRO N. CA water C6-C12	n.a.	8,300	500	10

#### General Sample Comments

CA ELAP Lab Certification No. 2792

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

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

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/5 Oxy's/EtOH/Naphthalene	SW-846 8260B	1	Z150642AA	03/05/2015 15:06	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z150642AA	03/05/2015 15:06	Anita M Dale	1
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	15068A20A	03/09/2015 22:01	Marie D Beamenderfer	10
01146	GC VOA Water Prep	SW-846 5030B	1	15068A20A	03/09/2015 22:01	Marie D Beamenderfer	10



## Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: SB-20-W-150226 NA Water

Facility# 92029

890 W Macarthur-Oakland T0600173887

LL Sample # WW 7790300

LL Group # 1542343 Account # 10869

Project Name: 92029

Submitted: 03/03/2015 09:30

Reported: 03/11/2015 19:46

Collected: 02/26/2015 15:10 by DO ChevronTexaco

L4310

6001 Bollinger Canyon Rd.

San Ramon CA 94583

WMO20

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS	Volatiles SW-	-846 8260B	ug/l	ug/l	
10945	t-Amyl methyl ether	994-05-8	N.D.	0.5	1
10945	Benzene	71-43-2	N.D.	0.5	1
10945	t-Butyl alcohol	75-65-0	N.D.	2	1
10945	Ethanol	64-17-5	N.D.	50	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	0.5	1
10945	Ethylbenzene	100-41-4	N.D.	0.5	1
10945	di-Isopropyl ether	108-20-3	N.D.	0.5	1
10945	Methyl Tertiary Butyl E	ther 1634-04-4	N.D.	0.5	1
10945	Naphthalene	91-20-3	N.D.	1	1
10945	Toluene	108-88-3	N.D.	0.5	1
10945	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Vo	latiles SW-	-846 8015B	ug/l	ug/l	
01728	TPH-GRO N. CA water C6-0	C12 n.a.	N.D.	50	1

#### General Sample Comments

CA ELAP Lab Certification No. 2792

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

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

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/5 Oxy's/EtOH/Naphthalene	SW-846 8260B	1	Z150642AA	03/05/2015 17:06	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z150642AA	03/05/2015 17:06	Anita M Dale	1
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	15068A20A	03/09/2015 13:20	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	15068A20A	03/09/2015 13:20	Marie D Beamenderfer	1



## Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: SB-21-W-150227 NA Water

Facility# 92029

890 W Macarthur-Oakland T0600173887

LL Sample # WW 7790301

LL Group # 1542343 Account # 10869

Project Name: 92029

Submitted: 03/03/2015 09:30

Reported: 03/11/2015 19:46

Collected: 02/27/2015 11:35 by DO ChevronTexaco

L4310

6001 Bollinger Canyon Rd.

San Ramon CA 94583

#### WMO21

CAT No.	Analysis Name		CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS	Volatiles S	W-846	8260B	ug/l	ug/l	
10945	t-Amyl methyl ether		994-05-8	N.D.	0.5	1
10945	Benzene		71-43-2	N.D.	0.5	1
10945	t-Butyl alcohol		75-65-0	N.D.	2	1
10945	Ethanol		64-17-5	N.D.	50	1
10945	Ethyl t-butyl ether		637-92-3	N.D.	0.5	1
10945	Ethylbenzene		100-41-4	N.D.	0.5	1
10945	di-Isopropyl ether		108-20-3	N.D.	0.5	1
10945	Methyl Tertiary Butyl	Ether	1634-04-4	N.D.	0.5	1
10945	Naphthalene		91-20-3	N.D.	1	1
10945	Toluene		108-88-3	N.D.	0.5	1
10945	Xylene (Total)		1330-20-7	N.D.	0.5	1
GC Vo	latiles S	W-846	8015B	ug/l	ug/l	
01728	TPH-GRO N. CA water C	6-C12	n.a.	N.D.	50	1

#### General Sample Comments

CA ELAP Lab Certification No. 2792

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

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

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/5 Oxy's/EtOH/Naphthalene	SW-846 8260B	1	Z150642AA	03/05/2015 12:18	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z150642AA	03/05/2015 12:18	Anita M Dale	1
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	15068A20A	03/09/2015 15:09	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	15068A20A	03/09/2015 15:09	Marie D Beamenderfer	1



2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

#### Quality Control Summary

Client Name: ChevronTexaco Group Number: 1542343

Reported: 03/11/2015 19:46

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

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

#### Laboratory Compliance Quality Control

Analysis Name	Blank <u>Result</u>	Blank <u>MDL</u>	Report <u>Units</u>	LCS <u>%REC</u>	LCSD %REC	LCS/LCSD <u>Limits</u>	RPD	RPD <u>Max</u>
Batch number: Z150642AA	Sample numbe	er(s): 779	0293-7790	301				
t-Amyl methyl ether	N.D.	0.5	ug/l	99		75-120		
Benzene	N.D.	0.5	uq/l	99		78-120		
t-Butyl alcohol	N.D.	2.	ug/l	99		78-121		
Ethanol	N.D.	50.	ug/l	95		49-144		
Ethyl t-butyl ether	N.D.	0.5	ug/l	98		69-120		
Ethylbenzene	N.D.	0.5	ug/l	102		80-120		
di-Isopropyl ether	N.D.	0.5	ug/l	100		70-124		
Methyl Tertiary Butyl Ether	N.D.	0.5	ug/l	101		75-120		
Naphthalene	N.D.	1.	ug/l	90		59-120		
Toluene	N.D.	0.5	ug/l	102		80-120		
Xylene (Total)	N.D.	0.5	ug/l	103		80-120		
Batch number: Z150652AA	Sample numbe	er(s): 779	0296					
Benzene	N.D.	0.5	uq/l	95		78-120		
Ethylbenzene	N.D.	0.5	ug/l	98		80-120		
Naphthalene	N.D.	1.	ug/l	89		59-120		
Xylene (Total)	N.D.	0.5	ug/l	99		80-120		
Batch number: 15067A94A	Sample numbe	er(a). 779	0293-7790	294				
TPH-GRO N. CA water C6-C12	N.D.	50.	ug/1	109	106	80-139	3	30
Batch number: 15068A20A	Sample numbe	er(s): 779	0295-7790	301				
TPH-GRO N. CA water C6-C12	N.D.	50.	ug/1	126	125	80-139	1	30

#### Sample Matrix Quality Control

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

Analysis Name	MS <u>%REC</u>	MSD %REC	MS/MSD <u>Limits</u>	<u>RPD</u>	RPD <u>MAX</u>	BKG Conc	DUP Conc	DUP <u>RPD</u>	Dup RPD <u>Max</u>
Batch number: Z150642AA	Sample	number(s)	: 7790293	-779030	1 UNSP	K: 7790294			
t-Amyl methyl ether	105	109	65-117	4	30				
Benzene	104	107	72-134	3	30				
t-Butyl alcohol	102	103	67-119	1	30				
Ethanol	96	100	53-146	4	30				
Ethyl t-butyl ether	103	106	74-122	3	30				
Ethylbenzene	108	112	71-134	4	30				
di-Isopropyl ether	104	108	70-129	3	30				
Methyl Tertiary Butyl Ether	97	102	72-126	5	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: ChevronTexaco Group Number: 1542343

Reported: 03/11/2015 19:46

#### Sample Matrix Quality Control

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

	MS	MSD	MS/MSD		RPD	BKG	DUP	DUP	Dup RPD
Analysis Name	%REC	%REC	<u>Limits</u>	RPD	<u>MAX</u>	Conc	Conc	RPD	<u>Max</u>
Naphthalene	98	104	52-125	5	30				
Toluene	106	110	80-125	3	30				
Xylene (Total)	106	110	79-125	4	30				
Batch number: Z150652AA	Sample	number(s	): 7790296	UNSPK:	P7932	68			
Benzene	102	99	72-134	2	30				
Ethylbenzene	107	104	71-134	3	30				
Naphthalene	91	90	52-125	1	30				
Xylene (Total)	107	104	79-125	3	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: BTEX/5 Oxy's/EtOH/Naphthalene

Batch number: Z150642AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7790293	103	97	101	112
7790294	101	95	100	105
7790295	101	96	101	107
7790296	100	97	100	107
7790297	101	96	100	103
7790298	100	95	100	105
7790299	101	97	101	106
7790300	102	99	100	99
7790301	101	97	100	100
Blank	101	99	100	99
LCS	102	100	100	101
MS	102	100	100	105
MSD	102	101	101	104
Limits:	80-116	77-113	80-113	78-113

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

Batch number: 15067A94A Trifluorotoluene-F

7790293 114 7790294 111 Blank LCS 89 LCSD 98 Limits: 63-135

Analysis Name: TPH-GRO N. CA water C6-C12 Batch number: 15068A20A

Trifluorotoluene-F 7790295 97

7790296

#### \*- 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.



## Analysis Report

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#### Quality Control Summary

Client Name: ChevronTexaco Group Number: 1542343

Reported: 03/11/2015 19:46

Surrogate Quality Control

7790297 92 7790298 100 7790299 89 7790300 84 7790301 86 Blank 86 92 LCS LCSD 63-135 Limits:

\*- Outside of specification

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

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

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Los Gatos, CA 95032



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

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

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

< less than

> 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 per liter of gas.

ppb parts per billion

Dry weight 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.

#### Laboratory Data Qualifiers:

B - Analyte detected in the blank

C - Result confirmed by reanalysis

E - Concentration exceeds the calibration range

J (or G, I, X) - estimated value ≥ the Method Detection Limit (MDL or DL) and the < Limit of Quantitation (LOQ or RL)

P - Concentration difference between the primary and confirmation column >40%. The lower result is reported.

U - Analyte was not detected at the value indicated

V - Concentration difference between the primary and confirmation column >100%. The reporting limit is raised due to this disparity and evident interference...

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods. Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.

### Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, ISO17025) unless otherwise noted under the individual analysis.

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

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

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

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

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

## Analysis Report

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#### ANALYTICAL RESULTS

Prepared by:

Prepared for:

Eurofins Lancaster Laboratories Environmental 2425 New Holland Pike Lancaster, PA 17601 ChevronTexaco L4310 6001 Bollinger Canyon Rd. San Ramon CA 94583

March 12, 2015

Project: 92029

Submittal Date: 03/06/2015 Group Number: 1543200 PO Number: 0015167993 Release Number: CMACLEOD State of Sample Origin: CA

Client Sample Description
SB-13-W-150305 Grab Groundwater

Lancaster Labs (LL) #

7794017

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

Regulatory agencies do not accredit laboratories for all methods, analytes, and matrices. Our scopes of accreditation can be viewed at <a href="http://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/resources/certifications/">http://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/resources/certifications/</a>.

ELECTRONIC Stantec Attn: Laura Viesselman

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ELECTRONIC Stantec Attn: Erin O'Malley

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ELECTRONIC Stantec Attn: Marisa Kaffenberger

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## Analysis Report

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Respectfully Submitted,

Matalie X-2

Natalie R. Luciano Senior Specialist

(717) 556-7258



## Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: SB-13-W-150305 Grab Groundwater

Facility# 92029

890 W Macarthur-Oakland T0600173887

LL Sample # WW 7794017

LL Group # 1543200 Account # 10869

Project Name: 92029

Submitted: 03/06/2015 10:20

Reported: 03/12/2015 19:28

Collected: 03/05/2015 09:45 by DO ChevronTexaco

L4310

6001 Bollinger Canyon Rd.

San Ramon CA 94583

MOS13

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS	Volatiles SW-846	8260B	ug/l	ug/l	
10945	t-Amyl methyl ether	994-05-8	N.D.	0.5	1
10945	Benzene	71-43-2	N.D.	0.5	1
10945	t-Butyl alcohol	75-65-0	N.D.	2	1
10945	Ethanol	64-17-5	N.D.	50	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	0.5	1
10945	Ethylbenzene	100-41-4	N.D.	0.5	1
10945	di-Isopropyl ether	108-20-3	N.D.	0.5	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	4	0.5	1
10945	Naphthalene	91-20-3	N.D.	1	1
10945	Toluene	108-88-3	N.D.	0.5	1
10945	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Vo	latiles SW-846	8015B	ug/l	ug/l	
01728	TPH-GRO N. CA water C6-C12	n.a.	N.D.	50	1

#### General Sample Comments

CA ELAP Lab Certification No. 2792

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

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

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/5	SW-846 8260B	1	Z150682AA	03/09/2015 16:40	Anita M Dale	1
01163	Oxy's/EtOH/Naphthalene GC/MS VOA Water Prep	SW-846 5030B	1	Z150682AA	03/09/2015 16:40	Anita M Dale	1
01728	TPH-GRO N. CA water	SW-846 8015B	1	15070A20A	03/11/2015 14:17	Brett W Kenyon	1
01146	C6-C12 GC VOA Water Prep	SW-846 5030B	1	150702202	03/11/2015 14.17	Brett W Kenyon	1



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#### Quality Control Summary

Client Name: ChevronTexaco Group Number: 1543200

Reported: 03/12/2015 19:28

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

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

#### Laboratory Compliance Quality Control

Analysis Name	Blank <u>Result</u>	Blank <u>MDL</u>	Report <u>Units</u>	LCS <u>%REC</u>	LCSD %REC	LCS/LCSD <u>Limits</u>	RPD	RPD <u>Max</u>
Batch number: Z150682AA	Sample numbe	er(s): 779	4017					
t-Amyl methyl ether	N.D.	0.5	uq/l	103		75-120		
Benzene	N.D.	0.5	ug/l	103		78-120		
t-Butyl alcohol	N.D.	2.	uq/l	107		78-121		
Ethanol	N.D.	50.	ug/l	91		49-144		
Ethyl t-butyl ether	N.D.	0.5	ug/l	103		69-120		
Ethylbenzene	N.D.	0.5	ug/l	106		80-120		
di-Isopropyl ether	N.D.	0.5	ug/l	104		70-124		
Methyl Tertiary Butyl Ether	N.D.	0.5	ug/l	107		75-120		
Naphthalene	N.D.	1.	ug/l	96		59-120		
Toluene	N.D.	0.5	ug/l	108		80-120		
Xylene (Total)	N.D.	0.5	ug/l	107		80-120		
Batch number: 15070A20A	Sample numbe	er(s): 779	4017					
TPH-GRO N. CA water C6-C12	N.D.	50.	ug/l	123	122	80-139	1	30

#### Sample Matrix Quality Control

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

Analysis Name	MS <u>%REC</u>	MSD %REC	MS/MSD <u>Limits</u>	RPD	RPD <u>MAX</u>	BKG Conc	DUP <u>Conc</u>	DUP <u>RPD</u>	Dup RPD <u>Max</u>
Batch number: Z150682AA	Sample	number(s)	: 7794017	UNSPK:	P7950	55			
t-Amyl methyl ether	101	105	65-117	4	30				
Benzene	105	109	72-134	4	30				
t-Butyl alcohol	102	105	67-119	3	30				
Ethanol	99	103	53-146	4	30				
Ethyl t-butyl ether	101	106	74-122	5	30				
Ethylbenzene	108	114	71-134	5	30				
di-Isopropyl ether	103	107	70-129	4	30				
Methyl Tertiary Butyl Ether	102	107	72-126	5	30				
Naphthalene	93	99	52-125	6	30				
Toluene	108	114	80-125	6	30				
Xylene (Total)	109	113	79-125	4	30				

#### Surrogate Quality Control

- \*- 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.



## Analysis Report

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#### Quality Control Summary

Client Name: ChevronTexaco Group Number: 1543200

Reported: 03/12/2015 19:28

#### 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: BTEX/5 Oxy's/EtOH/Naphthalene

Batch number: Z150682AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7794017	102	99	101	98
Blank	104	98	99	99
LCS	103	101	100	102
MS	104	101	101	103
MSD	103	101	101	103
Limits:	80-116	77-113	80-113	78-113

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

Batch number: 15070A20A

Trifluorotoluene-F

7794017 85 Blank 88 LCS 91 LCSD 92

Limits: 63-135

- (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.

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

## Chevron California Region Analysis Request/Chain of Custody

eurofins   Lancaster Labora   Environmental	atories Acct.	.# <u>1086</u>	59 Fc	r Eurofins L Group # 15 Instruction	ancaster Labo 54 3366 ons on reverse side	oratories Environm Sample #	nental use only 77990(a) numbers.	
① Client Info		4	Matrix	(	5	Analyses	Requested	SCR #:
Facility #  G2029 Site Address  800 W. MACMETHME I Chevron PM  CALGLE MACLED O Consultant/Office  STANKE CONSULTIME of Consultant Project Mgr.	PLWO OAVIAMO, CA Lead Consultant 574-0-15575 L	A ·	Sediment			ica Gel Cleanup	18A, ETHAWOL	Results in Dry Weight J value reporting needed Must meet lowest detection limits possible for 8260 compounds
Consultant Phone #  408 - 356 - 6124  Sampler  Deven aways  2		Grab © Composite	Potable	Contair	BTEX + MTBE 8021 ☐ TPH-GRO 8015 🔏	TPH-DRO 8015 without Silica TPH-DRO 8015 with Silica Ge 8260 Full Scan Oxygenates	ethod ethod	☐ 8021 MTBE Confirmation ☐ Confirm highest hit by 8260 ☐ Confirm all hits by 8260 ☐ Run oxy's on highest hit ☐ Run oxy's on all hits
5B-13-W	14 3/5/15 0902 14.5 3/5/15 0915 — 3/5/15 0945	X	X X		X X X X X X X X X X X X X X X X X X X			
7 Turnaround Time Requested (To Standard 5 day 72 hour 48 hour	4 day	Relinquished by Relinquished by	R		Date  3 -5 -15  Date	Time	Received by	Date Time (9)
Data Package (circle if required)  Type I - Full  Type VI (Ra  EDD (circle if required)	Raw Data)	Relinquished by	d by Comme	\/		Time	Received by	Date Time
EDD (circle if required)  EDFFLAT (default) Other:		UPS Tem		TedEx Upon Re	Othe		Custody Seals Intact?	(Yes) No



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

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

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

< less than

> 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 per liter of gas.

ppb parts per billion

Dry weight 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.

#### Laboratory Data Qualifiers:

B - Analyte detected in the blank

C - Result confirmed by reanalysis

E - Concentration exceeds the calibration range

J (or G, I, X) - estimated value ≥ the Method Detection Limit (MDL or DL) and the < Limit of Quantitation (LOQ or RL)

P - Concentration difference between the primary and confirmation column >40%. The lower result is reported.

U - Analyte was not detected at the value indicated

V - Concentration difference between the primary and confirmation column >100%. The reporting limit is raised due to this disparity and evident interference...

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods. Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.

## Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, ISO17025) unless otherwise noted under the individual analysis.

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

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

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

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

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

# APPENDIX D GROUNDWATER SAMPLING FIELD DATA SHEETS

#### STANTEC CONSULTING GROUNDWATER SAMPLE FIELD DATA SHEET Project No. 211602398 Purged By: D. Owews Well I.D.: 53-11 Sampled By: D. DWOWS / S. SUNG Sample I.D.: 5B-11-W Client Name: Cltarlun EMC What QA Samples?: Location: CHEWRON 92029 Start (2400hr): \_\_\_\_\_ End (2400hr): \_\_\_\_ Date Purged: Date Sampled: 2/25/15 Sample Time (2400hr): 1510 6" 8" Other 3/4" (1.50) (2.60) ( ) 3"\_\_\_\_ 2"-\_\_\_\_ Casing Diameter: Casing Volume: (gallons per foot) (0.17)(0.38)(0.67)(1.02)Total depth (feet) = 11.4 Casing Volume (gal) = Depth to water (feet) = $6 \cdot 05$ Calculated Purge (gal) = (3 casing vols.) Water column height (feet) = 5.35 Actual Purge (gal) = FIELD MEASUREMENTS Volume Conductivity Color DTW Time Temp. ORP Date (degrees C) (umhos/cm) (units) (visual) (ft) (2400hr) 1021 7.0 1500 ¥ D.O. mg/l, SAMPLING EQUIPMENT **PURGING EQUIPMENT** \_\_\_ WW Bladder Pump X Bailer (disposable) X Bailer (disposable) \_ Well Wizard Bladder Pump Bailer (PVC) Bailer (PVC) Sample Port Active Extraction Well Pump Bailer (Stainless Steel) Submersible Pump Bailer (Stainless Steel) Submersible Pump \_\_\_ Dedicated \_\_\_\_ Peristaltic Pump \_\_\_ Dedicated: \_\_\_\_ Peristaltic Pump Other: Other: \_\_\_ Pump Depth: \_\_\_\_\_\_ (feet) Analyses: Odor: Sample Vessel / Preservative: Well Integrity: Remarks: \* NO DO. DAVIN. Page 1 of Signature:

#### STANTEC CONSULTING **GROUNDWATER SAMPLE FIELD DATA SHEET** Well I.D.: 58-12 Purged By: D. on-cns Project No. 2116 027, 9X Sampled By: D. OWENS /S. SUNG Sample I.D.: SB-12-W Client Name: CHANN MC Location: CHENNY 92029 What QA Samples?: Start (2400hr): End (2400hr): Date Purged: Sample Time (2400hr): \_\_\_\_\_\_\_\_\_\_ Date Sampled: 2/26/15 8"\_\_\_ Other <u>3/4</u>" Casing Diameter: 3\*\*\_\_\_\_ (2.60)Casing Volume: (gallons per foot) (0.17)(0.38)(0.67)(1.02)(1.50)Total depth (feet) = 10, 0 Casing Volume (gal) = Depth to water (feet) = 5-6 Calculated Purge (gal) = \_\_\_\_\_ (3 casing vols.) Water column height (feet) = 4. 4 Actual Purge (gal) = FIELD MEASUREMENTS DTW Conductivity Color Volume pН Time Temp. OPP Date (2400hr) (degrees C) (umhos/cm) (units) (visual) (ft) (gal) 2/16/15 17.6 0842 17.9 ∦ D.O. mg/l, SAMPLING EQUIPMENT PURGING EQUIPMENT ▲ Bailer (disposable) Well Wizard Bladder Pump \_\_\_ WW Bladder Pump X Bailer (disposable) \_\_\_ Bailer (PVC) \_\_\_\_ Bailer (PVC) Active Extraction Well Pump \_\_\_ Sample Port \_\_\_ Bailer (Stainless Steel) Bailer (Stainless Steel) \_\_ Submersible Pump Submersible Pump \_\_\_Dedicated\_\_\_ \_\_\_ Dedicated: \_\_\_ Peristaltic Pump Peristaltic Pump Other: Other: Pump Depth: \_\_\_\_\_ (feet) Analyses: Odor: Sample Vessel / Preservative: Well Integrity: Remarks: NO D.O TAKEW -Page 1 of \_ Signature:

#### STANTEC CONSULTING **GROUNDWATER SAMPLE FIELD DATA SHEET** Project No. 24602398 Purged By: D. 24602398 Well I.D.: SR-13 Client Name: CHARLY LAC Sampled By: O. 246025 Art Sample I.D.: 58-13-W What QA Samples?: Location: CHURCH 92029 Start (2400hr): \_\_\_\_ End (2400hr): Date Purged: Date Sampled: 3/5/19 4" \_\_\_\_\_ Casing Diameter: (0.17)(0.38)(0.67)(1.02)(1.50)(2.60)Casing Volume: (gallons per foot) Total depth (feet) = /b. Ø Casing Volume (gal) = \_\_\_\_\_ Depth to water (feet) = 7.5 Calculated Purge (gal) = (3 casing vols.) Water column height (feet) = \_\_\_\_\_\_\_ Actual Purge (gal) = FIELD MEASUREMENTS Conductivity Color DTW Volume Temp. Time (visual) (2400hr) (degrees C) (umhos/cm) (units) **→** D.O. mg/l, SAMPLING EQUIPMENT PURGING EQUIPMENT X Bailer (disposable) Bailer (disposable) WW Bladder Pump Well Wizard Bladder Pump Bailer (PVC) Bailer (PVC) Sample Port Active Extraction Well Pump Bailer (Stainless Steel) Submersible Pump Bailer (Stainless Steel) \_\_ Submersible Pump Dedicated \_\_\_ Peristaltic Pump \_\_\_ Dedicated: \_\_\_\_ Peristaltic Pump Other: Other: Pump Depth: \_\_\_\_\_(feet) Analyses: Odor: Sample Vessel / Preservative: Well Integrity: Remarks: NO Do. 745cm Page 1 of \_\_ Signature:

#### STANTEC CONSULTING **GROUNDWATER SAMPLE FIELD DATA SHEET** Well I.D.: 5B -14 Project No. 211602358 Purged By: Dowcns Sampled By: D. Owows/5.51 No Sample I.D.: SB-14-W Client Name: CHONON EMC What QA Samples?: -Location: CHENRON 92029 Start (2400hr): End (2400hr): Date Purged: Date Sampled: 2/26/15 8"\_\_\_\_Other 3/4" Casing Diameter: 3"\_\_\_\_ (1.50)(2.60)Casing Volume: (gallons per foot) (0.17)(0.38)(0.67)(1.02)Total depth (feet) = 9-85 Casing Volume (gal) = Calculated Purge (gal) = \_\_\_\_\_ (3 casing vols.) Depth to water (feet) = $(2 \cdot 2)$ Water column height (feet) = 3.6 Actual Purge (gal) = FIELD MEASUREMENTS DTW Conductivity Color Time Volume pН Temp. ORP Date (2400hr) (degrees C) (umhos/cm) (units) (visual) (gal) 1354 16.1 1700 207 1160 185 17.7 1702 1705 1100 % **≵** D.O. mg/l, **PURGING EQUIPMENT** SAMPLING EQUIPMENT X Bailer (disposable) Well Wizard Bladder Pump ★ Bailer (disposable) \_\_\_ WW Bladder Pump \_\_\_ Bailer (PVC) Bailer (PVC) Active Extraction Well Pump Sample Port \_\_\_\_ Bailer (Stainless Steel) \_\_ Submersible Pump \_\_\_ Bailer (Stainless Steel) Submersible Pump \_\_\_ Dedicated \_\_\_ \_\_\_ Dedicated: \_\_\_\_ \_ Peristaltic Pump Peristaltic Pump Other: Other: Pump Depth: \_\_\_\_\_(feet) Analyses: Odor: \_\_\_\_\_ Sample Vessel / Preservative: Well Integrity: \_\_\_ Remarks: 1 NO D-0. DAKEN Page 1 of \_\_\_ Signature:

GROUNDV	STANTEC CON VATER SAMPLE		SHEET	
Project No. 211602398  Client Name: CHARW WC  Location: CHARW 92026	Sampled By: D. D.		Sample I.I	D: <u>SB-IS</u> D: <u>SB-IS-</u> W
Date Purged:	Start (2400hr):Sample Time (2400hr):		(2400hr):	
Casing Diameter: 2"  Casing Volume: (gallons per foot) ( 0.17)		5" 6" (1.02) (1.50)		Other 3/4 "
Total depth (feet) = Depth to water (feet) = Water column height (feet) = 3.	Cal	asing Volume (gal) =		
	FIELD MEASURI	EMENTS		
Date (2400hr) (gal) (de	Temp. Conductivity (umhos/cm)  17.   12.5  17.0  18.5  18.5  19.5	pH (units)  7.0  7.0  7.0	Color (visual)	DTW (ft)   GG   69   64
PURGING EQUIPM			SAMPLING I	EQUIPMENT
	★ Bailer (disposable)      Bailer (PVC)      Bailer (Stainless Steel)      Dedicated	WW Bladder I Sample Port Submersible P Peristaltic Pun Other:	Pump ump np	Bailer (disposable) Bailer (PVC) Bailer (Stainless Steel) Dedicated:
Analyses: Sample Vessel / Preservative:		Odor:	<u> </u>	
Well Integrity:  Remarks:	nan.			
Signature:				Page 1 of

#### STANTEC CONSULTING GROUNDWATER SAMPLE FIELD DATA SHEET Purged By: D. OWEWS Project No. 211602358 Well I.D.: 58-17 Sampled By: D. owors S. S. J. Sample I.D.: SB-17-W Client Name: CHARN EMC What QA Samples?: Location: CHENEUM 92029 Start (2400hr): \_\_\_\_\_ End (2400hr): \_\_\_\_\_ Date Purged: Date Sampled: 2/27/15 Sample Time (2400hr): 1415 6" \_\_\_ 8" \_\_\_ Other \_\$/4" 2"\_\_\_\_ 4"\_\_\_\_ Casing Diameter: 3"\_\_\_\_ (0.38)(1.02)(1.50)(2.60)Casing Volume: (gallons per foot) (0.17)(0.67)Casing Volume (gal) = Calculated Purge (gal) = \_\_\_\_\_ (3 casing vols.) Depth to water (feet) = 5.7Water column height (feet) = \_\_\_\_\_\_\_\_\_ Actual Purge (gal) = FIELD MEASUREMENTS Temp. DTW Volume Conductivity pH Color Time CHZP Date (2400hr) (gal) (degrees C) (umhos/cm) (units) (visual) (ft) 17.7 1119 1410 17.7 1100 1412 17.6 910 **≵** D.O. mg/l, **PURGING EQUIPMENT** SAMPLING EQUIPMENT ★ Bailer (disposable) \_\_\_ WW Bladder Pump Bailer (disposable) Well Wizard Bladder Pump \_\_\_ Bailer (PVC) Active Extraction Well Pump \_\_\_ Bailer (PVC) Sample Port \_ Submersible Pump \_\_\_ Bailer (Stainless Steel) \_\_\_ Submersible Pump \_\_\_ Bailer (Stainless Steel) \_\_\_ Dedicated \_\_\_\_ Peristaltic Pump \_\_\_ Dedicated: \_\_\_ Peristaltic Pump Other: Other: \_ Pump Depth: \_\_\_\_\_(feet) Analyses: Odor: Sample Vessel / Preservative: Well Integrity: Remarks: \* NO Do. TAGEN Page 1 of \_ Signature:

#### STANTEC CONSULTING GROUNDWATER SAMPLE FIELD DATA SHEET Project No. 211 02318 Purged By: D. over 5 Well I.D.: SB-18 Client Name: CHIRD ENC Sampled By: O. OWNS S. SUNG Sample I.D.: SB-18-W Location: Chewor 92029 What QA Samples?: \_\_\_ Start (2400hr): End (2400hr): Date Purged: Date Sampled: 2/27/15 Sample Time (2400hr): \Spo Casing Diameter: Casing Volume: (gallons per foot) (0.17)(0.38)(0.67)(1.02)(1.50)Casing Volume (gal) = Calculated Purge (gal) = \_\_\_\_\_ (3 casing vols.) Depth to water (feet) = 8.5Water column height (feet) = Actual Purge (gal) = FIELD MEASUREMENTS DTW Conductivity pН Color Time Volume Temp. (degrees C) (umhos/cm) (units) (visual) Date (2400hr) (gal) 17.9 1226 7.0 % ∡ D.O. mg/l, PURGING EQUIPMENT SAMPLING EQUIPMENT X Bailer (disposable) ▲ Bailer (disposable) \_\_\_ WW Bladder Pump Well Wizard Bladder Pump \_\_\_ Bailer (PVC) Active Extraction Well Pump \_\_\_ Bailer (PVC) Sample Port \_ Bailer (Stainless Steel) \_ Submersible Pump Submersible Pump Bailer (Stainless Steel) \_\_\_ Dedicated: \_\_\_ Peristaltic Pump \_\_\_ Dedicated \_\_\_\_ Peristaltic Pump Other: Other: Pump Depth: \_\_\_\_\_(feet) Analyses: Sample Vessel / Preservative: Odor: Well Integrity: Remarks: KNO O.O. TAKON. MULD GAS ODSR. Page 1 of \_\_ Signature:

#### STANTEC CONSULTING **GROUNDWATER SAMPLE FIELD DATA SHEET** Project No. 211502398 Well I.D.: 513 - 19 Purged By: D.OWENS Client Name: CHARW LUC Sampled By: D. Oww S/S. SWB Sample I.D.: SB-19-W Location: CHARLEN 92029 What QA Samples?: Start (2400hr): \_\_\_\_\_ End (2400hr): \_\_\_\_ Date Purged: -Date Sampled: 226/15 Sample Time (2400hr): 1210 8"\_\_\_\_Other 3/4" (2.60) ( ) Casing Diameter: 3\*\*\_\_\_\_ Casing Volume: (gallons per foot) (0.17)(0.38)(0.67)(1.02)(1.50)Total depth (feet) = 11.85 Casing Volume (gal) = Depth to water (feet) = 9.83Calculated Purge (gal) = Water column height (feet) = 2-07 Actual Purge (gal) = FIELD MEASUREMENTS DTW Color Conductivity pН Time Volume Temp. (2400hr) (degrees C) (umhos/cm) (units) (visual) Date (gal) 20.1 1176 7.1 % ≠ D.O. mg/l, **PURGING EQUIPMENT** SAMPLING EQUIPMENT X Bailer (disposable) \_\_\_ WW Bladder Pump Well Wizard Bladder Pump ▲ Bailer (disposable) \_\_\_ Bailer (PVC) \_\_\_\_ Bailer (PVC) Active Extraction Well Pump Sample Port Bailer (Stainless Steel) \_\_\_ Submersible Pump Bailer (Stainless Steel) Submersible Pump \_\_\_ Dedicated \_\_\_\_ \_\_\_ Dedicated: \_\_\_\_ Peristaltic Pump Peristaltic Pump Other: Other: Pump Depth: \_\_\_\_\_ (feet) Analyses: Odor: \_\_\_\_\_ Sample Vessel / Preservative: Well Integrity: Remarks: D.O. TAVAN Page 1 of \_\_ Signature:

#### STANTEC CONSULTING **GROUNDWATER SAMPLE FIELD DATA SHEET** Project No. 21602398 Well I.D.: 5B-20 Purged By: D. owen S Client Name: Charles will Sampled By: D. ovens / S. Swa Sample I.D.: 5β - 20 - W Location: CHARRY 92029 What QA Samples?: -Start (2400hr): End (2400hr): Date Purged: -Date Sampled: 2/26/15 Sample Time (2400hr): 1510 Casing Diameter: Casing Volume: (gallons per foot) (0.17)(0.38)(0.67)(1.02)(1.50)(2.60)Total depth (feet) = 1-85 Casing Volume (gal) = Calculated Purge (gal) = \_\_\_\_\_ (3 casing vols.) Actual Purge (gal) = Water column height (feet) = 3.57 FIELD MEASUREMENTS Color DTW Conductivity pН Time Volume Temp. orp (gal) (degrees C) (umhos/cm) (units) (visual) (ft) Date (2400hr) 19-0 7.1 1505 1257 18.0 1068 1507 1117 1508 % **ሾ** D.O. mg/l, PURGING EQUIPMENT SAMPLING EQUIPMENT Well Wizard Bladder Pump Bailer (disposable) \_ WW Bladder Pump \_\_X Bailer (disposable) Bailer (PVC) \_ Active Extraction Well Pump \_\_\_ Bailer (PVC) Sample Port Submersible Pump Bailer (Stainless Steel) Bailer (Stainless Steel) Submersible Pump Dedicated: \_\_\_\_ Peristaltic Pump Peristaltic Pump Dedicated Other: Other: Pump Depth: \_\_\_\_\_ (feet) Analyses: Odor: Sample Vessel / Preservative: Well Integrity: Remarks: 10 NO QO. Thow Page 1 of \_\_ Signature:

#### STANTEC CONSULTING GROUNDWATER SAMPLE FIELD DATA SHEET Purged By: Well I.D.: 53-2/ Project No. 211602398 Sampled By: ponens/S. sung Sample I.D.: SB. 21-W Client Name: CHURCH KMC Location: CHINON 92025 Start (2400hr): End (2400hr): Date Purged: Date Sampled: 2/27/15 Sample Time (2400hr): 1135 Casing Diameter: Casing Volume: (gallons per foot) (2.60)(0.17)(0.38)(0.67)(1.02)(1.50)Total depth (feet) = $1.2 \cdot 30$ Casing Volume (gal) = Depth to water (feet) = 10 - 65 Calculated Purge (gal) = \_\_\_\_\_ (3 casing vols.) Water column height (feet) = Actual Purge (gal) = FIELD MEASUREMENTS pН Conductivity Color DTW Volume Temp. Time (2400hr) (gal) (degrees C) (umhos/cm) (units) (visual) 705 17-0 & D.O. % mg/l, PURGING EQUIPMENT SAMPLING EQUIPMENT XBailer (disposable) \_\_\_ WW Bladder Pump \_\_ Well Wizard Bladder Pump \_\_\_ Sample Port Bailer (PVC) Active Extraction Well Pump \_ Bailer (PVC) Submersible Pump Bailer (Stainless Steel) \_\_ Submersible Pump Bailer (Stainless Steel) \_Dedicated \_\_\_\_ Dedicated: \_\_\_\_\_ Peristaltic Pump Peristaltic Pump Other: Other: \_\_ Pump Depth: \_\_\_\_\_ (feet) Analyses: Sample Vessel / Preservative: Well Integrity: Remarks: \* D.O. Not Micen Page 1 of Signature:

## APPENDIX E WASTE MANIFEST

## 2139326 41,660

NON-HAZARDOUS WASTE MANIFEST	1. Generator ID Number CARODO1	17465	2. Page 1 of	(800) 4	24-930	10	WR279		G1	
5-Generator's Name and Mai Chevron Environm c/o Chevron Produ P.O. Box 6004 San Ramon, CA 9	ing Address erital Management Co dis Company Waste Dask 4583	(877) 38	06-6044	890 W	est Ma	52 (if different 29 CArthur 94608		93S)		
Generator's Phone 6 Transporter 1 Company Na BELSHIRE	me						U.S. EPA ID C.A.R.I	Number 3001839	13	
7. Transporter 2 Company Na	me						U.S. EPA ID	Number		
8 Designated Facility Name Altamont Landfil	and Site Address and Resource Recovery	Fac.					U.S. EPA ID			
10840 Altamont Livermore, CA ( Facility's Phone:	Pass Road	(925) 45	55-7300				NIA	<b>r</b>		
9. Waste Shipping Na	me and Description				10 Cor No.	tainers Type	11. Total Quantity	12, Unit Wt./Vol.		
	REGULATED MATERIAL Products, Non Hazardous		aminated		×02	DM	1200	0		
2.										
3.										
4,					****					
WEAR LEVEL I	50 # 0015169671 ) PPE & SPLASH PROTE	ECTION (IF	BESI:	ABLE)		•	WR27 PROF	FILE #. 8	22396CA	
marked and labeled/plai	OR'S CERTIFICATION: I hereby declare the carded, and are in all respects in proper cond	at the contents of th dition for transport ac	ccording to app	AICADIE IMENIA	accurately itional and	described abored	we by the proper nmental regulation	shipping name ns.		packaged, Day Y
Generator's/Offeror's Printe Larry N	d/Typed Name Noothart of BESI on behal	f of generate	or	Signature		1_			01 17	30 11
15. International Shipments Transporter Signature (for e	exports only);	[	Export from	n U.S.		f entry/exit: eaving U.S				
Transporter 1 Printed/Type  Transporter 2 Printed/Type	1 Parks			Signature Signature	Slank	-\$			Month Month	Day Y
17. Discrepancy 17a, Discrepancy Indication	s Space						D Posteri	Rejection		l Rejection
,	Quantity	L Туре		L Manil	Residue	nce Number:	I Paruar	Hojesion	Supposed E es.	, riejouler
17b. Alternate Facility (or C	Generator)			1100011			U.S. EPA	ID Number		
Facility's Phone:  17c. Signature of Alternate	Facility (or Generator)								Month	Day
	rner or Operator. Certification of receipt of ma		the manifest ex	cept as noted	tem 17a	1	26		Month	Day .
Protect Typed Name	in Schaeut	-flo1	-		1	1	41		- 141	50

# APPENDIX F NEIGHBORHOOD SURVEY QUESTIONNAIRES



Reference:

PROPERTY SURVEY RELATED TO ENVIRONMENTAL CASE #RO0002438 AT 890 WEST MACARTHUR

BOULEVARD, OAKLAND, CALIFORNIA

SECTION	A: Property	<u>Information</u>

Street Address of Parcel Surveyed: $3701$ $\sqrt{}$	Marketat APN:
Property Owner Information  Name  Address: 3701 Market St.  City, State, Zip: Oak, C4 94608  Telephone:	Tenant Information (if not Property Owner)  Name: Address: City, State, Zip: Telephone:
Property Use: Residential Commercial	
Is the Property occupied by a multi-family com Is there a well on the Property? Is there a basement on the Property? Is there a sump on the Property that pumps gro	
SECTION B: (complete if a well exists on the Pro	perty)
Number of Wells: Well Depth(s): Well Casing Material:	Well Diameter(s):Pump Depth(s):
Date(s) the well(s) were installed:	
How frequently are the well(s) used?	a gob well avalor
Approximate gallons of water pumped during $\bigcirc$ What is the well water used for? $\square$ Drinking $\square$	
SECTION C: (complete if you have a sump on the	ne Property which pumps groundwater
F	
Frequency of use:	
Approximate gallons of water pumped from the Where is the water from the sump discharged?	



Reference:

PROPERTY SURVEY RELATED TO ENVIRONMENTAL CASE #RO0002438 AT 890 WEST MACARTHUR

**BOULEVARD, OAKLAND, CALIFORNIA** 

<b>SECTION</b>	<u> A: Pi</u>	roperty	Inform	ation

Street Address of Parcel Surveyed: $3712$	MARKET ST. APN:	
OAKLAN	70 94608 AFN.	
Property Owner Information	Tenant Information (if not Pr	operty Owner)
Name:	Name:	
Address:	Address: 3712 Map	KETST
Address: City, State, Zip:	City, State, Zip: Oaklay	MO CA 946 08
Telephone:	Telephone:	4
Property Use: 🗌 Residential 🔲 Commercial		
ls the Property occupied by a multi-family cor	aploy /o. a. apartmont building	Yes No
Is there a well on the Property?	npiex (e.g. aparment building	
Is there a basement on the Property?		
ls there a sump on the Property that pumps gr	oundwater?	
· · · · ·		
SECTION B: (complete if a well exists on the Pro	onerty)	
	<u>openy j</u>	
Number of Wells:	Well Diameter(s):	
Well Depth(s):	Pump Depth(s):	
Well Casing Material:		
Date(s) the well(s) were installed:		
How frequently are the well(s) used?	1 2	
Approximate gallons of water pumped during What is the well water used for? $\Box$ Drinking $\Box$	leach well cycle:	
what is the well water osed for Dilliking L		
SECTION C: (complete if you have a sump on	the Property which pumps grou	<u>undwater</u>
requency of use:		
Approximate gallons of water pumped from the	ne sump each day:	
Where is the water from the sump discharged:	Ç	

## APPENDIX G SWRCB LTCP CHECKLIST

Site Name: Former Chevron-branded Service Station 92029

Site Address: 890 West MacArthur Boulevard, Oakland, California

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

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?	ĭ Yes □ No
Has the unauthorized ("primary") release from the UST system been stopped?	<b>⊠</b> 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 <b>⊠</b> 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:	
To satisfy the media-specific criteria for groundwater, the contaminant plume that exceeds water quality objectives must be stable or decreasing in areal extent,	<b>⊠</b> Yes □ No □ NA
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	▼Yes □ No □ NA  ▼Yes □ No □ NA
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?  Does the contaminant plume that exceeds water quality objectives meet	

<sup>&</sup>lt;sup>1</sup> Refer to the Low-Threat Underground Storage Tank Case Closure Policy for closure criteria for low-threat petroleum UST sites.

Site Name: Former Chevron-branded Service Station 92029

Site Address: 890 West MacArthur Boulevard, Oakland, California

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 <b>⊠</b> 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 M No □ NA
		If YES, check applicable scenarios: □ 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 satisfaction of the regulatory agency?	□ 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 petroleum vapors migrating from soil or groundwater will have no significant risk of adversely affecting human health?	□ Yes 🗷 No □ NA
3.	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)?	ĭ 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 <b>⊠</b> NA